

Acceptance of Sequoia 3D Marine Seismic Survey

Document No: A804277

Date: 18/10/2021

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) provides the following statement of reasons for its decision to accept the Sequoia 3D Marine Seismic Survey Environment Plan (EP), subject to conditions, in accordance with regulation 10 of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009*.

Relevant terms

1. In this statement, the words and phrases have the following meaning:

- a. The *Offshore Petroleum and Greenhouse Gas Storage Act 2006* is referred to as the OPGGS Act.
- b. The National Offshore Petroleum Safety and Environmental Management Authority is referred to as NOPSEMA.
- c. The *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* are referred to as the Environment Regulations.
- d. The Sequoia 3D Marine Seismic Survey Environment Plan (Revision 5, dated 5 August 2021) means the Environment Plan (EP).
- e. The *Environment Protection and Biodiversity Conservation Act 1999* is referred to as the EPBC Act.
- f. The titleholder is referred to as ConocoPhillips Australia SH1 Pty Ltd.
- g. The term 'petroleum activity' means the Sequoia 3D Marine Seismic Survey.
- h. The term 'environment' means:
 - i. ecosystems and their constituent parts, including people and communities; and
 - ii. natural and physical resources; and
 - iii. the qualities and characteristics of locations, places and areas; and
 - iv. the heritage value of places; and includes
 - v. the social, economic and cultural features of the matters mentioned in paragraphs (i), (ii), (iii) and (iv).
- i. The term 'environmental impact' means any change to the environment, whether adverse or beneficial, that wholly or partially results from an activity.
- j. The term 'control measure' means a system, an item of equipment, a person or a procedure, that is used as a basis for managing environmental impacts and risks.
- k. The term 'environmental management system' includes the responsibilities, practices, processes and resources used to manage the environmental aspects of an activity.

- l. The term 'environmental performance' means the performance of a titleholder in relation to the environmental performance outcomes and standards mentioned in an environment plan.
- m. The term 'environmental performance outcome' (EPO) means a measurable level of performance required for the management of environmental aspects of an activity to ensure that environmental impacts and risks will be of an acceptable level.
- n. The term 'environmental performance standard' (EPS) means a statement of the performance required of a control measure.
- o. The term 'principles of ecologically sustainable development' (ESD) means the principles of ESD set out in Section 3A of the EPBC Act.
- p. The term 'relevant person' has the meaning provided under regulation 11A of the Environment Regulations.
- q. The term 'operational area' is taken to be the operational area for the petroleum activity as defined in section 2.2.1 of the EP.
- r. The *Program Report - Strategic Assessment of the environmental management authorisation process for petroleum and greenhouse gas storage activities administered by the National Offshore Petroleum Safety and Environmental Management Authority under the Offshore Petroleum and Greenhouse Gas Storage Act 2006* that was endorsed on 7 February 2014, is referred to as the Program.
- s. Southern Right Whale connecting habitat (Object ID: 2602 and 2606), aggregation (Object ID: 2610) and migration and resting on migration (Object ID: 2601, 2603, 2604, 2605, 2598) biologically important areas (BIAs) are taken to be the areas defined in the National Conservation Values Atlas (NVCA) published by Department of Agriculture, Water and the Environment (DAWE)¹.
- t. The Blue Whale foraging (Object ID: 2664), known foraging (Object ID: 2665) and foraging (annual high use area) (Object ID: 2597) BIAs are taken to be the areas defined in the NVCA published by DAWE.
- u. The Humpback Whale foraging (Object ID: 2571 and 2575) BIAs are taken to be the areas defined in the NVCA published by DAWE.
- v. The term 'as low as reasonably practicable' is referred to as 'ALARP'.

Decision

- 2. On 10 August 2021, NOPSEMA made the decision pursuant to regulations 10(4)(b)(iii) and 10(6)(b) of the Environment Regulations to accept the EP, subject to conditions applying to operations for the petroleum activity.
- 3. Acceptance of the EP permits the titleholder to undertake the petroleum activity described in the EP, which is a marine seismic survey in Commonwealth waters to the west of King Island in the Bass Strait. This is the Sequoia 3D Marine Seismic Survey (MSS) to be undertaken pursuant to Access Authorities T-05-AA and VIC-24-AA over Exploration Permit area T/49P.

¹ <https://www.environment.gov.au/marine/marine-bioregional-plans/conservation-values-atlas>

4. In undertaking the petroleum activity, the titleholder is subject to the requirements of the Environment Regulations and relevant provisions in the OPGGS Act, as well as the conditions as set out in the notice of decision dated 10 August 2021.
5. The notice of decision was provided to the titleholder on 10 August 2021, in accordance with regulation 11 of the Environment Regulations.
6. Acceptance of the EP permits the titleholder to undertake the petroleum activity described in the EP, which includes the acquisition of 3D geophysical data (a 3D seismic survey) and any other activities (support activities) carried out within the operational area prior to and after the acquisition that are required to support acquisition.

Authority

7. The decision maker for acceptance of an EP under regulation 10 of the Environment Regulations is the 'Regulator'. Where the decision relates to a petroleum activity, as it does here, regulation 4 of the Environment Regulations defines the Regulator to be NOPSEMA.
8. I [REDACTED] am the decision maker responsible for this decision. At the time of making this decision, I held the position of Environment Manager, Offshore Projects & Seismic within NOPSEMA. I was empowered to make the decision pursuant to delegation made by Stuart Smith, Chief Executive Officer (CEO) of NOPSEMA. Pursuant to section 666(2) of the OPGGS Act, anything done by the CEO in the name of NOPSEMA is taken to have been done by NOPSEMA.
9. A copy of the relevant instrument of delegation is available from NOPSEMA on request.
10. In this Statement of Reasons:
 - a. when I refer to NOPSEMA having made a request, I am referring to a request made by me in exercising my authority to make this decision;
 - b. when I refer to NOPSEMA having considered or had regard to a matter, whether it be expressed in those words or similar phrasing, I am referring to a matter that I have considered or taken into account in exercising the authority delegated to me to make this decision; and
 - c. when I refer to NOPSEMA making a finding of fact or accepting a submission, I am referring to a finding made by me in exercising the authority delegated to me to make this decision.
11. Where appropriate, in making this decision, I have taken into account and accepted advice and recommendations from the assessment team within NOPSEMA.

The assessment process

12. On 27 November 2020, the titleholder submitted the EP (Revision 0, dated 26 November 2020) to NOPSEMA in accordance with regulation 9(1) of the Environment Regulations.
13. On 4 December 2020, the EP (Revision 0, dated 26 November 2020) was published by NOPSEMA on NOPSEMA's website for public comment in accordance with regulation 9AB of the Environment Regulations with the period for public comment to close on 3 January 2021. 341 public comment submissions were received by NOPSEMA during this period.
14. Following the close of the public comment period, the titleholder resubmitted the EP (Revision 1, dated 11 February 2021) to NOPSEMA on 11 February 2021 in accordance with regulation 9(1) of the Environment Regulations.

15. On 16 February 2021, NOPSEMA provided the titleholder with a submission incomplete notice and the titleholder was notified that NOPSEMA was unable to make an assessment decision under regulation 10(1)(c) of the Environment Regulations with the notice date for the decision being revised from 15 March 2021 to 22 March 2021.
16. On 17 February 2021, the titleholder provided NOPSEMA with a response to the submission incomplete notice.
17. On 8 March 2021, the titleholder was notified that NOPSEMA was unable to make an assessment decision, under regulation 10(1)(c) of the Environment Regulations with the notice date for the decision revised from 22 March 2021 to 29 March 2021.
18. On 29 March 2021, NOPSEMA notified the titleholder that they were required to modify and resubmit the EP (Revision 1, dated 11 February 2021) as NOPSEMA was not reasonably satisfied that the EP met the acceptance criteria as set out in regulation 10A of the Environment Regulations.
19. In response to the request from NOPSEMA to modify and resubmit the EP (Revision 1, dated 11 February 2021), the titleholder resubmitted the EP (Revision 2, dated 31 May 2021) to NOPSEMA on 31 May 2021 in accordance with regulation 9(1) of the Environment Regulations.
20. On 28 June 2021, 15 July 2021 and again on 30 July 2021, the titleholder was notified by NOPSEMA that NOPSEMA was unable to make an assessment decision under regulation 10(1)(c) of the Environment Regulations and requested further written information from the titleholder as NOPSEMA was not reasonably satisfied that the EP met the acceptance criteria as set out in regulation 10A of the Environment Regulations.
21. In response to the requests from NOPSEMA to provide further written information, the titleholder resubmitted the EP in accordance with regulation 9(1) of the Environment Regulations on 13 July 2021 (Revision 3, dated 13 July 2021), 19 July 2021 (Revision 4, dated 19 July 2021) and 5 August 2021 (Revision 5, dated 5 August 2021), respectively.
22. The NOPSEMA assessment team comprised an assessment manager, lead assessor and experienced environment technical specialists with expert knowledge in environmental and marine science relevant to offshore oil and gas activities and their associated impacts and risks. The assessment included an examination of higher order impacts and risks, with the specialist NOPSEMA assessors paying particular attention to those matters. The assessment included a general assessment of the whole EP and detailed topic assessments of the EP content, as follows:
 - a. Matters protected under Part 3 of the EPBC Act with a focus on whether potential impacts of acoustic emissions on key values of the Commonwealth Marine Area, including giant crab and southern rock lobster stocks (biological impacts) and listed threatened whales (particularly humpback, blue and southern right whales) will be managed to ALARP and acceptable levels.
 - b. Socio-economic scope with a focus on whether an appropriate consultation process was undertaken with relevant persons and appropriate measures were adopted in response to objections and claims. This topic had a particular focus on commercial fishing stakeholders and ensuring socio-economic impacts (e.g. displacement) on commercial fishing operations will be managed to ALARP and acceptable levels.
23. On 10 August 2021, pursuant to regulation 10(4)(b)(iii) of the Environment Regulations, I accepted the assessment team's recommendation that the EP (Revision 5, dated 5 August 2021) does not meet all the

acceptance criteria set out in regulation 10A of the Environment Regulations, but that it could be accepted subject to conditions applying to operations for the petroleum activity pursuant to regulation 10(6)(b) of the Environment Regulations. In deciding to accept the plan subject to conditions applying to operations for the activity, I have considered and agree with each of the findings and conclusions made by the assessment team in relation to the general assessment and each topic assessment. Notice of this decision was provided in writing to the titleholder on 10 August 2021, in accordance with regulation 11 of the Environment Regulations.

