

Acceptance of Barossa Subsea Infrastructure Installation Environment Plan

Document No: A1052079

Date: 8 February 2024

1. On 2 February 2024, I, [REDACTED], Director – Production (Environment) delegate of the Chief Executive Officer of NOPSEMA decided, pursuant to regulation 33 of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023* (Cth) (**the Environment Regulations**), to accept the Barossa Subsea Infrastructure Installation Environment Plan (Document No: BAA-200 0636, Revision 2, dated 16 January 2024) (**EP**).
2. The EP was submitted by Santos NA Barossa Pty Ltd (ACN 109 974 932) (**titleholder**), to enable the titleholder to undertake the installation of the Barossa subsea infrastructure and pre-commissioning activities within Commonwealth Petroleum Production Licence NT/L1 (**activity**)
3. The reasons for my decision are set out below. All references to a regulation (**reg**) are to the Environment Regulations unless otherwise stated.

Legislative framework

4. The legislation relevant to my decision is set out in **Attachment B**.

Background

5. On 18 October 2023, the titleholder submitted an Environmental Plan (Document No: BAA-200 0636, Revision 0, dated 17 October 2023) to NOPSEMA in accordance with reg 9 of the then in force *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (**the 2009 Environment Regulations**).
6. On 24 October 2023, that Environmental Plan was found to be complete for assessment in accordance with reg 9AA of the 2009 Environment Regulations and published by NOPSEMA on NOPSEMA's website in accordance with reg 9AB of the 2009 Environment Regulations.
7. On 23 November 2023, NOPSEMA made a request for further information, pursuant to reg 9A of the 2009 Environment Regulations. In response to this request, the titleholder re-submitted the Environmental Plan on 12 December 2023 (Document No: BAA-200 0636, Revision 1) incorporating additional information pursuant to reg 9A(3) and modifications pursuant to reg 10.
8. On 11 January 2024, NOPSEMA made an additional request for further information. In response to this request, the titleholder re-submitted the Environmental Plan on 16 January 2024 (Document No: BAA-200 0636, Revision 2) incorporating additional information pursuant to reg 32(3) and modifications pursuant to reg 33, of the Environment Regulations. The EP that is the subject of this decision is document BAA-200 0636, Revision 2.

Materials

9. The materials which NOPSEMA considered in making this decision are set out in **Attachment C**. Where relevant to the decision, the materials are identified in the reasons below.

Decision Overview

10. The issue before me was whether the EP should be accepted pursuant to reg 33 of the Environment Regulations. In making this decision, I have taken into account and accepted advice and recommendations from NOPSEMA's assessment team.
11. Prior to considering whether I was reasonably satisfied that the EP met the criteria in reg 34, I considered whether the EP complied with Division 2, which sets out the matters which must be included in the EP.
12. I was satisfied that the EP contained the matters in Division 2. My reasons are set out at [18] – [40] below.
13. In accordance with reg 16(1) of the Environment Regulations, I must not accept an EP unless I am reasonably satisfied that the titleholder is compliant with subsection 571(2) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (the **OPGGs Act**) in relation to the petroleum activity, and the compliance is in a form that is acceptable to NOPSEMA.
14. On review of the titleholder's financial assurance declaration and confirmation forms, I was reasonably satisfied that the titleholder had demonstrated financial assurance in accordance with the requirements of reg 16(1).
15. I then considered whether I was reasonably satisfied that the EP meets the criteria in reg 34.
16. If I was reasonably satisfied that the EP met the criteria in reg 34, I must accept it. However, if I was not reasonably satisfied that the Environment Plan met the criteria in reg 34, I must:
 - a. give the titleholder the opportunity to resubmit the EP; or
 - b. refuse to accept the EP; or
 - c. accept the EP in part for a particular stage of the activity; or
 - d. accept the EP subject to limitations or conditions applying to operations for the activity.
17. I considered that the criteria in reg 34 were all satisfied. My reasons are set out at [41] – [138] below.

Findings

Does the Environment Plan comply with Division 2?

18. Reg 20 of the Environment Regulations requires that an Environmental Plan must include the matters set out in reg 21, 22, 23 and 24. As I was satisfied that the EP met regs 21, 22, 23 and 24 (for the reasons set out individually below), I was satisfied that reg 20 was met and the EP complied with Division 2.

Environmental assessment: regulation 21

Regulation 21(1) - Description of the petroleum activity

19. Reg 21(1) requires the EP to contain a comprehensive description of the activity including details of each activity and stage, general details and layout of the facilities, operational details and proposed timetables.
20. The EP addressed each of these matters in Section 2 of the EP ('Description of the Activity') and included the following information:
 - a. the description of the activity, which is the installation of subsea infrastructure including the Floating Production Storage and Offtake (**FPSO**) mooring system, submerged turret production (**STP**) buoy, flowlines, manifolds, risers, umbilicals, subsea supporting structures and a temporary subsea positioning systems within the area covered by Commonwealth Petroleum Production Licence NT/L1. The activity also includes ROV operation, pre and post installation surveys, flood, clean,

gauge, and pressure and leak testing of installed infrastructure and ongoing inspection, monitoring, maintenance and repair (**IMMR**) of the installed subsea infrastructure;

- b. the location of the petroleum activity is clearly set out in the EP by high quality maps containing the relevant petroleum production licence and operational area (Section 2.3) and coordinates of the approximate location of each development well (Table 2.2). The Operational Area (**OA**) where the petroleum activity is being conducted is located approximately 143 km from the Tiwi Islands and approximately 300 km north-northwest of Darwin. Water depths in the OA range from approximately 227 m to 269 m;
- c. the activity will be undertaken using reel-lay and construction vessels and supporting vessel used to re-supply and for other logistical and operational activities. Representative vessel specifications for each type of vessel are provided in the EP (Section 2.4);
- d. information considered relevant for the consideration of environmental impacts and risks of the petroleum activity. Key aspects of the description included the following:
 - i. The petroleum activity has an estimated cumulative duration of 18 months (excluding preservation period and IMMR activities) and will occur any time between Q1 2024 and Q4 2025. When underway, activities will be 24 hours per day, seven days per week. Simultaneous operations may occur between EP activities within the OA, with Reel-lay and construction vessels undertaking surveys, separate installation or pre-commissioning activities overlapping;
 - ii. details of the type, location and specifications of the subsea infrastructure to be installed (section 2.5), the conduct of activity surveys (section 2.5.2) and the planned discharge sources, type and volumes from pre-commissioning activities (section 2.10);
 - iii. routine and non-routine emissions and discharges from the petroleum activity, including light and acoustic emissions and flowline flood, clean, gauge and pressure testing (FCGT), production flowline dewatering, preconditioning, flushing and leak testing from pre-commissioning activities, atmospheric emissions and project vessel discharges; and
 - iv. the EP also evaluates unplanned chemical and hydrocarbon discharges, including a marine diesel spill in a vessel collision scenario.

21. Based on the findings above I was reasonably satisfied that the EP contained a comprehensive description of the petroleum activity that met the requirements of reg 21(1).

Regulation 21(2) and (3) - Description of the environment that may be affected

22. Reg 21(2) and (3) requires the EP to describe the existing environment that may be affected by the activity including the particular relevant values and sensitivities (if any) of that environment.
23. The EP addressed each of these matters in Section 3 and Appendix D. In particular, the EP described and included the following information:
 - a. a thorough description of the physical and biological environment, and details of relevant values and sensitivities, that may be affected by the petroleum activity, including under emergency conditions;
 - b. the description of the environment has been defined as the spatial boundary for the petroleum activity within the OA and also based on a broader environment that may be affected (**EMBA**), which describes the largest spatial extent where unplanned events could have an environmental consequence on the surrounding environment. This is based on stochastic modelling of the credible worst-case spill scenario;

- c. that 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, nor a declared *Ramsar* wetland within the meaning of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, as described in section 3.2.4 of the EP;
- d. values and sensitivities within the OA have been identified and described, including:
 - i. that the OA does not overlap with any Australian Marine Parks (**AMPs**), State marine parks, management areas and reserves, Commonwealth heritage places, Wetlands of international or national importance, or any biologically important areas (**BIAs**) for EPBC Act listed species;
 - ii. the OA intersects the key ecological feature (**KEF**) of the Shelf Break and Slope of the Arafura Shelf, as defined in the North Marine Bioregional Plan, which is a unique seafloor feature with ecological properties of regional significance (section 3.2.2.3);
 - iii. presence of listed threatened species, listed threatened ecological communities, and listed migratory species under the EPBC Act, including 12 threatened and/or migratory fish, sharks and ray species; six threatened and/or migratory marine reptile species; eight threatened and/or migratory marine mammal species; eleven threatened and/or migratory shorebirds and seabird species; and no listed threatened ecological communities; and
 - iv. social, economic and cultural features of the environment within the OA have been identified and described (where identified) relating to cultural heritage, commercial fisheries, subsistence fisheries, tourism and recreation, commercial shipping, telecommunications, defence and oil and gas activities, specifically:
 - A. four Commonwealth-managed fisheries were identified as overlapping with the OA, including the Northern Prawn Fishery, Southern Bluefin Tuna Fishery, Western Skipjack Tuna Fishery and Western Tuna and Billfish Fishery. The Northern Prawn Fishery was identified as having a potential for interaction within the OA;
 - B. four Northern Territory managed fisheries were identified as overlapping with the OA, including the Aquarium Fishery, Offshore Net and Line Fishery, Timor Reef Fishery and Spanish Mackerel Fishery. The Timor Reef Fishery and Offshore Net and Line Fishery were identified as having a potential for interaction with the OA;
 - C. no subsistence Indonesian fishing activities are expected to be presented within the OA;
 - D. tourism and recreation activities (including charter boat activities) are not expected to be present within the OA;
 - E. no other oil and gas developments or facilities are located within the OA. In addition, no designated commercial shipping fairways are located within the OA;
 - F. there are no designated military/defence exercise areas that intersect with the OA; and
 - G. no Native Title claims or determinations, or Indigenous Land Use Agreements (**ILUAs**) were identified within the OA. In addition, no cultural artifacts were identified within the OA (Section 3.2.5).
- e. values and sensitivities within the EMBA, have been identified and described, including:
 - i. the Oceanic Shoals AMP and Arafura AMP with the Oceanic Shoals AMP the closest AMP to the activity, located 44 km from the OA; (section 3.2 & Appendix D);

