

Form 59  
Rule 29.02(1)

**Affidavit**

VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and others**

Respondents

*This document is in a form that may be uploaded to the online file*

Affidavit of: [REDACTED]

Address: c/o 11 Mount Street, Perth, Western Australia

Occupation: [REDACTED]

Date: 11 September 2023

**Contents**

Document Number	Details	Paragraph	Page
1.	Affidavit of [REDACTED] affirmed on 11 September 2023 in opposition to the Applicant's interlocutory application dated 7 September 2023	N/A	1 - 16

Filed on behalf of: Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd, the Second and Third Respondents

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2.	Annexure "█-1", being a copy of an email from █ (NOPSEMA) to █ (Woodside) sent on 2 August 2023	60	19 - 20
3.	Annexure "█-2", being a copy of an email from █ (NOPSEMA) to █ (Woodside) sent on 3 August 2023, attaching a copy of the Inspection Brief for Inspection No. 4846	61	22 - 29
4.	Annexure "█-3", being a copy of an email from █ (Woodside) to Cameron Grebe (NOPSEMA) sent on 16 August 2023	68	31 - 32
5.	Annexure "█-4", being a copy of an email from █ (Woodside) to █ (NOPSEMA) sent on 17 August 2023	68	34 - 38
6.	Annexure "█-5", being a copy of an email from █ (NOPSEMA) to █ (Woodside) sent on 15 August 2023, attaching a true copy of the Inspection Brief for Inspection No. 4859	73	40 - 47
7.	Annexure "█-6", being a copy of the 'Scarborough 4D B1 Marine Seismic Survey Environment Plan – Acceptance Condition 6 Report' dated 30 August 2023	76	49 - 90
8.	Annexure "█-7", being a copy of the 'Scarborough 4D B1 Marine Seismic Survey Environment Plan – Acceptance Condition 6 Report (updated to address Draft Inspection Report 4859)' dated 1 September 2023	81	92 - 156

I, █, of 11 Mount Street, Perth in the state of Western Australia,

█ affirm:

- I am authorised to affirm this affidavit on behalf of Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd (**Woodside**) in response to the Applicant's application for an interlocutory injunction dated 7 September 2023.



2. Unless otherwise indicated, the matters contained in this affidavit are based on:
- (a) my own knowledge;
  - (b) information provided to me by others in the Environment team at Woodside, who I identify below, and which information I believe to be true and correct; and
  - (c) information derived from the electronic records of Woodside or companies related to Woodside, to which I have access. For the purposes of preparing this affidavit, I have reviewed the records of Woodside and believe them to be true and correct.
3. When I use the words 'we' or 'us' in this affidavit, I refer to the Environment team at Woodside.

**Background**

4. I obtained a Bachelor of Science (Environmental Science) from Edith Cowan University in 2001.
5. I commenced my current role as [REDACTED] at Woodside in Perth in September 2019.
6. I have worked at Woodside for over 15 years. Prior to my current role, I occupied the following positions:
- [REDACTED]
  - [REDACTED]
  - [REDACTED]
  - [REDACTED]
  - [REDACTED]
7. I have over 20 years working in the area of environmental regulation, both from the perspective of the government and titleholders.

**Role and responsibilities**

8. In my current role as [REDACTED] I am responsible for coordinating the team that provides support on environmental matters for developments (the early design phase) and projects (the later design phases,



including execution which occurs once the Final Investment Decision (*FID*) has been made). My team also provides environment support for exploration activities in Australia.

9. Since 2014, I have been involved with environment plans submitted by Woodside, including as team lead. I have also been involved with Woodside's engagement with the National Offshore Petroleum Safety and Environmental Management Authority (*NOPSEMA*) in relation to environment plans.
10. I currently manage the team that is responsible for the development of environment plans for all of Woodside's petroleum activities in Australia.
11. There are 18 people in my team. Two are based in Houston, Texas, and the rest are in Perth.
12. Within my team there are various technical subject matter experts. For example, experts on modelling and management of underwater noise, migratory birds, and invasive marine species.

#### *EP Delivery Team*

13. My team includes four advisers who sit within the 'Projects' team and are responsible for delivering environment plans. This team is referred to as the 'EP Delivery Team'. This team consists of 4 people. The [REDACTED] reports directly to me and [REDACTED] has 3 direct reports.
14. An environment plan (*EP*) is a regulatory requirement for any offshore petroleum activity. The EP needs to be accepted by the relevant regulator before the petroleum activity can commence.
15. The majority of the EPs for the Scarborough project need to be accepted by *NOPSEMA*, the regulator for petroleum activities in Commonwealth waters.
16. The remainder are approved by the WA Department of Mines, Industry Regulation and Safety (*DMIRS*), who regulate activities in State waters (i.e., closer to shore).

#### **Preparing an EP**

17. When preparing an EP, we first seek to understand the relevant activity, the environment that may be affected and then conduct a detailed risk assessment which includes the development of relevant controls.
18. A key principle under the relevant legislation is that the risk and impact of activities on the environment must be 'acceptable' and 'ALARP'. 'ALARP' is an abbreviation for 'As Low As Reasonably Practicable'.



19. Throughout the preparation of an EP, we get input from various subject matter experts from both within my team and from other teams within Woodside.
20. We have a process by which relevant experts input into a large data set which captures the features of the environment in the areas where we operate. This includes information on environmental, cultural and social values.
21. Information from that data set is used to undertake our detailed environmental risk assessments and develop our EPs.
22. When determining what environmental values (including social and cultural) may be relevant to the particular activity, we consider both:
  - (a) the broadest geographical extent of the 'environment that may be affected' (*EMBA*) by the proposed activities. This is typically determined by the area that could possibly be impacted by a hypothetical and highly unlikely worst-case oil spill; and
  - (b) the 'Operational Area', which is the area in which the planned activities are proposed to occur.
23. In the EP, we identify all the environmental values within the relevant EMBA and then undertake a risk assessment, looking at each of the components of the activity and how that might impact those environmental values within the EMBA. If it is outside the EMBA, it is not usually considered in an EP as there is no potential impact pathway.

#### *Input from First Nations Team*

24. As part of the preparation of an EP, we get input from Woodside's First Nations Team on cultural heritage matters.
25. The First Nations Team at Woodside sits separately to my team. They are under 'Corporate Affairs'.
26. All of our EPs address known cultural features and heritage values, particularly those activities within State waters as they relate to activities closer to the coast in areas that may have been previously occupied by First Nations people.

#### **Process of getting an EP accepted by NOPSEMA**

27. After we have prepared an EP, it is submitted to NOPSEMA for acceptance. We only submit an EP when we consider that we have met the relevant regulations.
28. The process by which NOPSEMA assesses an EP is contained in the relevant legislation. However, from my experience, I have a good working understanding of the process. I describe this process below.

29. At a high level, the NOPSEMA EP assessment process involves:
- (a) A first step, which is a 'completeness check' of the EP. This is a high-level review of the EP to make sure that the key regulatory requirements for the content of an environment plan have been met (e.g., relevant case law has been addressed). This is done within five days after submission.
  - (b) A second step, which is the assessment of the EP. There is a 30-day window for NOPSEMA to carry this out, although they can seek an extension.
  - (c) The process for seismic and exploration EPs is the slightly different, as these activities commence with a 30-day public comment period. Once a titleholder provides an updated EP and their responses to public submissions to NOPSEMA, the process is the same.
30. Once the 30-day assessment is complete, NOPSEMA will either:
- (a) inform Woodside that the EP has been accepted;
  - (b) provide notice that it is not reasonably satisfied (*NRS*) and provide an opportunity to modify and resubmit it; or
  - (c) make a request for further written information (*RFI*) and provide an opportunity to modify and resubmit it.
31. As I understand it, the difference between an NRS and RFI is that an RFI indicates that NOPSEMA considers the EP is close to being accepted, subject to some further information to be provided.
32. In the case of an NRS or RFI, we are typically given 30 days to respond. Our response is usually in the form of a table which specifically responds to the queries that NOPSEMA has raised. We also send an updated EP, which is highlighted to indicate the changes which have been made in response to the RFI.
33. Following this, NOPSEMA will take another 30 days to do an assessment during which, they can accept the EP, make a further RFI, or provide an NRS decision.
34. The EPs do not themselves include a list of NRS or RFI points submitted by NOPSEMA. However, Woodside keeps track of the NRS and RFI decisions and its responses to these internally.
35. If the EP is accepted (either with or without conditions), it is the titleholder's responsibility to ensure that the environmental impacts and risks of the activity are maintained at ALARP and acceptable levels.

**Management of changes to EPs**

36. EPs are live documents. This means that, after an EP has been accepted by NOSPEMA, if the activity changes or if Woodside finds out more relevant information (e.g., about environmental features), then Woodside assesses that information and goes through a management of change process.
37. If the change results in a significant new environmental impact or risk, or a significant increase in an environmental impact or risk, then we will have to modify and resubmit our EP under the regulations. It is up to titleholders to assess this themselves although NOPSEMA will review such changes through inspections.
38. Woodside has a detailed management of change process, which includes a template that is to be completed for all such changes.
39. We ask a series of questions to determine whether the change to the activity or the new information would result in a significant increase to risk or a significant new risk. If it meets those criteria, then we modify and resubmit our EP. If it does not meet those criteria, then we decide whether to update the EP for internal purposes (referred to as a 'minor revision'), or not update the EP at all.
40. We capture this information in an internal 'management of change register'. This allows us to assess the cumulative impact of past changes, not just the impact of that one specific change.
41. If a change is assessed by us as not significant (and therefore does not require resubmission of the EP) then a titleholder is not required to inform NOPSEMA of the change.
42. However, in my experience, if there is a change that was close to being considered 'significant' then Woodside will inform NOPSEMA anyway, even though there is no strict requirement to do so. If the change is administrative or merely a minor revision, then we would not typically inform NOPSEMA.
43. While NOPSEMA is not involved in the management of change process, my understanding based on my experience is that NOPSEMA is aware of the change management process that Woodside uses for its EPs through their review of this process in past inspections.

**NOPSEMA monitoring and enforcement powers**

44. NOPSEMA has several powers relating to ensuring compliance by titleholders with approved EPs and legislation. One of those powers is undertaking inspections.

45. NOPSEMA typically run two types of inspections:
- (a) an office based inspection, where they look at our controls and ask to see documents and evidence of how we have met those controls; or
  - (b) an offshore inspection conducted in person, where the inspector will go to the facility or vessel and observe the controls themselves and talk to people at the facility.
46. These inspection powers can be used for a broad range of things, including to assess the management of change process. For example, NOPSEMA can review the changes that have been made to Woodside's management of change register (as described above) and how those changes have been addressed by Woodside. I recall that this has occurred in previous inspections by NOPSEMA.
47. As stated above, NOPSEMA has also previously inspected Woodside's management of change process itself.
48. In my experience, it is common for NOPSEMA to conduct inspections after the acceptance of an EP. Based on my experience, I understand that NOPSEMA will look at the upcoming activities and undertake inspections accordingly on a risk-based approach.

#### **Seismic Survey EP overview**

49. The Scarborough 4D B1 Marine Seismic Survey Environment Plan (*Seismic Survey EP*) is one of the EPs submitted by Woodside in relation to the Scarborough Project.
50. My team was responsible for the preparation and submission of the Seismic Survey EP.
51. It relates to a proposal for Woodside to conduct a four-dimensional baseline marine seismic survey over the Scarborough, North Scarborough, and Jupiter gas fields within Commonwealth waters.
52. The activity is proposed to cover an active source area of 5,650km<sup>2</sup>, and an Operational Area of 9,000km<sup>2</sup>. This includes a buffer area to allow for vessel manoeuvring etc, but where no seismic source will be discharged.
53. This area is about 214km north-west off the coast of Exmouth.
54. In my experience, I consider that the activity proposed under the Seismic Survey EP is similar to other seismic surveys that happen across the world. There is not anything particularly novel about the seismic vessel or seismic source proposed, or anything unusual about the seismic activity.

55. In section 6.6.2, Table 6-10 at page 238 of the Seismic Survey EP, there is a list of recent seismic surveys that have been undertaken within 150km of the Operational Area.
56. The Seismic Survey EP is the seventh revision. The amount of revisions that were required are more than what is usual in my experience. There has been a lot of back and forth with NOPSEMA through the assessment process.
57. NOPSEMA has required a significant amount of information around consultation with relevant persons and identification of cultural features and heritage values.
58. The Seismic Survey EP was ultimately approved on 31 July 2023 subject to seven conditions.

*NOPSEMA Inspection 4846 – 8 August 2023*

59. On 2 August 2023, NOPSEMA emailed Woodside noting it received a Reg 29 notice of commencement under the Seismic Survey EP with a planned start date of 10 August 2023.
60. NOPSEMA confirmed that, as a result, it would be making arrangements to undertake a short notice inspection at Woodside's regulated business premises.  
  
Attached and marked [REDACTED]-1 is a true copy of an email from [REDACTED] (NOPSEMA) to [REDACTED] (Woodside) sent on 2 August 2023.
61. On 3 August 2023, NOPSEMA provided to Woodside the Inspection Brief for Inspection 4846.  
  
Attached and marked [REDACTED]-2 is a true copy of an email from [REDACTED] (NOPSEMA) to [REDACTED] (Woodside) sent on 3 August 2023 attaching the Inspection Brief for Inspection 4846.
62. On 8 August 2023 NOPSEMA undertook inspection of the Seismic Survey EP. It occurred at Woodside's offices.
63. I attended the inspection kick off meeting and closing brief. My team was involved throughout the inspection, including the collation of requested evidence, together with Woodside's First Nations Team.
64. As part of this inspection Woodside provided information to NOPSEMA about how it was meeting the conditions tied to the Seismic Survey EP acceptance. The scope of this inspection focussed on the conditions pertaining to consultation with First Nations groups. This scope had been set in the inspection brief issued by NOPSEMA.

65. The information that Woodside provided to NOPSEMA in advance of the inspection included copies of correspondence sent to First Nations groups to address the requirements of condition 1 and a transcript from a meeting held via MS Teams between Woodside and representatives of Save Our Songlines, including Ms Raelene Cooper, on 25 July 2023.
66. At a meeting held at the end of the inspection (referred to as the 'close of inspection'), I considered that NOPSEMA's position, was that:
- (a) it was unlikely that Woodside would meet the requirements of condition 1 because sufficient time was not provided to First Nations groups to respond to Woodside with information on other people who should be consulted or other information on cultural features or heritage places that should be considered; and
  - (b) information provided by Ms Cooper and Save Our Songlines to Woodside on 25 July 2023 could be considered as triggering the requirement of condition 5 and that Woodside should respond within 7 days to meet the requirement of condition 5.
67. My understanding was based on information provided verbally by the inspection lead, Mr [REDACTED] of NOPSEMA, during the inspection and the close of inspection.
68. On 16 August and 17 August 2023, I provided information to NOPSEMA outlining the cultural topics that Ms Cooper and Save Our Songlines had raised with Woodside at the meeting on 25 July 2023 and an assessment of the potential impacts and risks on these cultural topics. This information was provided to meet the requirements of condition 5.
- Attached and marked [REDACTED]-3 is a true copy of an email from [REDACTED] (Woodside) to Cameron Grebe (NOPSEMA) sent on 16 August 2023.
- Attached and marked [REDACTED]-4 is a true copy of an email from [REDACTED] (Woodside) to [REDACTED] (NOPSEMA) sent on 17 August 2023.
69. Ms Cooper and Save Our Songlines had provided the following limited information about their cultural values in the 25 July 2023 meeting, which are the topics referred to above:
- (a) a concern about potential impacts to whales;
  - (b) a general information request about 'the rest of the animals', including turtle migrations, dugong, other migratory species, plankton and seagrass;

- (c) an interest regarding songlines and 'especially where the freshwater and saltwater meet'; and
  - (d) a concern about impacts to the songlines, energy lines and animals from seismic activity.
70. In preparing the risk assessment set out in the 17 August 2023 email, we considered whether the existing controls in the Seismic Survey EP were managing the impacts and risks to these four cultural topics to ALARP and acceptable levels. We utilised an internal Woodside risk matrix and determined a consequence rating for the risk.
71. With respect to each of the cultural topics set out above, at the time of undertaking this risk assessment:
- (a) I understood that the impact to whales and other marine species were managed to ALARP and acceptable levels;
  - (b) we had undertaken a specific assessment about where freshwater and saltwater meet and did not find any likely or known interfaces within the EMBA; and
  - (c) we had committed to undertaking a program of ongoing consultation with First Nations people to better understand cultural values. This is a commitment that had been included in other EPs for the Scarborough project, but it had not been specified in the Seismic Survey EP at this time.
72. On 22 August 2023, NOPSEMA issued a draft inspection report for inspection 4846.
- NOPSEMA Inspection 4859 – 16 to 22 August 2023*
73. On 15 August 2023, Woodside received an email from NOPSEMA attaching an inspection brief for a second, desk-top inspection 4859 of Woodside's documents. Attached and marked [REDACTED] 5 is a true copy of an email from [REDACTED] (NOPSEMA) to [REDACTED] (Woodside) sent on 15 August 2023, attaching the Inspection Brief for Inspection 4859.
74. The scope of this second inspection was to verify Woodside's compliance with conditions pertaining to consultation with First Nations groups and people as required by the EP acceptance conditions. I considered that the inspection was to enable NOPSEMA to consider further information provided by Woodside in their assessment of compliance against these conditions.
75. Further correspondence with First Nations groups since the first inspection was provided by Woodside to NOPSEMA as part of this inspection. This correspondence sought to confirm whether these groups had any further information to be provided
-

regarding cultural features or heritage values, and if they were aware of any other First Nations people that have not yet been consulted with for the Seismic Survey EP that may be affected by the activity. This correspondence was sent in accordance with condition 1(a) and 1(b).

76. As part of this inspection, Woodside also provided a report meeting the requirements of condition 6 to NOPSEMA on 30 August 2023.

Attached and marked [REDACTED]-6 is a true copy of a the 'Scarborough 4D B1 Marine Seismic Survey Environment Plan – Acceptance Condition 6 Report' dated 30 August 2023.

77. The condition 6 report was prepared by us and the First Nations team to outline the additional control measures that have been adopted by Woodside to ensure that any impacts or risks of the activity on the cultural topics raised by Ms Cooper and Save Our Songlines were reduced to ALARP and acceptable levels.

78. We assessed the need for additional controls as best we could based on the information that we had about the cultural topics raised. In preparing the condition 6 report, we identified that:

- (a) Environmental impacts and risks on the various species raised by Ms Cooper and Save Our Songlines were already reduced to ALARP and acceptable levels as determined by NOPSEMA when accepting the EP.
- (b) The application of a new control would be applied to actively support Traditional Custodian's capacity for ongoing engagement and consultation on EPs for the purpose of avoiding impacts to cultural heritage values.
- (c) A further control would be applied, committing Woodside to ensuring the impacts and risks of the activity on any new cultural values or features would be minimised to ALARP and acceptable levels, with avoidance and mitigation strategies developed in consultation with Traditional Custodians.
- (d) Ongoing assurance would be provided to First Nations people that key species of cultural value likely to be found in the survey area, would continue to use the area during the seismic survey, by recording and reporting all cetacean and marine turtle observations on a public website.
- (e) Woodside would continue to consult with First Nations people and, in particular, new information received from Ms Cooper and Save Our Songlines on these additional controls would be reported to NOPSEMA at a later date, when the new information was available Woodside.



79. On 31 August 2023, NOPSEMA issued a draft inspection report for the second inspection (inspection 4859) pursuant to a separate desk-based inspection of documents provided by Woodside.
80. In response to NOPSEMA's Draft Inspection Report 4859, and their views on Woodside's status of compliance with conditions 5 and 6, we added further controls to the seismic activity. Specifically, we introduced 'shut down zones' for humpback whales and marine turtles. The concept of a 'shut down zone' is explained in more detail below.
81. We updated our condition 6 report again to incorporate these new controls and provided the report to NOPSEMA on 1 September 2023.

Attached and marked [REDACTED]-7 is a true copy of the 'Scarborough 4D B1 Marine Seismic Survey Environment Plan – Acceptance Condition 6 Report (updated to address Draft Inspection Report 4859)' dated 1 September 2023.

**Cultural values that have been raised by Ms Cooper and Save Our Songlines**

82. I have not personally been involved in the consultation process with Ms Cooper and Save Our Songlines.
83. However, I have been informed by my female colleagues, including [REDACTED] [REDACTED] and [REDACTED] [REDACTED] that have been involved in the consultation with Ms Cooper and Save Our Songlines of the cultural features and heritage values that have been raised by Ms Cooper in the consultation to date.
84. This includes the topics raised at the 25 July 2023 meeting, as described at 69 above.
85. Based on the information provided to me from consultation with Ms Cooper by Woodside I understand that the following cultural features and heritage values have been raised by Ms Cooper and Save Our Songlines in relation to the Seismic Survey EP, which may be connected to each other:
- (a) whales, particularly female whales;
  - (b) other marine life, including potential totemic species;
  - (c) songlines; and
  - (d) energy lines.
86. For the purpose of preparing this affidavit, Mr Jeremy Quan-Sing of Allens (legal counsel for Woodside) has also shown me an extract of the affidavit of Jessica Border



affirmed on 7 September 2023 (*Border Affidavit*) that contains paragraphs 19 to 22 of that affidavit.

**Overview of potential risks and impacts to marine life and the controls to manage them in the Seismic Survey EP**

87. For an EP to be accepted by NOPSEMA, it must be reasonably satisfied that the EP meets the criteria outlined in the regulations, including demonstration that environmental impacts and risks of the activity are reduced to ALARP and acceptable levels.
88. In the case of the Seismic Survey EP, a key impact pathway is from underwater noise generated from the seismic source, being an airgun array, towed behind the seismic vessel.
89. Section 6.6.2 of the Seismic Survey EP addresses a range of environmental risks and impacts associated with that underwater noise from the seismic vessel. It describes the controls that are applied to minimise the impacts and risks to ALARP and acceptable levels.
90. The Seismic Survey EP accepts that there are risks to marine species from elevated underwater noise, such as that generated by seismic surveys, including totemic species, which are those species with a particular spiritual connection to First Nations people
91. I note that in paragraphs 20(h)-(f) of the Border Affidavit, Ms Border makes reference to seismic surveys being the cause of whales intentionally beaching.
92. I consider that there is no scientific consensus on what causes mass whale beaching events. It is not accurate to say that it is known that they are caused by seismic surveys. I am aware that there are records of mass beaching events occurring prior to industrialisation, well before there was any seismic survey activity.
93. I have been shown paragraph 20(e)(i) of the Border Affidavit, which refers to seismic surveys interfering with the frequencies of songlines.
94. I am aware of the concept of songlines through my past experience working on the potential underwater cultural heritage features in the Dampier Archipelago and adjacent continental shelf for Scarborough trunkline installation project approvals. I am aware that there can be songlines between the current shore and features of the ancient coastline which is now submerged.

95. I am aware based on my experience in the industry that the Yindjibarndi people tell the dreamtime story of a rainbow serpent and how the freshwater and seawater collided to form the Fortescue River in the Pilbara.
96. However, I am not aware of any place where freshwater and saltwater meet in the Operational Area or broader EMBA. There are no known freshwater springs that occur in that area and no freshwater from rivers that meet with that area because it is so far offshore. Further, there are no paleo channels or ancient freshwater river systems because this area is far from the ancient coastline and well beyond the continental shelf.
97. I never been made aware previously, for example when preparing previous EPs or the Seismic Survey EP, of songlines that exist at the distance from the shore as that at which the seismic activity is going to occur (i.e., about 375km away).
98. Based on the information that we have, we have assessed that the controls in place manage the potential risks and impacts. Without more information, we cannot do further assessment. If further information becomes available, it will be assessed and managed as described below.

**How the ecological controls also manage potential risks and impacts to cultural values in totemic species**

99. The controls in our Seismic Survey EP recognise the connection that First Nations people have to Country.
100. We have considered the cultural values associated with First Nation people's connection with, or traditional uses of, marine species and associated ecosystems in nearshore coastal waters to inform the controls we have adopted for the seismic survey in offshore waters.
101. I have been shown paragraphs 19 to 22 of the Border Affidavit, which refers to concern about seismic surveys affect on marine life also having an affect on culture and spiritual health.
102. We have applied controls to specifically address the environmental or ecological values of potential totemic species. In doing so, I consider that we are therefore inherently addressing the cultural values of those same species as well.

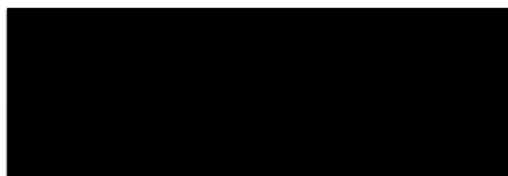
**Management of new information relating to cultural features and heritage values**

103. We have applied controls which aim to understand these matters further. As a result, a number of the controls in the Seismic Survey EP are directed to understanding more from First Nations people about what those cultural features and heritage

values are, how they might be impacted, and the controls that we might put in place to protect those values. For example, see section 5.6 at page 96 of the Seismic Survey EP which relates to ongoing consultation.

- 104. If or when more information is provided by Ms Cooper or Save Our Songlines (or any other First Nations people), my team will address it in accordance with the management of change process, as described at 36 to 43 above.
- 105. This means we would assess the information in accordance with our internal guidance, consider what (if any) new controls are required, update the EP accordingly and record in our MOC register. Whether or not the EP is re-submitted to NOPSEMA will depend on the assessment of whether the change is 'significant', as described at 37 to 39 above.
- 106. However in addition to our internal management of change process, under condition 5 we are also obliged to communicate any new cultural values to NOPSEMA and provide them with a report in accordance with condition 6, which demonstrates how we are dealing with that information (eg new controls) and what feedback has been received on any new controls.
- 107. We undertake quarterly reviews of Woodside's master existing environment document, considering information from a range of sources such as scientific databases or consultation, which may result in new information that impacts on cultural values and require an update to the EP. For example, if we learned that a defined BIA had changed, we would consider how to update our controls accordingly.

**AFFIRMED** at Perth, Western Australia  
on 11 September 2023



Before me: [Redacted] [Redacted] [Redacted] [Redacted] [Redacted]

[Redacted]  
[Redacted] witness

A legal practitioner who has held a practice certificate for at least two years and who currently holds a practice certificate.

**Schedule**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Respondents**

Second Respondent: Woodside Energy Scarborough Pty Ltd (ACN 650 177 227)

Third Respondent: Woodside Energy (Australia) Pty Ltd (ACN 006 923 879)

Date: 11 September 2023



Form 3 (adapted)  
Rule 29.02(8)

**Annexure certificate**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and others named in the schedule**

Respondents

This is the annexure marked [REDACTED]-1 produced and shown to [REDACTED] at the time of affirming his affidavit this 11 September 2023.

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Filed on behalf of: Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd, the Second and Third Respondents

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**From:** [REDACTED] <[REDACTED]@nopsema.gov.au>  
**Sent:** Wednesday, 2 August 2023 3:31 PM  
**To:** [REDACTED]  
**Cc:** Cameron Grebe; [REDACTED]  
**Subject:** RE: Reg 29 - Commencement of Activity - Scarborough 4D MSS

OFFICIAL

Hi [REDACTED]

Thanks for the email. I didn't see this message in time to pass it on to Rohan, who will be leading the inspection. Unfortunately we have some availability constraints from Wednesday onwards and it would be appreciated if you could find an alternative to support the inspection on Tuesday.

Thanks  
 Tim

OFFICIAL

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**From:** [REDACTED]@woodside.com>  
**Sent:** Wednesday, August 2, 2023 12:00 PM  
**To:** [REDACTED] <[REDACTED]@nopsema.gov.au>  
**Cc:** Cameron Grebe <Cameron.Grebe@nopsema.gov.au>  
**Subject:** RE: Reg 29 - Commencement of Activity - Scarborough 4D MSS

Hi Tim,

Thank you for providing us notice of the inspection. The commencement of the activity is still pending a NOPTA Access Authority however the team wanted to ensure the NOPSEMA notification met the 10 day requirement.

Next week [REDACTED] is out of the office Monday and Tuesday, she will play a key role in the inspection, if possible please could we request the inspection took place from Wednesday onwards. If this cannot be accommodated we will ensure we have someone who can fulfil this role.

Thanks,  
 [REDACTED]

---

**From:** [REDACTED] <[REDACTED]@nopsema.gov.au>  
**Sent:** Wednesday, 2 August 2023 9:30 AM  
**To:** [REDACTED]@woodside.com.au>  
**Cc:** Cameron Grebe <Cameron.Grebe@nopsema.gov.au>  
**Subject:** Reg 29 - Commencement of Activity - Scarborough 4D MSS

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Hi [REDACTED]

I note that NOPSEMA received a reg 29 notice of commencement for the Scarborough 4D MSS activity yesterday with a planned start date of 10 August 2023. We note the short timeframe between acceptance of EP and commencement of activity and the fact that NOPSEMA has not yet had an opportunity to collect evidence of

compliance with conditions on acceptance of the EP, particularly those requiring consultation prior to commencement of activity.

As a result, we will be making arrangements to undertake a short notice inspection at Woodside's regulated business premise next week. We will be in touch with further details as part of the inspection brief development.

Please let me know if you have any questions.

Regards  
Tim



██████████ | Environment Manager

Offshore Projects & Seismic

Environment, Renewables and Decommissioning Division

National Offshore Petroleum Safety and Environmental Management Authority

**T:** ██████████ | **M:** ██████████ | **E:** ██████████@nopsema.gov.au | **W:** nopsema.gov.au

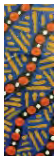
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#### **Acknowledgement of Country**

NOPSEMA recognises the First Peoples of this nation and their ongoing connection to culture and country. We acknowledge First Nations Peoples as the Traditional Owners, Custodians and Lore Keepers of the world's oldest living culture and pay respects to their Elders past, present and emerging.

**OFFICIAL**



Form 3 (adapted)  
Rule 29.02(8)

**Annexure certificate**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and  
others named in the schedule**

Respondents

This is the annexure marked [REDACTED]-2 produced and shown to [REDACTED] at the time of affirming his affidavit this 11 September 2023.

---

Filed on behalf of: Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd,  
the Second and Third Respondents

Prepared by: Jeremy Quan-Sing

Law firm: Allens

Tel: (08) 9488 3700

Fax: (08) 9488 3701

Email: Jeremy.Quan-Sing@allens.com.au

**Address for service:**

Level 11, Mia Yellagonga Tower 2, 5 Spring Street, Perth WA 6000

Email: Jeremy.Quan-Sing@allens.com.au

**From:** Rohan Kok <rohan.kok@nopsema.gov.au>  
**Sent:** Thursday, 3 August 2023 1:30 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]; Tim Carter; Raquel Carter; Pierre Achour; Alice Turnbull  
**Subject:** NOPSEMA Inspection - Nganhurra Operations Cessation and Scarborough 4D B1 Marine Seismic Survey  
**Attachments:** Letter - Inspection Brief - Woodside - Scarborough 4D MSS and Nganhurra Operations Cessation.pdf; Brief - Inspection - Woodside - Scarborough 4D MSS and Nganhurra Operations Cessation (A973943).pdf

You don't often get email from rohan.kok@nopsema.gov.au. [Learn why this is important](#)

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Good afternoon,

Please find attached an Inspection Brief with Cover Letter for the upcoming inspection of Woodside's Nganhurra Operations Cessation and Scarborough 4D B1 Marine Seismic Survey activities.

Please don't hesitate to get in touch if you have any concerns or queries about the information contained in the Inspection Brief or the inspection in general.

Kind regards,

Rohan Kok.

**Rohan Kok** | Environment Specialist  
 Environmental Management - Offshore Projects & Seismic



**NOPSEMA**

Australia's offshore  
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National Offshore Petroleum Safety and Environmental Management Authority  
**T:** (08) 6188 8790 | **E:** rohan.kok@nopsema.gov.au | **W:** nopsema.gov.au

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 For the latest news and information [subscribe here](#).