Key materials considered in making the decision

24. In making this decision, NOPSEMA considered the documents making up the EP submission in accordance with legislative requirements and NOPSEMA policy and procedure. The material that NOPSEMA had regard to in making this decision includes:

- a. The EP (Revision 5, dated 5 August 2021), comprising:
 - i. supporting EP documentation (Appendices [A, B, C, D, E, F, G, H, I, J and K] including Sensitive Information provided in Appendix D); and
 - ii. the titleholder's statement as to how public comments were taken into account.
- b. The legislative framework relevant to EP assessments, including:
 - i. the OPGGS Act;
 - ii. the Environment Regulations; and
 - iii. the Program².
- c. Policies and Guidelines:
 - i. NOPSEMA, N-04000-PL0050 – *Assessment policy*;
 - ii. NOPSEMA, N-04750-PL1347 – *Environment plan assessment policy*;
 - iii. NOPSEMA, N-04750-GL1721 – *Environment plan decision-making guidelines*;
 - iv. Department of the Environment, Water, Heritage and the Arts, *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*, EPBC Act Policy Statement (2013); and
 - v. Department of the Environment, Water, Heritage and the Arts, *EPBC Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales: Industry Guidelines*, (September 2008).
- d. Guidance:
 - i. NOPSEMA, N-04750-GN1344 – *Environment plan content requirements*;
 - ii. NOPSEMA, N-04750-GN1785 – *Petroleum activities and Australian marine parks*;
 - iii. NOPSEMA, N-04750-GN1488 – *Oil pollution risk management*;
 - iv. NOPSEMA, N-04750-IP1765 – *Acoustic impact evaluation and management*; and
 - v. NOPSEMA, N-04750-IP1349 – *Operational and scientific monitoring programs*.

² <https://www.environment.gov.au/protection/assessments/strategic/offshore-petroleum-greenhouse-gas>

- e. Procedures:
 - i. NOPSEMA, N-04750-SOP1369 – *Environment plan assessment standard operating procedure*.
- f. Other relevant documents and records:
 - i. South-east Commonwealth Marine Reserves Network Management Plan 2013-23 (Director of National Parks, 2013);
 - ii. Conservation Management Plan for the Blue Whale: A Recovery Plan under the EPBC Act (Department of the Environment, 2015);
 - iii. Conservation Management Plan for the Southern Right Whale: A Recovery Plan under the EPBC Act (Department of Sustainability, Environment, Water, Population and Communities, 2011);
 - iv. Humpback Whale (*Megaptera novaeangliae*) Conservation Advice (Department of the Environment, 2015);
 - v. National Recovery Plan for the Orange-bellied Parrot, *Neophema chrysogaster* (Department of Environment, Land, Water and Planning (2016).
 - vi. relevant policies, plans of management, recovery plans, conservation advice and other guidance for matters protected under the EPBC Act.
 - vii. relevant published, peer-reviewed scientific literature, including the scientific literature cited in the EP;
 - viii. the titleholder's report on public comment; and
 - ix. public comments received during the public comment period.

Legislative framework

25. The Environment Regulations relevantly provide that:

- a. Before commencing a petroleum activity, a titleholder must submit an EP for the petroleum activity to the Regulator (regulation 9(1)).
- b. If a titleholder submits an EP, the Regulator may request the titleholder to provide further written information about any matter required by the Environment Regulations to be included in the EP (regulation 9A).
- c. If a titleholder receives a request under regulation 9A, they must provide the information requested by incorporating the information into the EP and resubmitting the EP within the period specified or within a longer period agreed to by the Regulator.
- d. If the EP is resubmitted under regulation 9A, the Regulator must have regard to that further information in making the decision under regulation 10.
- e. Within 30 days after the day the Regulator receives the written statement addressing public comments on the EP under regulation 11B(3), if the Regulator is:
 - i. reasonably satisfied that the EP meets the criteria set out in regulation 10A, the Regulator must accept the EP (regulation 10(1)(a));
 - ii. not reasonably satisfied that the EP meets the criteria set out in regulation 10A, the Regulator must give the titleholder notice in writing (regulation 10(2)); or

- iii. if the Regulator is unable to make a decision on the EP within the 30 day period, the Regulator must give the titleholder notice in writing and set out a proposed timetable for consideration of the EP (regulation 10(1)(c)).
- f. A notice to a titleholder under regulation 10(2) must:
 - i. state that the Regulator is not reasonably satisfied that the EP submitted by the titleholder meets the acceptance criteria set out in regulation 10A;
 - ii. identify the criteria set out in regulation 10A about which the Regulator is not reasonably satisfied; and
 - iii. set a date by which the titleholder may resubmit the EP.
- g. Regulation 10A provides the acceptance criteria the Regulator must consider in determining whether to accept an EP, and includes that the plan:
 - i. is appropriate for the nature and scale of the activity;
 - ii. demonstrates that the environmental impacts and risks of the activity will be reduced to ALARP;
 - iii. demonstrates that the environmental impacts and risks of the activity will be of an acceptable level;
 - iv. provides for appropriate environmental performance outcomes (EPOs), environmental performance standards (EPSs) and measurement criteria;
 - v. includes an appropriate implementation strategy and monitoring, recording and reporting arrangements;
 - vi. does not involve the activity or part of the activity, other than arrangements for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage property within the meaning of the EPBC Act;
 - vii. demonstrates that:
 - A. the titleholder has carried out the consultation required by division 2.2A; and
 - B. the measures (if any) that the titleholder has adopted, or proposes to adopt, because of the consultation are appropriate; and
 - viii. complies with the OPGGS Act and the Environment Regulations.

Consideration and findings of material facts

26. NOPSEMA took into account the following considerations and findings of material fact which contributed to the decision to accept the EP with conditions.

Requirement that the EP be submitted in writing

27. The titleholder has submitted the EP in writing as required by regulation 9(6) of the Environment Regulations.

The EP meets the formal requirements in regulation 12

28. NOPSEMA is satisfied that the EP meets all the formal requirements of regulation 12 of the Environment Regulations, as it includes the matters set out in regulations 13, 14, 15 and 16 of the Environment Regulations.

Environmental assessment: regulation 13

Description of the activity

29. NOPSEMA considered the description of the petroleum activity in section 2 of the EP and found that:

- a. a comprehensive description of the petroleum activity had been provided relevant to the consideration of environmental impacts and risks of the petroleum activity. Key aspects of the description included the following:
 - i. the petroleum activity described in the EP is a three-dimensional (3D) marine seismic survey (MSS) located in Commonwealth waters to the west of King Island in the Bass Strait.
 - ii. the location of the petroleum activity is clearly set out in the EP by figures and tables that include the coordinates for the operational area (4,089 km²) and acquisition area (2,703 km²) of the 3D MSS.
 - iii. the petroleum activity will be undertaken using a purpose-built survey vessel equipped with the necessary hardware to conduct a seismic acquisition survey.
- b. information considered relevant for the consideration of environmental impacts and risks (such as the operational details of the petroleum activity and proposed timetable) included:
 - i. the timing and duration of the petroleum activity, which is 24-hours/day over an 82-day period between 10 August 2021 to 31 October 2021 (inclusive);
 - ii. the number of days for acquisition at full power, which is a maximum of 38 days;
 - iii. the survey design, which is a maximum of 42 sail lines separated by a minimum distance of 500 m and orientated in a north to south direction;
 - iv. the total distance of sail lines for acquisition at full power, which is a maximum of 5,000 km;
 - v. the number of sources per array, which is three;
 - vi. the number of source arrays, which is two;
 - vii. the total volume of source arrays, which is a maximum of 3,480 cubic inches (cui);
 - viii. the operating pressure of source arrays, which is a maximum of 2,000 pounds per square inch (psi);
 - ix. the tow depth of source arrays, which is a maximum of 6 m below the sea surface;
 - x. the shot point interval of source arrays, which is 18.75 m;
 - xi. the frequency range of source arrays, which is 0 to 200 Hz;
 - xii. the hydrophone type, which is a maximum of 18 solid hydrophone streamers with a maximum length of 6,100 m and positioned a maximum distance of 100 m apart;
 - xiii. the tow depth of hydrophone streamers, which is a maximum of 25 m below the sea surface;
 - xiv. the towing speed, which is 4 knots (7.4 km/hour); and
 - xv. the general details of the vessels to be used for the petroleum activity.

