

Key Matters Report

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1. Purpose of this report

NOPSEMA has accepted the T/30P Geophysical & Geotechnical Seabed Survey Environmental Plan (the EP) submitted by Beach Energy (Operations) Limited (the titleholder) for a geophysical, geotechnical and 2D seismic survey activity in the Otway Basin. This survey is estimated to take 28 days within the period 1 February and 30 June 2021.

As required by the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Environment Regulations), the public was provided with an opportunity to comment on the EP. There were no public comments received during the public comment period.

Following the public comment period, the titleholder submitted the EP for assessment by NOPSEMA on 19 March 2020. NOPSEMA has since completed its assessment of the EP and accepted the plan in January 2021.

This report explains how NOPSEMA took into account how key matters concerning important socio-economic and environmental values and sensitivities that may be of interest to the public.

This report should be considered in the context of the accepted T/30P Geophysical & Geotechnical Seabed Survey Environmental Plan (Document No. S4200AH718461, Revision 7, dated 15 January 2021) submitted by Beach Energy (Operations) Limited, which is available on the NOPSEMA website and should be referred to for further information.

1.1. Information relevant to NOPSEMA's decision:

In making the decision to accept this EP, NOPSEMA took into account:

- the Environment Regulations;
- NOPSEMA Assessment Policy (PL0050), Environment Plan Assessment Policy (PL1347) and Environment Plan Decision Making Guidelines (GL1721);
- the Beach Energy T/30P Geophysical and Geotechnical Seabed Survey and the associated OSMP and OPEP documents;
- the information raised by relevant persons, government departments and agencies that is relevant to making a decision;
- relevant plans of management and threatened species recovery plans developed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and relevant guidance published by the Department of the Environment and Energy;

2. Next steps

Responsibility for the ongoing environmental performance of the seismic survey activity remains, at all times, with Beach Energy (Operations) Limited.

NOPSEMA has legislated responsibilities to inspect and investigate offshore petroleum and greenhouse gas storage activities, and to enforce compliance with environmental law. These functions will be applied to this activity in accordance with NOPSEMA's policies.

3. Sensitive Information

Sensitive information received during the public comment period, such as the names and contact details of commenters and specific information identified by the commenter or relevant person as 'sensitive', is not published in this report. Sensitive information is contained in a sensitive information part of the EP which has been considered by NOPSEMA during its assessment process.

4. Further information

If you would like further information about the activity, please contact the titleholder's nominated liaison person specified in the EP and on NOPSEMA's webpage for the T/30P Geophysical & Geotechnical Seabed Survey.

If you would like to be notified of regulatory information on the activity, such as start and end dates and enforcement actions (if any), please subscribe to updates from the https://info.nopsema.gov.au/home/approved_projects_and_activities on NOPSEMA's website.

How NOPSEMA has taken into account key matters raised during the assessment and decision making process for Beach Energy T30/P Geophysical and Geotechnical Seabed Survey

| # | Matter | Titleholder response | NOPSEMA's assessment and decision |
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| 1 | There would be unacceptable impacts on blue whales due to the spatial and temporal overlap with the biologically important area (BIA) for foraging. | <p>Beach Energy (Operations) Limited (Beach) undertook an assessment of the presence and potential impacts to blue whales (EP Section 6.2.4). This has been informed by underwater acoustic modelling that has accounted for physical and behavioural impacts (Appendix C & D), animal movement (ANIMAT) modelling (Appendix I & J) and contemporary scientific literature on blue whale distribution (e.g Gill et al 2011). This modelling indicated the following:</p> <ul style="list-style-type: none"> • Thresholds for auditory injury (permanent or temporary threshold shifts) would not be reached at any distance from the acoustic source • Behavioural response was indicated to occur up to 75m for the geophysical program, 1.5km from the seismic program and 3.5km from the geotechnical program. • Cumulative exposure to noise associated with the activity over 24hrs had the potential to cause a temporary threshold shift (TTS) of hearing within 10 m from the geophysical program, 2.2 km from the seismic program and 400 m from the geotechnical program. <p>Beach defined the acceptable levels of impact to blue whales in accordance with the Conservation Management Plan for Blue Whales, and reflected this is the Environmental Performance outcome (EPO) that require noise from the activity in BIAs to be managed such that whales continue to utilise the area without</p> | <p>NOPSEMA recognises that there is the potential for the activity, if not managed appropriately to have an unacceptable impact to blue whales, should they be within the area during the course of the petroleum activity.</p> <p>In making a decision regarding this matter, NOPSEMA took into account the content of the EP; relevant scientific literature; NOPSEMA's Decision Making Guidelines (GL1721), the Conservation Management Plan for the Blue Whale (DoE, 2015); the Conservation Management Plan for the Southern Right Whale (DoE, 2012); EPBC Act Policy Statement 2.1 (DEWHA, 2008), and the EPBC Act Significant Impact Guidelines 1.1- Matter of National Environmental Significance (DEWHA, 2013).</p> <p>During the course of the assessment, NOPSEMA required Beach to provide greater certainty that their control measures would perform as intended. This resulted in the Beach increasing the sensitivity of their adaptive mitigation triggers for night time and low visibility operations, and committing to a support vessel that will precede the seismic vessel by 3 km to improve the effective coverage of visual observations for MMOs. To address uncertainty in the variability of habitat use and distribution of blue</p> |