#### Acknowledgement of Country

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OFFICIAL



Our ref: ID 7105 and 6780: A973967

Contact: [REDACTED]

Email: [REDACTED]@nopsema.gov.au

Ms [REDACTED]

[REDACTED]  
Woodside Energy Scarborough Pty Ltd

AND

Ms [REDACTED]

[REDACTED]  
Woodside Energy Ltd

Mia Yellagonga  
11 Mount Street  
PERTH WA 6000

[REDACTED]@woodside.com.au

AND

[REDACTED]@woodside.com.au

Dear [REDACTED]

**RE: NOTIFICATION OF PLANNED INSPECTION OF WOODSIDE ENERGY SCARBOROUGH PTY LTD AND WOODSIDE ENERGY LTD IN RELATION TO THE SCARBOROUGH 4D B1 MARINE SEISMIC SURVEY AND THE NGANHURRA OPERATIONS CESSATION**

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has directed NOPSEMA Inspectors [REDACTED], [REDACTED] and [REDACTED] to conduct an environmental inspection under Clause 3(3) of Schedule 2A to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (the OPGGS Act). The NOPSEMA inspectors are authorised to enter and exercise various inspection powers in relation to the Scarborough 4D B1 Marine Seismic Survey and the Nghanhurra Operations Cessation activities at the regulated business premises of Woodside Energy Scarborough Pty Ltd and Woodside Energy Ltd.

The purpose of the inspection is to monitor compliance with the following laws:

- a. Environmental management laws (as defined in Schedule 2A of the OPGGS Act).

Further details relating to the proposed inspection are included in the attached inspection brief, including inspection scope and pre-inspection documentation requirements.

Thank you in advance for your co-operation and assistance in facilitating this inspection. Should you have any queries regarding the above please contact [REDACTED] on ([REDACTED])

Yours sincerely

[REDACTED]  
**Representative of NOPSEMA**  
wA729536

03 August 2023

cc [REDACTED]

## NOPSEMA Inspection – Nganhurra Operations Cessation and the Scarborough 4D B1 Marine Seismic Survey

### 1. Inspection summary

<b>Duty holder(s) inspected</b>		
<b>Titleholder(s)</b>	Woodside Energy Ltd Woodside Energy Scarborough Pty Ltd	
<b>Entities inspected</b>		<b>NOPSEMA Inspection No.</b>
<b>Petroleum Activity</b>	Nganhurra Operations Cessation Scarborough 4D B1 Marine Seismic Survey	4846
<b>Permissioning documents</b>		
<b>Environment Plan(s)</b>	Nganhurra Operations Cessation environment plan (Document No. K1005UH1400288790, Revision 13, dated May 2023) Scarborough 4D B1 Marine Seismic Survey environment plan (Document No. SA0006AH1401760303, Revision 7, dated June 2023)	
<b>Inspection dates</b>		
<b>Onshore</b>	8 August 2023	
<b>Inspection team</b>		
<b>Lead NOPSEMA Inspector</b>	[REDACTED]	
<b>Inspection Team</b>	[REDACTED]	

### 2. Background

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has directed NOPSEMA inspectors to conduct an inspection of Woodside's compliance with the conditions associated with the acceptance of both the Nganhurra Operations Cessation environment plan and the Scarborough 4D B1 Marine Seismic Survey environment plan (environment plans). This direction was given after NOPSEMA accepted the environment plans with conditions. The focus of this inspection will be on the conditions pertaining to consultation with First Nations groups and people prior to the commencement of the activities and any other related matters.

Information on the legislative basis for NOPSEMA inspections and broadly what to expect from a NOPSEMA inspection is provided in Appendix B.

### 3. Inspection scope

This inspection will cover the following scope:

- **Topic 1:** Verification of compliance with conditions pertaining to consultation with First Nations groups and people as stipulated in:





- The Environment Plan acceptance with Conditions letter (dated 27 July 2023) – Nganhurra Operations Cessation; and
- The Environment Plan acceptance with Conditions letter (dated 31 July 2023) – Scarborough 4D B1 Marine Seismic Survey.

Note that the inspection may also cover matters relating to the effectiveness of Woodside's consultation methodology and program that applies to the broader Scarborough project and other Woodside activities.

The inspection team have the flexibility to adjust the scope (including adding or removing topics) during the inspection, based on operational need and/or any observations arising from the inspection. If this occurs the Lead Inspector will notify the Woodside representative(s) and outline the reasons for the change of scope.

## 4. Inspection logistics and assistance required

### 4.1. Location and timetable

The inspection will take place on 8 August 2023, onshore at Woodside's regulated business premises – Mia Yellagonga, 11 Mount Street, Perth, WA, 6000.

A proposed timetable for the inspection is included in Appendix A.

### 4.2. Notification and contact information

NOPSEMA requires Woodside to provide a key contact person for the visit having the authority to facilitate access to relevant information and personnel.

### 4.3. Proposed list of interviewees for the inspection

NOPSEMA expects to require assistance from personnel with the following functions, in no particular order:

Position
Relevant member(s) of Woodside's First Nations Team
Relevant Scarborough 4D B1 Marine Seismic Survey operations management and environmental personnel
Relevant Nganhurra Operations Cessation operations management and environmental personnel
Other team members / personnel that can assist with the inspection as recommended by Woodside or identified during the inspection

### 4.4. Documentation requested

Please provide the following documentation to NOPSEMA by the dates specified in the table below.

NOPSEMA does not access documents on external servers. Please submit the requested documentation by using our Secure File Transfer system at <https://securefile.nopsema.gov.au/filedrop/submissions> (attention the Lead Inspector), or by email to [submissions@nopsema.gov.au](mailto:submissions@nopsema.gov.au). Instructions on how to use the Secure File system can be found on our website at [www.nopsema.gov.au/contact/secure-file-transfer/](http://www.nopsema.gov.au/contact/secure-file-transfer/).



Item	Description	Date
<b>Topic 1 – Consultation with First Nations groups and people</b>		
1	Latest relevant company and asset organisational charts	
2	Evidence of compliance with conditions 7, 8, 9 and 10(a) pertaining to the acceptance of the Nganhurra Operations Cessation environment plan. This should include any new information provided to Woodside by: <ul style="list-style-type: none"> <li>- Buurabalayji Thalanyji Aboriginal Corporation;</li> <li>- Yinggarda Aboriginal Corporation and/or Gumala Aboriginal Corporation;</li> <li>- Murujuga Aboriginal Corporation; and</li> <li>- any other First Nations relevant person(s).</li> </ul>	Prior to 1:00 PM, 4 August 2023
3	Evidence of compliance with conditions 1, 2, 3, 4, 5(a) and 7 pertaining to the acceptance of the Scarborough 4D B1 Marine Seismic Survey environment plan. This should include any new information provided to Woodside by: <ul style="list-style-type: none"> <li>- Buurabalayji Thalanyji Aboriginal Corporation;</li> <li>- Yinggarda Aboriginal Corporation and/or Gumala Aboriginal Corporation;</li> <li>- Save Our Songlines; and</li> <li>- any other First Nations relevant person(s).</li> </ul>	



## Appendix A: Proposed timetable for inspection

DATE	TIME	ACTIVITY
<b>Onshore component</b>		
08/08/2023	0930	Arrive at regulated business premises
	0945	Conduct entry meeting
	1015	Commence with inspection
	1200	Lunch break
	1300	Continue with inspection
	1400	Review and capture findings/observations
	1500	Conduct exit meeting





## Appendix B: Legislative basis and conduct of the inspection

### B.1: Legislative basis for the inspection

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has directed NOPSEMA Inspectors to conduct the inspection in accordance with Clause 3(3) of Schedule 2A to the Commonwealth *Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

The inspection includes consideration of:

- Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009.
- The accepted permissioning documents (see Section 1 above).
- ALARP/ Acceptable/ continual improvement.

### B.2: What to expect from a NOPSEMA inspection

This inspection will be carried out in three stages. Where an inspection is conducted onshore (office based), the activities related to offshore inspections are not applicable. While the three stages are in order, the activities within each stage may be conducted in a different order to that listed below:

#### Prior to the inspection:

- Review of the relevant sections of the Environment Plans and associated conditions.
- Review of evidence, procedures, documents and records requested from, and provided by, the duty holder.
- Preparation of paperwork for the inspection.
- Conduct pre-inspection meeting to discuss format of inspection and confirm dates for the onshore meetings.

#### During the inspection:

- Onshore meetings and interviews related to [refer relevant scopes]
- Facility inductions and an entry meeting at the facility
- Conducting interviews with management, HSRs and members of the workforce
- Inspection at the facility regarding plant and equipment
- Reviewing or sighting relevant documents at the facility
- Collating preliminary observations/findings from the inspection.
- Consultation with Health & Safety Representatives and members of the workforce

#### At the conclusion of the inspection:

- An exit meeting will be held to discuss the observations and potential findings of the offshore inspection
- A written summary of the principal observations from the inspection, communicating both positive features and areas of opportunity for improvement, will be provided.





- Onshore follow-up meeting(s) will be conducted where the inspection team is in a position to detail the findings from the offshore inspection. This meeting is held to discuss:
  - The findings from both the onshore and offshore components of the inspection
  - Follow-up meetings for remaining inspection scope items (if required).

**Feedback on the conduct of the inspection may be provided to NOPSEMA at the meetings or electronically via the NOPSEMA website.**

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Rule 29.02(8)

**Annexure certificate**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and  
others named in the schedule**

Respondents

This is the annexure marked [REDACTED]-3 produced and shown to [REDACTED] at the time of affirming his affidavit this 11 September 2023.

---

Filed on behalf of: Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd,  
the Second and Third Respondents

Prepared by: Jeremy Quan-Sing

Law firm: Allens

Tel: (08) 9488 3700

Fax: (08) 9488 3701

Email: Jeremy.Quan-Sing@allens.com.au

**Address for service:**

Level 11, Mia Yellagonga Tower 2, 5 Spring Street, Perth WA 6000

Email: Jeremy.Quan-Sing@allens.com.au

---

**From:** [REDACTED]@woodside.com>  
**Sent:** Wednesday, 16 August 2023 4:25 PM  
**To:** Cameron Grebe; [REDACTED]@nopsema.gov.au  
**Cc:** [REDACTED]  
**Subject:** Scarborough 4D B1 Marine Seismic Survey Environment Plan - Condition 5 Notification

Dear Cameron,

In accordance with the requirements of Attachment 1, condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan acceptance, Woodside provides the following notification to NOPSEMA.

On 25 July 2023, Woodside met with Ms Alec, Ms Cooper and Save Our Songlines (JA/RC/SOS) to provide a further opportunity for any additional feedback on cultural features and/or heritage values to be shared with Woodside. During the meeting, JA/RC/SOS informed Woodside that they would not be speaking to us about their cultural interests, nor providing any feedback at that stage, this was despite agreeing with Woodside to do so prior to the meeting (as reflected in 27 July 2023 email from [REDACTED] to Jessica Border, cc Sue McCarrey)

Based on the representation of JA/RC/SOS at the meeting on 25 July 2023, Woodside did not consider that JA/RC/SOS provided information on new cultural features and/or heritage values that would require reporting under condition 5.

On 9 August 2023 as part of NOPSEMA's inspection (No. 4846), the transcript of the 25 July 2023 meeting was shared with NOPSEMA inspectors. NOPSEMA formed the view that JA/RC/SOS did refer to cultural features and/or heritage values of places within the environment that may be affected by the Scarborough seismic activity.

Accordingly, Woodside considers that the following topics contained within the transcript of the meeting with JA/RC/SOS may be considered as cultural features and/or heritage values. For the avoidance of doubt and in accordance with the requirements of Attachment 1, condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan, Woodside notifies NOPSEMA of the following:

<b>Topic Raised by JA/RC/SOS</b>
A concern about potential impacts to whales.
A general information request about 'the rest of the animals', including turtle migrations, dugong, other migratory species, plankton and seagrass.
An interest regarding songlines and 'especially where the freshwater and saltwater meet'

A concern about impacts to the songlines, energy lines and animals from seismic activity

Woodside has assessed the information above and considers that any potential new environmental impacts and risks arising from the information provided by JA/RC/SOS are currently managed to as low as reasonably practicable (ALARP) and an acceptable levels. However, in accordance with condition 6, Woodside will continue to seek further information from JA/RC/SOS on the above mentioned topics to inform potential control measures that may be adopted to ensure that such risks continue to be managed to ALARP and acceptable levels.

Regards,

[Redacted]

[Redacted]

[Redacted]



**Woodside Energy**  
Mia Yellagonga  
Karlak, 11 Mount Street  
Perth WA 6000  
Australia

T: [Redacted]  
E: [Redacted] [@woodside.com.au](mailto:[Redacted]@woodside.com.au)  
[www.woodside.com.au](http://www.woodside.com.au)  
f t in y i



I acknowledge the Whadjuk Noongar people as the traditional custodians of the land on which I choose to live and work.

Form 3 (adapted)  
Rule 29.02(8)

**Annexure certificate**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and  
others named in the schedule**

Respondents

This is the annexure marked ■-4 produced and shown to ■ at the time of  
affirming his affidavit this 11 September 2023.

---

Filed on behalf of: Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd,  
the Second and Third Respondents

Prepared by: Jeremy Quan-Sing

Law firm: Allens

Tel: (08) 9488 3700

Fax: (08) 9488 3701

Email: Jeremy.Quan-Sing@allens.com.au

**Address for service:**

Level 11, Mia Yellagonga Tower 2, 5 Spring Street, Perth WA 6000

Email: Jeremy.Quan-Sing@allens.com.au

---

**From:** [REDACTED]@woodside.com>  
**Sent:** Thursday, 17 August 2023 4:58 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]; Cameron Grebe; [REDACTED]  
**Subject:** RE: Scarborough 4D B1 Marine Seismic Survey Environment Plan - Condition 5 Notification

Hi Tim,

Thanks you for your response.

Woodside provides the following information from our environmental impact and risk assessment, taking account of the topics raised by JA/RC/SOS, outlined in our notification under condition 5:

#### **Cultural Features and/or Heritage Values**

Woodside has undertaken archaeological assessments and ethnographic surveys to identify potential cultural features and heritage values that may be impacted by Scarborough activities. These works have not identified cultural features and heritage values which will be impacted by the activities planned under this EP. However, through consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment that First Nations people hold. Topics raised during consultation with JA/RC/SOS, outlined in the email below, may refer to cultural features and heritage values within the EMBA and are summarised as:

- Whales
- Other migratory species including turtles
- Plankton
- Songlines and energy lines

The physical presence of vessels and seismic activity in the Operational Area, or an accidental hydrocarbon release, may lead to interactions affecting some of these cultural features and heritage values.

#### **Source of Impact/Risk**

- Vessel presence and seismic activity affecting cultural features and heritage values (as listed above).
- Accidental hydrocarbon release affecting cultural features and heritage values.

#### **Impact/Risk Classification:**

Planned activities:

- E (Slight)

- Social and Cultural – Slight, short-term impact (less than one year) to a community or areas/items of cultural significance (as listed above).

Unplanned events:

- D1 (Moderate)
- Social and Cultural – Minor, short-term impact (one to two years) to a community or highly valued areas/items of cultural significance (as listed above).
- Highly unlikely – Has occurred once or twice in the industry.

Woodside has committed to ongoing engagement to further understand these values and to inform potential control measures that may be adopted to ensure that such risks are re-evaluated and continue to be managed to ALARP and acceptable levels.

Regards,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@nopsema.gov.au>  
**Sent:** Thursday, 17 August 2023 10:39 AM  
**To:** [REDACTED]@woodside.com.au  
**Cc:** [REDACTED]@woodside.com.au; Cameron Grebe <Cameron.Grebe@nopsema.gov.au>; [REDACTED] <[REDACTED]@nopsema.gov.au>  
**Subject:** RE: Scarborough 4D B1 Marine Seismic Survey Environment Plan - Condition 5 Notification

OFFICIAL

Hi [REDACTED]

Thank you for the notification below in relation to condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan acceptance.

NOPSEMA considers that the information provided below addresses the requirements of condition 5(a) and part of condition 5(b). However, the report does not notify of the potential environmental impacts and risks as required by condition 5(b). I understand that the information provided to Woodside on these cultural features and/or heritage values is limited. However, can you please follow-up to outline the potential environmental impacts and risks based on the available information and Woodside's understanding of the proposed activity and the impacts and risks it presents to complete this notification.

Regards  
 Tim

[REDACTED]

[REDACTED] | Environment Manager

Offshore Projects & Seismic

Environment, Renewables and Decommissioning Division

National Offshore Petroleum Safety and Environmental Management Authority

**T:** [REDACTED] | **M:** [REDACTED] | **E:** [REDACTED]@nopsema.gov.au | **W:** nopsema.gov.au

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OFFICIAL

**From:** Cameron Grebe <[cameron.grebe@nopsema.gov.au](mailto:cameron.grebe@nopsema.gov.au)>

**Sent:** Wednesday, August 16, 2023 7:13 PM

**To:** [REDACTED]@woodside.com>; [REDACTED] <[REDACTED]@nopsema.gov.au>

**Cc:** [REDACTED]@woodside.com>

**Subject:** Re: Scarborough 4D B1 Marine Seismic Survey Environment Plan - Condition 5 Notification

OFFICIAL

Good evening [REDACTED]

I acknowledge receipt of Woodside's notification.

I note you've included the relevant NOPSEMA Manager who will consider the information you've provided and follow up as necessary.

Regards,

Cameron Grebe | Head of Division



Environment, Renewables & Decommissioning

National Offshore Petroleum Safety and Environmental Management Authority

T: (08) 6188 8704 | M: 0439 961 309 | E: [cameron.grebe@nopsema.gov.au](mailto:cameron.grebe@nopsema.gov.au) | W: nopsema.gov.au

To assure the protection of lives and the environment offshore.

OFFICIAL

---

**From:** [REDACTED]@woodside.com>  
**Sent:** Wednesday, August 16, 2023 16:24  
**To:** Cameron Grebe <[cameron.grebe@nopsema.gov.au](mailto:cameron.grebe@nopsema.gov.au)>; [REDACTED] <[REDACTED]@nopsema.gov.au>  
**Cc:** [REDACTED]@woodside.com>  
**Subject:** Scarborough 4D B1 Marine Seismic Survey Environment Plan - Condition 5 Notification

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Accordingly, Woodside considers that the following topics contained within the transcript of the meeting with JA/RC/SOS may be considered as cultural features and/or heritage values. For the avoidance of doubt and in accordance with the requirements of Attachment 1, condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan, Woodside notifies NOPSEMA of the following:

<b>Topic Raised by JA/RC/SOS</b>
----------------------------------

A concern about potential impacts to whales.
A general information request about 'the rest of the animals', including turtle migrations, dugong, other migratory species, plankton and seagrass.
An interest regarding songlines and 'especially where the freshwater and saltwater meet'
A concern about impacts to the songlines, energy lines and animals from seismic activity

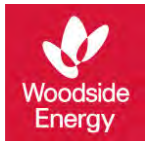
Woodside has assessed the information above and considers that any potential new environmental impacts and risks arising from the information provided by JA/RC/SOS are currently managed to as low as reasonably practicable (ALARP) and an acceptable levels. However, in accordance with condition 6, Woodside will continue to seek further information from JA/RC/SOS on the above mentioned topics to inform potential control measures that may be adopted to ensure that such risks continue to be managed to ALARP and acceptable levels.

Regards,

[Redacted]

[Redacted]

[Redacted]



**Woodside Energy**  
Mia Yellagonga  
Karlak, 11 Mount Street  
Perth WA 6000  
Australia

T: [Redacted]  
E: [Redacted] [@woodside.com.au](mailto:[Redacted]@woodside.com.au)  
[www.woodside.com.au](http://www.woodside.com.au)  
f t in v @



I acknowledge the Whadjuk Noongar people as the traditional custodians of the land on which I choose to live and work.

Form 3 (adapted)  
Rule 29.02(8)

**Annexure certificate**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and  
others named in the schedule**

Respondents

This is the annexure marked ■-5 produced and shown to ■ at the time of affirming his affidavit this 11 September 2023.

---

Filed on behalf of: Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd,  
the Second and Third Respondents

Prepared by: Jeremy Quan-Sing

Law firm: Allens

Tel: (08) 9488 3700

Fax: (08) 9488 3701

Email: Jeremy.Quan-Sing@allens.com.au

**Address for service:**

Level 11, Mia Yellagonga Tower 2, 5 Spring Street, Perth WA 6000

Email: Jeremy.Quan-Sing@allens.com.au

---

**From:** [REDACTED]@nopsema.gov.au>  
**Sent:** Tuesday, 15 August 2023 2:30 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** NOPSEMA Inspection 4859 - Scarborough 4D B1 Marine Seismic Survey  
**Attachments:** Brief - Inspection - Woodside - Scarborough 4D Marine Seismic Survey (A989214).pdf; Letter - Inspection Brief - Woodside - Scarborough 4D Marine Seismic Survey (A989314).pdf

OFFICIAL

Good afternoon,

Please find attached an Inspection Brief with Cover Letter for the upcoming inspection of Woodside's Scarborough 4D B1 Marine Seismic Survey activities.

Please don't hesitate to get in touch if you have any concerns or queries about the information contained in the Inspection Brief or the inspection in general.

Kind regards,

[REDACTED]

---

**Rohan Kok** | Environment Specialist  
 Environmental Management - Offshore Projects & Seismic



National Offshore Petroleum Safety and Environmental Management Authority

**T:** [REDACTED] **E:** [REDACTED]@nopsema.gov.au | **W:** nopsema.gov.au

To assure the protection of lives and the environment offshore.  
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#### Acknowledgement of Country

NOPSEMA recognises the First Peoples of this nation and their ongoing connection to culture and country. We acknowledge First Nations Peoples as the Traditional Owners, Custodians and Lore Keepers of the world's oldest living culture and pay respects to their Elders past, present and emerging.

OFFICIAL



Our ref: ID 6780; A989314

Contact: [REDACTED]

Email: [REDACTED]@nypsema.gov.au

[REDACTED]  
[REDACTED]  
Woodside Energy Scarborough Pty Ltd  
Mia Yellagonga  
11 Mount Street  
**PERTH WA 6000**

[REDACTED]@woodside.com.au

Dear [REDACTED]

**RE: NOTIFICATION OF PLANNED INSPECTION OF WOODSIDE ENERGY SCARBOROUGH PTY LTD IN RELATION TO THE SCARBOROUGH 4D B1 MARINE SEISMIC SURVEY**

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has directed NOPSEMA Inspectors [REDACTED] and [REDACTED] to conduct an environmental inspection under Clause 3(3) of Schedule 2A to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (the OPGGS Act). The NOPSEMA inspectors are authorised to enter and exercise various inspection powers in relation to the Scarborough 4D B1 Marine Seismic Survey at the regulated business premises of Woodside Energy Scarborough Pty Ltd.

The purpose of the inspection is to monitor compliance with the following laws:

- a. Environmental management laws (as defined in Schedule 2A of the OPGGS Act).

Further details relating to the proposed inspection are included in the attached inspection brief, including inspection scope and pre-inspection documentation requirements.

Thank you in advance for your co-operation and assistance in facilitating this inspection. Should you have any queries regarding the above please contact [REDACTED] on ([REDACTED])

Yours sincerely

[REDACTED]  
**Representative of NOPSEMA**

wA733086

15 August 2023

cc [REDACTED]

## NOPSEMA Inspection – Scarborough 4D B1 Marine Seismic Survey

### 1. Inspection summary

<b>Duty holder(s) inspected</b>		
<b>Titleholder(s)</b>	Woodside Energy Scarborough Pty Ltd (Woodside)	
<b>Entities inspected</b>		<b>NOPSEMA Inspection No.</b>
<b>Petroleum Activity</b>	Scarborough 4D B1 Marine Seismic Survey	4859
<b>Permissioning documents</b>		
<b>Environment Plan(s)</b>	Scarborough 4D B1 Marine Seismic Survey Environment Plan (Document No. SA0006AH1401760303, Revision 7, dated June 2023)	
<b>Inspection dates</b>		
<b>Onshore</b>	To be advised (TBA)	
<b>Inspection team</b>		
<b>Lead NOPSEMA Inspector</b>	[REDACTED]	
<b>Inspection Team</b>	[REDACTED]	

### 2. Background

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has directed NOPSEMA inspectors to conduct an inspection of Woodside's compliance with the conditions associated with the acceptance of the Scarborough 4D B1 Marine Seismic Survey Environment Plan (Environment Plan). This direction was given after NOPSEMA accepted the Environment Plan with conditions. The focus of this inspection will be on the conditions pertaining to consultation with First Nations groups and people prior to the commencement of the activity and any other related matters.

Information on the legislative basis for NOPSEMA inspections and broadly what to expect from a NOPSEMA inspection is provided in Appendix B.

### 3. Inspection scope

This inspection will cover the following scope:

- **Topic 1:** Verification of compliance with conditions pertaining to consultation with First Nations groups and people as stipulated in:
  - The Environment Plan acceptance with conditions letter (dated 31 July 2023) – Scarborough 4D B1 Marine Seismic Survey.

Note that the inspection may also cover matters relating to the effectiveness of Woodside's consultation methodology and program that applies to the broader Scarborough project and other Woodside activities.





The inspection team have the flexibility to adjust the scope (including adding or removing topics) during the inspection, based on operational need and/or any observations arising from the inspection. If this occurs the Lead Inspector will notify the Woodside representative(s) and outline the reasons for the change of scope.

## 4. Inspection logistics and assistance required

### 4.1. Location and timetable

The inspection may take place onshore at Woodside's regulated business premises (Mia Yellagonga, 11 Mount Street, Perth, WA, 6000), however confirmation of this will be provided in due course. The inspection may also be undertaken as a desk based inspection of documents provided by Woodside.

Should a visit to the regulated business premises be required, the proposed timetable (Appendix A) for the inspection will be sent to Woodside.

### 4.2. Notification and contact information

NOPSEMA requires Woodside to provide a key contact person (including for the visit if required) having the authority to facilitate access to relevant information and personnel.

### 4.3. Proposed list of interviewees for the inspection

Should a visit to the regulated business premises be required, NOPSEMA expects assistance from personnel with the following functions, in no particular order:

Position
Relevant member(s) of Woodside's First Nations Team
Relevant Scarborough 4D B1 Marine Seismic Survey operations management and environmental personnel
Other team members / personnel that can assist with the inspection as recommended by Woodside or identified during the inspection

### 4.4. Documentation requested

Please provide the following documentation to NOPSEMA by the dates specified in the table below.

NOPSEMA does not access documents on external servers. Please submit the requested documentation by using our Secure File Transfer system at <https://securefile.nopsema.gov.au/filedrop/submissions> (attention the Lead Inspector), or by email to [submissions@nopsema.gov.au](mailto:submissions@nopsema.gov.au). Instructions on how to use the Secure File system can be found on our website at [www.nopsema.gov.au/contact/secure-file-transfer/](http://www.nopsema.gov.au/contact/secure-file-transfer/).

Item	Description	Date
<b>Topic 1 – Consultation with First Nations groups and people</b>		
1	Consultation records with First Nations groups and people from 10 August 2023 up until this Inspection Brief being issued on 15 August 2023. *Note: Please do not include records that have previously been provided to NOPSEMA under inspection # 4846.	COB 16 August 2023 (or sooner)



Item	Description	Date
2	<p>Consultation records with First Nations groups and people from the date of this Inspection Brief being issued (15 August 2023) until the commencement of the activity.</p> <p><b>*Note:</b> Please do not include records that have previously been provided to NOPSEMA under Item 1 above.</p>	<p>24 hours prior to the commencement of the activity.</p>





## Appendix A: Proposed timetable for inspection

DATE	TIME	ACTIVITY
<b>Onshore component</b>		
TBA should a visit to the regulated business premises be required		



## Appendix B: Legislative basis and conduct of the inspection

### B.1: Legislative basis for the inspection

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has directed NOPSEMA Inspectors to conduct the inspection in accordance with Clause 3(3) of Schedule 2A to the Commonwealth *Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

The inspection includes consideration of:

- Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009.
- The accepted permissioning documents (see Section 1 above).
- ALARP/ Acceptable/ continual improvement.

### B.2: What to expect from a NOPSEMA inspection

This inspection may be carried out in three stages. Where an inspection is conducted onshore (office based), the activities related to offshore inspections are not applicable. While the three stages are in order, the activities within each stage may be conducted (as relevant) in a different order to that listed below:

#### Prior to the inspection:

- Review of the relevant sections of the Environment Plans and associated conditions.
- Review of evidence, procedures, documents and records requested from, and provided by, the duty holder.
- Preparation of paperwork for the inspection.
- Conduct pre-inspection meeting to discuss format of inspection and confirm dates for the onshore meetings if relevant.

#### During the inspection:

- Onshore meetings and interviews related to Topic 1.
- Facility inductions and an entry meeting at the facility.
- Conducting interviews with management, Health and Safety Representatives, and members of the workforce.
- Inspection at the facility regarding plant and equipment.
- Reviewing or sighting relevant documents at the facility.
- Collating preliminary observations/findings from the inspection.
- Consultation with Health and Safety Representatives and members of the workforce.

#### At the conclusion of the inspection:

- An exit meeting will be held to discuss the observations and potential findings of the offshore inspection.



- A written summary of the principal observations from the inspection, communicating both positive features and areas of opportunity for improvement, will be provided.
- Onshore follow-up meeting(s) will be conducted where the inspection team is in a position to detail the findings from the offshore inspection. This meeting is held to discuss:
  - The findings from both the onshore and offshore components of the inspection.
  - Follow-up meetings for remaining inspection scope items (if required).

**Feedback on the conduct of the inspection may be provided to NOPSEMA at the meetings or electronically via the NOPSEMA website.**

Form 3 (adapted)  
Rule 29.02(8)

**Annexure certificate**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and  
others named in the schedule**

Respondents

This is the annexure marked [REDACTED]-6 produced and shown to [REDACTED] at the time of affirming his affidavit this 11 September 2023.

---

Filed on behalf of: Woodside Energy Scarborough Pty Ltd and Woodside Energy (Australia) Pty Ltd,  
the Second and Third Respondents

Prepared by: Jeremy Quan-Sing

Law firm: Allens

Tel: (08) 9488 3700

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# **Scarborough 4D B1 Marine Seismic Survey Environment Plan – Acceptance Condition 6 Report**

30/08/2023

## TABLE OF CONTENTS

<b>1.</b>	<b>CONDITION 5</b> .....	<b>3</b>
1.1	Condition 5a.....	3
1.2	Condition 5b.....	4
<b>2.</b>	<b>CONDITION 6</b> .....	<b>5</b>
2.1	Condition 6a.....	5
2.2	Condition 6b.....	5
	<b>ATTACHMENT A</b> .....	<b>6</b>
	<b>ATTACHMENT 1</b> .....	<b>10</b>
	<b>ATTACHMENT 2</b> .....	<b>11</b>
	<b>ATTACHMENT 3</b> .....	<b>12</b>
	<b>ATTACHMENT 4</b> .....	<b>13</b>

# 1. Condition 5

## 1.1 Condition 5a

### Condition 5

At any time, prior to or during the activity, if new cultural features and/or heritage values of places within the environment that may be affected by the activity are identified that are not described in the EP, the titleholders must:

- a. Ensure the environmental impacts and risks of the activity continue to be managed to as low as reasonably practicable and an acceptable level.
- b. Notify NOPSEMA in writing within 7 days of these cultural and/or heritage values of places and the potential environmental impacts and risks.

In accordance with the requirements of condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan acceptance, Woodside provided the following notification to NOPSEMA on 16 August 2023.

On 25 July 2023, Woodside met with Ms Alec, Ms Cooper and Save Our Songlines (JA/RC/SOS) to provide a further opportunity for consultation and for information on cultural features and/or heritage values to be shared with Woodside. During the meeting, JA/RC/SOS informed Woodside that they would not be speaking to Woodside about their cultural interests, nor providing any information or feedback at that stage, this was despite agreeing with Woodside to do so prior to the meeting (as reflected in 27 July 2023 email from ██████████ to Jessica Border, cc Sue McCarrey)

Based on the discussion at the meeting on 25 July 2023, Woodside did not consider that JA/RC/SOS provided information on new cultural features and/or heritage value of places to trigger the reporting requirement under condition 5.