Description of the environment that may be affected

30. NOPSEMA considered the description of the existing environment that may be affected by the petroleum activity throughout the EP in sections 4 and 5 and Appendices E, G, H and J, including relevant values and sensitivities, and found that:
- a. the descriptions include the relevant physical environment features and biological ecosystems and their constituent parts in the area that may be affected by the petroleum activity, including under emergency conditions.
 - b. the regional setting of the area that may be affected by the petroleum activity including under emergency conditions overlaps with the following Integrated Marine and Coastal Regionalisation of Australia (IMCRA) bioregions in the South-east Marine Region of the Commonwealth marine area: Southeast Shelf Transition; Southeast Transition; Western Bass Strait Shelf Transition; West Tasmania Transition; Bass Strait Shelf Province; Tasmanian Shelf Province; and, Tasmania Province.
 - c. the Department of Agriculture, Water and Environment's (DAWE's) EPBC Act Protected Matters Search tool was used to identify the conservation values and sensitivities, including matters protected under Part 3 of the EPBC Act, in the area that may be affected by the petroleum activity including for oil spill scenarios relevant to the activity.
 - d. 128 listed threatened and 82 listed migratory species or their habitat occurs, may occur or is likely to occur, within the meaning of the EPBC Act, in the area that may be affected by the petroleum activity, including under emergency conditions.
 - e. the biologically important areas (BIAs) for species in an area that may be affected by the petroleum activity, including under emergency conditions, have been identified and described. For marine mammals, these include Southern Right Whale connecting habitat, aggregation, breeding and migration and resting on migration BIAs, Blue Whale foraging, known foraging and foraging (annual high use area) BIAs and Humpback Whale foraging BIAs. The petroleum activity also overlaps with an area defined as the 'known core range' within the Conservation Management Plan for the Southern Right Whale, with potential for Southern Right Whale cows and calves to transit through the operational area.
 - f. the activity or any part of the activity will not be undertaken in any part of a declared World Heritage Property or National Heritage Place within the meaning of the EPBC Act, as supported by the results from DAWE's EPBC Act Protected Matters Search tool provided in Appendix J of the EP.
 - g. values and sensitivities of the following Australian Marine Parks (AMPs) in the area that may be affected by the petroleum activity, including under emergency conditions have been identified and described: Apollo AMP; Boags AMP; Zeehan AMP; Beagle AMP; and, Franklin AMP.
 - h. in identifying values and sensitivities of the relevant AMPs, the EP has had regard to the South-east Commonwealth Marine Reserves Network Management Plan 2013-23.
 - i. values and sensitivities of the following threatened ecological communities (TECs) in the area that may be affected by the petroleum activity, including under emergency conditions have been identified and described: Giant kelp marine forests of south-east Australia; assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria; and subtropical and temperate coastal saltmarsh.

- j. values and sensitivities of the following key ecological features (KEFs) in the area that may be affected by the petroleum activity, including under emergency conditions have been identified and described: Bonney Coast Upwelling KEF; West Tasmania Canyons KEF; Big Horseshoe Canyon KEF; Upwelling East of Eden KEF; and Canyons of the Eastern Continental Slope KEF.
- k. values and sensitivities of the following Wetlands of International Importance within the meaning of the EPBC Act in the area that may be affected by the petroleum activity, including under emergency conditions have been identified and described: Lavinia Ramsar site; Western Port Ramsar site; and Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site.
- l. commonwealth managed fisheries in the area that may be affected by the petroleum activity including under emergency conditions have been identified and described: Bass Strait Central Zone Scallop Fishery; Eastern Skipjack Fishery; Eastern Tuna and Billfish Fishery; Small Pelagic Fishery; Southern and Eastern Scalefish and Shark Fishery (SESSF) – Commonwealth Trawl Sector; SESSF – Shark Gillnet Sector and Shark Hook Sector; SESSF – Scalefish Hook Sector; Southern Bluefin Tuna Fishery; and, Southern Squid Jig Fishery.
- m. Victorian managed fisheries in the area that may be affected by the petroleum activity including under emergency conditions have been identified and described: Abalone Fishery; Giant Crab Fishery; Inshore Trawl Fishery; Ocean Access (General) Fishery; Ocean Purse Seine Fishery; Pipis Fishery; Southern Rock Lobster Fishery; and Wrasse Fishery.
- n. Tasmanian managed fisheries in the area that may be affected by the petroleum activity including under emergency conditions have been identified and described: Abalone Fishery; Commercial Dive Fishery; Giant Crab Fishery; Octopus Fishery; Scalefish Fishery; Scallop Fishery; Seaweed Fishery; Shellfish Fishery; and Southern Rock Lobster Fishery.
- o. social, economic and cultural features of the environment relating to Aboriginal heritage, Native Title, maritime archaeological heritage, coastal settlements, offshore energy exploration and production, other infrastructure, tourism and recreation, defence activities and commercial shipping have been identified and described.
- p. coastal and shoreline areas within the area that may be affected by oil spill scenarios for the activity have been identified and described.

Requirements

- 31. The EP identifies the legislative requirements that apply to the petroleum activity and are relevant to the environmental management of the petroleum activity in various parts of the submission, particularly in Section 4 (Receptors), Section 5 (Unplanned Aspects) and Appendix A (Legislation and Other Requirements Tool). Throughout the EP, a process is applied for evaluating acceptability of environmental impacts and risks that considers whether the petroleum activity aligns, or where applicable, is not inconsistent, with relevant legislative, environmental and other external context including the principles of ecologically sustainable development (ESD).
- 32. The EP includes a suitable description of the relevant legislative and other requirements applying to the petroleum activity, including, but not limited to, relevant plans of management under the EPBC Act, and a suitable demonstration of how these requirements will be met by the titleholder, by integrating these requirements as criteria for demonstrating that environmental impacts and risks of the activity will be of an acceptable level.

Evaluation of environmental impacts and risks

33. As required by regulation 13(5), the EP includes:

- a. details of the environmental impacts and risks, including those arising from potential emergency conditions whether resulting from accident or any other reason, for the petroleum activity which are provided in sections 4 and 5. The environmental impacts and risks associated with the petroleum activity are identified, including environmental impacts and risks associated with:
 - i. receptors:
 - A. plankton;
 - B. invertebrates;
 - C. fish;
 - D. birds;
 - E. marine mammals;
 - F. marine reptiles;
 - G. commercial fisheries; and
 - H. other marine users;
 - ii. unplanned aspects:
 - A. loss of materials or waste overboard;
 - B. vessel collision with marine fauna;
 - C. introduction of invasive marine species;
 - D. marine diesel oil release; and
 - E. oil spill response activities.
- b. an evaluation of all the impacts and risks, whether arising directly or indirectly, and including those arising from potential emergency conditions whether resulting from accident or any other reason, appropriate to the nature and scale of each impact or risk (sections 4 and 5); and
- c. details of the control measures that will be used to reduce the impacts and risks of the activity to ALARP and an acceptable level (sections 4 and 5, and Appendix B).

Environmental Performance Outcomes and Standards

34. NOPSEMA considered the EPOs, EPSs and measurement criteria provided in sections 4 and 5 of the EP and found that:
- a. EPOs have been set which define performance for the management of the environmental aspects of the activity to ensure that environmental impacts and risks will be of an acceptable level;
 - b. EPSs have been set for control measures identified as being necessary to reduce the environmental impacts and risks of the activity to ALARP and acceptable levels; and
 - c. measurement criteria provided will allow the titleholder to determine whether each environmental performance outcome and environmental performance standard is being met for the duration of the activity.

Implementation strategy for the EP: regulation 14

35. The EP includes content addressing the requirements of regulation 14 of the Environment Regulations, including the following elements of the implementation strategy:
- a. titleholder performance reporting to NOPSEMA. For example, section 6.11 outlines the routine reporting obligations to NOPSEMA including performance reporting;
 - b. a description of the environmental management system that will be used to ensure that impacts and risks continue to be identified and that controls measures are effective in reducing environmental impacts and risks to ALARP and acceptable levels so that EPOs and EPSs continue to be met. In particular, section 6.1 outlines the titleholder's environmental management system, which is based around a 'plan, do, assess and adjust' framework, and includes a management of change process (section 6.13) and EP review process (section 6.16);
 - c. a description of an established chain of command, setting out roles and responsibilities for personnel, including during emergency conditions. In particular, section 6.6 outlines the organisation structure for the activity and the roles and responsibilities of key project team members;
 - d. measures to ensure that personnel have awareness of roles and responsibilities and have appropriate competencies and training. In particular, section 6.10 outlines the measures that are in place for ensuring employee and contractor competency, including the necessary awareness, training and induction requirements to fulfil their duties;
 - e. provides for sufficient monitoring, recording, audit, management of non-conformance review and monitoring, recording and reporting arrangements are adequate. In particular, section 6.15 outlines the process for inspections and audits including content that describes management of non-conformances;
 - f. provides for sufficient monitoring and maintenance of emissions and discharges relevant to assessing whether EPOs and EPSs are being met. In particular, section 6.14.1 outlines the approach to monitoring and records keeping for emissions and discharges;
 - g. provides for an oil spill pollution plan and for the updating of the plan. In particular, Appendix I provides an oil pollution emergency plan/oil spill management plan that includes arrangements for responding to and monitoring marine oil pollution events; and
 - h. provides for appropriate ongoing consultation during the implementation of the activity with relevant persons. In particular, section 3.6 outlines the arrangements for ongoing stakeholder consultation.

Details of titleholder and liaison person: regulation 15

36. Details for the titleholder were included in the EP, including name, contact details and ACN (within the meaning of the *Corporations Act 2001*) as well as the contact details of the titleholder's nominated liaison person.
37. The EP contained arrangements for notifying NOPSEMA of a change in the titleholder, the nominated liaison person, or of change in the contact details of either.

Other information in the EP: regulation 16

38. NOPSEMA considered other information provided in the EP and found that:

- a. the titleholder's "Environment Policy" was provided (section 6.2); and
- b. details of all reportable incidents, meaning those that have the potential to cause moderate to significant environmental damage relating to the activity, are to be reported to NOPSEMA (section 6.11).

Consultation undertaken in the course of preparing the EP

39. The EP contained a report on all consultations under regulation 11A of any relevant person by the titleholder. That report contains a summary of each response made by a relevant person, and assessment of the merits or claim about the adverse impact of each activity to which the EP relates and a statement of the titleholder's response, or proposed response, if any, to each objection or claim and a copy of the full text of any response by a relevant person.