- ii. in identifying values and sensitivities of the relevant AMPs, the EP has had regard to the North-west Marine Parks Network Management Plan;
- iii. 2 international marine parks—Laut Sawu Marine National Park, Indonesia and Nino Konis Santana National Park, Timor-Leste (section 3.2.2 & Appendix D);
- iv. KEFs of the EMBA Continental Slope Demersal Fish Communities, Carbonate Bank and Terrace System of the Sahul Shelf, Carbonate Bank and Terrace System of the Van Diemen Rise, Pinnacles of the Bonaparte Basin, Shelf Break and Slope of the Arafura Shelf and Tributary Canyons of the Arafura Depression (section 3.2.2);
- v. BIAs for EPBC Act listed species, including the foraging BIA for the whale shark, migration and foraging BIAs for the pygmy blue whale, internesting BIA for the Leatherback turtle, foraging BIA for the loggerhead turtle, foraging, interesting and interesting buffer BIAs for the Green turtle interesting and internesting buffer BIAs for the hawksbill turtle, internesting and foraging BIAs for the flatback and olive ridley turtles, and breeding BIAs for various seabirds (Table 3-9);
- vi. presence of listed threatened species, listed threatened ecological communities, and listed migratory species under the EPBC Act, including 16 threatened and/or migratory fish, sharks and ray species, nine threatened and/or migratory marine reptile species, 11 threatened and/or migratory marine mammal species, 32 threatened and/or migratory shorebirds and seabird species and no listed threatened ecological communities (section 3.2.3.1 and Appendix D); and
- vii. social, economic and cultural features of the EMBA have been identified and described relating to commercial fisheries, subsidence fisheries, oil and gas, defence activities, commercial shipping, tourism and recreation and cultural heritage, specifically:
 - A. five Commonwealth-managed fisheries were identified as overlapping with the EMBA, including the Northern Prawn Fishery, Southern Bluefin Tuna Fishery, Western Skipjack Tuna Fishery, Western Tuna and Billfish Fishery and North-West Slope Trawl Fishery (Table 3.12). The North West Slope Trawl Fishery and Northern Prawn Fishery were identified as having a potential for interaction within the EMBA;
 - B. seven Northern Territory managed fisheries were identified as overlapping with the EMBA, including Aquarium Fishery, Spanish Mackerel Fishery, Timor Reef Fishery, Offshore Net and Line Fishery, Pearl Oyster Fishery, Demersal Fishery and Coastal Line Fishery (Table 3-12). Five of these fisheries were identified as having a potential for interaction within the EMBA;
 - C. nine West Australian-managed fisheries were identified as overlapping the EMBA, including the Mackerel Managed Fishery, Northern Demersal Scalefish Fishery, South West Coast Salmon Fishery, Abalone Fishery, Kimberly Crab Fishery, Kimberley Prawn Fishery, Marine Aquarium Fishery, Specimen Shell Fishery and West Coast Deep Sea Crustacean Fishery (Table 3.12). The Mackerel Managed Fishery and Northern Demersal Scalefish Managed Fishery were identified as having potential interactions with the EMBA;
 - D. subsidence Indonesian fishing may be present within the EMBA;
 - E. the Santos-operated Bayu-Undan platform is located within the EMBA, approximately 410 km to the south-west of the OA;
 - F. the EMBA intersects the North Australian Exercise Area, a designated Department of Defence practice area;

- G. a number of commercial shipping fairways intersect the EMBA;
- H. tourism and recreation activities (including charter boat activities) may be present within the EMBA; and
- I. the cultural features of environment relating to First Nations peoples in the area that may be affected by the petroleum activity have been identified and described in Section 3.2.5, including fisheries and resources; sea country values and people and communities and heritage values.

24. Based on the findings above, I was reasonably satisfied that the EP met the requirements in reg 21(2) and (3).

Regulation 21(4) - Requirements

25. The EP provided a detailed table at Appendix B identifying various Commonwealth legislative requirements that apply to the activity. Various parts of the EP, in particular Section 6 (Planned activity impact assessment) and Section 7 (Unplanned events risk and impact assessment) provide descriptions of the legislative requirements that apply to the activity and how they are relevant to the environmental management of the activity.

26. I was therefore reasonably satisfied that the EP met requirements of reg 21(4).

Regulation 21(5) and (6) - Evaluation of environmental impacts and risks

27. Section 6 and Section 7 of the EP detailed the environmental impacts and risks, including those arising from potential emergency conditions whether resulting from accident or any other reason, for the petroleum activity. The details of the environmental impacts and risks associated with receptors such as marine sediment, water quality, air quality, ecosystems/ habitat, species and, socio-economic environment for:

- a. planned activities (routine and non-routine) such as:
 - i. routine light emissions: external lighting on installation and support vessels;
 - ii. routine atmospheric and greenhouse gas (**GHG**) emissions: emissions from installation vessels;
 - iii. routine acoustic emissions: generation of noise from installation vessels, positioning equipment, ROV activities, survey equipment and helicopter activities;
 - iv. physical presence: interaction with other marine users; and disturbance to seabed and benthic habitat from subsea installation and ROV operations; and
 - v. routine and non-routine discharges: installation vessels (discharges of sewage, grey water, putrescible waste, deck and bilge water, brine and cooling water);
- b. unplanned activities (accidents, incidents, emergency situations) such as:
 - i. hydrocarbon release from vessel collision;
 - ii. discharge: chemicals and hydrocarbons; bunkering; and hazardous and non-hazardous solid waste/equipment; and
 - iii. physical presence: seabed disturbance; accidental introduction and establishment of invasive marine pests; and collision with marine fauna.

28. The EP included an evaluation of all the impacts and risks detailed in the EP, 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 (Section 6 and 7). The impact and risk analysis process is described in Section 5 and includes assigning a consequence

rating (defined in Table 5.2) for all impacts and risks and a likelihood rating for unplanned events (defined in Table 5.3). Together these were used to categorise planned and unplanned activities into a rating for the acceptability of the impact or risk (matrix provided in Table 5.4). A description was also provided in Section 5.5 about how the titleholder demonstrates that the impacts and risks will be managed too as low as reasonably practicable (**ALARP**).

29. The outcome of the process described in the EP for the impacts and risks identified in Table 6-1 and Table 7-1 was impacts and risks generated by the activity being acceptable when taking into account the application of control measures and considering the extent, severity and duration of any planned or unplanned impacts to environmental receptors. The full evaluation of each individual impact and risk is provided in Section 6 and Section 7 of the EP;
30. The EP included details of the control measures that will be used to reduce the impacts and risks of the petroleum activity to ALARP and to an acceptable level (Section 6, and Section 7). Control measures have been justified through evaluation considering additional, alternative or improved controls.
31. The evaluation addressed matters of national environmental significance (**MNES**) protected under the EPBC Act, including World Heritage properties, National Heritage properties, *Ramsar* wetlands, listed threatened species and communities, listed migratory species, Commonwealth marine areas, and the Great Barrier Reef Marine Park. The other MNES protected under the EPBC Act are not applicable to the proposed petroleum activity, including nuclear actions and water resources affected by coal seam gas development and large coal mining development.
32. The EP sets out facts and evidence in support of the evaluations presented, which included, but is not limited to, the following in relation to Matters Protected under Part 3 of the EPBC Act:
 - a. the EP evaluates the impacts of underwater noise emissions associated with the petroleum activity, which are predominantly from installation vessels, and the positioning equipment. The EP references contemporary scientific literature and applicable modelling studies to inform the evaluation, as well as providing predictions of received levels of underwater noise in relation to biologically relevant thresholds; and
 - b. a number of listed threatened and migratory cetacean species were identified as potentially occurring within the OA, however no BIAs for cetaceans or marine turtles were identified to overlap with the OA. The nearest BIA for cetaceans is the pygmy blue whale migration BIA, which is approximately 63km from the OA and for turtles, the Flatback turtle internesting BIA is approximately 54km from the OA. Relevant recovery plans and conservation advice, including the Conservation Management Plan for the Blue Whale, the National Light Pollution Guidelines for Wildlife and the Recovery Plan for Marine turtles in Australia 2017-2027 have been considered in the evaluation.
33. Based on the findings above, I was reasonably satisfied that the EP met the requirements of reg 21(5) and (6).

Regulation 21(7) - Environmental Performance Outcomes and Standards

34. I considered the environmental performance outcomes (**EPOs**), environmental performance standards (**EPSs**) and measurement criteria provided in Section 6 and 7 of the EP and was satisfied that the:
 - a. EPOs have been set which define performance for the management of the environmental aspects of the petroleum activity to ensure that environmental impacts and risks will be of an acceptable level. For example:
 - i. no significant impacts to other marine users (EPO-01);
 - ii. seabed disturbance limited to planned activities and defined locations within the OA (EPO-02);

- iii. no significant impacts to marine fauna from noise emissions (EPO-03);
 - iv. no significant impacts to marine fauna from lighting emissions (EPO-04);
 - v. no loss of equipment/cargo overboard from vessels resulting in a consequence severity greater than Minor (EPO-08);
 - vi. zero incidents of injury/mortality of cetaceans/marine reptiles from collision with activity vessels (EPO-10); and
 - vii. no MDO release to the marine environment (EPO-13).
- b. EPOs presented within the EP are consistent with those committed to in the Barossa Area Development Offshore Project Proposal (Document No. BAA-00-EN-RPT-00001, Revision 5, dated March 2018). For example, “Zero incidents of injury/mortality of cetaceans/marine reptiles from collision with project vessels operating within the project area” (Table 7-1 of OPP) has been carried through and included as EPO-08 in the EP.
- c. EPSs have been set for control measures identified as being necessary to reduce the environmental impacts and risks of the petroleum activity to ALARP and acceptable levels. For example:
- i. no pile driving activities to occur (EPS3.6.2.1);
 - ii. vessel(s) comply with Santos’ Protected Marine Fauna Interaction and Sighting Procedure (EA-91-II-00003), which ensures compliance with Part 8 of EPBC Regulations, which includes controls for minimising the risk of collision with marine fauna (EPS6.3.1.1);
 - iii. the vessel master or crew will act as wildlife observers and record sightings of cetaceans and turtles (EPS6.3.1.3);
 - iv. no planned anchoring of activity vessels within the OA (EPS6.2.3.1);
 - v. pre-deployment function testing of subsea acoustic positioning system (LBL and/or USBL) carried out to verify transponders and transceivers are omitting acoustic pulses within operating limits (EPS6.3.4.1);
 - vi. machinery space bilge/oily water shall have IMO approved oil filtering equipment (oil/water separator) with an on-line monitoring device to measure Oil in Water (OIW) content to be less than 15 ppm prior to discharge (EPS6.6.1.2);
 - vii. activity vessels will adhere to fuel capacity limits aligned with predictive modelling to prevent Tiwi Island shoreline accumulation risks at or above low exposure thresholds. Specific limits include:
 - single-skinned hull activity vessels: max tank capacity 450 m³
 - double-skinned hull will be limited to a tank capacity of no more than 900 m³ (EPS7.6.5.1)
 - viii. Cultural training completed by all site-based workforce (Santos employees and contractors) by end of their first rotation offshore; and every 12 months thereafter, and Cultural Heritage monitors to provide an introduction to the Activity to the seas and any First Nations spiritual beings at commencement of the Activity (EPS6.2.6.1).
- d. measurement criteria (e.g. records of equipment being present, evidence of compliance with regulations, standards and procedures, evidence of notifications being sent to marine users) are provided that will allow the titleholder to determine whether each EPO and EPS is being met for the duration of the activity.
- e. control measures include consideration and refinement of those committed to in the Barossa Area Development Offshore Project Proposal (OPP) (Document No. BAA-00-EN-RPT-00001, Revision 5,

dated March 2018). For example, pile driving was included in the OPP as a control measure for anchoring however this has been evaluated in the EP (Section 6.3.3) and excluded on the basis that alternate methods for anchoring (e.g. suction anchors) are feasible and installation of this alternative comes without a significant noise source (Control 6.3.2).