On 9 August 2023, as part of NOPSEMA's inspection (No. 4846), the transcript of the 25 July 2023 meeting was shared with NOPSEMA inspectors. NOPSEMA formed the view that the transcript indicated that JA/RC/SOS did refer to cultural features and/or heritage values of places within the environment that may be affected by the Scarborough seismic activity.

Accordingly, Woodside has reflected topics contained in the transcript of the meeting with JA/RC/SOS as topics that may be considered as new cultural features and/or heritage value of places. For the avoidance of doubt and in accordance with the requirements of Attachment 1, condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan, Woodside notifies NOPSEMA of the following:

Topic Raised by JA/RC/SOS
A concern about potential impacts to whales.
A general information request about 'the rest of the animals', including turtle migrations, dugong, other migratory species, plankton and seagrass.
An interest regarding songlines and 'especially where the freshwater and saltwater meet'
A concern about impacts to the songlines, energy lines and animals from seismic activity

Woodside undertook an initial assessment of the information above and considered that any potential new environmental impacts and risks arising from the topics raised during consultation by JA/RC/SOS are currently managed to as low as reasonably practicable (ALARP) and an acceptable level.

## 1.2 Condition 5b

On 17 August 2023, Woodside provided the following information by way of notification to NOPSEMA.

### **Cultural Features and/or Heritage Values**

Woodside has undertaken archaeological assessments and ethnographic surveys to identify potential cultural features and heritage values that may be impacted by Scarborough activities. These works have not identified cultural features and heritage values which may be impacted by the activities planned under this EP. However, through consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment that First Nations people hold. Topics raised during consultation with JA/RC/SOS, outlined in the email below, may refer to cultural features and heritage values within the EMBA and are summarised as:

Add text in s. 4 around cultural interests being communally held. The physical presence of vessels and seismic activity in the Operational Area, or an accidental hydrocarbon release, may lead to interactions affecting some of these cultural features and heritage values.

### **Source of Impact/Risk**

- Vessel presence and seismic activity affecting cultural features and heritage values (as listed above).
- Accidental hydrocarbon release affecting cultural features and heritage values.

### **Impact/Risk Classification:**

Planned activities:

- E (Slight)
- Social and Cultural – Slight, short-term impact (less than one year) to a community or areas/items of cultural significance (as listed above).

Unplanned events:

- D1 (Moderate)
- Social and Cultural – Minor, short-term impact (one to two years) to a community or highly valued areas/items of cultural significance (as listed above).
- Highly unlikely – Has occurred once or twice in the industry.

Woodside has committed to ongoing engagement to further understand these values and to inform potential control measures that may be adopted to ensure that such risks are re-evaluated and continue to be managed to ALARP and acceptable levels.



## 2. Condition 6

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### 2.1 Condition 6a

#### Condition 6

The titleholders must submit a report to NOPSEMA no later than 14 days after the notification in Condition 5 which confirms the following:

- a. The control measures that have been adopted to ensure that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable and an acceptable level.
- b. The consultation undertaken with any relevant persons to develop those control measures including
  - i. The control measures that those persons considered reasonably necessary to manage impacts on the cultural features and/or heritage values in accordance with indigenous tradition; and
  - ii. The views of the relevant persons in relation to the control measures

Please see Attachment A below which provides a summary of the Seismic EP changes that Woodside has adopted to address the topics outlined in section 1.1 (above). This includes updates to the description of the environment; updates to the evaluation of environmental impacts and risks; amendments to the environmental performance outcomes and standards and the implementation strategy to minimise environmental impacts and risks to ALARP and acceptable levels.

### 2.2 Condition 6b

On 21 August 2023, Woodside offered to consult with JA/RC/SOS on changes Woodside proposed to make to the Seismic EP that were designed to incorporate the topics outlined in section 1.1 (above) and the control measures proposed to be adopted to manage the potential impacts and risks of the activity to ALARP and acceptable levels. This offer of consultation was in addition to an offer made by Woodside on 25 July 2023 for a fortnightly meeting with JA/RC/SOS, which was declined.

JA/RC/SOS have not provided information or feedback to Woodside on the information provided to JA/RC/SOS on 21 August 2023. Woodside has never-the-less committed to ongoing consultation with JA/RC/SOS, including by way of an invitation to an on-country workshop in September, driven by the availability of JA/RC/SOS. The on-country meeting place is consistent with consultation requirements from JA/RC/SOS.

Woodside will provide the outcomes of this consultation to NOPSEMA, in accordance with condition 6b including, if provided by JA/RC/SOS:

- The control measures that JA/RC/SOS considered reasonably necessary to manage impacts on the cultural features and/or heritage values in accordance with Indigenous tradition; and
- The views of JA/RC/SOS in relation to the control measures.

Should consultation with JA/RC/SOS identify a measure or control that requires implementation or update to meet the intended outcome of consultation (see Section 5.2), Woodside will apply its “Management of Knowledge” process and “Management of Change” process as outlined in Section 7.6.1.2 and 7.7 of the Seismic EP respectively.

## Attachment A

EP content requirements	Topics Raised by Ms Alec, Ms Cooper and Save Our Songlines	Reference
	<i>Potential impacts to whales</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	
13(2-3) Description of the environment	<p><b>Section 4</b> (Description of the Environment) has been amended to include reference to the potential cultural interest in whales.</p> <p>This section has also been updated to generally reflect that through outcomes from consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment that Woodside understand that First Nations people hold. The definition of 'environment' under the Regulations has also been included as a footnote to clarify that cultural features and heritage values are part of the environment.</p>	Attachment 1
13(4) Requirements	No changes made to the EP.	NA
13(5-6) Evaluation of environmental impacts and risks	<p>Updates have been made to Section 6.6.2 to assess potential impacts to environmental values of potential cultural interest to First Nations, including whales.</p> <p>The potential impact consequence from noise emissions on cultural features and heritage values has been assessed as having slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) is anticipated. Any impacts are expected to be slight or less.</p>	Attachment 3
13(7) Environmental performance outcomes and standards	<p>Controls currently adopted in the EP to 'Undertake seismic acquisition in a manner that prevents injury to whales, and minimises the potential for biologically significant behavioural disturbance (EPO 4)'</p> <ul style="list-style-type: none"> <li>• The use of trained Marine Fauna Observers to implement management procedures and adaptive management measures to minimise potential impacts to pygmy blue whales and other whales from seismic noise.</li> <li>• Dedicated spotter vessel deployed ahead of the seismic vessel.</li> <li>• Operation of the seismic source will not occur within 25 km of the pygmy blue whale migration BIA.</li> <li>• The use of passive acoustic monitoring system to detect odontocete whales (specifically sperm and beaked whales) to implement adaptive management measures at night.</li> </ul> <p>Additional controls have also been adopted to limit the extent of acoustic emissions:</p> <ul style="list-style-type: none"> <li>• Seismic source will be validated against noise sources assessed as acceptable in the EP and will not be discharged outside of the Active Source Area to limit the extent of underwater noise.</li> <li>• A 40 km separation distance will be applied between the activity and any identified concurrent seismic surveys.</li> </ul>	Attachment 2 and 3

	In addition, EPO 18 has been developed and adopted to manage new information on cultural values and control C 1.6 has been updated to provide transparency on sightings of marine migratory species.	
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4
15 (1-3) Details of titleholder and liaison person	No changes made to the EP.	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA
	<i>A general information request about 'the rest of the animals', including turtle migrations, dugong, other migratory species, plankton and seagrass.</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	NA
13(2-3) Description of the environment	<p><b>Section 4</b> (Description of the Environment) has been amended to include acknowledgement of the potential cultural interest in animals, including turtles, dugongs, plankton and seagrass. Noting that dugongs and seagrass are not expected within the Operational Area or EMBA.</p> <p>Given that there are no marine turtle BIAs or Habitat Critical within the Operational Area, and the nearest are located 135 km south-east of the Operational Area, marine turtles are unlikely to occur within the area of potential impact. It is noted for completeness that there may be individuals who transit through the area.</p>	Attachment 1
13(4) Requirements	No changes made to the EP.	NA
13(5-6) Evaluation of environmental impacts and risks	<p>Updates have been made to Section 6.6.2 to assess potential impacts to environmental values of potential cultural interest to First Nations, including turtles and plankton.</p> <p><b>Marine turtles</b> Based on the location offshore and distance from marine turtle BIAs and habitat critical, should any marine turtles occur impacts would be limited to behavioural disturbance to an individual within a localised area.</p> <p><b>Plankton</b> These areas experience high natural variability and therefore it is expected any impacts to zooplankton will be minimal at a regional scale and unlikely to result in impacts to high order trophic levels.</p> <p><b>Summary</b> Based on the potential impacts described above and management of the activity, cultural values are considered to be inherently protected.</p> <p>The potential impact consequence from noise emissions on cultural features and heritage values has been assessed as having a slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) are anticipated. Any impacts are expected to be slight or less.</p>	Attachment 2 and 3
13(7) Environmental performance outcomes and standards	Addition of a new EPO 18 and related standard developed and adopted to manage new information on cultural values and control C 1.6 has been updated to provide transparency on sightings of marine migratory species.	Attachment 2 and 3
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4

15 (1-3) Details of titleholder and liaison person	No changes made to the EP.	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA
	<i>An interest regarding songlines and 'especially where the freshwater and saltwater meet' and dreaming</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	NA
13(2-3) Description of the environment	<b>Section 4</b> (Description of the Environment) has been amended to include acknowledgement of the cultural interest in potential songlines, 'especially where the freshwater and saltwater meet'. In addition, a description of songlines, their connection to physical features and importance to First Nations has been included, based on literature.	Attachment 1
13(4) Requirements	No changes made to the EP.	NA
13(5-6) Evaluation of environmental impacts and risks	Updates have been made to Section 6.6.1 to consider the potential impacts to potential songlines from the activity. The potential impact consequence from the physical presence of vessels on cultural features and heritage values has been assessed as having slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) is anticipated. Any impacts are expected to be slight or less.	Attachment 2 and 3
13(7) Environmental performance outcomes and standards	Addition of new EPOs, EPO17 and EPO 18 and associated EPS'.	Attachment 2
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4
15 (1-3) Details of titleholder and liaison person	No changes made to the EP.	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA
	<i>A concern about impacts to the songlines, energy lines and animals from seismic activity</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	NA
13(2-3) Description of the environment	<b>Section 4</b> (Description of the Environment) has been amended to include acknowledgement of potential songlines and energy lines (topics raised during consultation). In addition, a description of songlines, their connection to physical features and importance to First Nations has been included, based on literature.	Attachment 1
13(4) Requirements	No changes made to the EP	NA
13(5-6) Evaluation of environmental impacts and risks	Updates have been made to Section 6.6.1 to consider the impacts to potential songlines from the activity. <ul style="list-style-type: none"> <li>The potential impact consequence from the physical presence of vessels on cultural features and heritage values has been assessed as having a slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) are anticipated. Any impacts are expected to be slight or less.</li> </ul>	Attachment 2 and 3

13(7) Environmental performance outcomes and standards	As per previous (please see above)	
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4
15 (1-3) Details of titleholder and liaison person	No changes made to the EP	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA

---

**Attachment 1**

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## 4.10 Socio-Economic Environment

### 4.10.1 Cultural Values and Heritage

#### 4.10.1.1 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 Area and EMBA and the cultural features of the Operational Area and EMBA are described.

In line with The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (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 (ICOMOS 2013).

Woodside has undertaken archaeological assessments and ethnographic surveys to identify potential cultural values or features that may be impacted by Scarborough activities. These works have not identified heritage places, objects or values which will be impacted by the activities planned under this EP. However, through consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment<sup>2</sup> that First Nations people hold.

#### 4.10.1.2 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. While acknowledging that cultural features and heritage values may exist outside of the native title framework, native title claims, determinations and ILUAs are defined under the Native Title Act 1993 (Cth). 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 (Native Title Tribunal).

<sup>2</sup>Definition of 'Environment' in Regulation 4 of the OPPGS (Environment) Regulations are defined as:

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



### **Feedback Received via Consultation to Inform Existing Environment Description**

Indigenous 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” (Heritage Chairs of Australia and New Zealand 2021). 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 with relevant persons, Registered Native Title Bodies Corporate have identified or raised topics relating to environmental values of cultural interest. These include a broad interest in the marine fauna, including whales, sharks and turtles (See Table 5-4).

In addition, some persons or organisations who identified as a relevant person in relation to First Nations cultural heritage, have indicated knowledge of cultural features or heritage values potentially affected by this PAP. These cultural features or heritage values may not have been raised through Woodside’s consultation with the indigenous community representatives and elders, including through MAC and Wirrawandi Aboriginal Corporate who represent the communities which these persons or organisations identified with (See Table 5-4).

It is feasible that additional cultural and broader interests in the environment are known, but no further definition has been shared with Woodside. These are identified below:

- Whales (including migration patterns)
- Turtles
- Dugongs
- Plankton
- Seagrass
- Energy lines (unspecified)
- Songlines and dreaming (unspecified)
- Where saltwater and freshwater meet

Seagrasses are a primary producer, i.e., they are dependent on sunlight for photosynthesis (energy production for growth and reproduction) and therefore have not been recorded and are not predicted to occur in the EMBA as water depths are over 200 m (Table 4-4). As dugongs feed exclusively on seagrass they are also not predicted to occur within the EMBA (Appendix C). In addition, there are no freshwater systems within the EMBA.

The marine ecosystem description in Section 4.10.1.5 encompasses the description of the cultural features and Sections 4.6.2 and 4.6.3 provides a description of turtles and marine cetaceans respectively.

Woodside has committed to ongoing engagement to further understand these values. The Program of Ongoing Engagement with Traditional Custodians (Appendix J), provides a mechanism for ongoing dialogue between Woodside and Traditional Custodians. The program enables Woodside to manage uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside’s activities via ongoing dialogue with Traditional Custodians. As an example Woodside is developing a framework for ongoing consultation with BTAC (Section 7.4). 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 7.7).

#### **4.10.1.6 Intangible Cultural Features**

Oral Songlines are often described by Aboriginal 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 Aboriginal people (Higgins 2021:723). Songlines demonstrate Aboriginal 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 in order to prevent the fragmenting or breaking apart of songlines and loss of sacred cultural knowledge. While no specific details of songlines have been provided by relevant persons during consultation for this Activity, it can be confirmed that no landforms typical of songlines have been identified or are anticipated to be impacted by the Activity.

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).

#### 4.10.1.7 Indigenous 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 Indigenous 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, Benjamin et al 2023; 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 (see Figure 4-12) as an area where potential Indigenous archaeological material may exist on the seabed, as this covers the full extent of this possible Indigenous occupation. The Operational Area does not overlap the Ancient Landscape. There is slight overlap of the EMBA with the Ancient Landscape but no potential for seabed disturbance from planned activities and therefore no potential for impacts to archaeological material.

Known Indigenous heritage places including archaeological sites may be protected **subject to declarations** under the Aboriginal and Torres Strait Islander Heritage Protection Act 1984,

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## **Attachment 2**

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

### 6.6.1 Physical Presence: Interactions with Other Marine Users and Values

Context														
Activity Components – Section 3.5				Socio-Economic Environment – Section 0				Stakeholder Consultation – Section 5						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted							Evaluation						
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-Economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcomes
Displacement of other marine users – proximity of project vessels (and submersible equipment) interfering with or displacing third party vessels (commercial fishing, recreational fishing/tourism, research/monitoring programs and commercial shipping)							X	A	E	-	-	GP	Broadly Acceptable	EPO 1, 2
Potential interactions with proposed oil and gas activities							X							
Interactions affecting Cultural Values and Heritage.								C	E	!	!	LC S, GP	Broadly Acceptable	EPO 17, 18
Description of Source of Impact														
<p><b>Project Vessels (including the towed seismic equipment)</b></p> <p>The Petroleum Activities Program will be conducted using a single seismic vessel. A temporary 3 nm SNA will be maintained around the seismic vessel and towed array (comprising the airgun array and streamer array, which includes header buoys, starboard and port deflectors or baravanes, streamers and tail buoys) during seismic operations. Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels.</p> <p>The support vessel will accompany the seismic vessel to re-supply it with fuel and other logistical and operational supplies (including taking the seismic vessel under tow, if required). An additional chase vessel may be used to manage interactions with shipping and fishing activities, if required. It is intended that a dedicated spotter vessel with two MFOs aboard will be deployed ahead of the seismic vessel during all activities with seismic source discharge.</p>														

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## Impact Assessment

### Potential Impacts to Environmental Values

#### Commercial Fishing

Potential for interaction with commercial fisheries is a common consideration for marine seismic surveys. Should any commercial fishing activities occur within the Operational Area, commercial fishers may be asked to deviate from fishing grounds periodically to accommodate seismic survey operations, any potential interactions with commercial fisheries would be short term due to the transient nature of the seismic vessel and the small area occupied by the seismic vessel (and SNA) at any one time, and limited to operational inconvenience (navigational hazard) and temporary displacement from fishing grounds within the Operational Area.

There are a number of Commonwealth and State managed fisheries with management areas that overlap with the Operational Area, however, none of these fisheries have conducted any fishing activities within the Operational Area in at least the last 10 years. There is only one Commonwealth managed fishery (Western Deepwater Trawl Fishery) and one State managed fishery (West Coast Deep Sea Crustacean Managed Fishery) that have historically had catch/effort within the Operational Area prior to 2010. There has been no recent fishing catch/effort within the Operational Area from 2008-2019 (Woodhams and Bath 2017; Patterson et al., 2020) and 2018- 2022 (DPIRD, 2022), respectively (refer to **Section 4.10.2**). The Operational Area is located in water depths ranging from about 800-1150 m, located outside of the depth range where significant fisheries effort normally occurs.

Given the lack of fishing catch/effort in the Operational Area in recent years, it is expected that there will be no impact to commercial fisheries as a result of the presence of the proposed Scarborough 4D B1 MSS.

#### Recreational Fishing and Tourism Operations

The presence of project vessels and submersible equipment has the potential to impact third party vessels within or adjacent to the Operational Area. Interactions could result in short-term displacement of vessels as they make course alterations to avoid the project vessels (and associated towed seismic equipment in the SNA)

However, the Operational Area is considered too far offshore for recreational fishing or tourism activities to occur. Therefore, it is expected that there will be no impact to recreational fishing or tourism activities as a result of the presence of the proposed Scarborough 4D B1 MSS.

#### Commercial Shipping

The presence of project vessels and submersible equipment may cause temporary disruptions to commercial shipping. Moderate density shipping traffic may be encountered in the northeast corner of the Operational Area.

The potential impacts to commercial shipping vessels are expected to include short-term displacement of vessels as they make slight course alterations to avoid the project vessels (and associated towed seismic equipment in the SNA).

#### Oil and Gas Activities

No oil and gas production wells or facilities are located within the Operational Area (refer to **Figure 4-15**). Therefore, no impacts to oil and gas activities are expected.

#### Defence

The DoD did not identify any activities within the NWXA however the potential for UXOs was raised. Based on the locations of the proposed activity and potential UXOs it was determined that there is no credible risk from UXOs for the proposed activity.

#### Cultural Values and Heritage

The physical presence of vessels in the Operational Area may lead to interactions affecting cultural features and heritage value of place. Despite requesting it in consultation, information relating specifically to potential cultural values has not been provided to Woodside. No specific information has been provided relating to current songlines (currently undefined) and energy lines (currently undefined) that were indicated as topics during consultation with traditional custodians. To address this uncertainty, Woodside is implementing a program of ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program (C1.7 and C1.8). While no specific details of songlines have been provided by relevant persons during consultation for this Activity, no landforms typical of songlines are anticipated to be impacted by the Activity.

The potential impact consequence from the physical presence of vessels on cultural features and heritage values may be slight (E) and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) impacts are expected to be slight or less.

#### Cumulative Assessment

##### Commercial Fishing

As above, there has been no recent fishing catch/effort within the Operational Area for the Commonwealth Western Deepwater Trawl Fishery (2008-2019) and WA West Coast Deep Sea Crustacean Managed Fishery (2010-2019), and therefore no impacts to commercial fisheries are expected. There are no other known seismic surveys planned to occur in these fisheries and, therefore, no cumulative impacts are expected.

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**Commercial Shipping**

The Operational Area overlaps with a shipping fairway and north-south international shipping traffic. There are no other known seismic surveys planned to occur on the west coast of WA that may interact with the same international vessels within the fairway and, therefore, no cumulative impacts to shipping are expected.

**Summary of Potential Impacts to Environmental Values(s)**

Given the adopted controls, it is considered that physical presence of project vessels (including towed seismic equipment) will not result in a potential impact greater than slight, short-term temporary displacement of commercial shipping. Commercial vessels may be required to make small alterations to their course to avoid the project vessels (and associated towed seismic equipment in the SNA) but these interactions can be managed in accordance with standard maritime practices.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>5</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Woodside will ensure the environmental impacts and risks of the activity continue to be managed to as low as reasonably practicable and an acceptable level for cultural values or features.	F: Yes CS: Minimal costs	This will ensure the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if relevant impacts to cultural values are identified.	Required by OPGGS (Environment) Regulations	Yes C 1.8
<b>Good Practice</b>				
Notify AHO of activities and movements no less than four weeks before the scheduled activity commencement date.	F: Yes CS: Minimal cost. Standard practice.	Notification to AHO will enable them to generate navigation warnings (Maritime Safety Information Notifications (MSIN)) and NTM and NTA [including AUSCOAST warnings where relevant]).	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.1
Notify AMSA Joint Rescue Coordination Centre (JRCC) of activities and movements 24–48 hours before the scheduled activity commencement date.	F: Yes CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program 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 C 1.2
Notify relevant government departments, fishing industry representative bodies, fishery licence holders, and other oil and gas operators (if agreed during consultation) of activities prior to commencement and upon completion of activities	F: Yes CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program 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 C 1.3
Engage with proponents identified as having potential concurrent	F: Yes	Communication of the Petroleum Activities Program to other marine	Benefits outweigh cost/sacrifice.	Yes C 1.4

<sup>5</sup> Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>5</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
activities within the Operational Area prior to commencing the Petroleum Activities Program and develop an operations plan including the following aspects: <ul style="list-style-type: none"> <li>communications</li> <li>work programming</li> <li>hazard management</li> <li>emergency response.</li> </ul>	CS: Minimal cost. Standard practice.	users ensures they are informed and aware, thereby reducing the likelihood of interference with other marine users.	Control is also standard practice.	
Notify Defence of activities and movements no less than five weeks before the scheduled activity commencement date	F: Yes CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program 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 1.5</b>
Establish and maintain a publicly available website to include both: <ul style="list-style-type: none"> <li>an interactive map which provides persons with updated information on activities being conducted as part of the Petroleum Activities Program, including location of seismic vessel and</li> <li>cetaceans and marine turtle observations</li> </ul>	F: Yes. CS: Minimal cost	A publicly available website will allow transparency of the activity for other marine users including First Nations.  The interactive map provides additional/alternate method for marine users to obtain information on the timing of activities, thereby reducing the likelihood of interference with other marine users.  The data logs of marine fauna observations will provide demonstrations of potential interactions with marine fauna, including whales and turtles.	Benefits outweigh cost/sacrifice.	Yes <b>C 1.6</b>
Establish and maintain a 3 nm radius SNA around the seismic vessel and towed array.	F: Yes CS: Minimal cost. Standard practice.	Presence of the SNA will reduce the likelihood of interfering with other marine users.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes <b>C 2.1</b>
At least one dedicated support/chase vessel will be employed to assist the seismic vessel.	F: Yes CS: Minimal cost. Standard practice.	Use of a support/chase vessels to assist the seismic vessel will reduce the likelihood of an interaction with a third party vessel.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes <b>C 2.2</b>
Project vessels to operate AIS, and tail buoys will be fitted with lights, Global Navigation Satellite	F: Yes CS: Minimal cost. Standard practice.	Use of AIS on project vessels, and lights, virtual AIS and GNSS on tail buoys will reduce the	Benefits outweigh cost/sacrifice.	Yes <b>C 2.3</b>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>5</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
System (GNSS) and virtual AIS.		likelihood of an interaction with a third party vessel.	Control is also standard practice.	
<p>Woodside will consider evidence based claims from commercial fishing licence holders where:</p> <ul style="list-style-type: none"> <li>There is genuine displacement from undertaking normal fishing activities that results in demonstrable economic loss.</li> <li>Deployed fishing equipment has been accidentally lost or damaged by any activities under Woodside's control.</li> <li>There is a loss of catch due to the seismic activity that can be demonstrated</li> </ul>	<p>F: Yes</p> <p>However, due to the absence of commercial fishing in the Operational Area, displacement of fishers are not expected.</p> <p>CS: Time, stakeholder fatigue and potential confusion associated with communicating [Document Title] and engaging with fishers unnecessarily.</p>	<p>Given limited fishing activity has ever taken place in or near the Operational Area and no fishing effort has been reported in over 10 years, the Operational Area does not represent an area that is significant to fisheries and displacement is not expected.</p> <p>Therefore, providing a process for compensation claims provides no benefit.</p>	Cost is grossly disproportionate to the limited benefit gained.	No
Implement a program, which is compliant with Corporate Woodside Policies Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program.	<p>F: Yes</p> <p>CS: Substantial costs</p>	Implementation of this program will allow Woodside to improve their understanding of potential cultural values and Heritage in the Operational Area and or EMBA.	Benefits outweigh cost/sacrifice	Yes C 1.7
<b>Professional Judgement – Eliminate</b>				
Limit activities to avoid peak shipping and commercial fishing activities.	<p>F: No. Shipping occurs year-round and cannot be avoided. Concurrent operations (CONOPS) with fishing seasons cannot be eliminated as fishing activities occur consistency throughout the year, and exact timings and locations of fishing activities are not known.</p> <p>CS: Not considered – control not feasible.</p>	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)<sup>5</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
Eliminate use of vessels.	F: No. The use of vessels is required to conduct the Petroleum Activities Program. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
<b>Professional Judgement – Substitute</b>				
None identified.				
<b>Professional Judgement – Engineered Solution</b>				
None identified.				
<b>ALARP Statement</b>				
On the basis of the environmental impact assessment outcomes and use of the relevant tools appropriate to the decision type (i.e. Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts and risks of the physical presence of the project vessels on other marine users, which is expected to be limited to commercial shipping movements. 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.				

<b>Demonstration of Acceptability</b>
<b>Acceptability Statement</b>
The impact assessment has determined that, given the adopted controls, physical presence of the project vessels (and associated towed seismic equipment in the SNA) is unlikely to result in potential impact greater than slight, short-term impact to other marine users, such as commercial shipping. In addition, these activities will not interfere with other marine users rights to a greater extent than is necessary. Further opportunities to reduce the impacts and risks have been investigated above.
The adopted controls are considered good oil-field practice/industry best practice and meet expectations of AMSA and AHO provided during consultation with stakeholders. The potential impacts and risks are considered broadly acceptable if the adopted controls are implemented.
Woodside has considered Woodside acknowledges that uncertainty on cultural values may remain; however, the Ongoing Program on Traditional Custodian Feedback (EPO 17 and C1.7) has been developed to enable Woodside to manage potential uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside's activities via ongoing dialogue with Traditional Custodians. Any new information identified as part of this process will be managed to ALARP and an Acceptable level of impact (EPO 18 and C 1.8).
Therefore, Woodside considers the adopted controls appropriate to manage the impacts and risks of the physical presence of the project vessels (and associated towed seismic equipment in the SNA) to a level that is broadly acceptable.

<b>Environmental Performance Outcomes, Standards and Measurement Criteria</b>			
<b>Outcomes</b>	<b>Controls</b>	<b>Standards</b>	<b>Measurement Criteria</b>
EPO 1 Marine users are aware of the Petroleum Activities Program.	C 1.1 Notify AHO of activities and movements no less than four weeks before the scheduled activity commencement date.	PS 1.1 Notification to AHO four weeks prior to scheduled commencement to allow for the generation of navigation warnings (MSIN, NTA and NTM [including AUSCOAST warnings where relevant]).	MC 1.1 Consultation records demonstrate that AHO has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.
	C 1.2 Notify AMSA Joint Rescue Coordination Centre (JRCC)	PS 1.2 Notification to AMSA JRCC 24–48 hours prior to the	MC 1.2.1 Consultation records demonstrate that AMSA

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	of activities and movements 24–48 hours before the scheduled activity commencement date.	scheduled commencement date.	JRCC has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.
	<p><b>C 1.3</b></p> <p>Notify relevant government departments, fishing industry representative bodies, fishery licence holders, and other oil and gas operators (if agreed during consultation) of activities prior to commencement and upon completion of activities</p>	<p><b>PS 1.3</b></p> <p>Notification to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per <b>Table 7-2</b></p>	<p><b>MC 1.3.1</b></p> <p>Consultation records demonstrate that relevant stakeholders have been notified prior to commencement of the Petroleum Activities Program within the required timeframes and on completion of activities.</p>
	<p><b>C 1.4</b></p> <p>Engage with proponents identified as having potential concurrent activities within the Operational Area prior to commencing the Petroleum Activities Program and develop an operations plan including the following aspects:</p> <ul style="list-style-type: none"> <li>communications</li> <li>work programming</li> <li>hazard management</li> <li>emergency response</li> </ul>	<p><b>PS 1.4</b></p> <p>A concurrent operations plan developed for any concurrent MSS activities identified within the Operational Area.</p>	<p><b>MC 1.4.1</b></p> <p>Records demonstrate Woodside re-engage with identified proponent before commencing the Petroleum Activities program and developed a concurrent operations plan (if required).</p>
	<p><b>C 1.5</b></p> <p>Notify Defence of activities and movements no less than five weeks before the scheduled activity commencement date.</p>	<p><b>PS 1.5</b></p> <p>Notification to Defence five weeks prior to the scheduled commencement date.</p>	<p><b>MC 1.5.1</b></p> <p>Records demonstrate that Defence has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.</p>
	<p><b>C 1.6</b></p> <p>Establish and maintain a publicly available website to include both:</p> <ul style="list-style-type: none"> <li>An interactive map which provides persons with updated information on activities being conducted as part of the</li> </ul>	<p><b>PS 1.6a</b></p> <p>Activity interactive map established and maintained throughout activities.</p>	<p><b>MC 1.6.1</b></p> <p>Records demonstrate interactive map was provided and available to stakeholders throughout activities.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	Petroleum Activities Program, including location of seismic vessel and <ul style="list-style-type: none"> <li>• cetacean and marine turtle observations</li> </ul>	<b>PS 1.6b</b> Cetacean and marine turtles observations available on a public website	<b>MC 1.6.2</b> Records of marine turtles and cetaceans sightings available on a public website.
<b>EPO 2</b> Prevent adverse interactions between vessels and other marine users during the Petroleum Activities Program	<b>C 2.1</b> Establish and maintain a 3 nm radius SNA around the seismic vessel and towed array.	<b>PS 2.1</b> SNA established, communicated and maintained around the seismic vessel and towed array during the Petroleum Activities Program.	<b>MC 2.1.1</b> Records demonstrate that the SNA has been established and details have been communicated to approaching third-party vessels.
	<b>C 2.2</b> Employ at least one support/chase vessel will be employed to assist the seismic vessel.	<b>PS 2.2</b> At least, one vessel employed to assist the seismic vessel mitigate interactions with third-party vessels.	<b>MC 2.2.1</b> Records demonstrate that a second vessel is employed for the Petroleum Activities Program.
	<b>C 2.3</b> Project vessels to operate AIS, and tail buoys will be fitted with lights, GNSS and virtual AIS.	<b>PS 2.3</b> Project vessels operating AIS and tail boys fitted with lights, GNSS and virtual AIS.	<b>MC 2.3.1</b> Records demonstrate that project vessels operating AIS, and tail boys are fitted with lights, GNSS and virtual AIS.
<b>EPO 17</b> Woodside will actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values.	<b>C 1.7</b> Implement a program, which is compliant with Corporate Woodside Policies Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program.	<b>PS 1.7.1</b> Implement a program, which is compliant with Corporate Woodside Policies, Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program. The Program will include, as agreed with relevant Traditional Custodians: <ul style="list-style-type: none"> <li>• Social investment to support Indigenous ranger programs</li> <li>• Support for Indigenous oil spill response capabilities</li> <li>• Support for recording Sea Country values</li> <li>• Support to Traditional Custodian groups to build capabilities and capacity with respect to ability to engage with Woodside and the</li> </ul>	<b>MC 1.7.1</b> Records demonstrate discussions with relevant Traditional Custodian Groups on proposed partnerships and/or initiatives initiated by Woodside, and responses to feedback provided by Woodside within 4 weeks
			<b>MC 1.7.2</b> Progress of the Program will be reported in line with annual sustainability reporting via the Woodside website.