Consideration of substantive requirements of the EP

40. Under the environment regulations, in order to accept the EP, NOPSEMA must be reasonably satisfied that the criteria in regulation 10A are met.
41. There are also considerations that NOPSEMA must take into account as a consequence of other legislation, policy statements and common law principles. These include the following:
 - a. Pursuant to Australian Government documents 'Streamlining Offshore Petroleum Environmental Approvals: Strategic Assessment Report' (February 2014) and 'Streamlining Offshore Petroleum Environmental Approvals: Program Report' (February 2014), in the course of assessing the EP, NOPSEMA is required to consider certain matters under the EPBC Act.
 - b. When assessing the EP, NOPSEMA considered the principles of ecologically sustainable development; protected matters under Part 3 of the EPBC Act and the cumulative impact of multiple proposed activities.
42. These additional considerations are taken into account at various stages of the assessment and are further addressed at the end of the statement of reasons.

The EP is appropriate to the nature and scale of the activity: regulation 10A(a)

43. NOPSEMA is reasonably satisfied that the EP is appropriate to the nature and scale of the activity because:
 - a. A suitable description of the activity is provided and there is a thorough description of the environment relevant to the area that may be affected by the activity (see paragraphs 29 & 30 above).
 - b. The EP is clearly scoped and bounded, with clarity on the seismic operations, the area of data acquisition and the timeframe for the activity from 10 August 2021 to 31 October 2021.
 - c. The EP considers public comments and relevant persons consultation which is part of the risk and impact assessment process, and suitable control measures have been proposed for environmental impacts and risks, including invasive marine species, potential impacts of underwater noise on marine wildlife, interaction with other marine users and unplanned release of hydrocarbons.
 - d. the statements and conclusions drawn by the titleholder regarding environmental impacts and risks have been sufficiently supported by scientific literature, with greater effort afforded to support aspects of evaluation where there is a higher degree of uncertainty in the predicted environmental

- impacts and / or high severity of potential consequences e.g. potential impacts to socio-economic receptors and noise sensitive marine fauna;
- e. Appropriate additional studies to support the evaluation of environmental impacts and risks are provided in the EP, specifically:
 - i. underwater sound modelling (Appendix E); and
 - ii. oil spill trajectory modelling (Appendix G).
 - f. There are specific control measures for higher order environmental impacts and risks that provide reasonable satisfaction that impacts and risks will be of an acceptable level and reduced to ALARP.

The EP demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable: regulation 10A(b)

44. NOPSEMA is reasonably satisfied that the EP demonstrates that the environmental impacts and risks of the activity will be reduced to ALARP (see paragraphs 33 and 34 above) because:
- a. The approach to demonstrating that impacts and risks are managed to ALARP involves analysing effectiveness of proposed control measures and setting out reasoned conclusions about effectiveness of those measures, including additional controls as required to improve environmental performance and outlining reasons for not adopting new or different controls or improving performance for selected controls.
 - b. It is evident that the process for evaluating whether impacts and risks have been managed to ALARP has been applied with additional control measures adopted for higher order impacts and risks (e.g. control measures for the management of underwater noise impacts on cetaceans and commercially important crustaceans).
 - c. All reasonable control measures have been considered and evaluated, including several control measures arising from consultation with relevant persons, the evaluation of impacts and risks has been informed by suitable control measures and there is sufficient detail of control measures, particularly when read in conjunction with environmental performance standards, to understand how control measures are intended to perform.
 - d. The EP provides analysis and conclusions regarding how the adopted controls will lower the potential impact and risk to the point that any additional or alternative control measures are grossly disproportionate to the residual impact consequence.

Commercial fisheries and commercially important species

- a. The EP adequately identifies and evaluates the potential impacts and risks from the activity to crustaceans (Southern Rock Lobster and Giant Crab) and their respective fisheries. The EP considers both the potential physiological impacts to crustaceans from underwater sound and the subsequent potential impact to commercial fisheries. The titleholder's evaluation is commensurate to the predicted magnitude of impacts and risks to Southern Rock Lobster and Giant Crab.
- b. The EP adequately evaluates control measures that could be reasonably considered to reduce impacts to Southern Rock Lobster and Giant Crab and their respective fisheries to ALARP. Justification as to whether or not a control measure is adopted is based on the consideration of environmental benefit, cost and a cost-benefit analysis.

- c. Relevant person consultation has been undertaken, and information provided during this process has been considered by the titleholder and incorporated into the control measures where appropriate. For example, excising important habitats for Giant Crabs (including reported fishing depths of 140–300 m) and Southern Rock Lobsters (areas of importance identified by the Director of National Parks) from the acquisition area.

Marine mammals

45. NOPSEMA is reasonably satisfied that the EP demonstrates that the environmental impacts and risks of the activity to marine mammals will be reduced to ALARP because:
 - a. The EP adequately identifies and evaluates the potential impacts and risks from the activity to marine mammals, including cetaceans and pinnipeds, based on the likely species distribution and behaviour within the area that may be affected by the activity, and a prediction of impacts that is based on peer-reviewed literature and independent underwater noise propagation modelling.
 - b. The EP adequately evaluates control measures that could be reasonably considered to reduce impacts to marine mammals, including cetaceans and pinnipeds, to ALARP. Justification as to whether or not a control measure is adopted is based on the consideration of environmental benefit and feasibility. Specifically:
 - i. Additional control measures have been applied for those species for which there is a higher potential for biologically significant impacts, such as baleen whales. For example, the activity was timed to avoid the peak blue whale foraging period and extended shut down zones were applied to sensitive life stages, e.g. migrating Southern Right Whale mothers and calves.
 - ii. A comprehensive suite of whale detection measures including regular aerial surveillance flights and passive acoustic monitoring were adopted, improving the efficacy and reliability of shut down protocols for marine mammals. Adaptive mitigation measures, informed by whale occurrence and mitigation actions (as outlined in Appendix K), were adopted to ensure that impacts and risks would continue to be managed to ALARP, including during night time and low visibility conditions, for the duration of the activity.
 - iii. An increased 2 km low power zone has been implemented for all whale species. This increased low power zone is much larger than the largest distance over which impulsive noise injury is predicted to occur (< 70 m for peak pressure level (PK) metric for injury from instantaneous exposure).
 - iv. Additional control measures were evaluated for pinnipeds and the reasons for not adopting them were based on a comprehensive evaluation of the environmental benefit and reasonable practicability of implementation. The evaluation of impacts was supported by peer-reviewed literature that indicates the operational area is unlikely to support large numbers of foraging fur seals.
 - c. The EP provides supported reasons that the adopted controls for marine mammals have lowered the potential impact to the point that any additional or alternative control measures would be grossly disproportionate to any remaining impact.

The EP demonstrates that the environmental impacts and risks of the activity will be of an acceptable level: regulation 10A(c)

46. NOPSEMA is reasonably satisfied that the EP demonstrates that the environmental impacts and risks of the activity will be of an acceptable level (with the exception of underwater noise impacts to Giant Crab and Southern Rock Lobster, see paragraphs 48, 49, 50 and 51 below, addressed by a condition imposed) because:
- a. The EP involves a process for evaluating the acceptable levels of impact and risk that considers internal and external policy setting, stakeholder feedback, legislative context, industry practice, environmental context including the sensitivity/status of receptors, principles of ESD (see paragraph 31 above). For the matters that are considered higher order impacts and risks and where there is potential for inconsistency with the principles of ESD, it is evident that acceptable effort has been applied to addressing these matters either through temporal, spatial or administrative control measures. NOPSEMA considers that the EP will ensure that the activity can be managed consistent with the principles of ESD because:
 - i. The titleholder's consideration and response to public comments, consultation with relevant persons and the evaluation of the socio-economic, cultural and ecological features of the environment that may be affected by the activity demonstrates that the impacts of the activity will be managed to ALARP and acceptable levels.
 - ii. A precautionary approach to the management of impacts on commercial fisheries, commercially important species and cetaceans has been applied. This includes:
 - A. Two low power excise areas for commercially important crustacean habitat; one for Giant Crab and one for Southern Rock Lobster;
 - B. Spatial avoidance of the Big Reef feature, an area of importance for Southern Rock Lobster fishing;
 - C. An aerial surveillance program to inform adaptive management measures for whales, with a particular focus on species that undertake biologically important behaviours in the region, e.g. Southern Right Whale calving;
 - D. Adaptive management procedures with sensitive triggers to ensure that biologically important behaviours of Southern Right Whales and Blue Whales are not disturbed.
 - E. A process for commercial fishers to be appropriately compensated for any proven economic loss due to the Sequoia MSS; and
 - F. Temporal avoidance of the majority of the Southern Rock Lobster and Giant Crab fishing seasons.
 - iii. There are control measures in place to avoid and minimise environmental impacts and risks such that they will be managed to be an acceptable level for the duration of the activity and that the environmental impacts and risks of the activity will not forego the health, diversity and productivity of the environment for future generations.
 - iv. The control measures for environmental impacts to the biodiversity and ecological values of the environment affected, including matters of national environmental significance; demonstrate that impacts to biodiversity values are ALARP and acceptable.

- b. The EP content demonstrates that the proposed activity is not inconsistent with:
 - i. Recovery plans for a listed threatened species or ecological community, including the Conservation Management Plan for the Southern Right Whale.
 - ii. South-east Commonwealth Marine Reserves Network Management Plan 2013-23 (DNP, 2013).
- c. The EP shows regard was had to relevant policy documents, guidance, bioregional plans, wildlife conservation plans, management plans, gazettal instruments under the EPBC Act, conservation advices, including the *Megaptera novaeangliae* (humpback whale) Conservation Advice, marine bioregional plans and other information on the DAWE website including spatial data (e.g. National Conservation Values Atlas).
- d. The EP evaluates environmental impacts associated with atmospheric emissions, including greenhouse gases, generated by the activity. With the implementation of monitoring and adopted control measures NOPSEMA formed a view that the impacts of the activity's emissions to the atmosphere will be managed to an acceptable level.