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| | | <p>injury or displacement from a foraging area. Beach has committed to implementing the following control measures to reduce impacts and risks to whales in order to achieve the acceptable level:</p> <ul style="list-style-type: none"> • CM10A – the 2D survey will sequentially acquire lines on different azimuths to reduce cumulative sound exposure to blue whales. • CM20B – Operations will comply with the EPBC Act Policy statement 2.1 Part A requirements at all times. • CM20BA – Implementation of an increased precaution zone, including a minimal 3 km observation zone and 3 km shutdown zone of the 2D acoustic source for <i>any</i> blue whale, foraging whale or an unidentified whale. • CM20BB – A support vessel will proceed the survey vessel during the operation of the acoustic source at a distance of 7 km to conduct observations for blue whales. • CM20C – Prior to commencing the geotechnical sampling program, a survey will be undertaken to a distance of 3.5 km from the sampling location. If foraging blue whales are present in the area, the sampling program will not commence until the whales have moved >3.5 km from the sampling location or have not been sighted within the survey area for 1 hour or more. • CM20CA – Prior to commencing the seismic program, a vessel based sight survey of the operational area will commence 48 hours prior to the survey commencing. This pre-start survey window will be used to inform the adaptive management controls. • CM21 – During daylight hours, visual observations by one qualified Marine Mammal Observer (MMO) and one trained crew member on each vessel will be maintained | <p>whales within the region, Beach engage with relevant Blue Whale Study groups.</p> <p>To address concerns in the conservatism of control measures, NOPSEMA required Beach to consider additional mitigation measures, or building conservatism into existing control measures. This resulted in Beach conducting additional noise modelling to provide realistic estimates of the potential for cumulative TTS from 24 hour noise exposure, extending the shut down zone to 3 km to preclude the potential for cumulative TTS, and changing the survey design to acquire sequential seismic lines on different azimuths to reduce cumulative exposure. In addition, Beach included a commitment to conduct a survey of the operational hour for 48 hours to confirm the absence of foraging whales prior to the seismic survey.</p> <p>Given the additional control measures proposed and increased sensitivity and conservatism that has been applied NOPSEMA considers that the activity can be managed such that it will not be inconsistent with the Conservation Management Plan for Blue Whales. NOPSEMA is reasonably satisfied that, with the control measure proposed for the geophysical, geotechnical and 2D seismic programs, impacts from these aspects of the activity will be reduced to an acceptable level.</p> <p>After taking into consideration all of the environmental management measures in place NOPSEMA has concluded that the activity will not result in unacceptable impacts blue whales.</p> |
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| | | <p>continuously, including during pre-start observation period and soft-start operations.</p> <ul style="list-style-type: none"> • CM20CB - One spotter vessel will be used for the duration of the 2D seismic survey. Equipped with trained and experienced MMO spotters the additional vessel will allow for improved accuracy in observations to support the 3km shutdown zone. • CM22 – The seismic acoustic source will only be operated during low visibility conditions, if the MMO cannot see to 3km, if there has been less than three whale shut down/ power downs during the preceding 24hrs for foraging or potentially foraging whales. The daytime 2D survey can restart when the MMO can see to 3km after undertaking the pre-start visual observations and soft start procedures. • CM23 – the seismic acoustic source will only be operated at night if there has been less than three whale shut down/ power downs during the preceding 24 hrs for foraging or potentially foraging whales. Subsequently, pre-start observations will be increased to 1 hour. Night time operations and 30 minute pre-start observations will only be reinstated if there have been no whale shut down/power downs for foraging whales in the proceeding daylight hours. | |
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