35. Based on the findings above, I was reasonably satisfied that the EP met the requirements of reg 21(7).

Implementation strategy for the EP: regulation 22

36. In relation to the requirements in reg 22 regarding the implementation strategy, the EP includes:

- a. an implementation strategy (Section 8) for the activity in accordance with reg 22 of the Environment Regulations (reg 22(1));
- b. the timing for when the titleholder will report to NOPSEMA in relation to the titleholder's environmental performance for the activity, with the interval between reports not being more than one year. Section 8.8 outlines the routine reporting obligations to NOPSEMA, including annual environmental performance reporting (reg 22(7));
- c. a description of the environmental management system (**EMS**) for the activity in Section 8.1 of the EP, including specific measures to be used to ensure that, for the duration of the activity, the environmental impacts and risks of the activity continue to be identified and reduced to a level that is ALARP, control measures described in the EP are effective in reducing the environmental impacts and risks of the activity to ALARP and an acceptable level, and EPOs and EPSs set out in the EP are being met. The EP review process and management of change process are described in Section 8.9.2 and 8.9.3 respectively (reg 22(2));
- d. establishment of a clear chain of command, setting out the roles and responsibilities of personnel in relation to the implementation, management and review of the EP, including during emergencies or potential emergencies. Section 8.3 outlines the organisational structure for the petroleum activity and the roles and responsibilities of key project team members. The chain of command and roles and responsibilities of key personnel involved in spill preparation and response are defined in the Barossa Subsea Infrastructure Installation Oil Pollution Emergency Plan (BAS-210 0109) (reg 22(3));
- e. measures to ensure that each employee or contractor working on, or in connection with, the activity is aware of their responsibilities in relation to the EP, including during emergencies or potential emergencies, and has the appropriate competencies and training). Section 8.4 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. The Barossa Subsea Infrastructure Installation Oil Pollution Emergency Plan (**OPEP**) (BAS-210 0109) defines the emergency response training and minimum competency levels of personnel with responsibilities for emergency response, and defines the Source Control IMT structure and capability requirements (reg 22(4));
- f. provision for sufficient monitoring, recording, audit, management of non-conformance and review of the titleholder's environmental performance and the implementation strategy to ensure that the EPOs and EPSs in the EP are being met. In particular, Section 8.10 outline the process for inspections and audits, and management of non-conformances (reg 22(5));
- g. sufficient 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. In particular, Table 8-7 outlines the approach to monitoring and record keeping for emissions and discharges (reg 22(6));

- h. the Barossa Subsea Infrastructure Installation OPEP with provision for the updating of the plan (reg 22(8));
 - i. the OPEP outlines appropriate arrangements for responding to and monitoring oil pollution and includes:
 - i. the control measures necessary for timely response to an emergency that results or may result in oil pollution (monitor and evaluate, source control for a vessel spill);
 - ii. the arrangements and capability that will be in place for the duration of the activity to ensure timely implementation of the control measures including arrangements of ongoing maintenance of response capability;
 - iii. the arrangements and capability that will be in place for monitoring the effectiveness of the control measures and ensuring that the EPSs for the control measures are met; and
 - iv. the arrangements and capability in place for monitoring oil pollution to inform response activities (reg 22(9));
 - j. arrangements for testing the response arrangements in the OPEP that are appropriate to the response arrangements and to the nature and scale of the risk of oil pollution for the activity (reg 22(12));
 - k. the arrangements for testing the response arrangements, including a description of the objectives of testing, a proposed schedule of tests mechanisms to examine the effectiveness of response arrangements against the objectives of testing, and mechanisms to address recommendations arising from tests (Section 5.5 of OPEP) (reg 22(13));
 - l. the proposed schedule of tests outlined in the description of the Offshore Oil Spill Response Readiness Guideline (SO-91-OI-20001) (Section 5.5). Examples of the testing provisions include, but not limited to:
 - i. testing the response arrangements when they are introduced;
 - ii. testing access to monitoring vessels and unmanned aerial vehicles (UAV) annually;
 - iii. testing access to aerial surveillance aircraft and trained observers annually.
 - m. the OPEP provides for monitoring of impacts to the environment from oil pollution and response activities that is appropriate to the nature and scale of the risk of the environmental impacts and risks for the activity and is sufficient to inform any remediation activities (reg 22(10));
 - n. the arrangements in the OPEP are consistent with the national system for oil pollution preparedness and response (reg 22(11));
 - o. provision for appropriate ongoing consultation during the implementation of the petroleum activity with relevant authorities of the Commonwealth, a State or Territory and other relevant interested persons or organisations. In particular, Section 8.11 outlines the arrangements for ongoing consultation. The EP also provides a program of ongoing engagement with traditional custodians (Section 8.11.1) (reg 22(15)); and
 - p. the implementation strategy complies with the Act, the regulations and any other environmental legislation applying to the activity (as outlined in Section 8 and Appendix B) (reg 22(16)).
37. Based on the findings above, NOPSEMA is reasonably satisfied that the EP met the requirements of reg 22.

Details of titleholder and liaison person: regulation 23

38. I considered the EP (particularly Section 1.5) and found that it includes:

- a. details for the titleholder, including name, business address, contact details and Australian Company Number or ACN (within the meaning of the *Corporations Act 2001*) (reg 15(1));
- b. details for the titleholder's nominated liaison person including name, business address and contact details (reg 23(2)); and
- c. arrangements for notifying NOPSEMA of a change in titleholder, a change in the titleholder's nominated liaison person or a change in the contact details for either the titleholder or the liaison person in Section 1.5.2 (reg 23(3)).

39. Based on the findings above, I am reasonably satisfied that the EP met the requirements of reg 23.

Other information in the EP: regulation 24

40. I considered that the EP met reg 24 as it contains:

- a. the titleholder's "Environment, Health & Safety Policy" (Appendix A);
- b. the information required under reg 24(b), specifically a report on all consultations under reg 25 of any relevant person by the titleholder in Section 4, Appendix F, Appendix G, Appendix H and the sensitive information part of the EP, including a summary of each response made by a relevant person (Table 4-14). The titleholder has provided a summary of responses received from relevant persons, such that relevant claims or objections can be adequately identified;
- c. an assessment of the merits of any objection or claim raised during relevant persons consultation (see Table 4-14). The titleholder has identified claims and objections raised by relevant persons and assessed the merit of each objection or claim about the adverse impact of the activity described in the EP. Where there was merit to relevant claims or objections regarding the adverse impact of the activity to which the EP relates, the titleholder has considered the claims against the content of the EP to ensure relevant management measures have been included (Table 4-14). The consultation has progressed to resolve objections and claims made by relevant persons as far as reasonably practicable. The titleholder's assessment of merit and all responses to objections and claims were reasonable;
- d. a statement of the titleholder's response, or proposed response, if any, to each objection or claim (Table 4-14). Where there has been a claim or objection identified, the titleholder has provided a response or proposed response to each objection or claim that has been raised;
- e. a copy of the full text of any response by a relevant person was included in the Sensitive Information Report; and
- f. details of any reportable incidents in relation to the proposed activity in Section 8.6 and Section 8.8 of the EP.

Should the Environment Plan be accepted?

41. Reg 32(4) requires that when making my decision as to whether the EP should be accepted, refused or accepted in part or with conditions under reg 33, I must consider the further information that the titleholders had provided pursuant to requests made by NOPSEMA for that information. The information that I considered was contained in the various re-submitted versions of the EP, which resulted in the final version (Revision 2).
42. Against this background (and having considered the materials at **Attachment C**), I made the following findings against each criterion for acceptance of the EP found in reg 34.