Commercial fisheries and commercially important species

47. NOPSEMA is reasonably satisfied, subject to two conditions imposed, that the EP demonstrates that the environmental impact and risks of the activity on commercial fisheries and commercially important species will be of an acceptable level because:
- a. The EP provides clearly defined acceptable levels of impacts for crustaceans (Southern Rock Lobster and Giant Crab) and commercial fisheries, and compares these levels to the predicted levels of impact and risk to demonstrate that the activity will be managed to an acceptable level.
 - b. The methods for predicting levels of impact (including activity-specific acoustic modelling for determining distances at which relevant peer reviewed effect thresholds will be reached and consideration of relevant scientific literature) are considered to be systematic, defensible and reproducible.
 - c. Where uncertainty in predictions exists (e.g. potential impacts from seismic noise to Southern Rock Lobster and Giant Crab), the titleholder has committed to implement precautionary control measures to ensure impacts will be of an acceptable. This includes excision of important habitats for these crustacean species from the acquisition area.
 - d. The titleholder has undertaken considerable relevant persons consultation, with information from fishers and fisheries bodies (e.g. Tasmanian Seafood Industry Council and South East Trawl Fishing Industry Association) appropriately incorporated into the EP so that the activity will be managed to an acceptable level.
48. Notwithstanding the measures outlined in paragraph 47 above, NOPSEMA was not reasonably satisfied that the impacts of underwater noise on Southern Rock Lobster and Giant Crab would be of an acceptable level because:
- a. There were inconsistencies in the activity maps in the EP that meant it was not sufficiently clear where seismic data acquisition was proposed to occur, particularly in relation to an area of Southern Rock Lobster habitat within the Zeehan Australian Marine Park. In addition, there was uncertainty about the effectiveness of proposed excise areas for commercially important crustaceans given that low power airgun discharge (for the purpose of protecting marine mammals) was proposed to occur in these areas.

49. As a result, NOPSEMA was of the view that:

- a. This inconsistency and uncertainty could result in either seismic data acquisition occurring within the excise areas or low power discharge within the excise areas resulting in sublethal effect thresholds for crustaceans being exceeded.

50. In order to address these concerns, NOPSEMA imposed two conditions on acceptance of the EP to ensure the activity can be managed such that impacts to Southern Rock Lobster and Giant Crab will be of an acceptable level (see attached decision letter and paragraph 74 below).

51. NOPSEMA formed the view that compliance by the titleholder with these conditions addresses the concerns outlined above in paragraph 48 and allow for NOPSEMA to be reasonably satisfied that impacts to Southern Rock Lobster and Giant Crab within areas of important habitat for these species will be of an acceptable level during operations for the activity.

Marine mammals

52. NOPSEMA is reasonably satisfied that the EP demonstrates that the environmental impacts and risks of the activity on marine mammals will be of an acceptable level because:

- a. The EP has regard to relevant policy documents, guidance, bioregional plans, wildlife conservation plans, management plans, marine bioregional plans and other information on the DAWE website including spatial data (e.g. National Conservation Values Atlas) and evaluates the impacts of anthropogenic noise on all relevant listed species.
- b. The EP provides clearly defined acceptable levels of impacts for marine mammals (including cetaceans and pinnipeds) and compares these levels to the predicted level of impact and risk to demonstrate that the environmental impacts of the activity will be managed to acceptable levels.
- c. The EP considers the potential for permanent and temporary threshold shifts in hearing and behavioural disturbance as a result of underwater noise exposure and any subsequent potential impact to individual fitness and population viability. The titleholder's evaluation is commensurate to the predicted magnitude of impacts and risks to marine mammals.
- d. The EP predicts that impacts to fur seals will be limited to temporary behavioural disturbance within the survey area, which does not appear to constitute important foraging habitat. Consequently, the activity is not predicted to result in unacceptable impacts to fur seals.
- e. The EP provides an evaluation of impacts and risks that is systematic, defensible and supported by relevant information. The evaluation of impacts is supported by acoustic propagation modelling, which indicates that for mid frequency cetacean species, including dolphins and toothed whales, and pinnipeds, auditory impacts including injury are not predicted to occur.
- f. In relation to low frequency cetaceans, including baleen whales, the EP provides a robust demonstration that impacts to migratory whales, including humpback whales, will be reduced to acceptable levels through the application of control measures including EPBC Act Policy Statement 2.1, a 2 km power down zone, the use of qualified and experienced marine mammal observers (MMOs) and passive acoustic monitoring (PAM) operators to improve the efficacy of visual observations to inform management responses.
- g. Based on acoustic modelling predictions, additional control measures were required to reduce impacts to acceptable levels for species undertaking biologically important behaviours within the

operational area. This includes extended shutdown distances and durations for Southern Right Whales and Blue Whales.

- h. The EP provides a comprehensive evaluation of the potential impacts to Southern Right Whales within the core coastal range, particularly cows and calves that may be migrating out of coastal connecting habitat BIAs. Based on the adoption of substantial additional controls, including regular aerial surveillance flights, increased precaution zones, extended shutdowns, and precautionary adaptive mitigation for cows and calves, the impacts to biologically important behaviours of Southern Right Whales are not predicted to be unacceptable.
- i. Through the adoption of the control measures described above the EP demonstrates how the activity will be managed consistent with the Conservation Management Plan for the Southern Right Whale.
- j. To demonstrate that the activity could be managed consistent with the Conservation Management Plan for the Blue Whale, substantial additional control measures were adopted to prevent unacceptable impacts. This included:
 - i. Survey exclusion of the primary blue whale foraging period;
 - ii. precautionary detection and mitigation measures including pre-start surveys, extended shutdown of the seismic source and aerial surveys to understand presence and distribution; and
 - iii. Appropriate triggers to cease night-time operations in the unlikely presence of blue whales.
- k. To demonstrate that the activity could be managed consistent with the *Megaptera novaeangliae* (Humpback Whale) Conservation Advice, suitable control measures were adopted to prevent unacceptable impacts, including:
 - i. Trained and competent MMOs and PAM operators to implement whale observations and determine need for power downs and shut downs as per Policy Statement 2.1.
 - ii. A suite of adaptive measures to be implemented in the event of increased power downs or shut downs.

The EP provides for appropriate environmental performance outcomes, environmental performance standards, and measurement criteria: regulation 10A(d)

53. NOPSEMA considered the EPOs provided in the EP, including the relevant EPOs for invasive marine species, commercial fisheries, commercially important species and marine mammals and found that they were appropriate because:
- a. EPOs, including those for higher order environmental impacts and risks such as underwater noise impacts on noise sensitive receptors:
 - i. are relevant to identified environmental impacts and risks for the activity;
 - ii. establish measurable levels for management of environmental aspects of the activity; and
 - iii. when read in conjunction with the relevant environmental impact/risk evaluation content and EPSs and measurement criteria, demonstrate that impacts and risks will be of an acceptable level.
 - b. EPOs generally reflect the defined acceptable level and are presented as measurable levels of environmental performance. There are EPSs for each control measure and these EPSs contain statements of performance that clarify how the control measure is to function in order to effectively reduce and mitigate impacts and risks (e.g. EPOs and EPSs for underwater noise impacts on whales).

- c. the EPOs and EPSs when read together, define levels of performance required of the activity environmental management and how that level of performance will be measured. For example, the environmental performance outcome defined for introduced marine species (IMS) risk management is "there are no invasive marine species introduced, established or spread attributable to the activity", the achievement of which is supported by EPSs set for the IMS risk assessment process.
- d. Measurement criteria are considered to be records that could reasonably be expected to be a basis for monitoring compliance, by both the titleholder and NOPSEMA.

Commercial fisheries and commercially important species

54. NOPSEMA is reasonably satisfied that the EP provides for appropriate EPOs, EPSs and measurement criteria as it relates to commercial fisheries and commercially important species because:

- a. the EP contains clear, unambiguous EPOs for impacts and risks to the Southern Rock Lobster and Giant Crab fisheries that are directly linked to the defined acceptable levels for each respective aspect. For example, the EPOs for impacts to Southern Rock Lobster and Giant Crab populations reflect their current stock status:
 - i. Southern Rock Lobster EPO: *Southern rock lobster populations remain a sustainable resource.*
 - ii. Giant Crab EPO: *Giant crab populations are not depleted further.*

In addition, there is an EPO that relates to the commercial fisheries for these species:

- iii. Commercial fisheries EPO: *Impacts are such that commercial fishers are no worse off as a result of the Sequoia MSS.*
- iv. EPSs for controls relevant to the management of impacts to commercial fishers are supported with clear measurement criteria that can be easily monitored. For example, for the Adjustment Protocol control measure for commercial fishers 'Claims will be assessed by a third-party on behalf of ConocoPhillips Australia with at least 20 years experience in Australian fisheries management' (EPS 13.2), and there are suitable measurement criteria linked to the EPS.

Marine mammals

55. NOPSEMA is reasonably satisfied that the EP provides for appropriate EPOs, EPSs and measurement criteria as it relates to marine mammals because:

- a. the EP contains clear, unambiguous EPOs for impacts and risks to marine mammals that are directly linked to the defined acceptable levels for each respective aspect. EPOs are provided for cetaceans and pinnipeds that reflect the defined acceptable levels of impact. For example:
 - i. There is a clear and unambiguous EPO for Blue Whales that reflects the defined acceptable level of impact for cetaceans and is consistent with requirements of the Conservation Management Plan for the Blue Whale: *Blue Whales continue to utilise the BIA without injury and are not displaced from a foraging area.*
 - ii. There is a clear and unambiguous EPO for pinnipeds that reflects an acceptable level of impact for fur seals: *Pinnipeds continue biologically important behaviours.*
 - iii. EPSs for control measures that are relevant to the management of impacts to marine mammals and are supported by clear measurement criteria that can be easily monitored. Examples of EPSs relevant to the control measures for marine mammals include (though are not limited to):

- A. Ensure implementation of all EPBC Act Policy 2.1 Statement Part A measures as required; observation zone (3km), low-power zone (2 km) and shut-down zone (500 m) and use of softs starts.
 - B. Ensure the implementation of increased shut-down zones for blue whales and southern right whales to 3 km.
- b. There are specific EPSs for Southern Right Whales and Blue Whales that have a relevant recovery plan in place and are most at risk from the impacts of underwater noise given the life stage potentially affected and their threatened status. Examples of EPSs include:
- i. If an adult Southern Right Whale or Blue Whale (confirmed not with calf) is detected by spotter vessel or aerial surveillance within the zone of potential exposure to TTS, shutdown and move >TTS effect distance, then commence start-up procedure; or shutdown for specified 'shutdown duration' then commence start-up procedure in daylight.
 - ii. In the event of >2 shutdowns from Southern Right Whales or Blue Whales in preceding 24 hours, shutdown for 'maximum shutdown duration', then commence start-up procedure in daylight.
- c. Suitable measurement criteria are provided that link to the EPS and will clearly provide a record that the EPS have been met.