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
		<p>broader O&amp;G industry on activities</p> <ul style="list-style-type: none"> <li>• Development of ongoing relationships with Traditional Custodian groups</li> <li>• Any other initiatives proposed for the purpose of protecting Country including cultural values</li> </ul>	
<p><b>EPO 18</b></p> <p>New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>	<p><b>C 1.8</b></p> <p>The environmental impacts and risks of the activity will continue to be managed to as low as reasonably practicable and an acceptable level for cultural values or features.</p>	<p><b>EPS 1.8.2</b></p> <p>Consideration of cultural values / new information, through the life of the EP, and the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if impacts to cultural values are identified. Where avoidance is not possible, impact minimisation will be prioritised and demonstrated through a written options analysis / ALARP to ensure an acceptable level of impact. This will be documented through Woodside's Management of Change and Management of Knowledge processes.</p>	<p><b>MC 1.8.1</b></p> <p>Records demonstrate Change Management and Management of Knowledge processes have been followed where new controls or management measures identified.</p>

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## **Attachment 3**

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### Impact Assessment

Noting that no commercial fisheries operate within or near the Operational Area (refer to **Section 4.10.2**) and the Operational Area does not provide suitable habitat or water depths for target fish or crustacean species, no physical or behavioural impacts are predicted to commercial fish stocks and no impacts are predicted to commercial fishery catch rates.

#### *Commercial Fisheries – Impact Assessment Conclusion*

Based on the assessment above and the implementation of the identified control measures, the consequence of occasional short-term and localised disturbance to the target species and catch rates of commercial fisheries is of no lasting effect (less than one month) and impacts will not be significant to commercial fisheries.

#### **Cultural features and Heritage Values**

It is noted that the marine ecosystem holds both cultural and environmental value (See **Section 4.10.1**), with these types of values (cultural and environmental) intrinsically linked any cultural values linked to environment receptors, have been assessed above and below. Woodside has conducted extensive consultation with Traditional Custodian groups as described in Section 5, resulting in the identification of environmental values of cultural interests specified in Section 4.10.1.5.

An assessment of marine environmental values of cultural interest to First Nations is described in Table 6-10.

**Table 6-10: Assessment of potential impacts to marine environmental values of cultural interest to First Nations**

Environmental values of cultural interest to First Nations	Potential impact pathway	Assessment
Whales	Impacts to cetaceans from acoustic emissions resulting in behavioural disturbance.	<p>Potential environmental impacts to cetaceans have been assessed above.</p> <p>Potential impacts from acoustic emissions are expected to be 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 Operational Area are anticipated as a result of acoustic emissions.</p> <p>Numerous controls have been adopted to reduce potential for impact.</p> <p>Cultural values considered to be inherently protected.</p>
Turtles	Impact to turtles from acoustic emissions resulting in behavioural disturbance.	<p>While marine turtles are unlikely to occur in the area of potential impact, if individual turtles are transiting, the potential environmental impacts to turtle behaviour has been assessed.</p> <p>Potential impacts from acoustic emissions on marine turtles are expected to be limited to behavioural impacts within a localised area.</p> <p>Cultural values considered to be inherently protected.</p>
Plankton	Impact to plankton communities from acoustic emissions resulting in localised mortality.	<p>The activity is not likely to result in any ecologically significant impacts at a population level for any zooplankton, fish eggs or larvae</p>

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Impact Assessment		
		<p>that may be present in the water column within or adjacent to the Operational Area. These areas experience high natural variability and therefore it is expected any impacts to zooplankton will be minimal at a regional scale and unlikely to result in impacts to high order trophic levels.</p> <p>Cultural values considered to be inherently protected.</p>
<p>Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) impacts are expected to be slight or less.</p>		
<p>It is acknowledged that there is uncertainty in Woodside's understanding of potential cultural values within the Operational Area and EMBA therefore Woodside is implementing a program of ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program (C1.7).</p>		
<p><b>Marine Protected Areas</b></p> <p><i>Impact Assessment</i></p> <p>As described in <b>Section 4.9</b>, the Operational Area does not overlap with any Commonwealth or State Marine Parks. However, Australian Marine Parks (AMPs) are located in the wider EMBA that are part of the North-west Marine Park Networks.</p> <p>The nearest marine park is the Gascoyne AMP, located 33 km south of the Operational Area and approximately 44 km of the Active Source Area at the closest point. Maximum received sound levels at the boundary of the Gascoyne AMP are predicted to be approximately 140 dB re 1 <math>\mu</math>Pa (SPL).</p> <p>The potential impacts to the natural, social and economic values of the Gascoyne AMP are summarised as follows.</p> <ul style="list-style-type: none"> <li>• Exmouth Plateau KEF – The Operational Area and Active Source Area are located within the KEF. As assessed above, the potential impacts to benthic communities will be highly localised, temporary and negligible in the context of natural variability. The productivity, ecological function and value of the KEF will not be affected.</li> <li>• Continental slope demersal fish communities KEF – The KEF is located over 150 km from the Active Source Area. Underwater sound emissions will not affect the demersal fish communities in this KEF.</li> <li>• Canyons linking Cuvier abyssal plain and Cape Range peninsula KEF – The KEF is located over 105 km from the Active Source Area. Underwater sound emissions will not affect the benthic invertebrate or fish communities in this KEF.</li> <li>• Commonwealth waters adjacent to Ningaloo Reef KEF – The KEF is located over 170 km from the Active Source Area. Underwater sound emissions will not affect the coral reef communities, deep water filter feeder communities or marine fauna that aggregate or migrate within the KEF.</li> <li>• Humpback whale migratory pathway – As assessed above, received sound levels at the humpback whale migration BIA are predicted to be below 130 dB re 1 <math>\mu</math>Pa SPL. No significant behavioural response is expected and the BIA is well beyond the maximum range in which TTS effects could occur.</li> <li>• Pygmy blue whale migratory pathway and possible foraging habitat – As assessed above, the animat modelling demonstrates that TTS effects are not expected to occur in the migration BIA. Impacts to cetaceans are likely to be limited to temporary behavioural changes (avoidance) in individuals migrating through the Operational Area. Received sound levels at the pygmy blue whale foraging BIA are predicted to be below 130 dB re 1 <math>\mu</math>Pa SPL. No significant behavioural response is expected and the foraging BIA is well beyond the maximum range in which TTS effects could occur.</li> <li>• Interesting habitats for marine turtles – As assessed above, no impacts are expected to turtles within designated interesting habitats, which are located over 150 km from the Active Source Area.</li> </ul> <p>Given that the other marine parks within the EMBA are located a greater distance from the Operational Area no impacts will occur as a result of underwater sound from the survey.</p> <p>The objectives of the North-west Marine Parks Network Management Plan are to provide for:</p> <ul style="list-style-type: none"> <li>• the protection and conservation of biodiversity and other natural, cultural and heritage values of marine parks in the North-west Network</li> <li>• ecologically sustainable use and enjoyment of the natural resources within marine parks in the North-west Network, where this is consistent with objective (a).</li> </ul>		

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
		As such the control will be applied throughout the duration of the activity extending beyond the precautionary principle.		
The seismic source will not be discharged outside of the Active Source Area.	F: Yes CS: CS: Minimal cost. Standard practice.	Limits the effects of underwater sound to the extent that is assessed in this EP.	Benefits outweigh cost/sacrifice.	Yes <b>C 5.1</b>
Woodside will ensure the environmental impacts and risks of the activity continue to be managed to as low as reasonably practicable and an acceptable level for cultural values or features.	F: Yes CS: Minimal costs	This will ensure the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if impacts to cultural values are identified.	Benefits outweigh cost/sacrifice	Yes <b>C 1.8</b>
<b>Good Practice</b>				
Seismic source validation.	F: Yes CS: Source modelling can be undertaken at minimal cost and relatively quickly.	If the seismic source selected for the Petroleum Activities Program is different to the source modelled and assessed in Koessler et al. (2021; <b>Appendix G</b> ), then additional source modelling will be undertaken to confirm whether the sound levels are consistent with levels assessed as acceptable in this EP.	Benefits outweigh cost/sacrifice.	Yes <b>C 3.1</b>
No operation of the seismic source within 25 km of the pygmy blue whale migration BIA.	F: Yes CS: Minimal cost. The Active Source Area is located >25 km from the pygmy blue whale migration BIA.	ANIMAT modelling ( <b>Appendix G</b> ) predicts that the maximum range at which pygmy blue whales may experience TTS is at 21.73 km. Preventing operation of the seismic source within 25 km of the pygmy blue whale migration BIA provides some additional conservatism and prevents TTS effects and injury to pygmy blue whales in the migration BIA.	Benefits outweigh cost/sacrifice.	Yes <b>C 4.5</b>
A 40 km separation distance between the Petroleum Activities Program and any identified concurrent seismic survey	F: Yes CS: In the event that other surveys are present in the region, a 40 km separation distance may result in delays due to vessel downtime or loss of survey area.	The Bureau of Ocean Energy Management (BOEM, 2014) published an environmental review of geological and geophysical survey activities in the south Atlantic Ocean. To minimise impacts to marine life by providing a 'corridor' between vessels, the environmental impact statement from this review	Benefits outweigh cost/sacrifice.	Yes <b>C 6.1</b>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
		included a requirement for a 40 km geographic separation distance (based on worst case scenarios) between the sources of simultaneous seismic surveys.		
Record sightings of marine turtles during the activity.	F: Yes CS: Minimal cost	Collecting data on marine turtle presence may assist in increasing understanding of their activity in the Operational Area.	Benefits outweigh cost/sacrifice.	Yes C 5.2
Reduce size of Active Source Area to minimise potential for behavioural responses in pygmy blue whales	F: Yes CS: Significant cost and schedule impacts. The Active Source Area has been designed to cover both the Scarborough and Jupiter fields, so that the survey provides new 3D / baseline 4D seismic data over both fields. Reducing the size of the Active Source Area would mean that the Jupiter extension would have to be acquired as part of a separate additional survey.	<p>There is no overlap between the Active Source Area or the Operational Area with the pygmy blue whale migration BIA.</p> <p>Given the implementation of adaptive management measures and the absence of any TTS effects within the pygmy blue whale migration BIA, the potential impacts of noise emissions from the seismic source on pygmy blue whales are likely to be restricted to temporary behavioural changes (avoidance) in individuals moving through the Operational Area, with predicted noise levels from the seismic acquisition not considered likely to cause injury effects.</p> <p>Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered low. However, based on the recorded presence of one pygmy blue whale overlapping with the Operational Area there may be the occasional individual or small group of whales transiting the area, mostly likely in the peak period of the northbound migration (May and June).</p> <p>An additional control of a dedicated spotter vessel travelling ahead of the seismic vessel increases the ability to detect pygmy blue whales in this peak</p>	Disproportionate. The cost / sacrifice outweighs the benefit gained. Implementing EPBC Policy Statement 2.1 Part A, and selected Part B measures will achieve an acceptable level of risk reduction during the pygmy blue whale northbound and southbound migrations.	No

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Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
Migratory and threatened cetaceans	<p><b>Principles of ESD</b></p> <p>The impact assessment has considered the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes' (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>Woodside Environment and Biodiversity Policy (<b>Appendix A</b>)</li> <li>Woodside Risk Management Policy (<b>Appendix A</b>).</li> </ul> <p><b>External Context</b></p> <p>Impacts to cetaceans was raised during consultation and this feedback was considered in the finalisation of the EP. Woodside recognises that First Nations have cultural interest to whales and this has been raised in consultation. Potential impacts from acoustic emissions are expected to be 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 area are anticipated as a result of acoustic emissions. Therefore this activity is not</p>	<p>The predicted level of impact for migratory and threatened cetaceans is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will be managed in a manner that prevents physical injury or displacement of pygmy blue whales from migration and foraging BIAs</li> <li>the Petroleum Activities Program will be managed in a manner that prevents physical injury to pygmy blue whales and other cetacean species</li> <li>the Petroleum Activities Program will be managed in a manner that reduces potential biologically significant behavioural disturbances to pygmy blue whales and other cetacean species</li> <li>impacts and risks to cultural values have been taken into consideration and by managing the activity to prevent injury and reduce potential biologically significant behavioural disturbances to whales cultural values are considered to be inherently protected</li> <li>the Petroleum Activities Program will be managed in a manner that is consistent with management objectives</li> </ul>

<sup>7</sup> Where these receptors have a cultural connection (as identified in Section 4.10.1) these have also been considered

Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p>expected to have a significant impact on MNES (Section 2.9.2) including those with an Indigenous connection as defined in Section 4.10.1</p> <p><b>Other Requirements</b></p> <p>The proposed control measures exceed the required standards and control measures set out in EPBC Policy Statement 2.1. Part A Standard Management Measures (DEWHA, 2008).</p> <p>The proposed activity and control measures are not inconsistent with the requirements of recovery plans or wildlife conservation plans/advice as demonstrated in Section 6.8. The impact assessment has determined that seismic acquisition may be undertaken in a manner that is not inconsistent with the requirements of the Conservation Management Plan for the Blue Whale, specifically that <i>'Anthropogenic noise in biologically important areas will be managed such that any blue whale continues to utilise the area without injury, and is not displaced from a foraging area'</i>. Acoustic modelling and ANIMAT modelling have demonstrated that TTS effects will not occur in the pygmy blue whale migration BIA and sound levels will not result in displacement from foraging areas.</p> <p>The impact assessment and proposed control measures are consistent with NOPSEMA Acoustic Impact Evaluation and Management Guideline (N-04750-IP1765 Rev2 Dec 2018).</p> <p>No significant or long-term impacts are expected to occur to key habitats of EPBC Act listed species included as values of the Montebello and Gascoyne AMPs.</p>	<p>for relevant WHAs, AMPs, recovery plans and conservation plans/advises</p> <ul style="list-style-type: none"> <li>the predicted level of impact has been reduced to ALARP.</li> </ul> <p><b>Environmental Performance Consideration</b></p> <p>To manage impacts to migratory and threatened cetaceans to an acceptable level, the following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p> <p><b>EPO 4:</b> Undertake seismic acquisition in a manner that prevents injury to whales, and minimises the potential for biologically significant behavioural disturbance.</p> <p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p> <p><b>EPO 6:</b> Undertake seismic acquisition in a manner that reduces potential cumulative impacts resulting from the Petroleum Activities Programme and other seismic survey operations as far as reasonably practicable.</p> <p>To manage impacts to cultural values the following EPO have been applied:</p> <p><b>EPO 18</b></p> <p>New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>
Migratory and threatened marine turtles	<p><b>Principles of ESD</b></p> <p>The Petroleum Activities Program is consistent with the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> </ul>	<p>The predicted level of impact for migratory and threatened marine turtles is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> </ul>

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Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<ul style="list-style-type: none"> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes' (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>Woodside Environment and Biodiversity Policy (Appendix A)</li> <li>Woodside Risk Management Policy (Appendix A).</li> </ul> <p><b>External Context</b></p> <p>During consultation turtles were raised and Woodside recognises that First Nations have cultural interest in turtles. While marine turtles are unlikely to occur in the area of potential impact, if individual turtles are transiting through impacts from acoustic emissions are expected to be restricted to temporary behavioural changes (avoidance). Therefore this activity is not expected to have a significant impact on MNES (<b>Section 2.9.2</b>) including those with an Indigenous connection as defined in <b>Section 4.10.1</b>. This feedback was considered in the finalisation of the EP.</p> <p><b>Other requirements</b></p> <p>The proposed control measures are not inconsistent with the applicable objectives and actions of the Recovery Plan for Marine Turtles (DoEE, 2017a). Specifically, controls measures will 'manage anthropogenic activities to ensure marine turtles are not displaced from identified habitat critical to the survival' of marine turtles and 'given that the impacts of noise are unknown, a precautionary approach [will] be applied to seismic work, such that surveys planned to occur inside important internesting habitat should be scheduled outside the nesting season'. Received noise levels from seismic</p>	<ul style="list-style-type: none"> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will be undertaken in a manner that prevents displacement of marine turtles from Habitat Critical/important internesting habitats during nesting/interesting periods</li> <li>the Petroleum Activities Program will be managed in a manner that is consistent with management objectives for relevant WHAs, AMPs, recovery plans and conservation plans/advises</li> <li>impacts and risks to cultural values have been taken into consideration and by managing activity as described above the cultural values are considered to be inherently protected</li> <li>the predicted level of impact has been reduced to ALARP.</li> </ul> <p><b>Environmental Performance Considerations</b></p> <p>The Petroleum Activities Program will not disturb or displace any individuals from Habitat Critical or internesting BIAs, or result in any ecologically significant impacts at a population level for any species of marine turtle.</p> <p>The following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p>

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Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p>acquisition are not likely to cause injury impacts, displace any individuals from Habitat Critical or interesting BIAs, or result in any ecologically significant impacts at a population level for any species of marine turtle that may be present within or adjacent to the Operational Area during the Petroleum Activities Program.</p> <p>The impact assessment and proposed control measures are consistent with NOPSEMA Acoustic Impact Evaluation and Management Guideline (N-04750-IP1765 Rev2 Dec 2018).</p> <p>Nesting and interesting marine turtle habitats are identified as a natural value of the Montebello and Gascoyne AMPs. No significant impacts to interesting marine turtles are predicted and the Activity will be undertaken consistent with marine park objectives.</p>	<p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p> <p>To manage impacts to cultural values the following EPO have been applied:</p> <p><b>EPO 18</b></p> <p>New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>
Migratory and threatened fishes and elasmobranchs (including whale sharks)	<p><b>Principles of ESD</b></p> <p>The Petroleum Activities Program is consistent with the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to localised impacts with no lasting effect (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>Woodside Environment and Biodiversity Policy (Appendix A)</li> <li>Woodside Risk Management Policy (Appendix A).</li> </ul> <p><b>External Context</b></p>	<p>The predicted level of impact for migratory and threatened fishes and elasmobranchs (including whale sharks) is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>impacts and risks to cultural values have been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will not result in physical injury to migratory and threatened fishes and elasmobranchs (including whale sharks)</li> <li>the Petroleum Activities Program will be managed in a manner that is consistent with management objectives for relevant WHAs, AMPs, recovery plans and conservation plans/advises</li> </ul>

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Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p><b>External Context</b> Impacts to plankton was raised during consultation (<b>Section 5</b>), including as an environmental value of cultural interest to First Nations, and this feedback was considered in the finalisation of the EP.</p> <p>It is expected that impacts to plankton will be minimal at a regional scale and unlikely to result in impacts to high order trophic levels. Therefore this activity is not expected to have a significant impact on MNES (<b>Section 2.9.2</b>) including those with an Indigenous connection with, or traditional use in nearshore areas as defined in <b>Section 4.10.1</b></p> <p><b>Other Requirements</b> No additional legislative requirements applicable to managing the effects of seismic surveys in relation to other identified environment values have been identified.</p>	<ul style="list-style-type: none"> <li>impacts and risks to cultural values have been taken into consideration and by managing activity as described above the cultural values are considered to be inherently protected</li> </ul> <p><b>Environmental Performance Considerations</b> The Petroleum Activities Program will not result in long term impacts to ecosystems/habitats, species and socio-economic values.</p> <p>The following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p> <p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p> <p>To manage impacts to cultural values the following EPO have been applied:</p> <p><b>EPO 18</b> New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	<p>measures procedures will be implemented:</p> <ul style="list-style-type: none"> <li>If there are three or more shut-downs for pygmy blue whales within a 24-hour period (including spotter vessel MFO shutdowns), then the seismic operations must not be undertaken thereafter at night-time or during low visibility conditions.</li> <li>Seismic operations cannot resume at night-time or during low visibility conditions, until there has been a cumulative 24-hour period of seismic operations (daylight hours with good visibility) during which there has been less than three shut-downs for pygmy blue whales.</li> </ul>	<p>measures procedures will be implemented:</p> <ul style="list-style-type: none"> <li>If there are three or more shut-downs for pygmy blue whales within a 24-hour period (including spotter vessel MFO shutdowns), then the seismic operations must not be undertaken thereafter at night-time or during low visibility conditions.</li> <li>Seismic operations cannot resume at night-time or during low visibility conditions, until there has been a cumulative 24-hour period of seismic operations (daylight hours with good visibility) during which there has been less than three shut-downs for pygmy blue whales.</li> </ul>	
	<p><b>C 4.5</b></p> <p>No operation of the seismic source within 25 km of the pygmy blue whale migration BIA.</p>	<p><b>PS 4.5</b></p> <p>No operation of the seismic source within 25 km of the pygmy blue whale migration BIA.</p>	<p><b>MC 4.5.1</b></p> <p>Records demonstrate compliance with the 25 km buffer from the migration BIA.</p>
	<p><b>C 4.6</b></p> <p>EPBC Act Policy Statement 2.1 Part B.3 – Use of additional vessels to detect presence of cetaceans, during all daylight activities with seismic source discharge activities:</p> <ul style="list-style-type: none"> <li>Use of two MFOs aboard a dedicated spotter vessel travelling ~5 km out ahead of the seismic vessel and acoustic array to implement C 4.1.</li> </ul>	<p><b>PS 4.6</b></p> <p>Use of two MFOs aboard a dedicated spotter vessel ahead of the seismic vessel to implement C 4.1.</p>	<p><b>MC 4.6.1</b></p> <p>Records demonstrate the use of two MFOs aboard a dedicated spotter vessel.</p>
			<p><b>MC 4.1.1 refer to above.</b></p>
<p><b>EPO 5</b></p> <p>Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p>	<p><b>C 5.1</b></p> <p>No operation of the seismic source outside of the Active Source Area.</p>	<p><b>PS 5.1</b></p> <p>No operation of the seismic source outside of the Active Source Area.</p>	<p><b>MC 5.1.1</b></p> <p>Records demonstrate compliance with seismic source operation exclusively within the Active Source Area.</p>
	<p><b>C 5.2</b></p> <p>Record sightings of marine turtles during the activity.</p>	<p><b>PS 5.2</b></p> <p>All sightings of marine turtles will be recorded.</p>	<p><b>MC 5.2.2</b></p> <p>Marine fauna logs demonstrate marine turtle sightings logged.</p>

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<b>Environmental Performance Outcomes, Standards and Measurement Criteria</b>			
<b>Outcomes</b>	<b>Controls</b>	<b>Standards</b>	<b>Measurement Criteria</b>
<b>EPO 6</b> Undertake seismic acquisition in a manner that reduces potential cumulative impacts resulting from the Petroleum Activities Programme and other seismic survey operations as far as reasonably practicable.	<b>C 6.1</b> A 40 km separation distance between the Petroleum Activities Program and any identified concurrent seismic survey	<b>PS 6.1</b> A 40 km separation distance between the Petroleum Activities Program and any identified concurrent seismic survey	<b>MC 6.1.1</b> Records demonstrate compliance with the 40 km separation distance. Records demonstrate consultation with other seismic companies of seismic surveys and titleholders with acreage within 40 km of the Operational Area prior to commencement of the activity.
<b>EPO 18</b> New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.	<b>Refer to C 1.8</b>	<b>Refer to EPS 1.8.2</b>	<b>Refer to MC 1.8.1</b>



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## **Attachment 4**

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## 7.10.2 Routine Reporting (External)

### 7.10.2.1 Ongoing Consultation

In accordance with Regulation 14 (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's approach to ongoing consultation is that feedback and comments received from relevant persons and additional persons continue to be assessed and responded to, as required, through the life of an EP, including during EP assessment and throughout the duration of the accepted EP, in accordance with the intended outcome of consultation (as set out in **Section 5.2**).

Woodside proposes to undertake the engagements with directly impacted relevant persons and additional persons listed in **Table 7-3**. Relevant new information identified during ongoing consultation will be assessed using the EP Management of Knowledge (refer to **Section 7.6.1.2** and Management of Change Process (refer to **Section 7.7**).

Woodside has developed a Program of Ongoing Engagement with Traditional Custodians (**Appendix J**), directly informed by feedback from Traditional Custodians. It provides a mechanism for ongoing dialogue 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. The program enables Woodside to manage uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside's activities via ongoing dialogue with Traditional Custodians.

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 **Section 5.2**), Woodside will apply its EP Management of Knowledge process (refer to **Section 7.6.1.2**) and Management of Change process (refer to **Section 7.7**), 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 Petroleum Activities Program particularly during SIMOPS. The interactive map is available on Woodside's website (**Section 6.6.1, PS 1.6**).

The ongoing consultation engagements that Woodside intends to progress for this EP are set out in the table below.

**Table 7-3: Ongoing consultation engagements**

Report/ Information	Recipient	Purpose	Frequency	Content
Program of Ongoing Engagement with	Relevant cultural authorities	Identification, assessment and consideration of cultural values relevant to	Ongoing	Assessment of cultural values Any relevant new information on cultural

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Controlled Ref No: SA0006AH1401760303

Revision: 8

Woodside ID: 1401760303

Page 380 of 425

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Report/ Information	Recipient	Purpose	Frequency	Content
Traditional Custodians (Appendix J)		the Operational Area and Consultation Area		values will be assessed using the EP Management of Knowledge (ref to <b>Section 7.5</b> ) and Management of Change Process (refer to <b>Section 7.7</b> ).
Notification (email)	AHO	As requested by AMSA during consultation.	No less than 4 weeks prior to commencement.	<b>PS 1.1 (Section 6.6.1)</b> 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	<b>PS 1.2 (Section 6.6.1)</b> 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)	DoD  Air Services Australia	As requested by DoD during consultation  If Notice to Airmen notification is required for activities in Restricted Airspace.	Five weeks prior to commencement of activities.	<b>PS 1.5 (Section 6.6.1)</b> Date of activity start.
Notification (email)	DMIRS	Good practice	At least 10 days prior to commencement.	Activity start date
Notification (email)	AFMA WAFIC CFA DPIRD Recfishwest DAFF – Fisheries Individual fishery licence holders that have the potential to be directly impacted by planned activities in the Operational Area (no relevant fisheries identified at time of EP submission) Eni	Good practice or as requested during consultation	At least 10 prior to commencement and following completion of activities.	<b>PS 1.3 (Section 6.6.1)</b> Date of activity start and end.
Notification (email)	All Relevant Persons for the Proposed Activity	Notification of significant change	As appropriate	Notification of significant change. Any relevant new information will be assessed using the EP

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### **Proposed Program of Ongoing Engagement with Traditional Custodians**

This Program of Ongoing Engagement with Traditional Custodians (“Program”) has been developed to demonstrate Woodside’s commitment to ongoing engagement and support of Traditional Custodians’ capacity to care for and manage Country, including Sea Country, and has been directly informed by Traditional Custodians’ feedback regarding their capacity to engage and consult on Environment Plans.

It is a living document designed to evolve with ongoing consultation and feedback from Traditional Custodians and, at a minimum, will be subject to annual review. In addition to this Program, Woodside will continue to participate in, and support collective industry engagement with Traditional Owners on the development of a future, sustainable, industry wide Program. Through the Program, Woodside actively supports Traditional Custodians’ capacity for, and involvement in, ongoing engagement and feedback on environment plans.

The Program has been developed so that Traditional Custodians can, on an ongoing basis, provide Woodside with feedback relating to the possible consequences of an activity to be carried out under an environment plan on their functions, interests and activities as they relate to cultural values. This feedback will be evaluated in conjunction with Traditional Custodians and, where necessary, avoidance or mitigation strategies in will be developed in collaboration with Traditional Custodians.

The Program enables Woodside to manage uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside’s activities via ongoing dialogue 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 identification of cultural values potentially impacted by Woodside’s activities. Woodside further commits to agreeing consultation protocols with individual Traditional Custodians to ensure the material provided is appropriate in level of detail such that the potential for cultural impact from Woodside activities can be determined and as required measures can be adopted to avoid or minimise impact.

In addition, Woodside will receive feedback on cultural values from an individual person or organisation that identifies as a Traditional Custodian, at any stage during the development and implementation of activities. This feedback will be evaluated, in conjunction with the Traditional Custodian individual or group and if required, control measures will put in place to avoid impacts to cultural values, or where avoidance is not possible, to minimise and mitigate the impacts to an acceptable level.

Where cultural values are identified post activity completion, any controls relevant to value management will be implemented during the next relevant activity.





## 2. Support for the identification and recording of cultural features

Woodside will support Traditional Custodians to record and articulate their Sea Country values and will invest in cultural assessments codesigned with Traditional Custodians, where required, to inform potential risks to cultural values from our petroleum activities.

This may include supporting cultural mapping by Traditional Custodians to identify and map significant cultural features including archaeological sites and other cultural values. The scoping of the mapping process will be codesigned with Traditional Custodians.

Woodside understands that cultural knowledge remains the intellectual property of Traditional Custodians and will agree with Traditional Custodians at the outset how that information from surveys will be used to feedback into and inform the environment plan's design and implementation.

In addition, Woodside applies the Cultural Heritage Management Procedure 2019, updated in 2023, to the Program which:

- provides a process for the identification, protection, and management of Cultural Heritage taking into account relevant standards, in particular, the United Nations Declaration on the Rights of Indigenous Peoples, the Charter for the Protection and Management of the Archaeological Heritage, the Convention for the Safeguarding of the Intangible Cultural Heritage, and the Convention on the Protection of the Underwater Cultural Heritage;
- applies to underwater cultural heritage and, consistent with current practice, provides for the commissioning of (where appropriate) both archaeological and ethnographic assessments of cultural values over the submerged landscape; and
- the process includes the following:
  - 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.

#### **Program Reporting and Review of Effectiveness**

Woodside will undertake an annual review of the Program to assess its effectiveness and adapt the Program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.

Progress of the Program will be reported annually in line with annual sustainability reporting via the Woodside website.

A commitment to the Program will be included in all new and revised Environment Plans in the format below:





Environmental Performance Outcome	Environmental Performance standards	Measurement Criteria
<p><b>EPO 1</b> Woodside will actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values</p>	<p><b>Applicable to all EPs:</b></p> <p><b>EPS 1.1</b> Implement a program, which is compliant with Corporate Woodside Policies Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program. The Program will include, where agreed with relevant Traditional Custodians:</p> <ul style="list-style-type: none"> <li>• Social investment to support Indigenous ranger programs</li> <li>• Support for Indigenous oil spill response capabilities</li> <li>• Support for recording Sea Country values</li> <li>• Support to Traditional Custodian groups to build capabilities and capacity with respect to ability to engage with Woodside and the broader O&amp;G industry on activities</li> <li>• Development of ongoing relationships with Traditional Custodian groups</li> <li>• Any other initiatives proposed for the purpose of protecting country including cultural values</li> <li>• Consideration of cultural values / new information, through the life of the EP, and the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if impacts to cultural values are identified. Where avoidance is not possible, impact minimisation will be prioritised and demonstrated through a written options analysis / ALARP to ensure an acceptable level of impact. This will be document through the Woodside's Management of Change and Management of Knowledge</li> </ul>	<p><b>MC1.1</b> Records demonstrate discussions with relevant Traditional Custodian Groups on proposed partnerships and/or initiatives initiated by Woodside, and responses to feedback provided by Woodside within 4 weeks</p> <p><b>MC 1.2</b> Progress of the Program will be reported in line with annual sustainability reporting via the Woodside website.</p> <p><b>MC 1.3</b> Records demonstrate Change Management and Management of Knowledge processes have been followed where new controls or management measures identified</p>
	<p><b>EPS 1.2</b> Undertake an annual review of the program to determine its effectiveness and adapt the program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.</p>	<p><b>MC 1.4</b> Records demonstrate an annual review of the Program has been undertaken</p>

Form 3 (adapted)  
Rule 29.02(8)

**Annexure certificate**

No VID 647 of 2023

Federal Court of Australia  
District Registry: Victoria  
Division: General

**Raelene Cooper**

Applicant

**National Offshore Petroleum Safety and Environmental Management Authority and  
others named in the schedule**

Respondents

This is the annexure marked [REDACTED]-7 produced and shown to [REDACTED] at the time of affirming his affidavit this 11 September 2023.