The EP is appropriate to the nature and scale of the activity: regulation 34(a)

43. I noted that Section 2 of the EP includes a description of the scope and bounds of the activity. In particular, the EP provides details of the proposed location, spatial extent, timeframe, and duration of the subsea installation activities (see above at [19]). The EP also comprehensively describes the types and specifications of equipment and property that will be brought into the title areas and used to undertake the activity.
44. The EP contained a thorough description of the activity components with the greatest potential to generate impacts and risks to the environment throughout the activity duration and provides more detail on activity components with the greatest potential to generate impacts and risks to the environment.
45. Section 3 and Appendix B of the EP contained a thorough description of the environment, and appropriately considers relevant values and sensitivities (including matters protected under Part 3 of the EPBC Act). The description of the EMBA includes areas that may be affected by potential emergency conditions in the event of an oil pollution incident which is conservatively defined through stochastic modelling of the worst-case spill scenario.
46. The level of detail included in the EP is appropriately scaled to the nature of the impacts and risks. A greater level of detail is included in the EP on the environment that may be affected by planned operations (OA), compared with the broader environment that may be exposed to low levels of hydrocarbon (in the unlikely event of a worst-case hydrocarbon release). Specifically, the EP includes:
 - a. a logical process that is applied to identify and describe the matters protected under Part 3 of the EPBC Act that may be present within the EMBA. The EP utilises relevant information to adequately inform and support the descriptions, such as information available on The Department of Climate Change, Energy, Environment and Water (**DCCEEW**) website such as plans of management, threat abatement plans, threatened species recovery plans and marine bioregional plans (Section 3 and Section 3.2.3). In addition to information available on the DCCEEW website, the EP considered contemporary peer reviewed literature and quantitative modelling for planned noise and light emissions and also for oil spills;
 - b. a description of the key physical, biological, social, economic and cultural features, values and sensitivities of the environment of the Commonwealth marine area and applies a logical process to identify and describe these features, values and sensitivities of the environment that overlap with the EMBA. The EP utilises relevant references and information sources to adequately inform and support the descriptions, such as contemporary peer-reviewed scientific literature and other authoritative sources (Section 3 and Appendix D);
 - c. a description of First Nations cultural features and heritage values of the EMBA (Section 3.2.5). In particular, I noted that:
 - i. The installation activities will occur in water depths of between approximately 224-269m. While parts of the EMBA are in close proximity to coastal and island shorelines and a seabed environment that is, and was previously, occupied by First Nations people, the 125m depth contour represents the furthest extent of historical human habitation (Section 3.2.4.8) and the deeper offshore waters where installation activities are occurring were not inhabited as they have always been submerged. Given this there is limited potential for the presence of tangible First Nations underwater cultural heritage as defined under the *Underwater Cultural Heritage Act 2018 (UCH Act)* in the OA;
 - ii. the description in the EP includes consideration of both tangible and intangible aspects of the cultural features of the environment and is supported by multiple sources of relevant and suitable information. For example, the EP includes details of onshore native title claims,

determinations and Indigenous Land Use Agreements (**IULAs**) made under the *Native Title Act 1993*, cultural values related information published in State and Commonwealth Marine Park Management Plans, information on the cultural features of marine ecosystems including the broader concept of “sea country”, and information on Indigenous archaeology in the offshore marine environment. The EP also provided opportunities through relevant persons consultation to inform the description of the potential for First Nations cultural features within the EMBA;

- iii. The description of cultural features of the environment have been informed by desktop assessment, consultation with First Nations groups and individuals and a cultural heritage assessment of the Barossa project area. No Native Title claims or determinations, or ILUAs were identified within the EMBA, however Native Title claims or determinations coastally adjacent to the EMBA (Crocker Island Native Title Determination) were identified. In addition, no Indigenous archaeology was identified within the EMBA. Table 3-13 summarises these cultural features of the environment identified from the various sources and an assessment of potential overlap with the OA and the EMBA
- iv. consultation with relevant persons has built on the knowledge of cultural features of the environment available through published research and literature. Based on the desktop assessment and information obtained from First Nations relevant persons, the titleholder identified a number of cultural features and heritage values (Section 3.2.5 and Table 3-13) including, but not limited to:
 - A. cultural fishing and hunting activities;
 - B. culturally significant marine species;
 - C. culturally significant sites; and
 - D. connection to sea country through song lines, dreaming sites and stories, and spiritual beings.
- v. the description in the EP is further supplemented with the results from a cultural heritage assessment undertaken for the Barossa Gas Export Pipeline Installation activity and surrounding areas (i.e. Tiwi Islands) which details connection to intangible sea country values. I note the outer limit of the EMBA has the potential to overlap with some of these values, however the location of planned activities under this EP are in excess of 100 km from the waters surrounding the Tiwi Islands.

47. I also noted that a sufficiently robust method, consistent with internationally recognised standard ISO 31000:2018 Risk Management, has been applied in the EP for the identification and evaluation of environmental impacts and risks of the petroleum activity (Section 5.2). The detail and rigour applied to the impact and risk assessments (Section 6 and Section 7) is commensurate to the magnitude of the impacts and risks related to the petroleum activity, and the level of analysis and evaluation is proportionate to the nature and scale of the environmental impacts and risks generated by the petroleum activity.

48. I considered that there is a clear demonstration in the EP that the evaluation of impacts and risks informed the selection of suitable control measures appropriate for the nature and scale of the activity to either reduce the consequence/severity or likelihood of environmental impacts and risks.

49. The EP includes sufficient information on the legislative requirements that are relevant to the activity (Appendix B). In addition, the environmental impact and risk assessments (Section 6 and Section 7) include a description of how the relevant requirements are met throughout the life of the activity.

50. Based on the findings above, I was reasonably satisfied that the EP met the requirements of reg 34(a).

The EP demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable: regulation 34(b)

51. Having regard to the EP I considered that:

- a. Section 5 of the EP describes the process applied to evaluate whether impacts and risks are reduced to ALARP. Section 6 and section 7 of the EP presents a clear, systematic, and reproducible process for the evaluation of all impacts and risks, which details the control measures to be implemented, including an evaluation of additional potential control measures, and justifies why control measures are either adopted or rejected (with reasoned conclusions) to demonstrate that the environmental impacts and risks of the activity will be reduced to ALARP. The evaluation of the adoption of control measures is based on environmental benefits and the consideration of the feasibility and cost/sacrifice of implementation.
- b. I considered that the titleholder has applied the environmental risk assessment process (described in Section 5) appropriately for planned aspects of the activity, in particular for higher order hazards associated with the activity, such as seabed and benthic habitat disturbance, light emissions and acoustic (underwater noise) emissions. For such higher order impacts and risks, I accepted that the exploration of alternative, additional or improved control measures had been evidenced, and that the control measures adopted demonstrate that environmental impacts will be reduced to ALARP.
- c. Unplanned aspects of the activity are described in Section 7 of the EP, including accidental introduction and establishment of invasive marine species, unplanned discharge of hazard and non-hazardous waste, collision with marine fauna, and unplanned hydrocarbon and chemical releases. These aspects are appropriately described and evaluated to give confidence that the control measures selected are appropriate and risks are reduced to ALARP.
- d. The evaluation of impacts and risks has informed the selection of suitable control measures to either reduce the consequence/severity or likelihood of impacts and risks. The control measures outlined in Section 6 and Section 7 of the EP are sufficiently detailed to demonstrate they will be effective in reducing the impacts and risks for the duration of the activity. The level of detail in the ALARP assessment is commensurate to the nature and scale of the potential impacts and risks. For higher order impacts and risks, the exploration of alternative, additional or improved control measures is evident by the titleholder. The EP has demonstrated, through reasoned and supported arguments that there are no other practical control measures that could reasonably be taken to reduce impacts and risks any further.
- e. The EP considers information gathered from the consultation process (Table 4-14) when demonstrating impacts and risks are or will be reduced to ALARP with each impact and risk in Section 6 and Section 7 of the EP addressing the matters raised by relevant persons. For example, advice from DCCEEW regarding the protection of any possible underwater cultural heritage under the *Underwater Cultural Heritage Act 2018* (Table 4-13 and Section 6.2.2.3.2). The EP also evaluates and includes environmental performance standards (EPS6.2.7.1 and EPS6.2.7.2)) and control measures (C6.2.7) that address impacts and risks on underwater cultural heritage. I am satisfied that impacts and risks described in the EP will be reduced to ALARP based on that evaluation and those control measures that will be implemented.
- f. In some instances, the titleholder adopted additional control measures or improved existing control measures in response to information obtained from relevant persons during consultation. For example, the titleholder adopted an additional control measure (C6.2.6 and EPS6.2.6.1) for workforce cultural training and cultural heritage monitors to provide an introduction to the activity to the seas and any First Nations spiritual beings at commencement of the activity.

- g. The potential impacts from the activity to threatened and migratory whales (Matters of National Environmental Significance) was the focus of a topic assessment during the EP assessment process. I am satisfied that the EP adequately identifies and evaluates the potential impacts and risks from the activity to cetaceans and marine turtles, by being informed by the likelihood of species presence, distribution and behaviour within the area that may be affected by underwater noise or light emissions and supported with peer-reviewed literature. In particular:
- i. the evaluation of impacts and risks to threatened and migratory cetaceans and marine turtles were informed by applying suitable control measures, including those set out within EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans;
 - ii. the EP considered, evaluated, and detailed all reasonable control measures that could reduce impacts to threatened and migratory whales to ALARP.
- h. I considered that the EP provided substantiated reasons why the adopted controls for protected species reduce the potential impacts to the point that any additional or alternative control measures are either not feasible, or their cost would be grossly disproportionate to the benefit that would be achieved. Control measures adopted include:
- i. EPBC Regulations 2000– Part 8 Division 8.1 Interacting with cetaceans, including the following measures (C6.3.1):
 - A. maintaining caution zone distances
 - B. implementing management measures for when a vessel needs to be operated within a caution zone
 - ii. Use of vessel crew to act as wildlife observers to watch for cetaceans when vessels in the OA and record presence / activity to the limit of visibility (C 6.3.1);
 - iii. Elimination of pile driving activities that are within the scope of the OPP, in favour of other, less noise intensive anchoring mechanisms; and
 - iv. Vessels equipment and crewed in accordance with Australian maritime requirements in order to limit lighting minimum lighting requirements.
52. Based on the findings above, I was reasonably satisfied that the EP met the requirements of reg 34(b).

The EP demonstrates that the environmental impacts and risks of the activity will be of an acceptable level: regulation 34(c)

53. I considered that the EP demonstrated that the environmental impacts and risks of the activity will be of an acceptable level, specifically I found that:
- a. Section 6 and Section 7 of the EP applies a clear, systematic and reproducible process for demonstrating how environmental risks will be of an acceptable level and the statements and conclusions drawn by the titleholder in the EP have been sufficiently supported with scientific literature. The process is commensurate with the nature and scale of the activity and the severity of its impacts and risks with more effort and rigour to evaluations where there is a higher degree of scientific uncertainty in predictions of impacts and risks and/or severity of potential consequence of impacts and risks. For example, the EP explores alternative, additional or improved control measures and presents an evaluation of control measures to manage noise emissions on turtles and cetaceans (Tables 6-11). The evaluation includes the elimination of pile driving activities, the use of professional marine mammal observers and the utilisation of trained crew for marine mammal observations.