The EP includes an appropriate implementation strategy and monitoring, recording and reporting arrangements: regulation 10A(e)

56. NOPSEMA is reasonably satisfied that the EP includes an appropriate implementation strategy and monitoring, recording and reporting arrangements because:
- a. the content requirements for an implementation strategy under regulation 14 are evident and appropriate for the nature and scale of the activity (refer to paragraph 35 above).
 - b. the EP describes adequate and effective processes and systems in place to ensure that all impacts and risks continue to be identified and reduced to ALARP and acceptable.
For example, the environmental management system, including environmental impact and risk identification and evaluation process, described and applied in the EP is generally consistent with recognised standards (AS/NZS ISO 14001: Environmental management systems, AS/NZS ISO 31000: Risk management - Principles and guidelines).
 - c. the environment management system includes measures to ensure that control measure are effective and that environmental impacts and risks of the activity will continue to be identified and reduced to ALARP and to an acceptable level. Key elements such as risk assessment, auditing and review elements of the management system are set out and management of change processes are described. The implementation strategy outlines circumstances where additional risk assessments will be undertaken on an ongoing basis, including when new relevant scientific information/papers become available.
 - d. a clear chain of command is established in the EP. The EP describes the titleholder's organisational structure for the activity and sets out roles and responsibilities of key personnel in a generally hierarchical manner. The titleholder's emergency management structure is also detailed in the Oil Pollution Emergency Plan (OPEP).

- e. the EP outlines measures for ensuring employee and contractor training and competency to fulfil their duties and are aware of the responsibilities via induction. For example, the EP identifies management system components that include contractor evaluation and management, employee training and competency development, and activity-specific induction of personnel as key measures.
- f. there are sufficient arrangements are in place for monitoring, recording, audit, management of non-conformance and review of the titleholder's environmental performance. For example, system components for monitoring and recording of information relevant to the activity are outlined, including routine reporting and notifications. The EP also provides for auditing and inspection of performance, including non-compliant incident investigation and tracking of close-out actions.
- g. sufficient arrangements are in place to allow monitoring of, and maintaining a quantitative record of, emissions and discharges (whether occurring during normal operations or otherwise), such that the record can be used to assess whether the EPOs and EPSs in the EP are being met.
- h. an oil pollution emergency plan has been provided that is consistent with the national system for oil pollution preparedness and response, and the requirements in regulation 14(8AA) to (8E) addresses arrangements for responding to and monitoring oil pollution, including:
 - i. the control measures necessary for timely response to an emergency;
 - ii. the arrangements and capability in place, for the duration of the activity, to ensure timely implementation of the control measures, including arrangements for ongoing maintenance of response capability;
 - iii. the arrangements and capability in place for monitoring the effectiveness of the control measures and ensuring that the EPSs for the control measures are met;
 - iv. arrangements and capability for monitoring oil pollution to inform response activities are in place. For example, the submission requires the titleholder to support the control agency with Type I monitoring;
 - v. arrangements and capability to undertake the appropriate monitoring of impacts to the environment from oil pollution and response activities in consultation with the control agency(ies); and
 - vi. arrangements for testing of the response arrangements in the oil pollution emergency plan reflect requirements of the regulations and are considered commensurate with the risk, including commitments to test spill response arrangements prior to commencing the activity.
- i. ongoing consultation arrangements are in place, with the ongoing consultation process described in the EP requiring the titleholder to continue to consult with relevant persons as appropriate. This includes the commitment to implement a fisheries and community liaison program post-acceptance of the EP. This program provides for the implementation of a range of on-going consultation measures, including the use of on-line methods if Covid-19 restrictions prevent face-to-face engagement.
- j. the implementation strategy complies with the OPGGS Act, Environment Regulations and the EPBC Act as required by regulation 14(10). For example, the implementation strategy complies with the requirements of the OPGGS Act (including but not limited to the requirements under section 571 and 572 EP), meets the content requirements of an EP required by Division 2.3 of the Environment

Regulations, and, in conjunction with the conditions imposed by NOPSEMA, complies with the EPBC Act through the Program (see paragraphs 59, 66 & 67 below).

The EP does not involve the activity, or part of the activity, other than arrangement for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage Property within the meaning of the EPBC Act: regulation 10A(f)

57. NOPSEMA is reasonably satisfied, based on the description of the location of the activity in the EP, that it does not involve the activity or part of the activity being undertaken within any part of a declared World Heritage Property.

The EP demonstrates that the titleholder has carried out the consultations required by Division 2.2A, and the measures (if any) that are adopted because of the consultations are appropriate: regulation 10A(g)

58. NOPSEMA is reasonably satisfied that the EP demonstrates that the titleholder has carried out the consultations required by Division 2.2A and the measures adopted because of the consultations are appropriate because (see paragraph 39):

- a. consultation has taken place with relevant persons as required by regulation 11A including by taking into account the relevant persons' functions, interests and activities and providing sufficient information and a reasonable period to consider the information and make an informed response. In particular:
 - i. the process for identifying relevant persons in the EP has been implemented. The full text of the responses by relevant persons has been included in the sensitive information section of the EP where those responses are in written form. The EP includes an appropriate assessment of the merits of each objection and claim raised during relevant persons consultation.
 - ii. where there have been merits to claims or objections the titleholder has included additional management measures. For example, additional management measures were developed for Giant Crabs in response to claims raised by Tasmanian Department of Primary Industries, Parks, Water and Environment (DPIPWE) and for Southern Rock Lobsters in response to claims raised by the Director of National Parks (DNP).
- b. The EP includes a method for identification of, and consultation with, relevant persons that comprises:
 - i. Consideration of the requirements for consultation with relevant persons in Regulation 11A;
 - ii. Identification of those whose functions, interests or activities may be affected by the Sequoia 3D MSS;
 - iii. A methodology for engagement (section 3.3) including the important steps of inform, consult and involve;
 - iv. Consultation commenced in July 2020 and has continued throughout the course of the assessment process (August 2021).
- c. The titleholder's consultation process has been effective and meaningful and the measures adopted in the EP appropriately address the concerns raised during the consultation. For example:

- i. consultation with the DPIWPE has resulted in additional control measures for underwater noise, including an increased excise area for Giant Crab habitat.
- ii. consultation with the DNP has been effective and meaningful in addressing concerns. Information gathered through the consultation process has been incorporated into the EP (e.g. excising important areas of Southern Rock Lobster habitat within the Zeehan Marine Park, commitment to designing, carrying out and contributing to studies to investigate areas of potential Southern Rock Lobster habitat and better understand potential impacts of seismic surveys on Southern Rock Lobster populations in consultation with the DNP).
- iii. consultation with commercial fishing peak bodies such as the South East Trawl Fishing Industry Association (SETFIA), Seafood Industry Victoria (SIV) and Tasmanian Seafood Industry Council (TSIC) resulted in the adoption of an adjustment protocol for commercial fishers that was developed in consultation with these peak bodies.

The EP complies with the Act and Regulations: regulation 10A(h)

59. NOPSEMA is reasonably satisfied that, in accordance with regulation 5G of the Environment Regulations, and at the time of making the decision to accept the EP, the titleholder has demonstrated it has maintained financial assurance in compliance with subsection 571(2) of the OPGGS Act in relation to the activity, and that the compliance is in a form that is acceptable to NOPSEMA.
60. Part 1B of the Environment Regulations specifies that titleholders are required to maintain sufficient financial assurance to meet the costs, expenses and liabilities that may result from a worst-case event associated with its offshore activities. In the case of the Sequoia 3D MSS, the most credible such event would be a large-scale marine diesel oil spill. Through review of the titleholder's financial assurance declaration and confirmation forms, NOPSEMA is satisfied that the titleholder has made commitments to having insurance policies in place that will cover the costs of spill response and operational and scientific monitoring.
61. NOPSEMA is reasonably satisfied that the EP complies with the requirements of the OPGGS Act and regulations because:
- a. the EP is consistent with the 'Objects' of the Environment Regulations including the principles of ESD.
 - b. There is sufficient information to address each of the content requirements of regulations 13-16 of the Environment Regulations with enough clarity, consistency and detail commensurate to the nature and scale of the activity.
62. The EP does not allow for any equipment to be left on the seabed at the completion of the activity. For example, the EP makes commitments to avoiding the loss of streamers/dropped objects and for recovering accidentally lost streamers.
63. The EP acknowledges and commits to complying with the requirements of the Environment Regulations (including but not limited to the requirements under sections 26 and 29) to notifying reportable incidents and start and end of an activity.

Other considerations

The regulator must consider public comments received: regulation 11B(6)

64. NOPSEMA is required to consider public comments that were received during the public comment period on the Sequoia 3D MSS when deciding whether to accept an EP under Regulation 10.

65. NOPSEMA's consideration of public comments is documented in NOPSEMA's Key Matters Report (published on NOPSEMA's website) which sets out how NOPSEMA took into account comments received (as described in regulation 11B(2)) when making its decision under Regulation 10.