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the Second and Third Respondents

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# Scarborough 4D B1 Marine Seismic Survey Environment Plan – Acceptance Condition 6 Report

Updated to address Draft Inspection Report 4859

1/09/2023

## TABLE OF CONTENTS

<b>1.</b>	<b>CONDITION 5</b> .....	<b>3</b>
1.1	Condition 5a .....	3
1.2	Condition 5b .....	5
<b>2.</b>	<b>CONDITION 6</b> .....	<b>6</b>
2.1	Condition 6a .....	6
2.2	Condition 6b .....	6
	<b>ATTACHMENT A</b> .....	<b>7</b>
	<b>ATTACHMENT 1</b> .....	<b>11</b>
	<b>ATTACHMENT 2</b> .....	<b>12</b>
	<b>ATTACHMENT 3</b> .....	<b>13</b>
	<b>ATTACHMENT 4</b> .....	<b>14</b>

# 1. Condition 5

## 1.1 Condition 5a

### Condition 5

At any time, prior to or during the activity, if new cultural features and/or heritage values of places within the environment that may be affected by the activity are identified that are not described in the EP, the titleholders must:

- a. Ensure the environmental impacts and risks of the activity continue to be managed to as low as reasonably practicable and an acceptable level.
- b. Notify NOPSEMA in writing within 7 days of these cultural and/or heritage values of places and the potential environmental impacts and risks.

In accordance with the requirements of condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan acceptance, Woodside provided the following notification to NOPSEMA on 16 August 2023.

On 25 July 2023, Woodside met with Ms Alec, Ms Cooper and Save Our Songlines (JA/RC/SOS) to provide a further opportunity for consultation and for information on cultural features and/or heritage values to be shared with Woodside. During the meeting, JA/RC/SOS informed Woodside that they would not be speaking to Woodside about their cultural interests, nor providing any information or feedback at that stage, this was despite agreeing with Woodside to do so prior to the meeting (as reflected in 27 July 2023 email from ██████████ to Jessica Border, cc Sue McCarrey)

Based on the discussion at the meeting on 25 July 2023, Woodside did not consider that JA/RC/SOS provided information on new cultural features and/or heritage value of places to trigger the reporting requirement under condition 5.

On 9 August 2023, as part of NOPSEMA's inspection (No. 4846), the transcript of the 25 July 2023 meeting was shared with NOPSEMA inspectors. NOPSEMA formed the view that the transcript indicated that JA/RC/SOS did refer to cultural features and/or heritage values of places within the environment that may be affected by the Scarborough seismic activity.

Accordingly, Woodside has reflected topics contained in the transcript of the meeting with JA/RC/SOS as topics that may be considered as new cultural features and/or heritage value of places. For the avoidance of doubt and in accordance with the requirements of condition 5 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan, Woodside notifies NOPSEMA of the following:

Topic Raised by JA/RC/SOS
A concern about potential impacts to whales.
A general information request about 'the rest of the animals', including turtle migrations, dugong, other migratory species, plankton and seagrass.
An interest regarding songlines and 'especially where the freshwater and saltwater meet'
A concern about impacts to the songlines, energy lines and animals from seismic activity

Woodside undertook an initial assessment of the information above and considered that any potential new environmental impacts and risks arising from the topics raised during consultation by JA/RC/SOS are currently managed to as low as reasonably practicable (ALARP) and an acceptable level.

However, in the draft inspection report (4859) issued by NOPSEMA to Woodside on 31/08/2023, NOPSEMA concluded that further evaluation and adoption of feasible controls was required to address topics relating to the cultural value of migratory species such as:

- Increased shutdown zones for migratory species such as whales
- A shut down zone for marine turtles.

Woodside's environmental impact and risk assessment process outlined in section 6 of the Scarborough 4D B1 Marine Seismic Survey Environment Plan (Seismic EP) was updated to include interactions affecting



cultural values and heritage associated with the physical presence of the activity and included additional controls to ensure these potential impacts were managed to ALARP and acceptable levels (attachment 2). However, in response to NOPSEMA's draft inspection report and as a further precautionary measure, Woodside will also adopt the additional controls raised by NOPSEMA relating to shut down zones for whales and marine turtles as further outlined in Attachment A.

Through consultation with First Nations groups and people, the cultural significance of whales and marine turtles has predominantly been raised in the context of species found in coastal waters such as Mermaid Sound. The species identified are flatback, green, hawksbill, loggerhead and leatherback turtles and humpback whales (Woodside 2023)<sup>1</sup>. No specific migratory marine turtle or whale species have been identified as having cultural significance to First Nations people or individuals consulted as part of the Seismic EP. As such, to address any potential cultural values associated with marine turtles and whales in the offshore area which may be impacted by the seismic activity, Woodside will adopt the additional controls outlined in Attachment A for those species that have been identified as culturally important, albeit in a coastal context.

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<sup>1</sup> Woodside Energy Ltd., 2023. Scarborough, Dredging and Spoil Disposal Management Plan. SA0006AH0000002. Available online: [https://www.woodside.com/docs/default-source/our-business---documents-and-files/burup-hub---documents-and-files/scarborough---documents-and-files/scarborough-dsdmp.pdf?sfvrsn=35cb82fe\\_8](https://www.woodside.com/docs/default-source/our-business---documents-and-files/burup-hub---documents-and-files/scarborough---documents-and-files/scarborough-dsdmp.pdf?sfvrsn=35cb82fe_8)

## 1.2 Condition 5b

On 17 August 2023, Woodside provided the following information by way of notification to NOPSEMA.

### **Cultural Features and/or Heritage Values**

Woodside has undertaken archaeological assessments and ethnographic surveys to identify potential cultural features and heritage values that may be impacted by Scarborough activities. These works have not identified cultural features and heritage values which may be impacted by the activities planned under this EP. However, through consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment that First Nations people hold. Topics raised during consultation with JA/RC/SOS, outlined in the email below, may refer to cultural features and heritage values within the EMBA and are summarised as:

The physical presence of vessels and seismic activity in the Operational Area, or an accidental hydrocarbon release, may lead to interactions affecting some of these cultural features and heritage values.

### **Source of Impact/Risk**

- Vessel presence and seismic activity affecting cultural features and heritage values (as listed above).
- Accidental hydrocarbon release affecting cultural features and heritage values.

### **Impact/Risk Classification:**

Planned activities:

- E (Slight)
- Social and Cultural – Slight, short-term impact (less than one year) to a community or areas/items of cultural significance (as listed above).

Unplanned events:

- D1 (Moderate)
- Social and Cultural – Minor, short-term impact (one to two years) to a community or highly valued areas/items of cultural significance (as listed above).
- Highly unlikely – Has occurred once or twice in the industry.

Woodside has committed to ongoing engagement to further understand these values and to inform potential control measures that may be adopted to ensure that such risks are re-evaluated and continue to be managed to ALARP and acceptable levels.

## 2. Condition 6

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### 2.1 Condition 6a

#### Condition 6

The titleholders must submit a report to NOPSEMA no later than 14 days after the notification in Condition 5 which confirms the following:

- a. The control measures that have been adopted to ensure that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable and an acceptable level.
- b. The consultation undertaken with any relevant persons to develop those control measures including
  - i. The control measures that those persons considered reasonably necessary to manage impacts on the cultural features and/or heritage values in accordance with indigenous tradition; and
  - ii. The views of the relevant persons in relation to the control measures

Please see Attachment A below which provides a summary of the Seismic EP changes that Woodside has adopted to address the topics outlined in section 1.1 (above). This includes updates to the description of the environment; updates to the evaluation of environmental impacts and risks; amendments to the environmental performance outcomes and standards and the implementation strategy to minimise environmental impacts and risks to ALARP and acceptable levels.

### 2.2 Condition 6b

On 21 August 2023, Woodside offered to consult with JA/RC/SOS on changes Woodside proposed to make to the Seismic EP that were designed to incorporate the topics outlined in section 1.1 (above) and the control measures proposed to be adopted to manage the potential impacts and risks of the activity to ALARP and acceptable levels. This offer of consultation was in addition to an offer made by Woodside on 25 July 2023 for a fortnightly meeting with JA/RC/SOS, which was declined.

JA/RC/SOS have not provided information or feedback to Woodside on the information provided to JA/RC/SOS on 21 August 2023. Woodside has never-the-less committed to ongoing consultation with JA/RC/SOS, including by way of an invitation to an on-country workshop in September, driven by the availability of JA/RC/SOS. The on-country meeting place is consistent with consultation requirements from JA/RC/SOS.

Woodside will provide the outcomes of this consultation to NOPSEMA, in accordance with condition 6b including, if provided by JA/RC/SOS:

- The control measures that JA/RC/SOS considered reasonably necessary to manage impacts on the cultural features and/or heritage values in accordance with Indigenous tradition; and
- The views of JA/RC/SOS in relation to the control measures.

Should consultation with JA/RC/SOS identify a measure or control that requires implementation or update to meet the intended outcome of consultation (see Section 5.2), Woodside will apply its “Management of Knowledge” process and “Management of Change” process as outlined in Section 7.6.1.2 and 7.7 of the Seismic EP respectively. **Woodside will also seek the views on JA/RC/SOS on the additional controls adopted on instruction from NOPSEMA, relating to increased shutdown zones for whales and shutdowns for turtles.**

## Attachment A

EP content requirements	Topics Raised by Ms Alec, Ms Cooper and Save Our Songlines	Reference
	<i>Potential impacts to whales</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	
13(2-3) Description of the environment	<p><b>Section 4</b> (Description of the Environment) has been amended to include reference to the potential cultural interest in whales.</p> <p>This section has also been updated to generally reflect that through outcomes from consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment that Woodside understand that First Nations people hold. The definition of 'environment' under the Regulations has also been included as a footnote to clarify that cultural features and heritage values are part of the environment.</p>	Attachment 1
13(4) Requirements	No changes made to the EP.	NA
13(5-6) Evaluation of environmental impacts and risks	<p>Updates have been made to Section 6.6.2 to assess potential impacts to environmental values of potential cultural interest to First Nations, including whales.</p> <p>The potential impact consequence from noise emissions on cultural features and heritage values has been assessed as having slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) is anticipated. Any impacts are expected to be slight or less.</p>	Attachment 3
13(7) Environmental performance outcomes and standards	<p>Controls currently adopted in the EP to 'Undertake seismic acquisition in a manner that prevents injury to whales, and minimises the potential for biologically significant behavioural disturbance (EPO 4)'</p> <ul style="list-style-type: none"> <li>The use of trained Marine Fauna Observers to implement management procedures and adaptive management measures to minimise potential impacts to pygmy blue whales and other whales from seismic noise.</li> <li>Dedicated spotter vessel deployed ahead of the seismic vessel.</li> <li>Operation of the seismic source will not occur within 25 km of the pygmy blue whale migration BIA.</li> <li>The use of passive acoustic monitoring system to detect odontocete whales (specifically sperm and beaked whales) to implement adaptive management measures at night.</li> </ul> <p>Additional controls have also been adopted to limit the extent of acoustic emissions:</p> <ul style="list-style-type: none"> <li>Seismic source will be validated against noise sources assessed as acceptable in the EP and will not be discharged outside of the Active Source Area to limit the extent of underwater noise.</li> <li>A 40 km separation distance will be applied between the activity and any identified concurrent seismic surveys.</li> </ul>	Attachment 2 and 3

	<p>The following updates have been made to manage new topics raised on cultural values:</p> <ul style="list-style-type: none"> <li>• EPO 18 and C 1.8 have been developed and adopted.</li> <li>• C 1.9 below has been added on request from NOPSEMA. <ul style="list-style-type: none"> <li>◦ “In addition to C 4.1, application of an observation zone and shut-down zone to the limits of visibility for positively identified (certain or probable confidence level) humpback whales”.</li> </ul> </li> </ul> <p>Control C 1.6 has been updated to provide transparency on sightings of marine migratory species.</p>	
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4
15 (1-3) Details of titleholder and liaison person	No changes made to the EP.	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA
	<i>A general information request about ‘the rest of the animals’, including turtle migrations, dugong, other migratory species, plankton and seagrass.</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	NA
13(2-3) Description of the environment	<p><b>Section 4</b> (Description of the Environment) has been amended to include acknowledgement of the potential cultural interest in animals, including turtles, dugongs, plankton and seagrass. Noting that dugongs and seagrass are not expected within the Operational Area or EMBA.</p> <p>Given that there are no marine turtle BIAs or Habitat Critical within the Operational Area, and the nearest are located 135 km south-east of the Operational Area, marine turtles are unlikely to occur within the area of potential impact. It is noted for completeness that there may be individuals who transit through the area.</p>	Attachment 1
13(4) Requirements	No changes made to the EP.	NA
13(5-6) Evaluation of environmental impacts and risks	<p>Updates have been made to Section 6.6.2 to assess potential impacts to environmental values of potential cultural interest to First Nations, including turtles and plankton.</p> <p><b>Marine turtles</b> Based on the location offshore and distance from marine turtle BIAs and habitat critical, should any marine turtles occur impacts would be limited to behavioural disturbance to an individual within a localised area.</p> <p><b>Plankton</b> These areas experience high natural variability and therefore it is expected any impacts to zooplankton will be minimal at a regional scale and unlikely to result in impacts to high order trophic levels.</p> <p><b>Summary</b> Based on the potential impacts described above and management of the activity, cultural values are considered to be inherently protected.</p> <p>The potential impact consequence from noise emissions on cultural features and heritage values has been assessed as having a slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) are anticipated. Any impacts are expected to be slight or less.</p>	Attachment 2 and 3



13(7) Environmental performance outcomes and standards	<p>The following updates have been made to manage new information on cultural values:</p> <ul style="list-style-type: none"> <li>• EPO 18 and C 1.8 have been developed and adopted.</li> <li>• C 1.10 has been added on request from NOPSEMA. <ul style="list-style-type: none"> <li>◦ "Application of a 500 m observation zone and a 100 m shutdown zone for turtles".</li> </ul> </li> </ul> <p>Control C 1.6 has been updated to provide transparency on sightings of marine migratory species.</p>	Attachment 2 and 3
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4
15 (1-3) Details of titleholder and liaison person	No changes made to the EP.	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA
	<i>An interest regarding songlines and 'especially where the freshwater and saltwater meet' and dreaming</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	NA
13(2-3) Description of the environment	<p><b>Section 4</b> (Description of the Environment) has been amended to include acknowledgement of the cultural interest in potential songlines, 'especially where the freshwater and saltwater meet'.</p> <p>In addition, a description of songlines, their connection to physical features and importance to First Nations has been included, based on literature.</p>	Attachment 1
13(4) Requirements	No changes made to the EP.	NA
13(5-6) Evaluation of environmental impacts and risks	<p>Updates have been made to Section 6.6.1 to consider the potential impacts to potential songlines from the activity.</p> <p>The potential impact consequence from the physical presence of vessels on cultural features and heritage values has been assessed as having slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) is anticipated. Any impacts are expected to be slight or less.</p>	Attachment 2 and 3
13(7) Environmental performance outcomes and standards	Addition of new EPOs, EPO17 and EPO 18 and associated EPS'.	Attachment 2
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4
15 (1-3) Details of titleholder and liaison person	No changes made to the EP.	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA
	<i>A concern about impacts to the songlines, energy lines and animals from seismic activity</i>	<i>Meeting on 25 July 2023</i>
13(1) Description of activity	No changes made to the EP.	NA
13(2-3) Description of the environment	<p><b>Section 4</b> (Description of the Environment) has been amended to include acknowledgement of potential songlines and energy lines (topics raised during consultation).</p>	Attachment 1

	In addition, a description of songlines, their connection to physical features and importance to First Nations has been included, based on literature.	
13(4) Requirements	No changes made to the EP	NA
13(5-6) Evaluation of environmental impacts and risks	<p>Updates have been made to Section 6.6.1 to consider the impacts to potential songlines from the activity.</p> <ul style="list-style-type: none"> <li>The potential impact consequence from the physical presence of vessels on cultural features and heritage values has been assessed as having a slight and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) are anticipated. Any impacts are expected to be slight or less.</li> </ul>	Attachment 2 and 3
13(7) Environmental performance outcomes and standards	As per previous (please see above)	
14 (1-10) Implementation strategy	Updates have been made to Section 7.10.2.1 to incorporate the Program of Ongoing Engagement with Traditional Custodians.	Attachment 4
15 (1-3) Details of titleholder and liaison person	No changes made to the EP	NA
16 Other information in the environment plan	Minor updates to stakeholder consultation record.	NA

## **Attachment 1**

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## 4.10 Socio-Economic Environment

### 4.10.1 Cultural Values and Heritage

#### 4.10.1.1 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 Area and EMBA and the cultural features of the Operational Area and EMBA are described.

In line with The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (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 (ICOMOS 2013).

Woodside has undertaken archaeological assessments and ethnographic surveys to identify potential cultural values or features that may be impacted by Scarborough activities. These works have not identified heritage places, objects or values which will be impacted by the activities planned under this EP. However, through consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment<sup>2</sup> that First Nations people hold.

#### 4.10.1.2 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. While acknowledging that cultural features and heritage values may exist outside of the native title framework, native title claims, determinations and ILUAs are defined under the Native Title Act 1993 (Cth). 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 (Native Title Tribunal).

<sup>2</sup>Definition of 'Environment' in Regulation 4 of the OPPGS (Environment) Regulations are defined as:

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

### **Feedback Received via Consultation to Inform Existing Environment Description**

Indigenous 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” (Heritage Chairs of Australia and New Zealand 2021). 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 with relevant persons, Registered Native Title Bodies Corporate have identified or raised topics relating to environmental values of cultural interest. These include a broad interest in the marine fauna, including whales, sharks and turtles (See Table 5-4).

In addition, some persons or organisations who identified as a relevant person in relation to First Nations cultural heritage, have indicated knowledge of cultural features or heritage values potentially affected by this PAP. These cultural features or heritage values may not have been raised through Woodside’s consultation with the indigenous community representatives and elders, including through MAC and Wirrawandi Aboriginal Corporate who represent the communities which these persons or organisations identified with (See Table 5-4).

It is feasible that additional cultural and broader interests in the environment are known, but no further definition has been shared with Woodside. These are identified below:

- Whales (including migration patterns)
- Turtles
- Dugongs
- Plankton
- Seagrass
- Energy lines (unspecified)
- Songlines and dreaming (unspecified)
- Where saltwater and freshwater meet

Seagrasses are a primary producer, i.e., they are dependent on sunlight for photosynthesis (energy production for growth and reproduction) and therefore have not been recorded and are not predicted to occur in the EMBA as water depths are over 200 m (Table 4-4). As dugongs feed exclusively on seagrass they are also not predicted to occur within the EMBA (Appendix C). In addition, there are no freshwater systems within the EMBA.

The marine ecosystem description in Section 4.10.1.5 encompasses the description of the cultural features and Sections 4.6.2 and 4.6.3 provides a description of turtles and marine cetaceans respectively.

Woodside has committed to ongoing engagement to further understand these values. The Program of Ongoing Engagement with Traditional Custodians (Appendix J), provides a mechanism for ongoing dialogue between Woodside and Traditional Custodians. The program enables Woodside to manage uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside’s activities via ongoing dialogue with Traditional Custodians. As an example Woodside is developing a framework for ongoing consultation with BTAC (Section 7.4). 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 7.7).

#### **4.10.1.6 Intangible Cultural Features**

Oral Songlines are often described by Aboriginal 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 Aboriginal people (Higgins 2021:723). Songlines demonstrate Aboriginal 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 in order to prevent the fragmenting or breaking apart of songlines and loss of sacred cultural knowledge. While no specific details of songlines have been provided by relevant persons during consultation for this Activity, it can be confirmed that no landforms typical of songlines have been identified or are anticipated to be impacted by the Activity.

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).

#### 4.10.1.7 Indigenous 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 Indigenous 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, Benjamin et al 2023; 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 (see Figure 4-12) as an area where potential Indigenous archaeological material may exist on the seabed, as this covers the full extent of this possible Indigenous occupation. The Operational Area does not overlap the Ancient Landscape. There is slight overlap of the EMBA with the Ancient Landscape but no potential for seabed disturbance from planned activities and therefore no potential for impacts to archaeological material.

Known Indigenous heritage places including archaeological sites may be protected **subject to declarations** under the Aboriginal and Torres Strait Islander Heritage Protection Act 1984,

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## **Attachment 2**

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

### 6.6.1 Physical Presence: Interactions with Other Marine Users and Values

Context														
Activity Components – Section 3.5				Socio-Economic Environment – Section 0				Stakeholder Consultation – Section 5						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted							Evaluation						
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-Economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcomes
Displacement of other marine users – proximity of project vessels (and submersible equipment) interfering with or displacing third party vessels (commercial fishing, recreational fishing/tourism, research/monitoring programs and commercial shipping)							X	A	E	-	-	GP	Broadly Acceptable	EPO 1, 2
Potential interactions with proposed oil and gas activities							X							
Interactions affecting Cultural Values and Heritage.								C	E	!	!	LC S, GP	Broadly Acceptable	EPO 17, 18
Description of Source of Impact														
<p><b>Project Vessels (including the towed seismic equipment)</b></p> <p>The Petroleum Activities Program will be conducted using a single seismic vessel. A temporary 3 nm SNA will be maintained around the seismic vessel and towed array (comprising the airgun array and streamer array, which includes header buoys, starboard and port deflectors or baravanes, streamers and tail buoys) during seismic operations. Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels.</p> <p>The support vessel will accompany the seismic vessel to re-supply it with fuel and other logistical and operational supplies (including taking the seismic vessel under tow, if required). An additional chase vessel may be used to manage interactions with shipping and fishing activities, if required. It is intended that a dedicated spotter vessel with two MFOs aboard will be deployed ahead of the seismic vessel during all activities with seismic source discharge.</p>														

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## Impact Assessment

### Potential Impacts to Environmental Values

#### Commercial Fishing

Potential for interaction with commercial fisheries is a common consideration for marine seismic surveys. Should any commercial fishing activities occur within the Operational Area, commercial fishers may be asked to deviate from fishing grounds periodically to accommodate seismic survey operations, any potential interactions with commercial fisheries would be short term due to the transient nature of the seismic vessel and the small area occupied by the seismic vessel (and SNA) at any one time, and limited to operational inconvenience (navigational hazard) and temporary displacement from fishing grounds within the Operational Area.

There are a number of Commonwealth and State managed fisheries with management areas that overlap with the Operational Area, however, none of these fisheries have conducted any fishing activities within the Operational Area in at least the last 10 years. There is only one Commonwealth managed fishery (Western Deepwater Trawl Fishery) and one State managed fishery (West Coast Deep Sea Crustacean Managed Fishery) that have historically had catch/effort within the Operational Area prior to 2010. There has been no recent fishing catch/effort within the Operational Area from 2008-2019 (Woodhams and Bath 2017; Patterson et al., 2020) and 2018- 2022 (DPIRD, 2022), respectively (refer to **Section 4.10.2**). The Operational Area is located in water depths ranging from about 800-1150 m, located outside of the depth range where significant fisheries effort normally occurs.

Given the lack of fishing catch/effort in the Operational Area in recent years, it is expected that there will be no impact to commercial fisheries as a result of the presence of the proposed Scarborough 4D B1 MSS.

#### Recreational Fishing and Tourism Operations

The presence of project vessels and submersible equipment has the potential to impact third party vessels within or adjacent to the Operational Area. Interactions could result in short-term displacement of vessels as they make course alterations to avoid the project vessels (and associated towed seismic equipment in the SNA)

However, the Operational Area is considered too far offshore for recreational fishing or tourism activities to occur. Therefore, it is expected that there will be no impact to recreational fishing or tourism activities as a result of the presence of the proposed Scarborough 4D B1 MSS.

#### Commercial Shipping

The presence of project vessels and submersible equipment may cause temporary disruptions to commercial shipping. Moderate density shipping traffic may be encountered in the northeast corner of the Operational Area.

The potential impacts to commercial shipping vessels are expected to include short-term displacement of vessels as they make slight course alterations to avoid the project vessels (and associated towed seismic equipment in the SNA).

#### Oil and Gas Activities

No oil and gas production wells or facilities are located within the Operational Area (refer to **Figure 4-15**). Therefore, no impacts to oil and gas activities are expected.

#### Defence

The DoD did not identify any activities within the NWXA however the potential for UXOs was raised. Based on the locations of the proposed activity and potential UXOs it was determined that there is no credible risk from UXOs for the proposed activity.

#### Cultural Values and Heritage

The physical presence of vessels in the Operational Area may lead to interactions affecting cultural features and heritage value of place. Despite requesting it in consultation, information relating specifically to potential cultural values has not been provided to Woodside. No specific information has been provided relating to current songlines (currently undefined) and energy lines (currently undefined) that were indicated as topics during consultation with traditional custodians. To address this uncertainty, Woodside is implementing a program of ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program (C1.7 and C1.8). While no specific details of songlines have been provided by relevant persons during consultation for this Activity, no landforms typical of songlines are anticipated to be impacted by the Activity.

The potential impact consequence from the physical presence of vessels on cultural features and heritage values may be slight (E) and short-term impact (less than one year) to a community or areas/items of cultural significance. Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) impacts are expected to be slight or less.

#### Cumulative Assessment

##### Commercial Fishing

As above, there has been no recent fishing catch/effort within the Operational Area for the Commonwealth Western Deepwater Trawl Fishery (2008-2019) and WA West Coast Deep Sea Crustacean Managed Fishery (2010-2019), and therefore no impacts to commercial fisheries are expected. There are no other known seismic surveys planned to occur in these fisheries and, therefore, no cumulative impacts are expected.

**Commercial Shipping**

The Operational Area overlaps with a shipping fairway and north-south international shipping traffic. There are no other known seismic surveys planned to occur on the west coast of WA that may interact with the same international vessels within the fairway and, therefore, no cumulative impacts to shipping are expected.

**Summary of Potential Impacts to Environmental Values(s)**

Given the adopted controls, it is considered that physical presence of project vessels (including towed seismic equipment) will not result in a potential impact greater than slight, short-term temporary displacement of commercial shipping. Commercial vessels may be required to make small alterations to their course to avoid the project vessels (and associated towed seismic equipment in the SNA) but these interactions can be managed in accordance with standard maritime practices.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>5</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Woodside will ensure the environmental impacts and risks of the activity continue to be managed to as low as reasonably practicable and an acceptable level for cultural values or features.	F: Yes CS: Minimal costs	This will ensure the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if relevant impacts to cultural values are identified.	Required by OPGGS (Environment) Regulations	Yes C 1.8
<b>Good Practice</b>				
Notify AHO of activities and movements no less than four weeks before the scheduled activity commencement date.	F: Yes CS: Minimal cost. Standard practice.	Notification to AHO will enable them to generate navigation warnings (Maritime Safety Information Notifications (MSIN)) and NTM and NTA [including AUSCOAST warnings where relevant]).	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.1
Notify AMSA Joint Rescue Coordination Centre (JRCC) of activities and movements 24–48 hours before the scheduled activity commencement date.	F: Yes CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program 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 C 1.2
Notify relevant government departments, fishing industry representative bodies, fishery licence holders, and other oil and gas operators (if agreed during consultation) of activities prior to commencement and upon completion of activities	F: Yes CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program 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 C 1.3
Engage with proponents identified as having potential concurrent	F: Yes	Communication of the Petroleum Activities Program to other marine	Benefits outweigh cost/sacrifice.	Yes C 1.4

<sup>5</sup> Qualitative measure



Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>5</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
activities within the Operational Area prior to commencing the Petroleum Activities Program and develop an operations plan including the following aspects: <ul style="list-style-type: none"> <li>communications</li> <li>work programming</li> <li>hazard management</li> <li>emergency response.</li> </ul>	CS: Minimal cost. Standard practice.	users ensures they are informed and aware, thereby reducing the likelihood of interference with other marine users.	Control is also standard practice.	
Notify Defence of activities and movements no less than five weeks before the scheduled activity commencement date	F: Yes CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program 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 1.5</b>
Establish and maintain a publicly available website to include both: <ul style="list-style-type: none"> <li>an interactive map which provides persons with updated information on activities being conducted as part of the Petroleum Activities Program, including location of seismic vessel and</li> <li>cetaceans and marine turtle observations</li> </ul>	F: Yes. CS: Minimal cost	A publicly available website will allow transparency of the activity for other marine users including First Nations.  The interactive map provides additional/alternate method for marine users to obtain information on the timing of activities, thereby reducing the likelihood of interference with other marine users.  The data logs of marine fauna observations will provide demonstrations of potential interactions with marine fauna, including whales and turtles.	Benefits outweigh cost/sacrifice.	Yes <b>C 1.6</b>
Establish and maintain a 3 nm radius SNA around the seismic vessel and towed array.	F: Yes CS: Minimal cost. Standard practice.	Presence of the SNA will reduce the likelihood of interfering with other marine users.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes <b>C 2.1</b>
At least one dedicated support/chase vessel will be employed to assist the seismic vessel.	F: Yes CS: Minimal cost. Standard practice.	Use of a support/chase vessels to assist the seismic vessel will reduce the likelihood of an interaction with a third party vessel.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes <b>C 2.2</b>
Project vessels to operate AIS, and tail buoys will be fitted with lights, Global Navigation Satellite	F: Yes CS: Minimal cost. Standard practice.	Use of AIS on project vessels, and lights, virtual AIS and GNSS on tail buoys will reduce the	Benefits outweigh cost/sacrifice.	Yes <b>C 2.3</b>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>5</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
System (GNSS) and virtual AIS.		likelihood of an interaction with a third party vessel.	Control is also standard practice.	
<p>Woodside will consider evidence based claims from commercial fishing licence holders where:</p> <ul style="list-style-type: none"> <li>There is genuine displacement from undertaking normal fishing activities that results in demonstrable economic loss.</li> <li>Deployed fishing equipment has been accidentally lost or damaged by any activities under Woodside's control.</li> <li>There is a loss of catch due to the seismic activity that can be demonstrated</li> </ul>	<p>F: Yes</p> <p>However, due to the absence of commercial fishing in the Operational Area, displacement of fishers are not expected.</p> <p>CS: Time, stakeholder fatigue and potential confusion associated with communicating [Document Title] and engaging with fishers unnecessarily.</p>	<p>Given limited fishing activity has ever taken place in or near the Operational Area and no fishing effort has been reported in over 10 years, the Operational Area does not represent an area that is significant to fisheries and displacement is not expected.</p> <p>Therefore, providing a process for compensation claims provides no benefit.</p>	Cost is grossly disproportionate to the limited benefit gained.	No
Implement a program, which is compliant with Corporate Woodside Policies Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program.	<p>F: Yes</p> <p>CS: Substantial costs</p>	Implementation of this program will allow Woodside to improve their understanding of potential cultural values and Heritage in the Operational Area and or EMBA.	Benefits outweigh cost/sacrifice	Yes C 1.7
<b>Professional Judgement – Eliminate</b>				
Limit activities to avoid peak shipping and commercial fishing activities.	<p>F: No. Shipping occurs year-round and cannot be avoided. Concurrent operations (CONOPS) with fishing seasons cannot be eliminated as fishing activities occur consistency throughout the year, and exact timings and locations of fishing activities are not known.</p> <p>CS: Not considered – control not feasible.</p>	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)<sup>5</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
Eliminate use of vessels.	F: No. The use of vessels is required to conduct the Petroleum Activities Program. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
<b>Professional Judgement – Substitute</b>				
None identified.				
<b>Professional Judgement – Engineered Solution</b>				
None identified.				
<b>ALARP Statement</b>				
<p>On the basis of the environmental impact assessment outcomes and use of the relevant tools appropriate to the decision type (i.e. Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts and risks of the physical presence of the project vessels on other marine users, which is expected to be limited to commercial shipping movements. 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 impact assessment has determined that, given the adopted controls, physical presence of the project vessels (and associated towed seismic equipment in the SNA) is unlikely to result in potential impact greater than slight, short-term impact to other marine users, such as commercial shipping. In addition, these activities will not interfere with other marine users rights to a greater extent than is necessary. Further opportunities to reduce the impacts and risks have been investigated above.</p> <p>The adopted controls are considered good oil-field practice/industry best practice and meet expectations of AMSA and AHO provided during consultation with stakeholders. The potential impacts and risks are considered broadly acceptable if the adopted controls are implemented.</p> <p>Woodside has considered Woodside acknowledges that uncertainty on cultural values may remain; however, the Ongoing Program on Traditional Custodian Feedback (EPO 17 and C1.7) has been developed to enable Woodside to manage potential uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside's activities via ongoing dialogue with Traditional Custodians. Any new information identified as part of this process will be managed to ALARP and an Acceptable level of impact (EPO 18 and C 1.8).</p> <p>Therefore, Woodside considers the adopted controls appropriate to manage the impacts and risks of the physical presence of the project vessels (and associated towed seismic equipment in the SNA) to a level that is broadly acceptable.</p>