- b. Section 5.6 of the EP describes the process undertaken by the titleholder to determine acceptable levels of impact and risk for the petroleum activity, including through consideration of the principles of ESD, internal context, external context and other requirements.
 - c. The titleholder has implemented the following controls:
 - i. adoption of EPOs and controls relevant to the activity;
 - ii. adoption of additional specific controls where required;
 - iii. impacts and risks are equal to or less than the level of impact defined in Barossa Area Development Offshore Project Proposal (Document No. BAA-00-EN-RPT-00001, Revision 5, dated March 2018) and are therefore managed to an acceptable level of impact or risk; and
 - iv. consideration of internal/external context and other requirements specific to the activity (including issues raised during EP stakeholder consultation);
 - d. the EP demonstrates that the petroleum activity is not likely to have a significant impact on MNES protected under the EPBC Act, including World Heritage properties, National Heritage properties, *Ramsar* wetlands, listed threatened species and communities, listed migratory species, Commonwealth marine areas, and the Great Barrier Reef Marine Park;
 - e. the EP includes appropriate and accurate content to demonstrate that the proposed activity is not inconsistent with relevant key documents such as recovery plans, conservation advice and management plans, which are outlined in Section 3.2.3.2. In particular, an assessment of the activity against the relevant objectives and action areas in these plans is provided in Table 3-10. For example, the noise evaluation in Section 6.3 demonstrated that the petroleum activity will be managed in a manner that is not inconsistent with the Conservation Management Plan for the Blue Whale;
 - f. in relation to planned aspects of the activity (Section 6), predictions have been made regarding impacts and risks to the environment that are considered suitably conservative and result in the inclusion of appropriate controls given the nature of the activity. For example, the environmental assessment includes consideration of aspects typical for subsea installation activities, such as light emissions, acoustic emissions, seabed and benthic habitat disturbance, atmospheric and greenhouse gas emissions, project vessel marine discharges (i.e. sewage, grey water, putrescible waste, deck and bilge water and brine or cooling water) and planned activity discharges (i.e. FCGT, dewatering, flushing and leak testing of subsea infrastructure); and
 - g. the EP (Section 6 and Section 7) demonstrates that the impacts and risks of the activity will be managed to an acceptable level;
54. Specifically in relation to MNES, which were the focus of a topic assessment, I considered that the EP demonstrated that this specific impact (such as injury or significant behavioural disturbance) will be of an acceptable level because:
- a. the OA does not overlap with any BIAs for threatened and migratory cetaceans or marine turtles. The closest cetacean BIA is the pygmy blue whale distribution BIA, 63km from the OA and the closest marine turtle BIA, the Flatback intersting BIA, is 54 km from the OA. Therefore, I was satisfied that the EP was not inconsistent with the Commonwealth Conservation Management Plan for the Blue Whale 2015–2025 made under section 269A of the EPBC Act, Guidance on Key Terms within the Blue Whale Conservation Management Plan (2021), Blue Whale Conservation Management Plan – FAQs published by NOPSEMA, National Light Pollution Guidelines for Wildlife, Recovery Plan for Marine

turtles in Australia 2017-2027 and Department of Sustainability, Environment, Water, Population, and Communities, Marine Bioregional Plan for the North-west Marine Region;

- b. the noise evaluation in Section 6.7.3 of the EP has been informed by contemporary peer-reviewed literature and internationally accepted impact evaluation thresholds. The assessment team has considered the literature and impact evaluation thresholds in the EP and agreed that the information is application and appropriate;
- c. the acceptable level of impact for underwater noise and light impacts on cetaceans and turtles are compared to the predicted level of impact, which is derived from comparing light and noise modelling studies with published studies on the distribution patterns of cetaceans and marine turtles, to demonstrate that the environmental impacts of the activity will be managed to an acceptable level;
- d. the EP evaluates the potential for permanent threshold shift (**PTS**) and temporary threshold shift (**TTS**) in hearing and behavioural disturbance to cetaceans and marine turtles, due to cumulative anthropogenic noise emissions and measured against various operational scenarios;
- e. the EP addresses impacts and risks from underwater noise to cetaceans, in particular pygmy blue whales and marine turtles. It details modelling which predicts that PTS and TTS will not be exceeded in the pygmy blue whale distribution BIA, located 63km from the OA, or the Flatback internesting BIA 54km away from the OA. The EP explains that the predicted distances to PTS and TTS from modelling are based upon exposure for 24-hours by a stationary receptor, which is conservative given it is not a realistic scenario based on the predicted movement patterns of whales. The EP concludes that PTS and TTS are not expected to occur for whales transiting through the OA;
- f. the activity will not have an unacceptable level of impact on blue whale foraging or flatback turtle nesting because the OA is not located in a designated pygmy blue whale foraging area (as defined in the Blue Whale Conservation Management Plan and Thums et al. 2022) within the 20km buffer an internesting BIA that the national Light Pollution Guidelines for Wildlife suggest should be applied . In the event any cetacean or marine turtle are sighted by appropriately trained crew, with the adoption of adaptive management controls (Section 6.3.2) impacts to biologically important behaviours are unlikely;
- g. the EP describes a range of control measures to reduce underwater noise impacts to threatened and migratory cetaceans and marine turtles to an acceptable level, including, but not limited to:
 - i. EPBC Regulations 2000– Part 8 Division 8.1 Interacting with cetaceans, including the following measures (C6.3.1):
 - A. maintaining caution zone distances
 - B. implementing management measures for when a vessel needs to be operated within a caution zone
 - ii. Use of vessel crew to act as wildlife observers to watch for cetaceans when vessels in the OA and record presence / activity to the limit of visibility (C 6.3.1);
 - iii. Elimination of pile driving activities that are within the scope of the OPP, in favour of other, less noise intensive anchoring mechanisms;
 - iv. Vessels equipment and crewed in accordance with Australian maritime requirements in order to limit lighting minimum lighting requirements; and

- h. the EP demonstrates that with the implementation of the proposed management measures, the petroleum activity is not expected to injure or result in biologically significant behavioural disturbance to cetaceans or marine turtles and is not inconsistent with relevant requirements, including the Blue Whale Conservation Management Plan and the National Light Pollution Guidelines for Wildlife.

55. In relation to impacts and risks to cultural features of the environment, I considered that the EP (Section 6 and Section 7) demonstrated that this will be of an acceptable level because:

- a. the EP adequately evaluates the potential for the petroleum activity to directly or indirectly affect First Nations cultural features and heritage values, including, but not limited to:
 - i. cultural fishing and hunting activities;
 - ii. culturally significant marine species;
 - iii. culturally significant sites; and
 - iv. connection to sea country through song lines, dreaming sites and stories, and spiritual beings.
- b. the evaluation of impacts and risks to cultural features addresses matters raised through First Nations relevant persons consultation and includes an assessment of impacts and risks to cultural features of the environment. The outcomes of consultation with First Nations relevant persons have informed the control measures for reducing impacts and risks to acceptable levels. This included feedback provided from First Nations relevant persons in relation to the identification of cultural features and heritage values that may be present in the EMBA, including species that may be of cultural significance to First Nations people (i.e. marine turtles) and presence of a sacred site (see [46]);
- c. the impact and risk evaluation (Section 6 and Section 7) outlines that:
 - i. impacts to marine species that are either a cultural food source or are considered culturally significant to First Nations people are not expected to impact on the totemic or kinship cultural connection for both planned and unplanned activities and have been considered in the assessment for threatened/migratory/local fauna;
 - ii. impacts to cultural features linked to a specific place are not anticipated from planned or unplanned activities and considered in the assessment for physical environment/habitat, threatened ecological communities and protected area. I noted that there were no Native Title claims or determinations, ILUAs, Indigenous archaeology, or culturally significant sites identified within the OA, and one cultural significant site located on the outer extent of the EMBA. I considered that the OA is located approximately 143 km from the closest landfall (Tiwi Islands) and no traditional activities within the OA have been identified. I noted that access to country within the EMBA is not expected to be affected in the highly unlikely event of a marine diesel spill;
 - iii. Appropriate control measures have been adopted to ensure that any impacts to First Nations cultural features will be managed to an acceptable level; and
 - iv. The EP demonstrates that with the implementation of the proposed management measures (as outlined in Section 6 and Section 7), that impacts and risks to cultural features of the environment will be managed to acceptable levels.

56. In relation to unplanned aspects of the activity (Section 7), I was satisfied that the EP gives appropriate consideration to risks, such as the accidental introduction and establishment of invasive marine species,

unplanned discharge of hazard and non-hazardous waste, collision with marine fauna, and unplanned hydrocarbon and chemical releases. Uncertainty has been addressed in the evaluation of oil pollution incidents through the application of appropriately conservative stochastic modelling and recognition of assumptions made, and the provision for scalability of spill response to address spills of different magnitudes has been considered. The evaluation of risks posed by spill scenarios includes consideration of potential impacts to the receptors outlined in the description of the environment (Section 3) and informs the selection of appropriate spill response options.

57. The EP provides an appropriate evaluation of impacts and risks specific for the nature and location of the activity and relevant environmental receptors. The evaluation is commensurate to the level of impact or risk presented and provides justifiable conclusions that impacts and risks will be managed to an acceptable level (Section 6 and Section 7). The impact and risk evaluations demonstrate that the acceptable level will be met, and that the EPO will be achieved.
58. Information provided during relevant persons consultation is appropriately considered, evaluated, and incorporated into the EP. The titleholder has considered information gathered from the consultation process when demonstrating impacts and risks will be managed to an acceptable level. For example, through consultation with Traditional Owners the titleholder identified the presence of a sacred site that intersects the EMBA (MDO at low accumulation value). Additional spill modelling identified that intersection with the sacred site will not occur if the modelled MDO spill is reduced from 500m³ to 450m³ and control measure C7.6.5 restricting vessel fuel tank capacity has been included (section 7.6.3).
59. Based on the findings above, I was satisfied that the EP met the requirements of reg 34(c).

The EP provides for appropriate environmental performance outcomes, environmental performance standards, and measurement criteria: regulation 34(d)

60. Section 6 and 7 of the EP contains the EPOs, EPSs and measurement criteria for impacts and risks of the petroleum activity.
61. The EP provides appropriate EPOs that I considered:
- are relevant to identified environmental impacts and risks for the petroleum activity;
 - the suite of EPOs address all of the identified impacts and risks on all values and sensitivities that may be affected by the activity, including impacts from light and noise on Matters Protected under Part 3 of the EPBC Act;
 - read in conjunction with associated EPS, establish measurable levels for management of environmental aspects of the petroleum activity;
 - when read in conjunction with the relevant environmental impact/risk evaluation and adopted management measures, demonstrate that the environmental impacts and risks will be managed to an acceptable level; and
 - are considered consistent with the principles of ESD, considering items a-c above.
62. The EP provides appropriate EPSs that:
- are clearly linked to control measures for all impacts and risks;
 - for each control measure, contain statements of performance which clarify how the control measure is to function in order to effectively reduce and mitigate impacts and risks; and
 - have clear measurement criteria that link to the EPS and will provide a record that the EPS has been met.