The Program: protected matters under Part 3 of the EPBC Act

66. The Program endorsed under section 146 of the EPBC Act outlines the environmental management authorisation process for offshore petroleum and greenhouse gas activities administered by NOPSEMA and requires NOPSEMA to comply with Program responsibilities and commitments.
67. In implementing the Program, NOPSEMA conducts assessments of EPs against the requirements of the Program, which includes meeting the acceptance criteria and content requirements under the Environment Regulations. Specific Program commitments relating to protected matters under Part 3 of the EPBC Act are outlined in Table 2 of the Program report and must be applied during decision making with respect to offshore projects and activities. Some examples of how NOPSEMA has applied the program requirements to this EP include ensuring that the decision to accept this EP with conditions:
- is not inconsistent with relevant recovery plans, threat abatement plans and wildlife conservation plans, and that these documents have been taken into account when determining the acceptability of the EP where impacts to listed threatened species and ecological communities may arise. Examples include the Conservation Management Plan for the Blue whale and the Conservation Management Plan for the Southern Right Whale.
 - ensures that impacts to the Commonwealth marine area will be of an acceptable level having regard to relevant policy documents, gazettal instruments, bioregional plans, wildlife conservation plans, plans of management and EPBC Act guidance documents on the DAWE website.
 - ensures that the decision will not result in unacceptable impacts to a migratory species or an area of important habitat for a migratory species having regard to relevant policy documents, wildlife conservation plans and guidelines on the DAWE website.

The Program: Cumulative environmental impacts

68. In the context of the Program, cumulative impacts refers to the direct and indirect impacts of a number of different petroleum activity actions that may influence the natural environment or other users within a locality or region, which when considered together, have a greater impact on the offshore marine environment than each action or influence considered individually.
69. NOPSEMA considered the potential for cumulative environmental impacts to the Commonwealth marine area as required by the Program. NOPSEMA is reasonably satisfied that the environmental impacts of the activity combined with existing and proposed future pressures on the Commonwealth marine area, in particular noise sensitive receptors that are most at risk from the activity, would be of an acceptable level because:
- the EP has considered the potential cumulative impact pathways to Southern Rock Lobster from multiple noise exposures over the duration of the activity and from consecutive activities. The Southern Rock Lobster stock is connected and broadly distributed across southern Australia with variability in areas of importance to recruitment. This, in combination with the associated management commitments outlined in the EP, provide confidence that the impacts to Southern Rock Lobster, when considered in the context of other anthropogenic pressures, will be of an acceptable level.

- b. the EP has considered the potential impacts to cetaceans from multiple noise exposures over the duration of the activity, as well as previous and potential future marine seismic surveys over consecutive seasons in areas that are considered biologically important for marine mammal species. The evaluation of impacts to cetaceans from the activity has been undertaken in the context of the likely behaviour of species in the area to inform the likelihood of exposure to extended durations of seismic noise. The evaluation in combination with the associated management commitments outlined in the EP provides confidence that the impacts to marine mammals, when considered in the context of other anthropogenic pressures, will be of an acceptable level.
- c. The cumulative impact assessment concludes that impacts resulting from cumulative exposure to underwater noise are more likely for species that may remain within, or adjacent to, the operational area for extended periods of time due to particular biologically important behaviours. This is particularly relevant to blue whales which may be foraging in discrete areas for extended periods of time and southern right whales which may be calving in the region. Taking into account the precautionary control measures that apply to blue whales and southern right whales as set out in the EP and the temporal exclusion of the blue whale foraging season, the evaluation in combination with the associated management commitments outlined in the EP provides confidence that the impacts to blue whales and southern right whales, when considered in the context of other anthropogenic pressures, will be of an acceptable level.

Potential environmental impacts arising from Greenhouse gas emissions (GHG)

70. In assessing the EP, NOPSEMA has had regard to the EPBC Act Policy Statement 'Indirect consequences of an action: Section 527E of the EPBC Act (SEWPaC 2013), in particular in relation to GHG emissions, including scope 3 emissions. The Sequoia 3D MSS is an exploration activity only and therefore does not include production of reservoir hydrocarbons. There are no Scope 2 or 3 emissions that could be considered impacts of the activity.
71. NOPSEMA's consideration of impacts associated with the activity's emissions to the atmosphere, including greenhouse gases, is set out in paragraph 46.

Acceptance subject to conditions

72. In accordance with regulation 10 and based on the available facts and evidence, NOPSEMA was reasonably satisfied that the EP met the following criteria set out in sub-regulation 10A of the Environment Regulations:
 - a. the EP is appropriate for the nature and scale of the activity; and
 - b. the EP demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable; and
 - c. the EP provides for appropriate EPOs, EPSs and measurement criteria; and
 - d. the EP includes an appropriate implementation strategy and monitoring, recording and reporting arrangements; and
 - e. the EP does not involve the activity or part of the activity, other than arrangements for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage property within the meaning of the EPBC Act; and
 - f. the EP demonstrates that:

- i. the titleholder has carried out the consultations required by Division 2.2A; and
 - ii. the measures (if any) that the titleholder has adopted, or proposes to adopt, because of the consultations are appropriate; and
- g. the EP complies with the Act and the regulations.

73. For the reasons set out in paragraph 48, NOPSEMA was not reasonably satisfied that the EP met the following criteria set out in sub-regulation 10A of the Environmental regulations:

- a. the EP demonstrates that the environmental impacts and risks of the activity will be of an acceptable level.

74. However, NOPSEMA was reasonably satisfied that it was appropriate to accept the EP if the following two conditions were imposed:

1. Excise of Southern Rock Lobster key natural value

1.1 Ensure that there is no full power discharge of the airgun array within the 'low-power excise area' within the Zeehan Marine Park shown in Figure 1 below (including a 750-metre buffer zone on western edge of key natural value polygon) as requested by the Director of National Parks.

2. Low power airgun discharge

2.2 Ensure that operations within the low-power excise areas for Giant Crab and Southern Rock Lobster (as per Figure 1 below) and adjacent to, but not closer than 200 m of, the Big Reef feature (in accordance with EPS 11.18) are managed such that sound exposure levels at the seafloor and at the Big Reef feature will not result in sub-lethal effects to Giant Crab or Southern Rock Lobster.

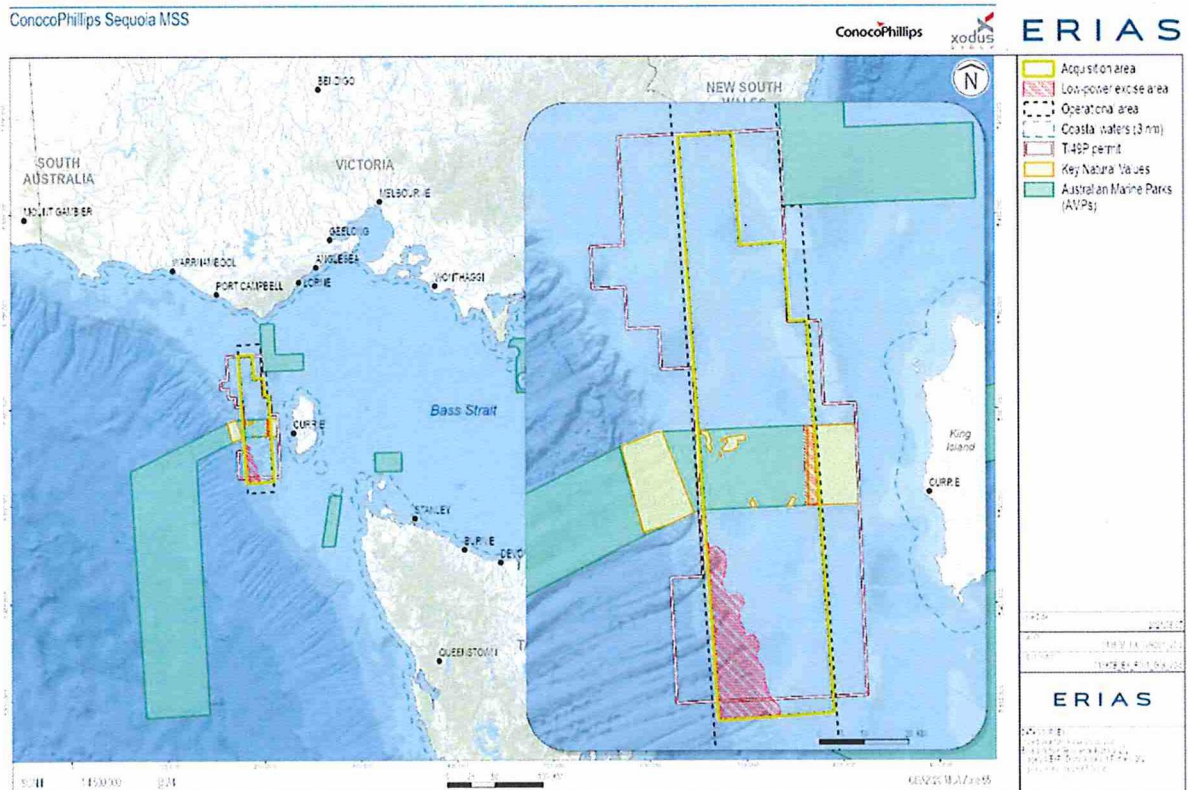


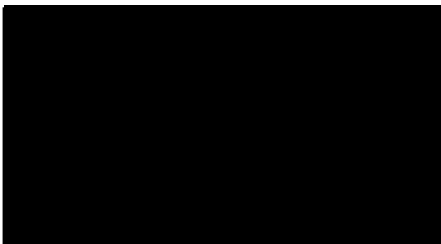
Figure 1: Map of the Sequoia MSS area showing the location of the low power excise areas.

75. As NOPSEMA is reasonably satisfied that, subject to the above conditions, the EP meets the criteria set out in sub-regulation 10A of the Environment Regulations, NOPSEMA accepted the EP subject to those conditions pursuant to sub-regulation 10A(6)(b) of the Environment Regulations.
76. NOPSEMA also noted the compliance monitoring powers contained in the OPGGS Act which may be used to ensure compliance with the EP, including conditions imposed.