<b>Environmental Performance Outcomes, Standards and Measurement Criteria</b>			
<b>Outcomes</b>	<b>Controls</b>	<b>Standards</b>	<b>Measurement Criteria</b>
EPO 1 Marine users are aware of the Petroleum Activities Program.	C 1.1 Notify AHO of activities and movements no less than four weeks before the scheduled activity commencement date.	PS 1.1 Notification to AHO four weeks prior to scheduled commencement to allow for the generation of navigation warnings (MSIN, NTA and NTM [including AUSCOAST warnings where relevant]).	MC 1.1 Consultation records demonstrate that AHO has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.
	C 1.2 Notify AMSA Joint Rescue Coordination Centre (JRCC)	PS 1.2 Notification to AMSA JRCC 24–48 hours prior to the	MC 1.2.1 Consultation records demonstrate that AMSA

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	of activities and movements 24–48 hours before the scheduled activity commencement date.	scheduled commencement date.	JRCC has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.
	<p><b>C 1.3</b></p> <p>Notify relevant government departments, fishing industry representative bodies, fishery licence holders, and other oil and gas operators (if agreed during consultation) of activities prior to commencement and upon completion of activities</p>	<p><b>PS 1.3</b></p> <p>Notification to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per <b>Table 7-2</b></p>	<p><b>MC 1.3.1</b></p> <p>Consultation records demonstrate that relevant stakeholders have been notified prior to commencement of the Petroleum Activities Program within the required timeframes and on completion of activities.</p>
	<p><b>C 1.4</b></p> <p>Engage with proponents identified as having potential concurrent activities within the Operational Area prior to commencing the Petroleum Activities Program and develop an operations plan including the following aspects:</p> <ul style="list-style-type: none"> <li>communications</li> <li>work programming</li> <li>hazard management</li> <li>emergency response</li> </ul>	<p><b>PS 1.4</b></p> <p>A concurrent operations plan developed for any concurrent MSS activities identified within the Operational Area.</p>	<p><b>MC 1.4.1</b></p> <p>Records demonstrate Woodside re-engage with identified proponent before commencing the Petroleum Activities program and developed a concurrent operations plan (if required).</p>
	<p><b>C 1.5</b></p> <p>Notify Defence of activities and movements no less than five weeks before the scheduled activity commencement date.</p>	<p><b>PS 1.5</b></p> <p>Notification to Defence five weeks prior to the scheduled commencement date.</p>	<p><b>MC 1.5.1</b></p> <p>Records demonstrate that Defence has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.</p>
	<p><b>C 1.6</b></p> <p>Establish and maintain a publicly available website to include both:</p> <ul style="list-style-type: none"> <li>An interactive map which provides persons with updated information on activities being conducted as part of the</li> </ul>	<p><b>PS 1.6a</b></p> <p>Activity interactive map established and maintained throughout activities.</p>	<p><b>MC 1.6.1</b></p> <p>Records demonstrate interactive map was provided and available to stakeholders throughout activities.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	Petroleum Activities Program, including location of seismic vessel and <ul style="list-style-type: none"> <li>• cetacean and marine turtle observations</li> </ul>	<b>PS 1.6b</b> Cetacean and marine turtles observations available on a public website	<b>MC 1.6.2</b> Records of marine turtles and cetaceans sightings available on a public website.
<b>EPO 2</b> Prevent adverse interactions between vessels and other marine users during the Petroleum Activities Program	<b>C 2.1</b> Establish and maintain a 3 nm radius SNA around the seismic vessel and towed array.	<b>PS 2.1</b> SNA established, communicated and maintained around the seismic vessel and towed array during the Petroleum Activities Program.	<b>MC 2.1.1</b> Records demonstrate that the SNA has been established and details have been communicated to approaching third-party vessels.
	<b>C 2.2</b> Employ at least one support/chase vessel will be employed to assist the seismic vessel.	<b>PS 2.2</b> At least, one vessel employed to assist the seismic vessel mitigate interactions with third-party vessels.	<b>MC 2.2.1</b> Records demonstrate that a second vessel is employed for the Petroleum Activities Program.
	<b>C 2.3</b> Project vessels to operate AIS, and tail buoys will be fitted with lights, GNSS and virtual AIS.	<b>PS 2.3</b> Project vessels operating AIS and tail boys fitted with lights, GNSS and virtual AIS.	<b>MC 2.3.1</b> Records demonstrate that project vessels operating AIS, and tail boys are fitted with lights, GNSS and virtual AIS.
<b>EPO 17</b> Woodside will actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values.	<b>C 1.7</b> Implement a program, which is compliant with Corporate Woodside Policies Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program.	<b>PS 1.7.1</b> Implement a program, which is compliant with Corporate Woodside Policies, Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program. The Program will include, as agreed with relevant Traditional Custodians: <ul style="list-style-type: none"> <li>• Social investment to support Indigenous ranger programs</li> <li>• Support for Indigenous oil spill response capabilities</li> <li>• Support for recording Sea Country values</li> <li>• Support to Traditional Custodian groups to build capabilities and capacity with respect to ability to engage with Woodside and the</li> </ul>	<b>MC 1.7.1</b> Records demonstrate discussions with relevant Traditional Custodian Groups on proposed partnerships and/or initiatives initiated by Woodside, and responses to feedback provided by Woodside within 4 weeks
			<b>MC 1.7.2</b> Progress of the Program will be reported in line with annual sustainability reporting via the Woodside website.

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
		<p>broader O&amp;G industry on activities</p> <ul style="list-style-type: none"> <li>• Development of ongoing relationships with Traditional Custodian groups</li> <li>• Any other initiatives proposed for the purpose of protecting Country including cultural values</li> </ul>	
<p><b>EPO 18</b></p> <p>New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>	<p><b>C 1.8</b></p> <p>The environmental impacts and risks of the activity will continue to be managed to as low as reasonably practicable and an acceptable level for cultural values or features.</p>	<p><b>EPS 1.8.2</b></p> <p>Consideration of cultural values / new information, through the life of the EP, and the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if impacts to cultural values are identified. Where avoidance is not possible, impact minimisation will be prioritised and demonstrated through a written options analysis / ALARP to ensure an acceptable level of impact. This will be documented through Woodside's Management of Change and Management of Knowledge processes.</p>	<p><b>MC 1.8.1</b></p> <p>Records demonstrate Change Management and Management of Knowledge processes have been followed where new controls or management measures identified.</p>
	<p><b>C 1.9</b></p> <p>In addition to C 4.1, application of an observation zone and shut-down zone to the limits of visibility for positively identified (certain or probable confidence level) humpback whales.</p>	<p><b>PS 1.9</b></p> <p>In additional to PS 4.1, application of a shut-down zone that is to the limits of visibility for positively identified (certain or probable confidence level) humpback whales.</p>	<p><b>MC 1.9.1</b></p> <p>Records demonstrate compliance with the shutdown zone specified in C 1.9.</p>
	<p><b>C 1.10</b></p> <p>Application of a 500 m observation zone and a 100 m shutdown zone for turtles.</p>	<p><b>PS 1.10</b></p> <p>Application of a 500 m observation zone and a 100 m shutdown zone for turtles.</p>	<p><b>MC 1.10.1</b></p> <p>Records demonstrate compliance with application of 500 m observation zone and 100 m shutdown zone for turtles.</p>

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## **Attachment 3**

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### Impact Assessment

Noting that no commercial fisheries operate within or near the Operational Area (refer to **Section 4.10.2**) and the Operational Area does not provide suitable habitat or water depths for target fish or crustacean species, no physical or behavioural impacts are predicted to commercial fish stocks and no impacts are predicted to commercial fishery catch rates.

#### *Commercial Fisheries – Impact Assessment Conclusion*

Based on the assessment above and the implementation of the identified control measures, the consequence of occasional short-term and localised disturbance to the target species and catch rates of commercial fisheries is of no lasting effect (less than one month) and impacts will not be significant to commercial fisheries.

#### **Cultural features and Heritage Values**

It is noted that the marine ecosystem holds both cultural and environmental value (See **Section 4.10.1**), with these types of values (cultural and environmental) intrinsically linked any cultural values linked to environment receptors, have been assessed above and below. Woodside has conducted extensive consultation with Traditional Custodian groups as described in Section 5, resulting in the identification of environmental values of cultural interest specified in Section 4.10.1.5.

An assessment of marine environmental values of cultural interest to First Nations is described in Table 6-10.

**Table 6-10: Assessment of potential impacts to marine environmental values of cultural interest to First Nations**

Environmental values of cultural interest to First Nations	Potential impact pathway	Assessment
Whales	Impacts to cetaceans from acoustic emissions resulting in behavioural disturbance.	<p>Potential environmental impacts to cetaceans have been assessed above.</p> <p>Potential impacts from acoustic emissions are expected to be 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 Operational Area are anticipated as a result of acoustic emissions.</p> <p>Numerous controls have been adopted to reduce potential for impact.</p> <p>Cultural values considered to be inherently protected.</p>
Turtles	Impact to turtles from acoustic emissions resulting in behavioural disturbance.	<p>While marine turtles are unlikely to occur in the area of potential impact, if individual turtles are transiting, the potential environmental impacts to turtle behaviour has been assessed.</p> <p>Potential impacts from acoustic emissions on marine turtles are expected to be limited to behavioural impacts within a localised area.</p> <p>Cultural values considered to be inherently protected.</p>
Plankton	Impact to plankton communities from acoustic emissions resulting in localised mortality.	<p>The activity is not likely to result in any ecologically significant impacts at a population level for any zooplankton, fish eggs or larvae</p>

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<b>Impact Assessment</b>	
	<p>that may be present in the water column within or adjacent to the Operational Area. These areas experience high natural variability and therefore it is expected any impacts to zooplankton will be minimal at a regional scale and unlikely to result in impacts to high order trophic levels.</p> <p>Cultural values considered to be inherently protected.</p>
<p>Given the short duration of the activity, no impacts to landforms associated with songlines and no significant impact to migratory species (including whales and turtles) impacts are expected to be slight or less.</p>	
<p>It is acknowledged that there is uncertainty in Woodside's understanding of potential cultural values within the Operational Area and EMBA therefore Woodside is implementing a program of ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program (C1.7).</p>	
<p><b>Marine Protected Areas</b></p> <p><i>Impact Assessment</i></p> <p>As described in <b>Section 4.9</b>, the Operational Area does not overlap with any Commonwealth or State Marine Parks. However, Australian Marine Parks (AMPs) are located in the wider EMBA that are part of the North-west Marine Park Networks.</p> <p>The nearest marine park is the Gascoyne AMP, located 33 km south of the Operational Area and approximately 44 km of the Active Source Area at the closest point. Maximum received sound levels at the boundary of the Gascoyne AMP are predicted to be approximately 140 dB re 1 <math>\mu</math>Pa (SPL).</p> <p>The potential impacts to the natural, social and economic values of the Gascoyne AMP are summarised as follows.</p> <ul style="list-style-type: none"> <li>• Exmouth Plateau KEF – The Operational Area and Active Source Area are located within the KEF. As assessed above, the potential impacts to benthic communities will be highly localised, temporary and negligible in the context of natural variability. The productivity, ecological function and value of the KEF will not be affected.</li> <li>• Continental slope demersal fish communities KEF – The KEF is located over 150 km from the Active Source Area. Underwater sound emissions will not affect the demersal fish communities in this KEF.</li> <li>• Canyons linking Cuvier abyssal plain and Cape Range peninsula KEF – The KEF is located over 105 km from the Active Source Area. Underwater sound emissions will not affect the benthic invertebrate or fish communities in this KEF.</li> <li>• Commonwealth waters adjacent to Ningaloo Reef KEF – The KEF is located over 170 km from the Active Source Area. Underwater sound emissions will not affect the coral reef communities, deep water filter feeder communities or marine fauna that aggregate or migrate within the KEF.</li> <li>• Humpback whale migratory pathway – As assessed above, received sound levels at the humpback whale migration BIA are predicted to be below 130 dB re 1 <math>\mu</math>Pa SPL. No significant behavioural response is expected and the BIA is well beyond the maximum range in which TTS effects could occur.</li> <li>• Pygmy blue whale migratory pathway and possible foraging habitat – As assessed above, the animat modelling demonstrates that TTS effects are not expected to occur in the migration BIA. Impacts to cetaceans are likely to be limited to temporary behavioural changes (avoidance) in individuals migrating through the Operational Area. Received sound levels at the pygmy blue whale foraging BIA are predicted to be below 130 dB re 1 <math>\mu</math>Pa SPL. No significant behavioural response is expected and the foraging BIA is well beyond the maximum range in which TTS effects could occur.</li> <li>• Interesting habitats for marine turtles – As assessed above, no impacts are expected to turtles within designated interesting habitats, which are located over 150 km from the Active Source Area.</li> </ul> <p>Given that the other marine parks within the EMBA are located a greater distance from the Operational Area no impacts will occur as a result of underwater sound from the survey.</p> <p>The objectives of the North-west Marine Parks Network Management Plan are to provide for:</p> <ul style="list-style-type: none"> <li>• the protection and conservation of biodiversity and other natural, cultural and heritage values of marine parks in the North-west Network</li> <li>• ecologically sustainable use and enjoyment of the natural resources within marine parks in the North-west Network, where this is consistent with objective (a).</li> </ul>	

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### Impact Assessment

The Petroleum Activities Program will be undertaken in a manner that is consistent with the management objectives for the AMPs and the North-west Marine Park Network. No long-term impacts are predicted and the values will be conserved and protected.

#### *Marine Protected Areas – Impact Assessment Conclusion*

Based on the proposed timing and duration (up to 80-days) of the seismic acquisition and the control measures proposed, predicted noise levels from seismic acquisition are not considered likely to cause any ecologically significant impacts to the natural values of the AMPs.

#### **Cumulative Assessment**

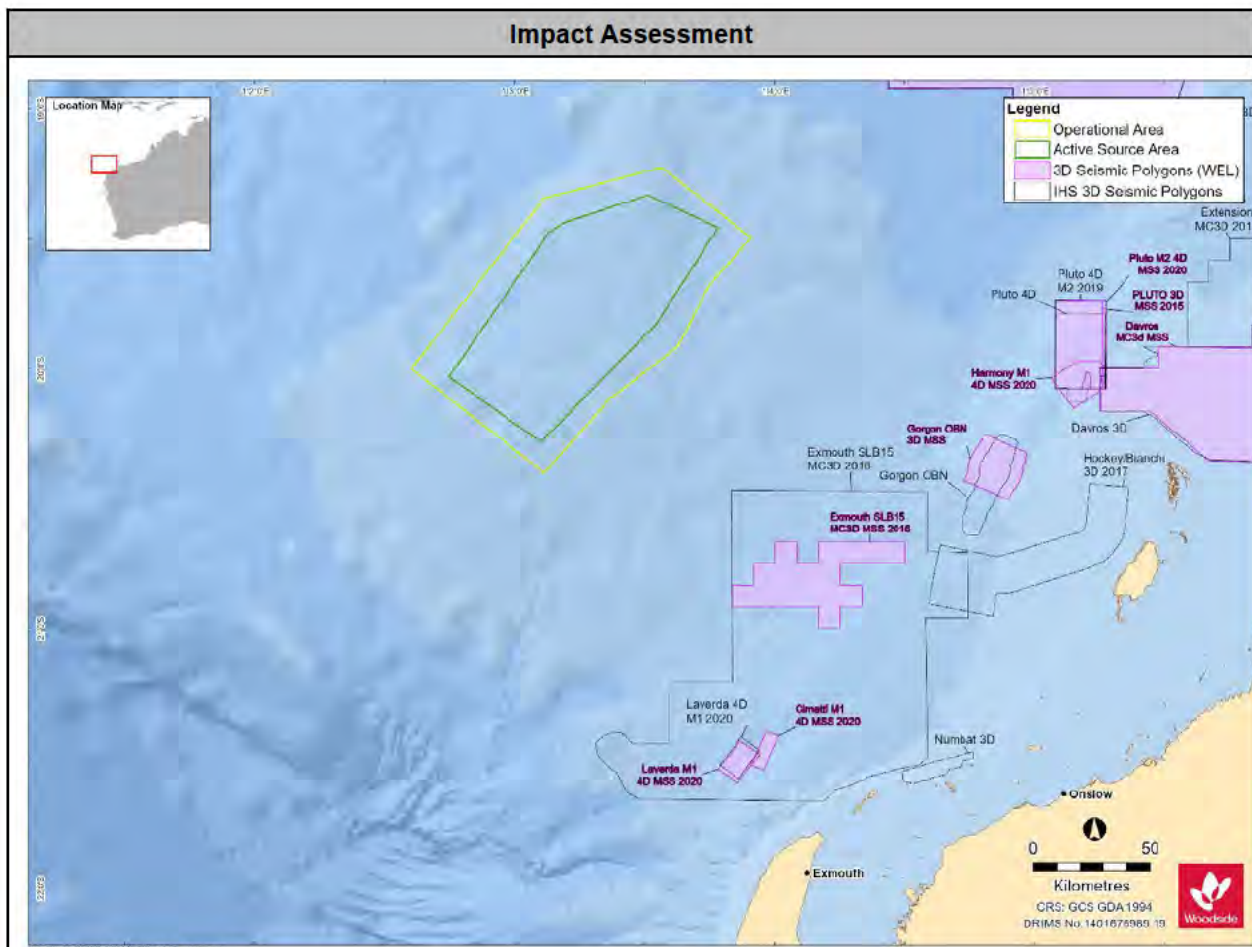
##### *Previous Seismic Surveys*

Cumulative impacts from successive seismic surveys in the same area can occur when timing between the surveys is less than the recovery rate of any potential receptors, which can be in the order of minutes to hours for some receptors (e.g. zooplankton and fish), or weeks to months for others (e.g. benthic invertebrates), as described above. A summary of the marine seismic surveys that have been undertaken in the last five years (2016-2021) within approximately 150 km of the Scarborough 4D B1 MSS Active Source Area is presented in **Table 6-11** and **Figure 6-4**. As shown in **Table 6-11** and **Figure 6-4**, there is no spatial overlap between the Scarborough 4D B1 MSS Operational Area and any other seismic survey Operational Areas.

**Table 6-11: Previous seismic surveys completed within 150 km of the Scarborough 4D B1 MSS from 2016-2021**

Survey Name	Operator	Acquisition Period(s)	Spatial overlap
Cimatti 4D MSS	Woodside Energy Ltd	13/04/2020–23/04/2020	None
Laverda 4D MSS	Woodside Energy Ltd	09/03/2020–11/04/2020	None
Harmony 4D MSS	Woodside Energy Ltd	12/02/2020–04/03/2020	None
Pluto 4D MSS	Woodside Energy Ltd	05/01/2020–09/02/2020	None
Bianchi-Hockey 3D MSS	Quadrant Northwest Pty Ltd	23/01/2017–09/03/2017	None
Exmouth SLB15 MC 3D MSS	Schlumberger Australia	07/12/2016–01/05/2017	None
Gorgon OBN MSS	Chevron Australia Pty Ltd	03/11/2015–07/04/2016	None





**Figure 6-4: Previous seismic surveys that have occurred in the region**

#### Marine fauna

The footprint of any significant underwater noise effects to marine fauna resulting from the proposed seismic survey has been assessed as being within approximately 22 km from the seismic source, based on the maximum range to TTS and behavioural effects for any receptor, in this case pygmy blue whales. However, a 150 km buffer has been selected as a conservative criterion to assess potential cumulative impacts. The maximum recovery rate for marine fauna receptors is in the order of weeks to months, particularly for sharks, marine turtles and cetaceans. Given that there have been no seismic surveys completed over the same area of seabed as the Scarborough 4D B1 MSS in the past five years, ecological receptors are expected to have recovered.

Therefore, cumulative impacts to marine fauna are not expected to occur as a result of any of the identified previous seismic surveys in the region and the proposed Scarborough 4D B1 MSS.

#### Commercial fisheries

There is only one Commonwealth managed fishery (Western Deepwater Trawl Fishery) and one State managed fishery (West Coast Deep Sea Crustacean Managed Fishery) that have historically had catch/effort within the Operational Area, however there has been no recent fishing catch/effort within the Operational Area from 2008-2019 (Patterson et al., 2020) and 2010-2019 (DPIRD, 2021), respectively (refer to **Section 4.10.2**).

There are three previous seismic surveys within 150 km of the Scarborough 4D B1 MSS Operational Area (Cimatti 4D MSS, Laverda 4D MSS and Exmouth SLB15 MC 3D MSS) with partial overlap with the Western Deepwater Trawl Fishery management boundary and West Coast Deep Sea Crustacean Managed Fishery management boundary. The most recent seismic survey (Cimatti 4D MSS) was completed in late-April 2020. It is acknowledged that the behaviours and distribution of pelagic fish species could be affected for hours to days following exposure, as a result of potential disturbance to more sound-sensitive prey species. Crustaceans were found to recover from impacts from seismic noise exposure within weeks to months after exposure. No long-term impacts on the abundance or community structure of either species were not found. Therefore, it is expected that any impacts to commercially targeted fish or crustacean species will have recovered. Given the lack of recent fishing effort within the Operational Area, the Scarborough 4D B1 MSS is expected to have limited to no impact to this commercial fishery, and no cumulative impacts are expected to occur.

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### Impact Assessment

#### Concurrent Seismic Surveys

Over the scheduled duration of the Scarborough 4D B1 MSS there are four other seismic surveys proposed in the broader NWMR. **Table 6-12** presents the seismic surveys that may occur within the same EP timeframes, and have either been accepted by NOPSEMA or have been submitted to NOPSEMA for public comment period or assessment. The below assessment does not assess cumulative impacts from seismic surveys in the region that occur after the Scarborough 4D B1 MSS or that have not yet submitted an Environmental Plan to NOPSEMA.

**Table 6-12: Other potential seismic surveys occurring in the region**

Survey Name	Operator	Survey Location	Survey Timing	EP Status
Capreolus-2 3D MSS	TGS-NOPEC Geophysical Company Pty Ltd	~ 275 km east of the Operational Area	1/10/2020–31/12/2024	The EP is accepted and valid to 2024
INPEX 2D MSS (WA-532-P, WA-533-P, WA-50-L)	INPEX	~ 700 km east of the Operational Area	1/11/2021–31/05/2022 Contingency: 1/11/2022–31/05/2023; 1/11/2023–31/12/2023	The EP is accepted and valid to 2023
Archer 3D MSS	Santos WA Northwest Pty Ltd	~450 km east of the Operational Area	1/02/2021–31/07/2021; 1/02/2022–31/07/2022	The EP is accepted and valid to 2022
Keraudren Extension 3D MSS	Santos WA Northwest Pty Ltd	~500 km east of the Operational Area	1/02/2020–31/07/2020; 1/02/2021–31/07/2021; 1/02/2022–31/07/2022	The EP is accepted and valid to 2022

The individual sound fields produced by separate concurrent seismic surveys has the potential to interact where sound waves from the separate seismic sources may be received either in synchrony (“in synch”) or out of synchrony (“out of synch”). The way in which these sound waves might react was considered by JASCO Applied Sciences and ERM for the Santos Keraudren Extension 3D MSS EP (Santos, 2020a). An increase in sound levels may occur temporarily at locations where the received signals from each source occur in synch. However, in most instances, pulses will be out of synch and increased received PK-PK sound levels will not occur often.

Given that different seismic sources are unlikely to be discharged at exactly the same time, different surveys will have different source impulse intervals. Additionally, given that each pulse will be a few hundred milliseconds in duration with several seconds in between, pulses will generally be out of synch with one another. Pulses may still line up occasionally for a brief moment at some locations, and when they do, the amplitudes will then be too unequal for the sum level to differ much from the stronger of the two components. However, in the unlikely case that two pulses interact and are exactly synchronised with each other, then the combined SPL would be 3 dB higher than the individual SPL, which represents a doubling of sound energy. Further explanation is provided in Santos (2020a).

A minimum separation distance of at least 40 km will be maintained between the Scarborough 4D B1 MSS and any other concurrently operating seismic source during data acquisition activities to prevent acoustic interference and preserve seismic data integrity. As a result of this separation, underwater sound from the seismic source is not expected to combine to significantly raise the SPL to levels which receptors may be exposed. Modelling of the seismic source for the Scarborough 4D B1 MSS shows that sound levels will be below 150 dB re 1µPa at 20 km from the source (half way between two seismic sources at their minimum separation distance) (Koessler et al. 2021; **Appendix G**). A combination of seismic sound from two similar seismic sources at this distance would therefore be expected to result in an SPL of no greater than 153 dB re 1µPa.

While the overall sound levels are not expected to be significantly increased, it is acknowledged that the result of multiple seismic vessels operating concurrently will represent a wider spatial area of potential exposure to seismic sound for receptors, as well as the potential for receptors to be exposed to separate sound fields from multiple surveys. There are no planned seismic surveys with overlap with the Scarborough 4D B1 MSS Operational Area.

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## Impact Assessment

### Zooplankton

Based on the maximum worst case mortality exposure suggested by McCauley et al. (2017) and modelling completed by CSIRO (Richardson et al., 2017), impacts to zooplankton are only expected to be significant within a short range (< 15 km) of seismic survey areas. The maximum predicted distances to mortality for zooplankton during the Scarborough 4D B1 MSS was approximately 110 m (**Table 6-2**). Beyond 22 days of acquisition, Richardson et al. (2017) found that no further relative increase in zooplankton mortality occurs, due to recruitment of zooplankton via currents from adjacent areas, and conditions return to normal within a few days of a survey ceasing. At the regional scale, these impacts are not expected to be significant (Richardson et al., 2017). Further, natural mortality rate in zooplankton can be high, and therefore limited impacts are expected relative to the natural variation in zooplankton concentrations and mortality rate.

There are no significant, discernible cumulative impacts to zooplankton, expected to occur given the minimum separation distance of 40 km between the Scarborough 4D B1 MSS and any other operating seismic sources. The cumulative impacts to zooplankton are expected to be negligible.

### Benthic Invertebrates

The maximum worst case impacts reported for invertebrates include sub-lethal impacts such as statocyst impairment, temporary reduced immune response function, temporary impaired reflexes, and potentially some chronic effects that lead to mortality of a very small number of sessile benthic invertebrates over and above natural mortality rates. Repeated exposures to seismic noise for some sessile invertebrates, such as bivalves, have been observed to result in additional chronic mortality in the weeks and months following exposure compared with invertebrates exposed to just one pass of a seismic source (i.e. an increase of approximately 2-5%) (Day et al., 2016b). However, such effects may still be within the range of naturally occurring mortality rates documented in the wild (Day et al., 2017). Therefore, given that repeat exposures will affect only a small proportion of benthic organisms, and the natural cycle of death and recruitment will occur in parallel, the impacts of repeated seismic exposure may not be detectable from natural fluctuations in benthic invertebrates.

The Scarborough 4D B1 MSS seismic source will be operated in water depths >800 m, where benthic invertebrate diversity and abundance are expected to be low, and it is not expected that there would be any impact to benthic invertebrates from noise emissions from the seismic source. Impacts to benthic invertebrates during other seismic surveys are expected to occur at close range to the seismic source, within a few hundred metres.

Given the minimum separation distance of 40 km between the Scarborough 4D B1 MSS and other operating seismic sources, no significant, discernible cumulative impacts to benthic invertebrates are expected to occur.

### Fish, Sharks and Rays

No significant, discernible cumulative impacts to fish, sharks and rays are expected to occur given the minimum separation distance of 40 km between the Scarborough 4D B1 MSS and any other operating seismic sources. Behavioural impacts to fish are expected to occur within tens to hundreds of metres of a seismic source (Popper et al., 2014), returning to normal within minutes to hours or days, depending on the species, hearing sensitivity and situational context.

Individual groups of fishes in each seismic survey Active Source Area may be subject to occasional behavioural disturbances, however no cumulative overlap of strong behavioural responses is expected to occur. Some changes in fish abundance and distribution could occur as a result of sound exposure from multiple operating seismic sources, although these changes are expected to return to normal within hours to days.

Whale sharks may experience localised disturbance when passing each of the other seismic survey Operational Areas, particularly as they overlap with a whale shark foraging BIA. However, as all vessels will maintain a minimum separation distance of 40 km, and the Scarborough 4D B1 MSS Active Source Area does not overlap with the whale shark foraging BIA, separate and isolated incidents of disturbance are not expected to result in significant cumulative impacts.

### Cetaceans

There are no significant, discernible cumulative impacts to cetaceans, expected to occur given the minimum separation distance of 40 km between the Scarborough 4D B1 MSS and any other operating seismic sources. As above, combined seismic sound from two similar seismic sources at a distance of half the minimum separation distance (20 km) would be expected to result in an SPL lower than the defined behavioural response thresholds for cetaceans of 160 dB re 1µPa (**Table 6-5**). Any behavioural avoidance or deviations are expected to be small relative to the long distances (i.e. thousands of kilometres) over which cetaceans usually travel during their migrations.

**Table 6-13** provides an assessment of cumulative impacts to migrating pygmy blue whales. There are no other potential seismic surveys occurring near the pygmy blue whale foraging BIA, located 154 km south of the Scarborough 4D B1 MSS Operational Area.