63. I considered that the EPOs, EPSs and measurement criteria are clearly linked and complementary of one another (presented in Section 6 and 7). For each environmental aspect, an EPO is set against which performance in protecting the environment will be managed, multiple EPS state the performance required of relevant control measures, and corresponding measurement criteria are identified to determine whether EPO/EPS are being met.
64. The OPEP contains EPOs, EPSs and measurement criteria for response preparedness and implementation. These are provided for the proposed response strategies.
65. Based on the findings above, I was reasonably satisfied that the EP met the requirements of reg 34(d).

The EP includes an appropriate implementation strategy and monitoring, recording and reporting arrangements: regulation 34(e)

66. Reg 34(e) requires that I be satisfied that the implementation strategy, and the monitoring, recording and reporting arrangements were appropriate.
67. I noted that the implementation strategy outlined in Section 8 provides a range of systems, practices and processes (outlined in further detail below) which I was satisfied provided for all impacts and risks to continue to be managed to ALARP and acceptable levels for the duration of the activity.
68. I noted the titleholder has adopted a number of measures for the implementation strategy (section 8.12) in response to consultation with relevant persons which included, but was not limited to:
- a. no planned crew change flights over the Tiwi Islands (including Seagull Island) unless required for safe operations or emergency response;
 - b. the titleholder will, through relevant Land Councils and other relevant persons, consult to identify and implement worthwhile First Nations initiatives that could include, but are not necessarily limited to:
 - i. employment of cultural awareness community observers (CACOs), who will conduct cultural awareness inductions for field based staff across each of the major work packages;
 - ii. support of ranger programs and studies to help First Nations people preserve environmental and cultural features and values on their country;
 - iii. seeking to facilitate employment opportunities for First Nations people as trainee HSE advisors for subsea infrastructure installation activities, subject to the availability and participation of First Nations trainees, with a view to them obtaining HSE qualifications and competencies to enable future ongoing employment in HSE. Further, Santos plans to discuss the way in which it might be able to facilitate presentations by the trainee advisers to their communities about HSE management of the subsea infrastructure installation activities.
 - iv. periodic community townhalls across regional locations relevant to the Barossa Project, to provide Project updates and to provide an opportunity for feedback from CACOs to assist in the development of any potential improvement programs.
 - c. Santos to facilitate trips to the Activity site, at intervals (as necessary), taking into account cultural advice as to the most appropriate clan members to attend such trips.
69. I was satisfied that the management of change (**MOC**) process was adequately described in Section 8.9.2 and was appropriate because:
- a. management of changes relevant to the scope of the activity, will be managed in accordance with reg 39;

- b. Santos has established internal management of change procedures that it will follow when assessing changes to the activity. The procedure determines whether a revision of the EP is required and whether that revision is to be submitted to NOPSEMA for consideration;
 - c. changes will be risk assessed to determine the significance of any potential new environmental impacts or risks not provided for in the EP; and
 - d. Section 8.8.3 provides a reasonable description of the titleholders' learning and knowledge sharing processes.
70. Section 8.1 of the EP describes the titleholder's environmental management system, the Santos Management System. I was satisfied that this was appropriate as the system provides a structured framework of documentation (compass and policies, expectations, processes and procedures, and guidelines) that set common expectations governing how all employees and contractors will work.
71. I was satisfied that the EP (Section 8.4) included appropriate training and competency requirements relevant to the EP with all personnel on the project vessels required to be competent to perform assigned positions. The induction covers the HSE requirements and environmental information specific to the activity location including environmental sensitivities, EP commitments, incident reporting and notifications, management of change process, oil pollution emergency response, and First Nations cultural heritage awareness. Overall, appropriate commitment is made to training to ensure that all employees and contractors have suitable competencies.
72. The key roles and responsibilities of personnel involved in the implementation, management and review of the EP are appropriately outlined in Section 8.3 and the roles and responsibilities for personnel involved in oil spill preparation and response are outlined in Section 5.2 of the OPEP.
73. An appropriate OPEP has been provided that includes arrangements that are suitable, given the spill scenarios presented, and addresses each of the EP content requirements in reg 22. Specifically:
- a. the OPEP details the oil pollution response control measures that will be used to reduce the impacts and risks of the activity to ALARP and an acceptable level, the arrangements for responding to and monitoring oil pollution to inform response activities, the arrangements for updating and testing the oil pollution response arrangements and control measures, and provides for the monitoring of impacts to the environment from oil pollution and response activities; and
 - b. the OPEP contains a First Strike Plan that provides the oil pollution arrangements and control measures in an operational deployment context.
74. I noted that monitoring, recording and reporting arrangements are adequately described in Section 8.8 and included routine internal and external reporting requirements and incident reporting arrangements. I considered that these arrangements were appropriate as these sections detailed that the information collected will:
- a. be based on the EPOs, controls, standards and measurement criteria in the EP; and
 - b. include environmental discharges reports that record volumes of planned and unplanned discharges to marine environment and atmosphere.
75. The EP also provides for appropriate auditing, review and management of non-conformances of the titleholder's environmental performance and the implementation strategy in Section 8.10. Non-conformances are entered into an incident management system and assigned corrective actions that are monitored and closed out in a timely manner.

76. The EP provides for the implementation of ongoing consultation arrangements in Section 8.11, with planned notifications to relevant persons outlined in Section 8.8. I considered that these arrangements were appropriate because the titleholder:

- a. has committed to continue to update First Nations relevant persons via community information sessions and updates to Land Councils and Aboriginal Corporations;
- b. is seeking to establish a network of First Nations consultative committees to support consultation for other proposed regional activities, building on the consultation model developed by the representatives of the Mulurryud Consultative Committee;
- c. provides a mechanism to subscribe to its website which can be utilised by relevant persons and those interested in the activity to remain up to date on the activity. Quarterly updates on the activity will be provided on the titleholders website; and
- d. during the life of the EP, will continue to accept, assess and respond to post acceptance consultation feedback.

77. In light of the findings above, I considered the ongoing consultation arrangements described in the EP, as required by reg 22(15), are appropriate.

78. Based on the findings above, I was satisfied that the EP met the requirements of reg 34(e).

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 34(f)

79. As I stated above at [21] I was satisfied that the EP clearly describes the boundaries of the petroleum activity (Section 2 and 3), which demonstrates that no part of the activity will be undertaken in any part of a World Heritage Property within the meaning of the EPBC Act.

80. In those circumstances, I am satisfied that the EP met the requirements of reg 34(f).

The EP demonstrates that the titleholder has carried out the consultations required by Division 3, and the measures (if any) that are adopted because of the consultations are appropriate: regulation 34(g)

81. Reg 34(g) has two components which the EP must demonstrate:

- a. first, that consultation has occurred as per the requirements in Division 3 of the Environment Regulations. Division 3 requires that the titleholder consults with each 'relevant person' as defined in reg 25(1), and imposes certain requirements for how that consultation is to occur (as specified in reg 25(2)-(4)) (subparagraph (i)); and
- b. second, that the titleholder adopted, or proposed to adopt, appropriate measures in light of those consultations (subparagraph (ii)).

82. The Act and Regulations do not define what constitutes 'consultation' for the purposes of reg 25 (and therefore satisfaction of reg 34(g)(i)). However, there must first be identification of the relevant persons to be consulted, followed by consultation, the purpose of which is to ensure that the titleholder has ascertained, understood and addressed all the environmental impacts and risks that might arise from its proposed activity.

83. Whether the steps and actions taken by a titleholder amount to 'consultation' will vary depending upon the particular circumstances and must reflect the characteristics of the relevant persons affected by the titleholder's proposed activity. However, consultation does not require every opportunity to be afforded. It also does not mean that, where those being consulted do not consider they have been properly consulted, 'consultation' has not been carried out. Overall, I must be reasonably satisfied that

consultation undertaken was appropriate and adapted to the nature of the relevant persons, and that reasonable opportunity to participate in the preparation of the EP was given.

84. NOPSEMA received a number of direct communications from relevant persons raising issues and/or expressing concerns with and objections to the EP. Where those communications raised the same issues, concerns and objections as were raised during the consultation with the titleholder, these are addressed in my reasons below regarding whether reg 34(g) is met. Where the direct communications raised objections or concerns that were not a relevant consideration for the EP assessment, I have not had regard to these.
85. Section 4 of the EP provides descriptions of the consultation process and the rationale used to determine who and how to consult with relevant persons, including the approach to provision of sufficient information to allow the relevant person to make an informed assessment of the possible consequences of the activity on the functions, interests or activities of the relevant person and to allow the relevant person a reasonable period of time to engage in the consultation process.
86. Section 4 of the EP describes a clear process for the identification and broad capture of relevant persons in accordance with reg 25(1). I considered that the process was appropriate as it included:
- a. reference to multiple sources of information, such as publicly available materials (such as management plans for AMPs, Department of Agriculture, Fisheries and Forestry (DAFF) Fisheries Status Reports), review of databases and registers (such as commercial fishing catch and effort data), published guidance (such as AFMA consultation guidance), as well as advice from authorities and other relevant persons (such as advice from the Department of Climate Change, Energy, the Environment and Water – Underwater Cultural Heritage Branch).
 - b. consideration of published guidance developed by relevant persons detailing their functions, interests, or activities and how and when they wish to be consulted on activities. For example, the titleholder refers to guidance published by Western Australian Fishing Industry Council (WAFIC) in relation to consultation with commercial fishing licence holders in WA-managed fisheries where licence holders will only be affected by an unplanned event.
 - c. details and evidence of the steps taken by the titleholder to create awareness of the petroleum activity and the consultation process, to encourage potentially relevant persons that the titleholder may not be aware of, to make themselves known to the titleholder (Section 4.5), which were thorough and widespread. For example, the titleholder undertook large-scale, geotargeted advertising campaign involving widespread print, radio and social media advertising including print and radio advertisements in the NT and WA, and social media advertisements throughout Australia, Timor-Leste and Indonesia.
 - d. The titleholder attended multiple community sessions and events including five drop-in consultation sessions (Darwin Convention Centre), two pop-up stall sessions (Darwin Mall) and attendance at the Darwin Show. In addition, the titleholder developed a dedicated Barossa Gas Project Hub on its website (publicly available from 25 March 2023), with information on the proposed activities under the Barossa subsea infrastructure installation EP added to the website on 22 April 2023. Information included the purpose and approach to consultation, environmental approval process, overview of the Barossa Gas project, summary of the subsea infrastructure installation activity, description of the environment that may be affected by the activity, overview of environmental impacts and risks associated with the activity, the proposed management measures, details on how to provide feedback and contact details of the titleholder. The website also provided links to an Information Booklet on the activity, online self-nomination form for potentially relevant persons to complete and a FAQ document (which I noted was modified and updated during the course of the consultation process). Links and/or a QR code to the website was included in published notices and social media

campaigns (Table 4.6). Public advertisements (social media, print and radio) encouraged interested parties to visit the dedicated Barossa Gas Project hub website for more information on the activity (Table 4.7, Table 4.8, Table 4.9 and Table 4.10);

- e. details of the titleholder's approach to identify relevant persons outside Australia in a manner proportionate to the remote likelihood of any effect on the functions, interests or activities of international persons or organisations (Section 4.5.2.1);
- f. additional details of how the titleholder's process identified First Nations relevant persons, including through engagement with relevant government authorities and First Nations representative bodies (Section 4.5.2.2); and
- g. details of how the titleholder will make an assessment to determine whether an individual or organisation who has self-identified as a relevant person, is or is not, considered to be a relevant person for the purposes of regulation 25 having regard to each person's stated functions, interests and activities (Section 4.5.2).