Conclusion

77. Having regard to the relevant acts and regulations and the available facts and evidence, NOPSEMA is reasonably satisfied that the EP, subject to conditions:
- a. is appropriate for the nature and scale of the activity;
 - b. demonstrates that the environmental impacts and risks of the activity will be reduced to ALARP; and
 - c. demonstrates that the environmental impacts and risks of the activity will be of an acceptable level; and
 - d. provides for appropriate environmental performance outcomes, environmental performance standards and measurement criteria; and
 - e. includes an appropriate implementation strategy and monitoring, recording and reporting arrangements; and
 - f. does not involve the activity or part of the activity, other than arrangements for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage property within the meaning of the EPBC Act; and
 - g. demonstrates that:
 - i. the titleholder has carried out the consultations required by Division 2.2A; and
 - ii. the measures (if any) that the titleholder has adopted, or proposes to adopt, because of the consultations are appropriate; and
 - h. complies with the Act and the regulations.

Accordingly, NOPSEMA decided to accept the EP, subject to the conditions outlined above.



Environment Manager – Offshore Projects & Seismic

18 October 2021

ATTACHMENT 1

NOPSEMA letter – acceptance of Environment Plan

(10 August 2021)

Our ref: 5454 A796402
Your ref: ABU2-000-EN-V01-D-00001
Contact: [REDACTED]
Email: [REDACTED]

[REDACTED]
Exploration Manager
ConocoPhillips Australia SH1 Pty Ltd
[REDACTED]
[REDACTED]

Dear [REDACTED]

RE: ENVIRONMENT PLAN ACCEPTANCE WITH CONDITIONS – SEQUOIA 3D MARINE SEISMIC SURVEY

Please be advised that the Sequoia 3D Marine Seismic Survey environment plan (EP), comprising:

- Sequoia 3D MSS Environment Plan (Document No. ABU2-000-EN-V01-D-00001, Revision 5, dated 5 August 2021);
- Sequoia 3D MSS Environment Plan Appendix A (as submitted to NOPSEMA on 5 August 2021)
- Sequoia 3D MSS Environment Plan Appendices (Document No. ABU2-000-EN-V01-D-00001, Revision 5, dated 5 August 2021); and
- Sequoia 3D MSS - Sensitive Information Report (as submitted to NOPSEMA on 5 August 2021)

has been accepted subject to conditions in accordance with subregulation 10(6)(b) of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations).

An assessment of the EP was conducted in accordance with the Environment Regulations and NOPSEMA's assessment policies. This included a general assessment of the whole EP and two detailed topic assessments of the EP content, as follows:

- Matters protected under Part 3 of the EPBC Act - Ensuring that potential impacts of acoustic emissions on key values of the Commonwealth Marine Area, including giant crab and southern rock lobster stocks (biological impacts) and listed threatened whales (particularly humpback, blue and southern right whales) are managed to ALARP and acceptable levels.
- Socio-economic - Ensuring that an appropriate consultation process was undertaken with relevant persons and appropriate measures were adopted in response to objections and claims. This topic will have a particular focus on commercial fishing stakeholders and ensuring socio-economic impacts (e.g. displacement) on commercial fishing operations are managed to ALARP and acceptable.

In accordance with regulation 11(1)(c) NOPSEMA gives notice that acceptance of the EP is subject to conditions applying to operations for the Sequoia 3D Marine Seismic Survey as detailed in Attachment 1.

The reasons for my decision are:

- There are inconsistencies in the activity maps in the Environment Plan that mean it is not sufficiently clear where seismic data acquisition is proposed to occur, particularly in relation to an area of Southern Rock Lobster habitat within the Zeehan Australian Marine Park. This clarity is important to ensure that a claim of the Director of National Parks relating to the need to protect a key natural value of the park is appropriately addressed.
- There is uncertainty about the effectiveness of proposed excise areas for commercially important crustaceans given that low power airgun discharge (for the purpose of protecting marine mammals) is proposed to occur in these areas. It has been stated in the EP and communicated to stakeholders that sub-lethal effect thresholds will not be exceeded in important crustacean habitat, however this assertion has not been substantiated in the EP.

This acceptance is based on the document submission(s) provided in accordance with the Environment Regulations. Please note that the responsibility for the ongoing environmental performance of the Sequoia 3D Marine Seismic Survey activity remains, at all times, with ConocoPhillips Australia SH1 Pty Ltd.

NOPSEMA will communicate this acceptance decision on its website and will publish the final environment plan, excluding the sensitive information part, in accordance with regulation 9(2A). To provide transparency of its assessment decision, NOPSEMA will also publish a key matters report outlining the factors contributing to the decision, including how matters raised through public comment were taken into account.

Please be advised that in accordance with regulation 7, an activity must not be undertaken in a way that is contrary to the EP in force for the activity, or any condition applying to operations for the activity under the Environment Regulations.

You are reminded that in accordance with regulation 29, ConocoPhillips Australia SH1 Pty Ltd must notify NOPSEMA at least ten days before commencement and within ten days after completion of any stage of an activity outlined in the EP.

Should you have any queries regarding the above, please contact the lead assessor for your submission [REDACTED]

Yours sincerely

[REDACTED]
Environment Manager, Offshore Projects & Seismic
wA510680

10 August 2021

Attachment 1

In accordance with regulation 11(1)(c) NOPSEMA gives notice that acceptance of the EP is subject to the following conditions applying to operations for the Sequoia 3D Marine Seismic Survey:

1. Excise of Southern Rock Lobster key natural value

1-1 Ensure that there is no full power discharge of the airgun array within the 'low-power excise area' within the Zeehan Marine Park shown in Figure 1 below (including a 750 metre buffer zone on western edge of key natural value polygon) as requested by the Director of National Parks.

2. Low power airgun discharge

2-1 Ensure that operations within the low-power excise areas for Giant Crab and Southern Rock Lobster (as per Figure 1 below) and adjacent to, but not closer than 200 m of, the Big Reef feature (in accordance with EPS 11.18) are managed such that sound exposure levels at the seafloor and at the Big Reef feature will not result in sub-lethal effects to Giant Crab or Southern Rock Lobster.

ConocoPhillips Sequoia MSS

ConocoPhillips



ERIAS

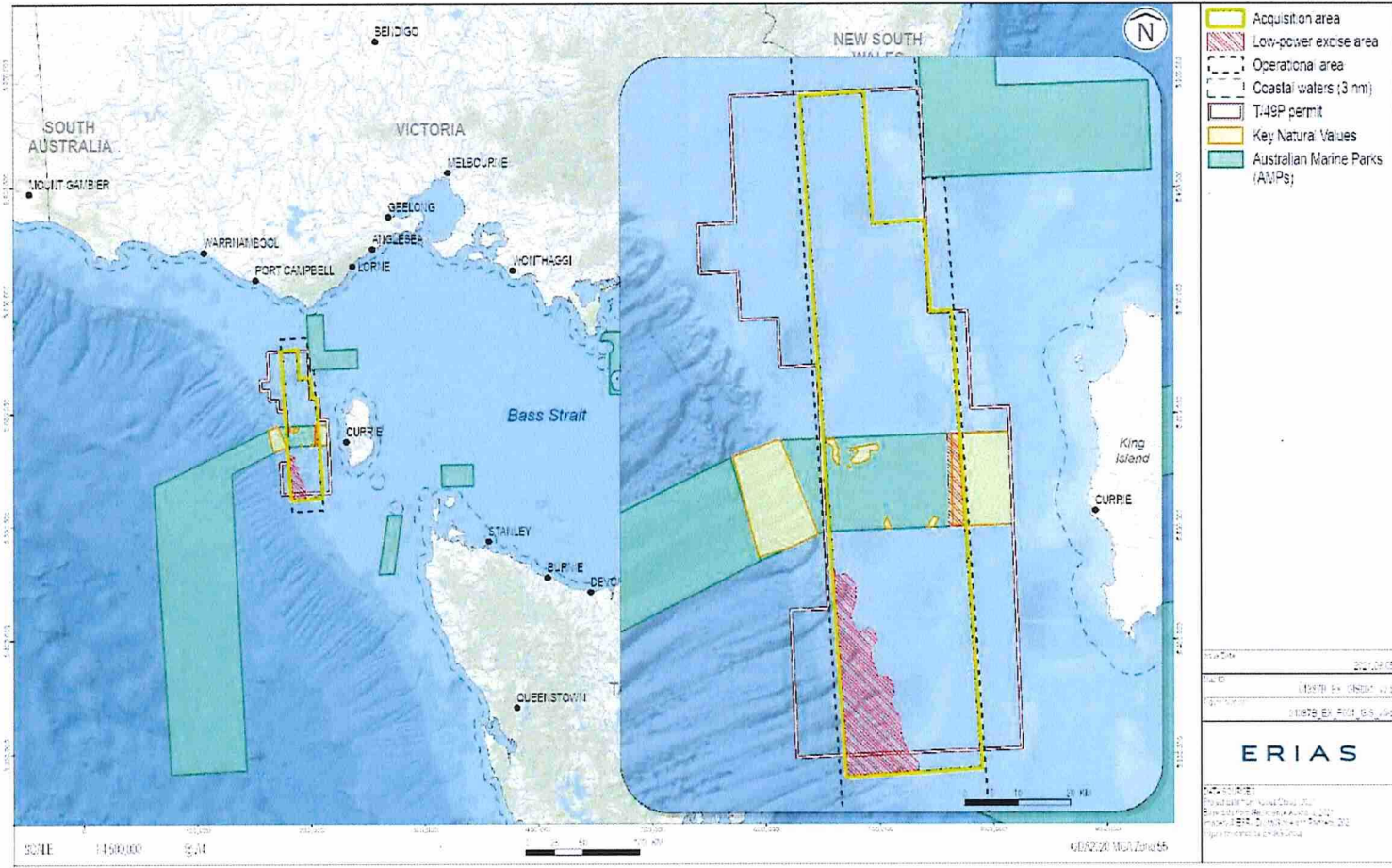


Figure 1: Map of the Sequoia MSS area showing the location of the low power excise areas.