**Table 6-13: Assessment of cumulative impacts to migrating pygmy blue whales**

	Pygmy blue whales
<b>Woodside Scarborough 4D B1 MSS</b>	<p>The Scarborough 4D B1 MSS Operational Area is located approximately 14 km north-west of the pygmy blue whale migration BIA.</p> <p>At its closest point, the Active Source Area is 25 km from the migration BIA.</p> <p>TTS effects to pygmy blue whales were predicted to occur up to 22 km from the seismic source (<b>Table 6-7</b>). Therefore, no TTS effects are predicted to migrating pygmy blue whales within the migration BIA.</p> <p>Short-term behavioural impacts may occur up to 7.3 km from the seismic source (<b>Table 6-6</b>). Therefore, short-term behavioural impacts to migrating pygmy blue whales are not expected within the migration BIA.</p>
<b>TGS Capreolus-2 3D MSS</b> (TGS, 2020)	<p>The Capreolus-2 3D MSS overlaps with the pygmy blue whale migration BIA. The seismic source will not be operated within 24 km of the pygmy blue whale migration BIA during the migration periods for the species (April to August and October to December).</p> <p>Maximum predicted distances to TTS thresholds for pygmy blue whales within the migration BIA is 24 km. Therefore, no TTS effects are predicted to migrating pygmy blue whales within the migration BIA.</p> <p>Short-term behavioural impacts may occur up to 9.5 km from the seismic source. Therefore, short-term behavioural impacts to migrating pygmy blue whales are not expected within the migration BIA.</p>
<b>INPEX 2D MSS</b> (INPEX, 2021)	<p>The INPEX 2D MSS overlaps with the pygmy blue whale migration BIA. The seismic source will not be operated within 24 km of the pygmy blue whale migration BIA during the migration periods for the species (April to August and October to December).</p> <p>The maximum predicted distance to TTS thresholds for pygmy blue whales is approximately 23 km. Therefore, no TTS effects are predicted to migrating pygmy blue whales within the migration BIA.</p> <p>Short-term behavioural impacts may occur up to 6.5–8 km from the seismic source in continental slope waters. Migrating pygmy blue whales may deviate from their normal course by several kilometres to avoid the seismic sound source, however this distance does not constrain the migration path of pygmy blue whales. Therefore, occasional and localised short-term behavioural impacts are predicted to migrating pygmy blue whales within the migration BIA.</p>
<b>Santos Keraudren Extension 3D MSS</b> (Santos, 2020a)	<p>The Keraudren Extension 3D MSS Operational Area is located approximately 30 km north-west of the pygmy blue whale migration BIA, and the Active Source Area is located over 100 km from the pygmy blue whale migration BIA. Timing of the survey also only coincides with part of the northbound migration.</p> <p>Maximum predicted distances to TTS thresholds for pygmy blue whales is 31 km. Therefore, no TTS effects are predicted to migrating pygmy blue whales within the migration BIA.</p> <p>Short-term behavioural impacts may occur up to 9 km from the seismic source. Therefore, short-term behavioural impacts to migrating pygmy blue whales are not expected within the migration BIA.</p>

Based on the assessment provided in **Table 6-13**, no significant cumulative TTS or behavioural impacts are expected to pygmy blue whales within the migration BIA. No TTS or behavioural impacts as a result of the Scarborough 4D B1 MSS seismic survey are expected to migrating pygmy blue whales, and the other concurrent planned seismic surveys in the region do not constrain the migration route for pygmy blue whales (only partial overlap with the Operational Areas and migration BIAs). It is expected that pygmy blue whales will continue to utilise the migration routes without injury or displacement.

Other cetacean species that may occur within the region, for example humpback, fin and sei whales, are expected to be transient and no changes to migration or other life stages are expected. Localised disturbances may occur when passing the concurrent seismic surveys, however these isolated incidents of disturbance are not expected to result in significant cumulative impacts.

#### Marine Reptiles

No significant, discernible cumulative impacts to marine turtles are expected to occur given the minimum separation distance of 40 km between the Scarborough 4D B1 MSS and any other operating seismic sources. Any behavioural avoidance or deviations are expected to be small relative to the long distances over which marine turtles usually travel.

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### Impact Assessment

Marine turtles may experience a short-term behavioural response up to approximately 4 km from the Scarborough 4D B1 MSS operating source, based on the NMFS criterion of 166 dB re 1  $\mu$ Pa SPL (**Table 6-9**). The Scarborough 4D B1 MSS Operational Area is located 135 km north-west of the nearest interesting buffer for flatback turtles, and 147 km north-west of the nearest Habitat Critical for flatback turtles (refer to **Section 4.6.2**).

Given that there is no expected impact to marine turtles as a result of the Scarborough 4D B1 MSS, no cumulative behavioural effects to marine turtles are expected within interesting buffer BIAs or Habitat Critical areas. Localised disturbances to marine turtles may occur when passing the concurrent seismic surveys, however these isolated incidents of disturbance are not expected to result in significant cumulative impacts.

#### Commercial Fisheries

Cumulative impacts to commercial fisheries may occur if multiple seismic surveys occur concurrently or in quick succession within a fishery, resulting in displacement of commercial fishing vessels or changes in catch rates due to behavioural changes in target fish or crustacean species. The expected range and duration of impacts to fish abundance, distribution and catch rates is relatively small compared to wider areas within which the fisheries operate.

There is only one Commonwealth managed fishery (Western Deepwater Trawl Fishery) and one State managed fishery (West Coast Deep Sea Crustacean Managed Fishery) that have historically had catch/effort within the Operational Area, however there has been no recent fishing catch/effort within the Operational Area from 2008-2019 (Patterson et al., 2020) and 2018-2022 (DPIRD, 2022), respectively (refer to **Section 4.10.2**).

There are no concurrent seismic surveys proposed in the region that overlap with the Western Deepwater Trawl Fishery or the West Coast Deep Sea Crustacean Managed Fishery. In the absence of any other surveys, and lack of recent fishing effort within the Scarborough 4D B1 MSS Operational Area, cumulative impacts to commercial fisheries are not expected.

#### Concurrent Woodside Activities

Scarborough drilling and completion activities may be undertaken within WA-61-L; however, there will be no temporal overlap with acquisition of the Scarborough 4D B1 MSS (activities will not occur concurrently) and therefore no cumulative underwater noise impacts are predicted with from this activity (**Section 6.3**).

#### Concurrent Other Oil & Gas Projects

Acquisition of the Scarborough 4D B1 MSS may coincide with other oil and gas activities in the region – e.g. drilling of the Sasonof-1 exploration well in WA-519-P, and activities associated with the Jansz-Io Compression project. However, these activities will take place at locations that are >50 km (Sasonof-1) and >90 km (Jansz-Io) from the Active Source Area, and consequently no cumulative underwater noise impacts are predicted with from these activities.

### Demonstration of ALARP

Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
<b>Legislation, Codes and Standards</b>				
Application of EPBC Policy Statement 2.1 Part A Standard Management Procedures to whales and Part B.4, as outlined below: <ul style="list-style-type: none"> <li>• observation zone:                3 km+ to the limits of visibility for large unidentified whales                2 km to 3 km for all other whales             </li> <li>• shut-down zone:                to limits of visibility for positively identified (certain or</li> </ul>	F: Yes. CS: Extending the shut-down zones may result in additional shut-downs potentially resulting in extending the survey and additional costs	Reduces the likelihood of individual whales being within proximity of the acoustic source where TTS could occur and eliminates the potential for PTS. Single pulse PTS and TTS impacts to LF-cetaceans (such as pygmy blue whales) are predicted to be constrained to within 40 m and 60 m of the seismic source, respectively ( <b>Table 6-6</b> ). Therefore, application of a shut-down zone of a minimum of 2 km is an effective control in ensuring	Benefits outweigh cost/sacrifice. Benefits outweigh cost/sacrifice. Extending the shut-down zone further for pygmy blue whales was considered, including: <ul style="list-style-type: none"> <li>• shut-down zones past the limits of</li> </ul>	Yes <b>C 4.1</b>

<sup>1</sup> Qualitative measure

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
<p>probable confidence level) pygmy blue whales or large unidentified whales;</p> <p>2 km for all whales</p> <ul style="list-style-type: none"> <li>• Observation and compliance reporting:</li> </ul> <p>Use of trained vessel crew in marine fauna observations and monitoring compliance to Policy Statement 2.1.</p> <p>Records kept of marine fauna observation during all surveys.</p> <ul style="list-style-type: none"> <li>• Pre start-up visual observation (30 minutes)</li> <li>• Soft start procedure (30 minutes)</li> <li>• Start-up delay procedure (if sighting occurs)</li> <li>• Operations procedure</li> <li>• Stop work (shut down) procedure</li> <li>• Night-time and low visibility procedure</li> </ul>		<p>that no PTS and TTS impacts will occur to pygmy blue whales from short-term exposure to seismic noise at close range to the source.</p> <p>As the activity is taking place within the distribution range for pygmy blue whales where there is a lower possibility of encountering individual whales as compared to the migration BIA (Thums et al., 2022). If this occurs, the application of EPBC Policy Statement 2.1 Part A Standard Management Procedures and extended observation and shutdown zones (Part B.4) will minimise the likelihood of TTS effects.</p> <p>The pygmy blue whale migration BIA is located ~25 km from the Active Source Area. Based on an overlap of three different metrics (occupancy, number of whales in a cell and move persistence) Thums et al. (2022) identified the most important foraging areas for pygmy blue whales offshore from WA. This included the area off the shelf edge from Ningaloo Reef to the Rowley Shoals but not the Operational Area.</p> <p>Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered of low likelihood but possible, with the occasional individual or small group of whales within the Operational Area and mostly likely in the peak period of the northbound migration (May and June), based on the recorded presence of one pygmy blue whale.</p> <p>Cumulative PTS and TTS impacts to LF-cetaceans (such as pygmy blue</p>	<p>visibility; and</p> <ul style="list-style-type: none"> <li>• extending shut-down zone to the limits of visibility for large unidentified whales.</li> </ul> <p>However as impacts to pygmy blue whales are already reduced to ALARP and acceptable levels considering impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes', no TTS is predicted in the pygmy blue whale migration BIA and no significant behavioural impacts are predicted, further extension of the shut-down zones is considered disproportionate to the environmental benefits.</p> <p>Given the application of EPBC Act Policy Statement 2.1 Part A Standard Management Measures and Part B.4 - Increased precaution zones and buffer</p>	

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
		<p>whales) are predicted to be constrained to within 0.13 km and ~22 km of the seismic source, respectively (Table 6-7). A tagging study of blue whales showed that migrating individuals can travel 50 to 100 km per day (Double et al., 2014). This equates to an average swimming speed of 2-4 km/hr over a 24-hour period. In comparison, the seismic vessel will be traveling at around 4.5 knots (~8 km/hr). Migrating pygmy blue whales at greatest risk of seismic noise exposure are likely to be moving parallel to the survey lines (i.e. migrating). At a speed of 8 km/hr it will take the survey vessel ~9 hours on average to acquire lines in the Active Source Area (with the longest line taking ~12.5 hours), and then the source is shut down during line turns. As sound levels from the seismic source will only exceed the PTS SEL<sub>24hr</sub> metric for LF-cetaceans at a range up to 0.13 km from the vessel, application of the 'to the limits of visibility' shut-down zone will ensure that this threshold is not exceeded. Similarly for cumulative TTS exposure, sound levels from the seismic source will exceed the TTS SEL<sub>24hr</sub> metric for LF-cetaceans for up to 22 km from the vessel. As a whale is expected to pass through the ensonified area in less than 24-hours, an isolated individual is highly unlikely to remain within the reported SEL<sub>24hr</sub> radius for the full 24-hours leading to TTS exposure, particularly due to the lack of foraging grounds within the region.</p>	<p>zones, the risk of TTS is reduced to ALARP and acceptable levels.</p>	

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>6</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<p>Application of EPBC Act Policy Statement 2.1 Part B.1 – MMOs:</p> <ul style="list-style-type: none"> <li>Employ four dedicated MFOs to undertake observations for EPBC Act Policy Statement 2.1.</li> </ul>	<p>F: Yes. CS: Minimal cost. Standard practice.</p>	<p>Two dedicated MFOs per observing vessel (seismic vessel and spotter vessel) provides improved marine fauna identification, distance estimation and implementation of EPBC Act Policy Statement 2.1.</p> <p>Two MFOs on board each vessel allows at least one MFO to be undertaking observations with the potential to increase effort as needed.</p> <p>Two MFOs on board each vessel also provides contingency in the event one is unavailable and for managing work shift fatigue.</p>	<p>Benefits outweigh cost/sacrifice.</p>	<p>Yes <b>C 4.2</b></p>
<p>Application of EPBC Act Policy Statement 2.1 Part B.5 – PAM:</p> <ul style="list-style-type: none"> <li>A PAM system will be installed aboard the survey vessel to detect odontocete whales (specifically sperm and beaked whales).</li> <li>Employ two dedicated PAM operators wherever possible.</li> </ul>	<p>F: Yes CS: Minimal cost.</p>	<p>Two dedicated PAM operators provides improved marine fauna identification and implementation of EPBC Act Policy Statement 2.1.</p> <p>Two PAM operators on board provides contingency in the event one is unavailable and for managing work shift fatigue.</p>	<p>Benefits outweigh cost/sacrifice.</p>	<p>Yes <b>C 4.3</b></p>
<p>Application of EPBC Act Policy Statement 2.1 Part B.6 – Adaptive Management measures to minimise the potential impacts to pygmy blue whales from seismic noise. The following adaptive measures will be implemented:</p> <ul style="list-style-type: none"> <li>If there are three or more shut-downs for pygmy blue whales within a 24-hour period (including spotter vessel MFO shutdowns), then the seismic operations must not be undertaken thereafter at night-time or during low visibility conditions.</li> </ul> <p>Seismic operations cannot resume at night-time or during low visibility conditions, until there has been a cumulative 24-hour</p>	<p>F: Yes CS: Increased costs of the survey during no seismic operations, prolonging the survey duration.</p> <p>Any delays to the seismic program could result in significant cost and operational implications.</p> <p>It would also extend the duration of the survey, potentially increasing impacts to other receptors.</p> <p>However, observation zone has been selected to be protective of pygmy blue whales.</p>	<p>PTS or TTS effects to pygmy blue whales are not predicted to occur from exposure to a single impulse. However, adaptive management measures are considered conservative and appropriate to provide protection to pygmy blue whales that may be exposed to multiple pulses at close range.</p>	<p>Benefits outweigh cost/sacrifice.</p>	<p>Yes <b>C 4.4</b></p>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
period of seismic operations (daylight hours with good visibility) during which there has been less than three shut-downs for pygmy blue whales				
<p>EPBC Act Policy Statement 2.1 Part B.3 – Use of additional vessels to detect presence of cetaceans, during all daylight activities with seismic source discharge:</p> <ul style="list-style-type: none"> <li>Use of two MFOs aboard a dedicated spotter vessel travelling ~5 km out ahead of the seismic vessel to implement C 4.1.</li> </ul>	<p>F: Yes. Increases potential likelihood of environmental impacts, health and safety impacts to personnel due to additional vessel in the field.</p> <p>CS: Significant cost of additional vessel and personnel.</p>	<p>Two dedicated additional MFOs aboard a dedicated spotter vessel provides improved marine fauna detection and identification, and implementation of EPBC Act Policy Statement 2.1. The spotter vessel MFOs will work in tandem with survey vessel MFOs to implement C 4.1 (Policy Statement 2.1 Part A Standard Management Procedures and Part B.4) and C 4.4 (Adaptive Management Measures for pygmy blue whales).</p> <p>Stationing the spotter vessel ~5 km ahead of the survey vessel and acoustic array allows for the spotter vessel MFO observation zone (3km+ in good visibility) to extend ahead of the seismic source out to and beyond the 7.28 km behavioural disturbance distance for LF cetaceans. As a result of the extended MFO observation coverage there is an extended range for the implementation of the PBW / large unidentified whale shut down zone. Thus minimising the potential for biologically significant behavioural disturbances.</p> <p>Adaptive management and the use of the pygmy blue whale sightings (e.g numbers are greater than predicted) to trigger the implementation of this control were considered in line with the precautionary principle, to limit potential impacts. However, this could not be implemented due to logistical constraints surrounding vessel availability at short notice.</p>	Benefits outweigh cost/sacrifice.	Yes <b>C 4.6</b>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
		As such the control will be applied throughout the duration of the activity extending beyond the precautionary principle.		
The seismic source will not be discharged outside of the Active Source Area.	F: Yes CS: CS: Minimal cost. Standard practice.	Limits the effects of underwater sound to the extent that is assessed in this EP.	Benefits outweigh cost/sacrifice.	Yes <b>C 5.1</b>
Woodside will ensure the environmental impacts and risks of the activity continue to be managed to as low as reasonably practicable and an acceptable level for cultural values or features.	F: Yes CS: Minimal costs	This will ensure the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if impacts to cultural values are identified.	Benefits outweigh cost/sacrifice	Yes <b>C 1.8</b>
<b>Good Practice</b>				
Seismic source validation.	F: Yes CS: Source modelling can be undertaken at minimal cost and relatively quickly.	If the seismic source selected for the Petroleum Activities Program is different to the source modelled and assessed in Koessler et al. (2021; <b>Appendix G</b> ), then additional source modelling will be undertaken to confirm whether the sound levels are consistent with levels assessed as acceptable in this EP.	Benefits outweigh cost/sacrifice.	Yes <b>C 3.1</b>
No operation of the seismic source within 25 km of the pygmy blue whale migration BIA.	F: Yes CS: Minimal cost. The Active Source Area is located >25 km from the pygmy blue whale migration BIA.	ANIMAT modelling ( <b>Appendix G</b> ) predicts that the maximum range at which pygmy blue whales may experience TTS is at 21.73 km. Preventing operation of the seismic source within 25 km of the pygmy blue whale migration BIA provides some additional conservatism and prevents TTS effects and injury to pygmy blue whales in the migration BIA.	Benefits outweigh cost/sacrifice.	Yes <b>C 4.5</b>
A 40 km separation distance between the Petroleum Activities Program and any identified concurrent seismic survey	F: Yes CS: In the event that other surveys are present in the region, a 40 km separation distance may result in delays due to vessel downtime or loss of survey area.	The Bureau of Ocean Energy Management (BOEM, 2014) published an environmental review of geological and geophysical survey activities in the south Atlantic Ocean. To minimise impacts to marine life by providing a 'corridor' between vessels, the environmental impact statement from this review	Benefits outweigh cost/sacrifice.	Yes <b>C 6.1</b>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>6</sup>	Benefit/Reduction in Impact	Proportionality	Control Adopted
		included a requirement for a 40 km geographic separation distance (based on worst case scenarios) between the sources of simultaneous seismic surveys.		
Record sightings of marine turtles during the activity.	F: Yes CS: Minimal cost	Collecting data on marine turtle presence may assist in increasing understanding of their activity in the Operational Area.	Benefits outweigh cost/sacrifice.	Yes C 5.2
Reduce size of Active Source Area to minimise potential for behavioural responses in pygmy blue whales	F: Yes CS: Significant cost and schedule impacts. The Active Source Area has been designed to cover both the Scarborough and Jupiter fields, so that the survey provides new 3D / baseline 4D seismic data over both fields. Reducing the size of the Active Source Area would mean that the Jupiter extension would have to be acquired as part of a separate additional survey.	<p>There is no overlap between the Active Source Area or the Operational Area with the pygmy blue whale migration BIA.</p> <p>Given the implementation of adaptive management measures and the absence of any TTS effects within the pygmy blue whale migration BIA, the potential impacts of noise emissions from the seismic source on pygmy blue whales are likely to be restricted to temporary behavioural changes (avoidance) in individuals moving through the Operational Area, with predicted noise levels from the seismic acquisition not considered likely to cause injury effects.</p> <p>Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered low.</p> <p>However, based on the recorded presence of one pygmy blue whale overlapping with the Operational Area there may be the occasional individual or small group of whales transiting the area, mostly likely in the peak period of the northbound migration (May and June).</p> <p>An additional control of a dedicated spotter vessel travelling ahead of the seismic vessel increases the ability to detect pygmy blue whales in this peak</p>	Disproportionate. The cost / sacrifice outweighs the benefit gained. Implementing EPBC Policy Statement 2.1 Part A, and selected Part B measures will achieve an acceptable level of risk reduction during the pygmy blue whale northbound and southbound migrations.	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>6</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
		northbound migratory period, refer to <b>C 4.6</b> .		
<b>Professional Judgement – Eliminate</b>				
Reprocess previously acquired data	F: No. Woodside has re-processed the 2004 vintage seismic survey, HEX-003 on two separate occasions, in 2010 and 2018, on the latter occasion the processing involved the implementation of state-of-the-art Full Wave Equation imaging. No further uplift can be gained from this data. Additionally the original survey does not extend over the full Scarborough gas field or over the Jupiter gas field. CS: Not considered – control not feasible.	Not considered-control not feasible.	Not considered-control not feasible.	No
Use of alternative technologies to acquire data	F: No. Marine seismic vibrator technology is still in research and development and is yet to be offered commercially. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
Vary the timing of the Petroleum Activities Program to avoid migration periods of pygmy blue whales	F: Yes CS: Significant cost and schedule impacts due to difficulties in securing a survey vessel for specific timeframes outside migration periods for pygmy blue whales. Reduces timeframe for acquisition to 4-months (Feb-Mar and Aug-Sept), which would limit the possibility of using a vessel of	There is no overlap between the Active Source Area or the Operational Area with the pygmy blue whale migration BIA.  Given the implementation of adaptive management measures and the absence of any TTS effects within the pygmy blue whale migration BIA, the potential impacts of noise emissions from the seismic source on pygmy blue whales are likely to be restricted to temporary behavioural	Disproportionate. The cost / sacrifice outweighs the benefit gained.  Implementing EPBC Policy Statement 2.1 Part A, and selected Part B measures will achieve an acceptable level of risk reduction during the	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>6</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	opportunity' that may be in the region.	<p>changes (avoidance) in individuals moving through the Operational Area, with predicted noise levels from the seismic acquisition not considered likely to cause injury effects.</p> <p>Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered low. However, based on the recorded presence of one pygmy blue whale overlapping with the Operational Area there may be the occasional individual or small group of whales transiting the area, mostly likely in the peak period of the northbound migration (May and June).</p> <p>An additional control of a dedicated spotter vessel travelling ahead of the seismic vessel increases the ability to detect pygmy blue whales in this peak northbound migratory period, refer to <b>C 4.6</b>.</p>	pygmy blue whale northbound and southbound migrations.	
<b>Professional Judgement – Substitute</b>				
None identified				
<b>Professional Judgement – Engineered Solution</b>				
Reduce seismic source capacity (volume) to minimise potential for behavioural responses in pygmy blue whales	<p>F: Yes</p> <p>CS: Significant cost and schedule impacts. The seismic source specifications were selected following a technical assessment, and a review of legacy seismic survey parameters. The source specifications have considered the range of water depths within the Active Source Area and depth of the targets within the subsurface geology to ensure adequate seismic imaging. It was determined that</p>	<p>There is no overlap between the Active Source Area or the Operational Area with the pygmy blue whale migration BIA.</p> <p>Given the implementation of adaptive management measures and the absence of any TTS effects within the pygmy blue whale migration BIA, the potential impacts of noise emissions from the seismic source on pygmy blue whales are likely to be restricted to temporary behavioural changes (avoidance) in individuals moving through the Operational Area, with predicted noise levels from the seismic acquisition not</p>	<p>Disproportionate. The cost / sacrifice outweighs the benefit gained.</p> <p>Implementing EPBC Policy Statement 2.1 Part A, and selected Part B measures will achieve an acceptable level of risk reduction during the pygmy blue whale northbound and southbound migrations.</p>	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>6</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	<p>a maximum volume of 3150 cu in is required to adequately image subsurface prospects, and to provide a 4D baseline for potential future monitoring surveys.</p> <p>Reducing the source capacity would result in the acquisition of inadequate 3D data, potentially requiring all or parts of the survey to be re-acquired.</p>	<p>considered likely to cause injury effects.</p> <p>Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered low. However, based on the recorded presence of one pygmy blue whale overlapping with the Operational Area there may be the occasional individual or small group of whales transiting the area, mostly likely in the peak period of the northbound migration (May and June).</p> <p>An additional control of a dedicated spotter vessel travelling ahead of the seismic vessel increases the ability to detect pygmy blue whales in this northbound migratory period, refer to <b>C 4.6</b>.</p>		
<p>EPBC Act Policy Statement 2.1 Part B.3 – Use of spotter aircraft to detect presence of cetaceans</p>	<p>F: Yes.</p> <p>Increases potential likelihood of environmental impacts, health and safety impacts to personnel due to aircraft in the field.</p> <p>Unacceptable risk to personnel in operating aircraft so far offshore.</p> <p>CS: Significant cost of aircraft and personnel. Aircraft range limits observation time at the Operational Area requiring multiple aircraft/crew to cover daylight periods.</p>	<p>Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered low. However, based on the recorded presence of one pygmy blue whale overlapping with the Operational Area there may be the occasional individual or small group of whales transiting the area, mostly likely in the peak period of the northbound migration (May and June).</p> <p>Given the implementation of adaptive management measures and the absence of any TTS effects within the pygmy blue whale migration BIA, the potential impacts of noise emissions from the seismic source on pygmy blue whales are likely to be restricted to temporary behavioural changes (avoidance) in individuals moving through the Operational Area, with predicted noise levels from</p>	<p>Disproportionate.</p> <p>The cost / sacrifice outweighs the benefit gained.</p> <p>Implementing EPBC Policy Statement 2.1 Part A, and selected Part B measures will achieve an acceptable level of risk reduction during the pygmy blue whale northbound and southbound migrations.</p>	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>6</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
		the seismic acquisition not considered likely to cause TTS effects.		
Use of Unmanned Aerial Vehicles (UAVs – drones) to detect presence of cetaceans	F: Yes. Unproven technology in monitoring cetaceans in offshore marine environments. Dependent on suitable weather conditions (low wind speeds and good visibility). CS: Additional cost of drone and pilot	Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered low. However, based on the recorded presence of one pygmy blue whale overlapping with the Operational Area there may be the occasional individual or small group of whales transiting the area, mostly likely in the peak period of the northbound migration (May and June).  Given the implementation of adaptive management measures and the absence of any TTS effects within the pygmy blue whale migration BIA, the potential impacts of noise emissions from the seismic source on pygmy blue whales are likely to be restricted to temporary behavioural changes (avoidance) in individuals moving through the Operational Area, with predicted noise levels from the seismic acquisition not considered likely to cause TTS effects.	Disproportionate. The cost / sacrifice outweighs the benefit gained. Implementing EPBC Policy Statement 2.1 Part A, and selected Part B measures will achieve an acceptable level of risk reduction during the pygmy blue whale northbound and southbound migrations.	No
Use of sonobuoys to detect presence of cetaceans	F: Yes. Signal reception relies on VHF radio frequencies, and therefore line-of-sight between the transmitter (sonobuoy) and the antenna on the vessel. Therefore, does not extend cetacean detection range beyond that achievable via visual observations (MFOs) or PAM. CS: Additional cost of sonobuoys and operators.	Based on the evidence presented in Thums et al. (2022), the likelihood of encountering migrating or foraging pygmy blue whales is considered low. However, based on the recorded presence of one pygmy blue whale overlapping with the Operational Area there may be the occasional individual or small group of whales transiting the area, mostly likely in the peak period of the northbound migration (May and June).  Given the implementation of adaptive management measures and the absence	Disproportionate. The cost / sacrifice outweighs the benefit gained. Implementing EPBC Policy Statement 2.1 Part A, and selected Part B measures will achieve an acceptable level of risk reduction during the pygmy blue whale northbound and southbound migrations.	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>6</sup></b>	<b>Benefit/Reduction in Impact</b>	<b>Proportionality</b>	<b>Control Adopted</b>
		of any TTS effects within the pygmy blue whale migration BIA, the potential impacts of noise emissions from the seismic source on pygmy blue whales are likely to be restricted to temporary behavioural changes (avoidance) in individuals moving through the Operational Area, with predicted noise levels from the seismic acquisition not considered likely to cause TTS effects.		
<p><b>ALARP Statement</b></p> <p>On the basis of the environmental impact assessment outcomes and use of the relevant tools appropriate to the decision type (i.e. Decision Type B), Woodside considers the adopted controls appropriate to manage the impacts and risks of noise emissions generated from seismic source. 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>				

Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
Migratory and threatened cetaceans	<p><b>Principles of ESD</b></p> <p>The impact assessment has considered the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes' (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>Woodside Environment and Biodiversity Policy (<b>Appendix A</b>)</li> <li>Woodside Risk Management Policy (<b>Appendix A</b>).</li> </ul> <p><b>External Context</b></p> <p>Impacts to cetaceans was raised during consultation and this feedback was considered in the finalisation of the EP. Woodside recognises that First Nations have cultural interest to whales and this has been raised in consultation. Potential impacts from acoustic emissions are expected to be 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 area are anticipated as a result of acoustic emissions. Therefore this activity is not</p>	<p>The predicted level of impact for migratory and threatened cetaceans is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will be managed in a manner that prevents physical injury or displacement of pygmy blue whales from migration and foraging BIAs</li> <li>the Petroleum Activities Program will be managed in a manner that prevents physical injury to pygmy blue whales and other cetacean species</li> <li>the Petroleum Activities Program will be managed in a manner that reduces potential biologically significant behavioural disturbances to pygmy blue whales and other cetacean species</li> <li>impacts and risks to cultural values have been taken into consideration and by managing the activity to prevent injury and reduce potential biologically significant behavioural disturbances to whales cultural values are considered to be inherently protected</li> <li>the Petroleum Activities Program will be managed in a manner that is consistent with management objectives</li> </ul>

<sup>7</sup> Where these receptors have a cultural connection (as identified in Section 4.10.1) these have also been considered

Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p>expected to have a significant impact on MNES (Section 2.9.2) including those with an Indigenous connection as defined in Section 4.10.1</p> <p><b>Other Requirements</b></p> <p>The proposed control measures exceed the required standards and control measures set out in EPBC Policy Statement 2.1. Part A Standard Management Measures (DEWHA, 2008).</p> <p>The proposed activity and control measures are not inconsistent with the requirements of recovery plans or wildlife conservation plans/advice as demonstrated in Section 6.8. The impact assessment has determined that seismic acquisition may be undertaken in a manner that is not inconsistent with the requirements of the Conservation Management Plan for the Blue Whale, specifically that <i>'Anthropogenic noise in biologically important areas will be managed such that any blue whale continues to utilise the area without injury, and is not displaced from a foraging area'</i>. Acoustic modelling and ANIMAT modelling have demonstrated that TTS effects will not occur in the pygmy blue whale migration BIA and sound levels will not result in displacement from foraging areas.</p> <p>The impact assessment and proposed control measures are consistent with NOPSEMA Acoustic Impact Evaluation and Management Guideline (N-04750-IP1765 Rev2 Dec 2018).</p> <p>No significant or long-term impacts are expected to occur to key habitats of EPBC Act listed species included as values of the Montebello and Gascoyne AMPs.</p>	<p>for relevant WHAs, AMPs, recovery plans and conservation plans/advises</p> <ul style="list-style-type: none"> <li>the predicted level of impact has been reduced to ALARP.</li> </ul> <p><b>Environmental Performance Consideration</b></p> <p>To manage impacts to migratory and threatened cetaceans to an acceptable level, the following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p> <p><b>EPO 4:</b> Undertake seismic acquisition in a manner that prevents injury to whales, and minimises the potential for biologically significant behavioural disturbance.</p> <p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p> <p><b>EPO 6:</b> Undertake seismic acquisition in a manner that reduces potential cumulative impacts resulting from the Petroleum Activities Programme and other seismic survey operations as far as reasonably practicable.</p> <p>To manage impacts to cultural values the following EPO have been applied:</p> <p><b>EPO 18</b></p> <p>New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>
Migratory and threatened marine turtles	<p><b>Principles of ESD</b></p> <p>The Petroleum Activities Program is consistent with the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> </ul>	<p>The predicted level of impact for migratory and threatened marine turtles is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> </ul>

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Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<ul style="list-style-type: none"> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes' (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>Woodside Environment and Biodiversity Policy (Appendix A)</li> <li>Woodside Risk Management Policy (Appendix A).</li> </ul> <p><b>External Context</b></p> <p>During consultation turtles were raised and Woodside recognises that First Nations have cultural interest in turtles. While marine turtles are unlikely to occur in the area of potential impact, if individual turtles are transiting through impacts from acoustic emissions are expected to be restricted to temporary behavioural changes (avoidance). Therefore this activity is not expected to have a significant impact on MNES (<b>Section 2.9.2</b>) including those with an Indigenous connection as defined in <b>Section 4.10.1</b>. This feedback was considered in the finalisation of the EP.</p> <p><b>Other requirements</b></p> <p>The proposed control measures are not inconsistent with the applicable objectives and actions of the Recovery Plan for Marine Turtles (DoEE, 2017a). Specifically, controls measures will 'manage anthropogenic activities to ensure marine turtles are not displaced from identified habitat critical to the survival' of marine turtles and 'given that the impacts of noise are unknown, a precautionary approach [will] be applied to seismic work, such that surveys planned to occur inside important internesting habitat should be scheduled outside the nesting season'. Received noise levels from seismic</p>	<ul style="list-style-type: none"> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will be undertaken in a manner that prevents displacement of marine turtles from Habitat Critical/important internesting habitats during nesting/interesting periods</li> <li>the Petroleum Activities Program will be managed in a manner that is consistent with management objectives for relevant WHAs, AMPs, recovery plans and conservation plans/advises</li> <li>impacts and risks to cultural values have been taken into consideration and by managing activity as described above the cultural values are considered to be inherently protected</li> <li>the predicted level of impact has been reduced to ALARP.</li> </ul> <p><b>Environmental Performance Considerations</b></p> <p>The Petroleum Activities Program will not disturb or displace any individuals from Habitat Critical or internesting BIAs, or result in any ecologically significant impacts at a population level for any species of marine turtle.</p> <p>The following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p>