87. I considered that the nature of the activity, description of the environment and the possible impacts and risks of the activity have been appropriately taken into account by the titleholder in determining whether the activity may be relevant to authorities, or determining whose functions, interests and activities may be affected. This is because:

- a. the titleholder has considered the nature and scale of the activity and all of the possible impacts and risks of the activity when determining who to consult with (Section 2, Section 6 and Section 7); and
- b. the titleholder considered all the known environmental values and sensitivities within the full extent of the environment that may be affected by the planned and unplanned impacts and risks of the activity when determining relevant persons. For example, the titleholder has conservatively applied the results of oil pollution risk modelling to the identification of relevant persons.

88. I also considered the content of Section 4, Appendix F, Appendix G, Appendix H and the sensitive information part of the EP and consider that the titleholder's approach to the provision of sufficient information allowed the relevant persons to make informed assessments of the possible consequences of the activity on their functions, interests or activities and a reasonable period for the consultation was provided. I formed this view because:

- a. the EP includes a description of the approach to provision of sufficient information that takes into account the functions, interests or activities of relevant persons and the impacts and risks that may affect them. The titleholder has tailored the information to suit the needs of the different types of relevant persons and provided information in a form which I am satisfied is readily assessable and appropriate for the relevant person being consulted, including an Information Booklet, presentations, verbal briefings including community sessions with interpretation services present, graphics and videos;
- b. the titleholder sufficiently informed relevant persons of the purpose of consultation, including advising relevant persons of the titleholder's obligations for consultation. This includes sharing the reasons for the consultation and providing a copy of NOPSEMA's 'Consultation on offshore petroleum environment plans' Brochure as part of consultation;
- c. the information provided by relevant persons throughout the consultation process has assisted the titleholders to ascertain, understand and address all of the environmental impacts and risks that might arise from its proposed activity; and
- d. Consultation with relevant persons commenced in January 2023 (Table 4-13) and has continued throughout the course of preparing the EP providing sufficient time for relevant persons to consider

the information provided and make an informed response. I noted that the consultation process provided various opportunities for relevant persons to be identified or to self-identify and engage in the consultation process.

89. Having considered the detailed description of the consultation process in the EP, for reasons set out in [84]-[88] above, I consider that the approach adopted by the titleholder for identifying relevant persons was appropriate. I also considered that the titleholder has provided sufficient information which allowed for relevant persons to participate in informed consultation. Further, given the period of time afforded by the titleholder for consultation and the evidence of multiple engagements with relevant persons, including multiple opportunities for the relevant persons to provide information to the titleholder, that a reasonable period for the consultation has been given. My more detailed reasons are set out below.

Relevant Persons under Regulation 25(1)(a)-(c)

90. Relevant persons under reg 25(1)(a)-(c) are each Commonwealth, State or Northern Territory Department or agency to whom the activity in the EP may be relevant, in addition to the Department of each responsible State Minister or Northern Territory Minister.

91. Table 4-5 in Section 4.5.2 of the EP outlines the process for the identification of Commonwealth and State and Territory Departments and/or agencies in the marine, environment and industry fields, which I considered to be appropriate. Table 4.12 in Section 4.5.3 provides the titleholder's assessment of the 18 Commonwealth, State and Northern Territory Departments and agencies that are considered to be a relevant person under reg 25(1)(a)-(c).

92. I noted that consultation with the relevant persons under reg 25(1)(a)-(c) occurred, in accordance with GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023, via email unless otherwise requested.

93. I considered that sufficient information was provided to allow the relevant persons under reg 25(1)(a)-(c) to make an informed assessment of the possible consequences of the activity on the functions, interests or activities. In particular, the titleholder provided relevant persons with information relevant to the functions, interests or activities of the relevant person in the form of an Information Booklet. The Information Booklet contained an overview of the activity, the environment that may be affected, potential environmental impacts and risks and proposed control measures. In addition, the Information Booklet contained information about who is a relevant person, the purpose of consultation and the entitlements of relevant persons in respect of consultation.

94. The titleholder conducted consultation with relevant persons under reg 25(1)(a)-(c) between June and December 2023. Relevant persons were initially provided with 30 days to respond, and consultations continued with relevant persons where requested. I considered that relevant persons under reg 25(1)(a)-(c) were provided with a reasonable period for the consultation.

95. I noted that the consultation emails sent to each relevant person contained one of the following statements in accordance with reg 25(4):

- a. *“Relevant persons are entitled to request that particular information they provide during consultation not be published. If this is requested, Santos will respect that request and the information will not be published. Information we need to give to NOPSEMA to assess our plan will be provided in a separate confidential report (rather than in the published EP)”* or
- b. *“If and when you provide your feedback, please let us know if you request that particular information you provide during consultation not be published. If you make that request, the information will not be published under the relevant legislation”.*

96. Finally, I noted that most relevant persons under reg 25(1)(a)-(c) provided no feedback or objections to the activity in response to the consultation requests. Where a response was received, it was in the nature

of feedback, as opposed to objections against the activity. Where feedback was received, the EP identified this and indicated what changes were made to the EP in response. For example, a large part of the feedback was that certain bodies should be notified of things or provided documents when they occur or become available. The EP contains the details of this reporting or commits to providing these documents. I considered that these measures were appropriate, and therefore reg 34(g)(ii) was met.

97. Considering the matters at [90]-[96], I was reasonably satisfied that, in relation to relevant persons as defined by reg 25(1)(a)-(c), the EP demonstrates that the titleholder has carried out the consultations required by Division 3 and the measures (if any) that the titleholder has adopted, or proposes to adopt, because of the consultations are appropriate, as required by reg 34(g).

Relevant Persons under Regulation 25(1)(d)

98. Relevant persons under reg 25(1)(d) are considered to be ‘a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the environment plan, or the revision of the environment plan.’

99. I considered that the EP provided clear details of the processes that have been applied to identifying and determining who are relevant persons, as well as the processes undertaken for consulting with them. In particular, the EP correctly states that the terms “functions”, “interests” and “activities” for the purpose of identifying relevant persons under reg 25(1)(d) is to be interpreted and applied broadly by the titleholder in a manner consistent with the objects of the Environment Regulations and the EPBC Act. The EP also utilised NOPSEMA’s ‘Consultation in the course of preparing an environment plan guideline’ (N-04750-GL2086) (**NOPSEMA’s consultation guideline**) in defining the terms. A description of the functions, interests or activities of those persons or organisations identified as relevant persons under reg 25(1)(d) is provided in Table 4-12.

100. The EP identified and considered the following broad categories within the scope of reg 25(1)(d):
- a. academic and research organisations, such as Australian Institute of Marine Science (**AIMS**), Australian Marine Sciences Association – NT (**AMSA-NT**), Aus Turtle Inc (**AusTurtle**) and WorldFish Timor-Leste (**WorldFish**);
 - b. commercial fishing, such as licence holders in Commonwealth-managed Northern Prawn Fishery, and licence holders in NT-managed Timor Reef Fishery;
 - c. environmental conservation organisations, such as Environment Centre Northern Territory (**ECNT**), ATSEA-2 Project (**ATSEA-2**), West Timor Care Foundation (**WTCF**) and Australian Marine Conservation Society – NT (**AMCS-NT**);
 - d. First Nations peoples and groups, such as Tiwi Land Council (**TLC**), Kimberley Land Council (**KLC**), Northern Land Council (**NLC**), and Tiwi Island clan groups and traditional owners;
 - e. infrastructure operators; Darwin port and NT ports and marine;
 - f. industry associations; such as Northern Prawn Fishery Industry Pty Ltd (**NPFI**), Northern Territory Seafood Council (**NTSC**) and WAFIC;
 - g. local government authorities;
 - h. energy industry, such as Eni Australia Ltd and INPEX Ichthys Pty Ltd;
 - i. marine and coastal tourism operators, such as Arafura Bluewater Charters, Clearwater Island Lodge/Tiwi Adventures and Bathurst Island Lodge/Tiwi Island Retreat;

101. The EP documented the titleholder’s consideration of persons and organisations that self-identified through the consultation process. For example, in the case of AusTurtle Inc, I note that the titleholder determined that their functions, interests, or activities may be affected by the activity and consulted with the organisation as a relevant person.

102. I will first explain my conclusions on First Nations people and groups, and then my conclusions on the other 'relevant persons' categories identified at [100] above.

First Nations people and groups

103. I considered that the titleholder's methodology, as identified in the EP, is consistent with the purpose and intention behind reg 25, NOPSEMA's guideline on Consultation in the course of preparing an environment plan (12 May 2023), and recent Federal Court authority on the interpretation of this provision, such as *Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193; (2022) 296 FCR 124*, namely, to ensure that the titleholder had 'ascertained, understood and addressed all the environmental impacts and risks that might arise from its proposed activity'.

104. I noted that the titleholder has tailored their approach to First Nations consultation to particular persons, including how the information was given to allow the "relevant person" to assess the possible consequence of the proposed activities on their functions, interests or activities.