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Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p>acquisition are not likely to cause injury impacts, displace any individuals from Habitat Critical or interesting BIAs, or result in any ecologically significant impacts at a population level for any species of marine turtle that may be present within or adjacent to the Operational Area during the Petroleum Activities Program.</p> <p>The impact assessment and proposed control measures are consistent with NOPSEMA Acoustic Impact Evaluation and Management Guideline (N-04750-IP1765 Rev2 Dec 2018).</p> <p>Nesting and interesting marine turtle habitats are identified as a natural value of the Montebello and Gascoyne AMPs. No significant impacts to interesting marine turtles are predicted and the Activity will be undertaken consistent with marine park objectives.</p>	<p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p> <p>To manage impacts to cultural values the following EPO have been applied:</p> <p><b>EPO 18</b></p> <p>New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>
Migratory and threatened fishes and elasmobranchs (including whale sharks)	<p><b>Principles of ESD</b></p> <p>The Petroleum Activities Program is consistent with the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to localised impacts with no lasting effect (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>Woodside Environment and Biodiversity Policy (Appendix A)</li> <li>Woodside Risk Management Policy (Appendix A).</li> </ul> <p><b>External Context</b></p>	<p>The predicted level of impact for migratory and threatened fishes and elasmobranchs (including whale sharks) is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>impacts and risks to cultural values have been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will not result in physical injury to migratory and threatened fishes and elasmobranchs (including whale sharks)</li> <li>the Petroleum Activities Program will be managed in a manner that is consistent with management objectives for relevant WHAs, AMPs, recovery plans and conservation plans/advises</li> </ul>

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<b>Demonstration of Acceptability</b>		
<b>Receptor<sup>7</sup></b>	<b>Acceptability Criteria and Assessment</b>	<b>Statement of Acceptability</b>
	<p>During stakeholder consultation with relevant stakeholders no concerns specifically relating to fish were raised.</p> <p>Activities do not have a significant impact on MNES (<b>Section 2.9.2</b>) including those with an Indigenous connection with, or traditional use in nearshore areas as defined in <b>Section 4.10.1</b></p> <p><b>Other Requirements</b></p> <p>There are no legislative requirements applicable to managing the effects of seismic surveys in relation to sharks.</p> <p>Seismic noise has not been identified as a threat to whale sharks (or other shark species identified as possibly present in the region) in recovery plans or wildlife conservation plans/advice.</p> <p>Noise pollution is not identified as a pressure to whale sharks in the Marine Bioregional Plan for the NWMR (DSEWPaC, 2012a).</p> <p>The impact assessment and proposed control measures are consistent with NOPSEMA Acoustic Impact Evaluation and Management Guideline (N-04750-IP1765 Rev2 Dec 2018).</p>	<ul style="list-style-type: none"> <li>the predicted level of impact has been reduced to ALARP.</li> </ul> <p><b>Environmental Performance Considerations</b></p> <p>The Petroleum Activities Program will not result in physical injury to migratory and threatened fishes and elasmobranchs (including whale sharks).</p> <p>The following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p> <p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p>
Fish spawning and commercial fisheries	<p><b>Principles of ESD</b></p> <p>The Petroleum Activities Program is consistent with the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes' (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p>	<p>The predicted level of impact for fish spawning and commercial fisheries is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>impacts and risks to cultural values have been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will not result in changes to the spawning biomass or changes in</li> </ul>

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Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>• Woodside Environment and Biodiversity Policy (<b>Appendix A</b>)</li> <li>• Woodside Risk Management Policy (<b>Appendix A</b>).</li> </ul> <p><b>External Context</b></p> <p>During stakeholder consultation with relevant persons no concerns specifically relating to fish spawning or commercial fisheries were raised.</p> <p>Potential impacts to fish spawning have been considered in this EP through review of overlap of behavioural response zones for fish and potential spawning areas, and demonstration that impacts and risks will be managed to levels that are ALARP. The potential impacts of noise emissions from the seismic source on spawning of key indicator commercial fish species are considered to be slight and short-term, and the Activity is not likely to result in any ecologically significant impacts at a population level for any key indicator commercial fish species that may be spawning within or adjacent to the Operational Area during acquisition activities. Similarly, the potential impacts on commercial catch rates are considered to be slight, as the activity is not likely to result in any ecologically significant impacts at a population level for any key indicator species and the Petroleum Activities Program is not located in an area targeted by commercial fisheries.</p> <p>Activities do not have a significant impact on MNES (<b>Section 2.9.2</b>) including those with an Indigenous connection with, or traditional use in nearshore areas as defined in <b>Section 4.10.1</b></p> <p><b>Other Requirements</b></p> <p>There are no legislative requirements applicable to managing the effects of seismic surveys in relation to fish spawning and commercial fisheries.</p> <p>The proposed control measures are consistent with key mitigation strategies for seismic surveys published in the WA Department of Fisheries Guidance statement on undertaking seismic surveys in Western Australian waters (DoF, 2013) – e.g. use of soft starts; minimise the sound intensity and exposure time of surveys.</p> <p>Woodside has also considered DPIRD's ecological risk assessment of seismic impacts to marine finfish and invertebrates (Webster et al., 2018) during the assessment of impacts and risks to fish spawning and commercial fisheries, noting that the DPIRD risk assessment considers worst-case potential impacts to individual</p>	<p>recruitment of commercially important species that may be discernible from normal natural variation</p> <ul style="list-style-type: none"> <li>• the Petroleum Activities Program will not impact commercial fishery catch rates</li> <li>• the predicted level of impact has been reduced to ALARP.</li> </ul> <p><b>Environmental Performance Considerations</b></p> <p>The Petroleum Activities Program will not result in changes to the spawning biomass or changes in recruitment of commercially important species that may be discernible from normal natural variation. The Petroleum Activities Program will not impact commercial fishery catch rates.</p> <p>The following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p> <p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p>

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Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p>finfish and invertebrates assuming they do not move to avoid an approaching seismic source. This is not representative of real-life sound exposures and does not represent impacts at a population level. Woodside has, therefore, considered additional information to assess impacts to fish spawning and fish stock populations.</p> <p>The impact assessment and proposed control measures are consistent with NOPSEMA Acoustic Impact Evaluation and Management Guideline (N-04750-IP1765 Rev2 Dec 2018).</p>	
AMPs	<p><b>Principles of ESD</b></p> <p>The Petroleum Activities Program is consistent with the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>• The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> <li>• Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes' (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>• Woodside Environment and Biodiversity Policy (<b>Appendix A</b>)</li> <li>• Woodside Risk Management Policy (<b>Appendix A</b>).</li> </ul> <p><b>External Context</b></p> <p>N/A</p> <p><b>Other Requirements</b></p>	<p>The predicted level of impact for AMPs is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>• the Petroleum Activities Program is consistent with the relevant principles of ESD</li> <li>• the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>• feedback from stakeholders has been taken into consideration</li> <li>• legislative requirements/industry standards have been adopted</li> <li>• the Petroleum Activities Program will not be inconsistent with the principles or management objectives of the North-west Marine Parks Network Management Plan (DNP, 2018a)</li> <li>• the Petroleum Activities Program will be undertaken in a manner that is consistent with the zone management categories outlined in the North-west Marine Parks Network Management Plan and values of the Montebello and Gascoyne AMPs</li> <li>• the predicted level of impact has been reduced to ALARP.</li> </ul> <p><b>Environmental Performance Considerations</b></p>

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<b>Demonstration of Acceptability</b>		
<b>Receptor<sup>7</sup></b>	<b>Acceptability Criteria and Assessment</b>	<b>Statement of Acceptability</b>
	<p>The proposed controls and consequence/residual risk level are consistent with:</p> <ul style="list-style-type: none"> <li>Australian IUCN Reserve Management Principles and objectives of the IUCN Category VI Zone, as outlined in the North-west Marine Parks Network Management Plan (DNP, 2018a)</li> <li>the zone management categories outlined in the North-west Marine Parks Network Management Plan and values of the Montebello and Gascoyne AMPs.</li> </ul>	<p>The Petroleum Activities Program will not impact the values or management objectives of AMPs or the North-west Marine Park Network.</p> <p>The following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p> <p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p>
Other environmental values (ecosystems/habitats, species and socio-economic)	<p><b>Principles of ESD</b></p> <p>The Petroleum Activities Program is consistent with the relevant principles of ESD:</p> <ul style="list-style-type: none"> <li>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.</li> <li>Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.</li> </ul> <p>Impacts are considered consistent with these principles given controls adopted and that impacts will be inherently limited to 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes' (<b>Section 2.6.4</b>).</p> <p>Other principles of ESD were considered not relevant given underwater noise emissions from the seismic source do not represent a threat of "serious or irreversible environmental damage", they will not result in impacts that affect the maintenance or enhancement of the "health, diversity and productivity of the environment" over generational timeframes, and they have no relevance to "improved valuation, pricing and incentive mechanisms."</p> <p><b>Internal Context</b></p> <p>The Petroleum Activities Program is consistent with Woodside corporate policies, culture, processes, standards, structure and systems as outlined in the Demonstration of ALARP and Environmental Performance Outcomes, including:</p> <ul style="list-style-type: none"> <li>Woodside Environment and Biodiversity Policy (Appendix A)</li> <li>Woodside Risk Management Policy (Appendix A).</li> </ul>	<p>The predicted level of impact is considered to be of an acceptable level given that the:</p> <ul style="list-style-type: none"> <li>the Petroleum Activities Program is consistent with the relevant principles of ESD</li> <li>the proposed controls have considered the environmental consequence and are consistent with Woodside's internal policies, procedures and standards</li> <li>feedback from stakeholders has been taken into consideration</li> <li>legislative requirements/industry standards have been adopted</li> <li>the Petroleum Activities Program will be managed in a manner that prevents any long term impacts to ecosystems/habitats, species and socio-economic values</li> <li>the Petroleum Activities Program will be managed in a manner that is consistent with management objectives for relevant WHPs, AMPs, recovery plans and conservation plans/advice</li> <li>the predicted level of impact has been reduced to ALARP.</li> </ul>

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Demonstration of Acceptability		
Receptor <sup>7</sup>	Acceptability Criteria and Assessment	Statement of Acceptability
	<p><b>External Context</b></p> <p>Impacts to plankton was raised during consultation (<b>Section 5</b>), including as an environmental value of cultural interest to First Nations, and this feedback was considered in the finalisation of the EP.</p> <p>It is expected that impacts to plankton will be minimal at a regional scale and unlikely to result in impacts to high order trophic levels. Therefore this activity is not expected to have a significant impact on MNES (<b>Section 2.9.2</b>) including those with an Indigenous connection with, or traditional use in nearshore areas as defined in <b>Section 4.10.1</b></p> <p><b>Other Requirements</b></p> <p>No additional legislative requirements applicable to managing the effects of seismic surveys in relation to other identified environment values have been identified.</p>	<ul style="list-style-type: none"> <li>impacts and risks to cultural values have been taken into consideration and by managing activity as described above the cultural values are considered to be inherently protected</li> </ul> <p><b>Environmental Performance Considerations</b></p> <p>The Petroleum Activities Program will not result in long term impacts to ecosystems/habitats, species and socio-economic values.</p> <p>The following EPOs have been applied:</p> <p><b>EPO 3:</b> Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p> <p><b>EPO 5:</b> Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p> <p>To manage impacts to cultural values the following EPO have been applied:</p> <p><b>EPO 18</b></p> <p>New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p><b>EPO 3</b></p> <p>Far-field source levels for the selected seismic source for the Scarborough 4D B1 MSS are consistent with levels assessed in this EP.</p>	<p><b>C 3.1</b></p> <p>Seismic source validation.</p>	<p><b>PS 3.1</b></p> <p>In the event that a seismic source is selected for the Scarborough 4D B1 MSS that is significantly different to the modelled source<sup>8</sup>, additional acoustic source modelling will be undertaken using the JASCO AASM model to confirm that the far-field horizontal source level specifications of the seismic source selected for the Scarborough 4D B1 MSS are comparable to those assessed in this EP.</p>	<p><b>MC 3.1.1</b></p> <p>Acoustic source modelling report for selected seismic source</p>
<p><b>EPO 4</b></p> <p>Undertake seismic acquisition in a manner that prevents injury to whales, and minimises the potential for biologically significant behavioural disturbance</p>	<p><b>C 4.1</b></p> <p>Application of EPBC Policy Statement 2.1 Part A Standard Management Procedures and Part B.4 to whales, as outlined below:</p> <ul style="list-style-type: none"> <li>• observation zone: 3 km+ to the limits of visibility for large unidentified whales 2 km to 3 km for all other whales</li> <li>• shut-down zone: to limits of visibility for positively identified (certain or probable confidence level) pygmy blue whales or large unidentified whales; 2 km for all whales</li> <li>• observation and compliance reporting: Use of vessel crew to supplement dedicated MFOs in marine fauna observations and monitoring compliance to Policy Statement 2.1. Records kept of marine fauna observations during all surveys.</li> <li>• pre start-up visual observation (30 minutes)</li> <li>• soft start procedure (30 minutes)</li> <li>• start-up delay procedure (if sighting occurs)</li> <li>• operations procedure</li> </ul>	<p><b>PS 4.1</b></p> <p>EPBC Policy Statement 2.1 – Part A Standard Management Procedures and Part B.4 as outlined below:</p> <ul style="list-style-type: none"> <li>• observation zone: 3 km+ to the limits of visibility for large unidentified whales 2 km to 3 km for all other whales</li> <li>• shut-down zone: to limits of visibility for positively identified (certain or probable confidence level) pygmy blue whales or large unidentified whales 2 km for all whales</li> <li>• observation and compliance reporting: Use of vessel crew to supplement dedicated MFOs in marine fauna observations and monitoring compliance to Policy Statement 2.1. Records kept of marine fauna observations during all surveys.</li> <li>• pre start-up visual observation (30 minutes)</li> <li>• soft start procedure (30 minutes)</li> <li>• start-up delay procedure (if sighting occurs)</li> <li>• operations procedure</li> </ul>	<p><b>MC 4.1.1</b></p> <p>Records demonstrate compliance with Policy Statement 2.1 Part A Standard Management Procedures and Part B.4.</p>

<sup>8</sup> "Significantly different" is defined as a difference of 3 dB or greater than the modelled peak source pressure levels in the broadside, endfire and vertical directions (see Table 9 in Koessler et al., 2021; **Appendix G**), as determined by seismic contractor in-house modelling of their proposed array (e.g. Gundalf, Nucleus+ outputs).



Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	<ul style="list-style-type: none"> <li>stop work procedure</li> <li>night-time and low visibility procedure.</li> </ul>	<ul style="list-style-type: none"> <li>stop work procedure</li> <li>night-time and low visibility procedure.</li> </ul>	
	<p><b>C 4.2</b> Application of EPBC Policy Statement 2.1 Part B.1 – MFOs: Employ four dedicated MFOs to undertake observations for EPBC Act Policy Statement 2.1.</p>	<p><b>PS 4.2.1</b> Two dedicated MFOs per observing vessel (survey vessel and spotter vessel) will be employed to undertake observations for EPBC Act Policy Statement 2.1.</p>	<p><b>MC 4.2.1</b> Records demonstrate two dedicated MFOs per observing vessel (survey vessel and spotter vessel) are on board and undertake observations in accordance with EPBC Act Policy Statement 2.1.</p>
		<p><b>PS 4.2.2</b> All MFOs engaged for the Petroleum Activities Program will have, previous experience complete relevant training detailing marine fauna identification and EPBC Act Policy Statement 2.1 requirements.</p>	<p><b>MC 4.2.2</b> Records demonstrate that all MFOs engaged for the Petroleum Activities Program have previous experience, received training in marine fauna identification and EPBC Act Policy Statement 2.1 requirements.</p>
		<p><b>PS 4.2.2</b> At least one dedicated MFO undertaking observations during daylight hours per observing vessel (survey vessel and spotter vessel). If required additional MFO will be used during times of increased whale sightings.</p>	<p><b>MC 4.2.2</b> Log book demonstrates at least one MFO was on duty during daylight hours per observing vessel (survey vessel and spotter vessel) and additional observation effort initiated as required.</p>
	<p><b>C 4.3</b> Application of EPBC Policy Statement 2.1 Part B.5 – PAM:</p> <ul style="list-style-type: none"> <li>A PAM system will be installed aboard the survey vessel to detect odontocete whales (specifically sperm and beaked whales)</li> <li>Employ two dedicated PAM operators wherever possible.</li> </ul>	<p><b>PS 4.3.1</b> EPBC Policy Statement 2.1 Part B.5 – PAM.</p> <ul style="list-style-type: none"> <li>PAM observations are undertaken on a 24-hour basis by two competent and experienced PAM Operators trained in the PAM system software used.</li> <li>During daylight hours, PAM detections will be validated against MFO observations and ranges to determine the error (if any) in PAM detection distances.</li> <li>At night and during periods of low visibility PAM will be used to trigger: shutdown for any sperm and beaked whales detected in the 2 km shutdown zone.</li> </ul>	<p><b>MC 4.3.1</b> Records demonstrate that an operational PAM system is aboard the survey vessel. Calibration records of PAM detections and visual observations during daylight hours. PAM Master Observation Sheet provides acoustic detection record for the surveys. Records (CV) verify the PAM Operators are competent to a standard equivalent to those in the International Association of Geophysical Contractors (IAGC) Guidance on the Use of Towed Passive Acoustic Monitoring during Geophysical Operations (IAGC, 2014).</p>

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
		<p><b>PS 4.3.2</b></p> <p>If the PAM system has malfunctioned or become damaged during daylight/periods of good visibility, operations may continue for 20 minutes without PAM while the PAM operator diagnoses the issue. If the diagnosis indicates that the PAM equipment must be repaired to solve the problem, operations may continue for an additional 2-hours without PAM monitoring as long as all of the following conditions are met:</p> <ul style="list-style-type: none"> <li>• The PAM operator believes it can be repaired within this period</li> <li>• It is a period of good visibility</li> <li>• No marine mammals were detected solely by PAM in the relevant mitigation zones in the previous 2-hours</li> <li>• Two MFOs maintain watch at all times during operations when PAM is not operational</li> <li>• The time and location of all operations without an active PAM system are documented.</li> </ul> <p>Operations with an active source, but without an active PAM system, do not exceed a cumulative total of 4-hours in any 24-hour period. If the PAM system becomes non-operational at night or during periods of low visibility the seismic source will be shut down and acquisition will cease until such time as the system can be restored.</p>	<p><b>MC 4.3.2</b></p> <p>Records demonstrate that operations with an active source, but without an active PAM system do not exceed a cumulative total of 4 hours in any 24-hour period.</p>
	<p><b>C 4.4</b></p> <p>Adaptive Management Measures to minimise the minimum potential impacts to pygmy blue whales from seismic noise. The following adaptive management</p>	<p><b>PS 4.4</b></p> <p>Adaptive Management Measures to minimise the minimum potential impacts to pygmy blue whales from seismic noise. The following adaptive management</p>	<p><b>MC 4.4.1</b></p> <p>Records demonstrate compliance with pygmy blue whale adaptive management measures as described.</p>

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	<p>measures procedures will be implemented:</p> <ul style="list-style-type: none"> <li>If there are three or more shut-downs for pygmy blue whales within a 24-hour period (including spotter vessel MFO shutdowns), then the seismic operations must not be undertaken thereafter at night-time or during low visibility conditions.</li> <li>Seismic operations cannot resume at night-time or during low visibility conditions, until there has been a cumulative 24-hour period of seismic operations (daylight hours with good visibility) during which there has been less than three shut-downs for pygmy blue whales.</li> </ul>	<p>measures procedures will be implemented:</p> <ul style="list-style-type: none"> <li>If there are three or more shut-downs for pygmy blue whales within a 24-hour period (including spotter vessel MFO shutdowns), then the seismic operations must not be undertaken thereafter at night-time or during low visibility conditions.</li> <li>Seismic operations cannot resume at night-time or during low visibility conditions, until there has been a cumulative 24-hour period of seismic operations (daylight hours with good visibility) during which there has been less than three shut-downs for pygmy blue whales.</li> </ul>	
	<p><b>C 4.5</b></p> <p>No operation of the seismic source within 25 km of the pygmy blue whale migration BIA.</p>	<p><b>PS 4.5</b></p> <p>No operation of the seismic source within 25 km of the pygmy blue whale migration BIA.</p>	<p><b>MC 4.5.1</b></p> <p>Records demonstrate compliance with the 25 km buffer from the migration BIA.</p>
	<p><b>C 4.6</b></p> <p>EPBC Act Policy Statement 2.1 Part B.3 – Use of additional vessels to detect presence of cetaceans, during all daylight activities with seismic source discharge activities:</p> <ul style="list-style-type: none"> <li>Use of two MFOs aboard a dedicated spotter vessel travelling ~5 km out ahead of the seismic vessel and acoustic array to implement C 4.1.</li> </ul>	<p><b>PS 4.6</b></p> <p>Use of two MFOs aboard a dedicated spotter vessel ahead of the seismic vessel to implement C 4.1.</p>	<p><b>MC 4.6.1</b></p> <p>Records demonstrate the use of two MFOs aboard a dedicated spotter vessel.</p>
			<p><b>MC 4.1.1 refer to above.</b></p>
<p><b>EPO 5</b></p> <p>Limit underwater sound production from the seismic source to the area defined and assessed in this EP.</p>	<p><b>C 5.1</b></p> <p>No operation of the seismic source outside of the Active Source Area.</p>	<p><b>PS 5.1</b></p> <p>No operation of the seismic source outside of the Active Source Area.</p>	<p><b>MC 5.1.1</b></p> <p>Records demonstrate compliance with seismic source operation exclusively within the Active Source Area.</p>
	<p><b>C 5.2</b></p> <p>Record sightings of marine turtles during the activity.</p>	<p><b>PS 5.2</b></p> <p>All sightings of marine turtles will be recorded.</p>	<p><b>MC 5.2.2</b></p> <p>Marine fauna logs demonstrate marine turtle sightings logged.</p>

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<b>Environmental Performance Outcomes, Standards and Measurement Criteria</b>			
<b>Outcomes</b>	<b>Controls</b>	<b>Standards</b>	<b>Measurement Criteria</b>
<b>EPO 6</b> Undertake seismic acquisition in a manner that reduces potential cumulative impacts resulting from the Petroleum Activities Programme and other seismic survey operations as far as reasonably practicable.	<b>C 6.1</b> A 40 km separation distance between the Petroleum Activities Program and any identified concurrent seismic survey	<b>PS 6.1</b> A 40 km separation distance between the Petroleum Activities Program and any identified concurrent seismic survey	<b>MC 6.1.1</b> Records demonstrate compliance with the 40 km separation distance. Records demonstrate consultation with other seismic companies of seismic surveys and titleholders with acreage within 40 km of the Operational Area prior to commencement of the activity.
<b>EPO 18</b> New cultural values identified through the Program (EPO17) will be managed to ALARP and an Acceptable level of impact.	<b>Refer to C 1.8</b>	<b>Refer to EPS 1.8.2</b>	<b>Refer to MC 1.8.1</b>
	<b>Refer to C 1.9</b>	<b>Refer to PS 1.9</b>	<b>Refer to MC 1.9.1</b>
	<b>Refer to C 1.10</b>	<b>Refer to PS 1.10</b>	<b>Refer to MC 1.10.1</b>

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## **Attachment 4**

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## 7.10.2 Routine Reporting (External)

### 7.10.2.1 Ongoing Consultation

In accordance with Regulation 14 (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's approach to ongoing consultation is that feedback and comments received from relevant persons and additional persons continue to be assessed and responded to, as required, through the life of an EP, including during EP assessment and throughout the duration of the accepted EP, in accordance with the intended outcome of consultation (as set out in **Section 5.2**).

Woodside proposes to undertake the engagements with directly impacted relevant persons and additional persons listed in **Table 7-3**. Relevant new information identified during ongoing consultation will be assessed using the EP Management of Knowledge (refer to **Section 7.6.1.2** and Management of Change Process (refer to **Section 7.7**).

Woodside has developed a Program of Ongoing Engagement with Traditional Custodians (**Appendix J**), directly informed by feedback from Traditional Custodians. It provides a mechanism for ongoing dialogue 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. The program enables Woodside to manage uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside's activities via ongoing dialogue with Traditional Custodians.

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 **Section 5.2**), Woodside will apply its EP Management of Knowledge process (refer to **Section 7.6.1.2**) and Management of Change process (refer to **Section 7.7**), 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 Petroleum Activities Program particularly during SIMOPS. The interactive map is available on Woodside's website (**Section 6.6.1, PS 1.6**).

The ongoing consultation engagements that Woodside intends to progress for this EP are set out in the table below.

**Table 7-3: Ongoing consultation engagements**

Report/ Information	Recipient	Purpose	Frequency	Content
Program of Ongoing Engagement with	Relevant cultural authorities	Identification, assessment and consideration of cultural values relevant to	Ongoing	Assessment of cultural values Any relevant new information on cultural

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Controlled Ref No: SA0006AH1401760303

Revision: 8

Woodside ID: 1401760303

Page 380 of 425

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Report/ Information	Recipient	Purpose	Frequency	Content
Traditional Custodians (Appendix J)		the Operational Area and Consultation Area		values will be assessed using the EP Management of Knowledge (ref to <b>Section 7.5</b> ) and Management of Change Process (refer to <b>Section 7.7</b> ).
Notification (email)	AHO	As requested by AMSA during consultation.	No less than 4 weeks prior to commencement.	<b>PS 1.1 (Section 6.6.1)</b> 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	<b>PS 1.2 (Section 6.6.1)</b> 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)	DoD  Air Services Australia	As requested by DoD during consultation  If Notice to Airmen notification is required for activities in Restricted Airspace.	Five weeks prior to commencement of activities.	<b>PS 1.5 (Section 6.6.1)</b> Date of activity start.
Notification (email)	DMIRS	Good practice	At least 10 days prior to commencement.	Activity start date
Notification (email)	AFMA WAFIC CFA DPIRD Recfishwest DAFF – Fisheries Individual fishery licence holders that have the potential to be directly impacted by planned activities in the Operational Area (no relevant fisheries identified at time of EP submission) Eni	Good practice or as requested during consultation	At least 10 prior to commencement and following completion of activities.	<b>PS 1.3 (Section 6.6.1)</b> Date of activity start and end.
Notification (email)	All Relevant Persons for the Proposed Activity	Notification of significant change	As appropriate	Notification of significant change. Any relevant new information will be assessed using the EP

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### **Proposed Program of Ongoing Engagement with Traditional Custodians**

This Program of Ongoing Engagement with Traditional Custodians (“Program”) has been developed to demonstrate Woodside’s commitment to ongoing engagement and support of Traditional Custodians’ capacity to care for and manage Country, including Sea Country, and has been directly informed by Traditional Custodians’ feedback regarding their capacity to engage and consult on Environment Plans.

It is a living document designed to evolve with ongoing consultation and feedback from Traditional Custodians and, at a minimum, will be subject to annual review. In addition to this Program, Woodside will continue to participate in, and support collective industry engagement with Traditional Owners on the development of a future, sustainable, industry wide Program. Through the Program, Woodside actively supports Traditional Custodians’ capacity for, and involvement in, ongoing engagement and feedback on environment plans.

The Program has been developed so that Traditional Custodians can, on an ongoing basis, provide Woodside with feedback relating to the possible consequences of an activity to be carried out under an environment plan on their functions, interests and activities as they relate to cultural values. This feedback will be evaluated in conjunction with Traditional Custodians and, where necessary, avoidance or mitigation strategies in will be developed in collaboration with Traditional Custodians.

The Program enables Woodside to manage uncertainty on the impacts and risks to cultural values which may be identified at any time during Woodside’s activities via ongoing dialogue 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 identification of cultural values potentially impacted by Woodside’s activities. Woodside further commits to agreeing consultation protocols with individual Traditional Custodians to ensure the material provided is appropriate in level of detail such that the potential for cultural impact from Woodside activities can be determined and as required measures can be adopted to avoid or minimise impact.

In addition, Woodside will receive feedback on cultural values from an individual person or organisation that identifies as a Traditional Custodian, at any stage during the development and implementation of activities. This feedback will be evaluated, in conjunction with the Traditional Custodian individual or group and if required, control measures will put in place to avoid impacts to cultural values, or where avoidance is not possible, to minimise and mitigate the impacts to an acceptable level.

Where cultural values are identified post activity completion, any controls relevant to value management will be implemented during the next relevant activity.





## 2. Support for the identification and recording of cultural features

Woodside will support Traditional Custodians to record and articulate their Sea Country values and will invest in cultural assessments codesigned with Traditional Custodians, where required, to inform potential risks to cultural values from our petroleum activities.

This may include supporting cultural mapping by Traditional Custodians to identify and map significant cultural features including archaeological sites and other cultural values. The scoping of the mapping process will be codesigned with Traditional Custodians.

Woodside understands that cultural knowledge remains the intellectual property of Traditional Custodians and will agree with Traditional Custodians at the outset how that information from surveys will be used to feedback into and inform the environment plan's design and implementation.

In addition, Woodside applies the Cultural Heritage Management Procedure 2019, updated in 2023, to the Program which:

- provides a process for the identification, protection, and management of Cultural Heritage taking into account relevant standards, in particular, the United Nations Declaration on the Rights of Indigenous Peoples, the Charter for the Protection and Management of the Archaeological Heritage, the Convention for the Safeguarding of the Intangible Cultural Heritage, and the Convention on the Protection of the Underwater Cultural Heritage;
- applies to underwater cultural heritage and, consistent with current practice, provides for the commissioning of (where appropriate) both archaeological and ethnographic assessments of cultural values over the submerged landscape; and
- the process includes the following:
  - 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.

#### **Program Reporting and Review of Effectiveness**

Woodside will undertake an annual review of the Program to assess its effectiveness and adapt the Program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.

Progress of the Program will be reported annually in line with annual sustainability reporting via the Woodside website.

A commitment to the Program will be included in all new and revised Environment Plans in the format below:



Environmental Performance Outcome	Environmental Performance standards	Measurement Criteria
<p><b>EPO 1</b> Woodside will actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values</p>	<p><b>Applicable to all EPs:</b></p> <p><b>EPS 1.1</b> Implement a program, which is compliant with Corporate Woodside Policies Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program. The Program will include, where agreed with relevant Traditional Custodians:</p> <ul style="list-style-type: none"> <li>• Social investment to support Indigenous ranger programs</li> <li>• Support for Indigenous oil spill response capabilities</li> <li>• Support for recording Sea Country values</li> <li>• Support to Traditional Custodian groups to build capabilities and capacity with respect to ability to engage with Woodside and the broader O&amp;G industry on activities</li> <li>• Development of ongoing relationships with Traditional Custodian groups</li> <li>• Any other initiatives proposed for the purpose of protecting country including cultural values</li> <li>• Consideration of cultural values / new information, through the life of the EP, and the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if impacts to cultural values are identified. Where avoidance is not possible, impact minimisation will be prioritised and demonstrated through a written options analysis / ALARP to ensure an acceptable level of impact. This will be document through the Woodside's Management of Change and Management of Knowledge</li> </ul>	<p><b>MC1.1</b> Records demonstrate discussions with relevant Traditional Custodian Groups on proposed partnerships and/or initiatives initiated by Woodside, and responses to feedback provided by Woodside within 4 weeks</p> <p><b>MC 1.2</b> Progress of the Program will be reported in line with annual sustainability reporting via the Woodside website.</p> <p><b>MC 1.3</b> Records demonstrate Change Management and Management of Knowledge processes have been followed where new controls or management measures identified</p>
	<p><b>EPS 1.2</b> Undertake an annual review of the program to determine its effectiveness and adapt the program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.</p>	<p><b>MC 1.4</b> Records demonstrate an annual review of the Program has been undertaken</p>