105. I was reasonably satisfied that the consultation process provided for broad capture of ascertainable First Nations persons and organisations who may have their functions, interests or activities affected because:

- a. the identification of First Nations relevant persons has been informed appropriately by the operational aspects of the activity and the associated impacts and risks, including the highly unlikely scenario of a worst-case oil pollution event (i.e marine diesel spill from vessel collision). The titleholder considered the conservatism of the oil spill modelling, the remote likelihood of the event occurring and the control measures that would be implemented in the event of a spill, when determining whether the functions, interests or activities of First Nations relevant persons would be affected.
- b. The titleholder reasonably concluded that the likelihood of First Nations communities along the Northern Australia NT/WA coastline having an interest that may be affected by the activity becomes increasingly unlikely as the distance from the OA increases. Where there was some, albeit minimal, potential for impacting on the functions, interests or activities of relevant persons the consultation approach was appropriate for the vast geographic area of enquiry associated with a remote probability unmitigated worst case oil pollution event. All considered, the titleholder's method provided appropriately for the identification and consultation with the Tiwi Island clan groups as the First Nations people who are the most geographically proximate to the activity location. I noted that the OA for the activity is located approximately 140km from the nearest shoreline (Tiwi Islands) and 260km from the Croker Islands. Further I note that the EMBA does not overlap of any native title claims or determinations, ILUAs or heritage sites (Figure 3-18). I noted that there remained a substantial separation between the outer limits of the EMBA and the mainland WA/NT coastlines. Based on the information presented in the EP I considered it unlikely that there would be sea country interests affected by the activity, beyond those identified through consultation. I considered the broad scale enquiry sufficient to provide for those with functions, interests or activities that may be affected by the activity to self-identify as relevant persons and come forward with any particular information to be considered;
- c. the titleholders process appropriately identifies representative bodies under the *Native Title Act 1993* and the *Aboriginal Land Rights (NT) Act 1976*. Accordingly, the titleholder identified a number of Land Councils as relevant persons, including the Tiwi Land Council (**TLC**), Northern Lawn Council (**NLC**) and Kimberley Land Council (**KLC**), who were consulted in their own right, and encouraged to advise of other First Nations groups or individuals with whom the titleholder should consult. I noted that no additional relevant persons were identified by the Land Councils;
- d. the titleholders process included criteria for identifying First Nations groups, clans and/or organisations and people (Table 4.5 and Section 4.5.2.2) based on the EMBA overlapping or being

located within the vicinity of the following: native title claims pending or determined, ILUAs, recognised sacred sites, Indigenous Protected Areas (IPAs), or other land rights that extend offshore;

- e. the titleholder's consultation process included additional steps to generate public awareness of the activity and allow First Nations relevant persons to self-identify to be consulted. This included a large scale, targeted advertising campaign undertaken across international (Indonesia & Timor-Leste), national, state/territory (WA and NT) and local scale, involving printed (newspapers), radio and social media to generate public awareness, and provide for First Nations relevant persons to self-identify. The advertising campaign occurred between 20 April 2023 and 20 May 2023 (Table 4-8) and again 12 June 2023 and 2 August 2023 (Table 4-9). Further steps were taken including leveraging existing channels of communication, hosting associated drop-in consultation sessions in Darwin (which were advertised multiple times for each round) and pop-stalls in Darwin Mall and attending two Arts in the Grass events organised by Larrakia Nation (Table 4.6). Opportunities were provided over multiple months for First Nations groups or individuals to self-identify. These opportunities successfully elicited responses from First Nations groups who were subsequently consulted by the titleholder as relevant persons (see paragraph [106]). I noted that the steps taken by the titleholder to promote awareness of the activity to allow for the identification of First Nations relevant persons were comprehensive and suited to the target audience; and
- f. while I recognised there were limitations to each of the individual enquiry methods, the combination of approaches implemented, when considered holistically, reasonably provided for traditional owners with a connection to sea country, which may constitute an interest for the purposes of reg 25(1)(d), to be identified and consulted as a relevant person.

106. The EP provides that the titleholder undertook expanded consultation with First Nations relevant persons commencing in January 2023. First Nations people and groups identified as relevant persons in the EP, include two native title representative bodies (i.e., NLC and KLC), TLC, and Tiwi Island clan groups and traditional owners. The Croker Island Clans self-identified as relevant persons and were subsequently identified as relevant persons by the titleholder under reg 25A(1)(e) (see my reasons at [128]-[135]).

107. In relation to the titleholders' consultations with First Nations relevant persons, I considered the summary of consultation provided in Section 4.7 and the full text consultation records provided in the sensitive information part of the EP. I was reasonably satisfied that the consultations required by Division 3 have been carried out with each of these relevant persons because:

- a. the methods applied to consultation with these relevant persons were appropriate and reasonably adapted to the nature of the interests of these relevant persons. In particular:
 - i. the titleholders' approach to consultation with these relevant persons was appropriately adapted in response to preferences/requests expressed by relevant persons, where reasonably practicable and appropriate given the potential for the activity to affect the functions, interests or activities of the Relevant Person. The titleholder considered preferences/requests expressed by relevant persons on a case-by-case basis, having regard to the timing of the preference/request relative to the consultation deadlines that had been communicated. In circumstances where relevant persons expressed interest in engaging in the consultation process and provided feedback on their preferred method for the consultation, the titleholder accepted that feedback and adapted their approach to engaging with them based on their preferred method, where it was reasonably practicable and appropriate;
 - ii. the titleholder implemented a tailored approach to consultation with Tiwi Island clans and Traditional Owners. As a result of specific requests and feedback expressed by Tiwi Island clans and Traditional Owners during community engagement sessions in February 2023 in Milikapiti,

Pirlangimpi and Wurrumiyanga, the titleholder implemented the following tailored consultation approach for Tiwi Island clans and Traditional Owners:

- A. consultation activities were conducted face-to-face in the form of the clan meetings;
 - B. clan meetings were arranged for each clan at a location convenient for that clan (members of other clans attended with clan trustee consent);
 - C. clan meetings were scheduled with four weeks' prior written notice (see Table 4.13);
 - D. use of visual aids, videos and animations in presenting information (including information of a more technical nature) to improve accessibility and comprehension;
 - E. representatives of the titleholder and subject matter experts explained the activity, and impacts and risks of the activity during in person presentations, assisted by video content, and PowerPoint slides and responded to questions;
 - F. for each consultation session, the titleholder developed short videos explaining the purpose of the session and key information relating to the consultation process, how feedback could be provided, privacy obligations and non-publication requests. I noted that parts of these videos were recorded by a local Tiwi man in Tiwi language;
 - G. after each consultation session, titleholder representatives and subject matter experts were available to answer additional questions or provide further information to clan members and individuals;
 - H. a leading turtle expert attended the April and May 2023 sessions to provide information and answer questions about potential impacts on marine life, specifically turtles. The expert was available before and after these sessions for discussions with clan group members;
 - I. an independent, qualified interpreter assisted the titleholder at the April/May (where available), June and August 2023 sessions to provide translation, as required. The titleholder also used local interpreters where qualified interpreters were not available through the Aboriginal Interpreter Service (AIS);
 - J. written consultation materials tailored for Tiwi Islands clan groups and Traditional Owners were produced and distributed or made available at consultation sessions, including a fact sheet and maps;
 - K. a FAQ document in response to questions posed by Tiwi Islands clan groups and Traditional Owners was prepared and distributed or made available and this was updated throughout the consultation process and published on the titleholder's website;
 - L. on occasions, the titleholder assisted in organising transport for Tiwi Island clan members who were having difficulty attending the consultation sessions due to road closures; and
 - M. on occasions, the titleholder rescheduled consultation sessions to accommodate 'sorry business' on the Tiwi Islands.
- iii. the purpose of the consultation and the opportunity being afforded was communicated by the titleholder to these relevant persons using clear, simple and directly expressed terms that were aligned with the intent of consultation under reg 25. That being to enable the titleholder to better understand environmental impacts and risks that relevant persons consider that the activity will cause or lead to, and to refine or change the measures it proposes to address those impacts and risks. I note that relevant persons were provided with the NOPSEMA consultation brochure and made aware that the invitation to participate in consultation provides an opportunity for relevant persons to inform the titleholder of, and share with them, the nature of cultural interests that they may have within the environment that may be affected by the activity; and
- iv. further, I noted that the consultation process considered availability and accessibility issues of relevant persons and made provision for travelling to regional locations to meet with relevant

persons. For example, representatives of the titleholder travelled to Tiwi Islands on multiple occasions (Appendix H) to identify and meet potentially relevant persons at widely advertised meetings.

- b. the titleholder has provided sufficient information to these relevant persons to allow them to make an informed assessment of possible consequences of the activity on their functions, interests or activities. In particular:
 - i. the titleholder has provided relevant persons with sufficient information in a readily accessible form and appropriate format to allow them to make an informed assessment of the possible consequences of the proposed activity on their functions, interests, or activities. For example, the titleholder provided the Tiwi Island clans and Traditional Owners with a simplified information booklet on the activity with the environmental impacts and risks associated with the activity, the proposed management measures, and the location and extent of the EMBA clearly depicted (Appendix F). The titleholder also used clear, simple, and directly expressed terms in meetings and presentations to the relevant persons. Materials provided were appropriate for the nature and scale of the activity and its impacts and risks. Tiwi Island clan members were provided simplified presentations at clan consultation meetings, along with other materials, such as posters and videos. In addition, the titleholder provided First Nations relevant persons with a copy of the NOPSEMA consultation brochure;
 - ii. additional information was provided iteratively, and consultation was adapted in response to the feedback received from relevant persons to allow them to make an informed assessment of the possible consequences of the proposed activity on their functions, interests, or activities. The titleholder responded to requests for meetings and made itself available to meet to provide presentations and answer questions. This included provision of multiple face-to-face verbal briefings and presentations supported with information in pictorial or graphic form for Tiwi Island clans and Traditional Owners;
 - iii. where relevant persons raised queries, objections or claims regarding the adverse impacts of the activity during the consultation process, the full text consultation records in the sensitive information part of the EP demonstrate that the titleholder provided them with responses to each of their queries, objections or claims. Further to this, when these relevant persons made reasonable requests for additional support to assist them with understanding the information provided so they could make an informed assessment of consequence, the titleholder met these requests. For example, funding the attendance of an independent leading turtle expert at consultation meetings with Tiwi Island clans and Traditional Owners;
 - iv. accurate and comprehensive information was provided to these relevant persons about the activity that was relevant and necessary for allowing an informed assessment. For example, the consultation details within the EP (including the full text records in the sensitive information part) demonstrate that the information that was provided to these relevant persons included clear details regarding the nature of the activity (e.g., location, timing, activity overview etc.), the planned and unplanned environmental impacts and risks associated with the activity, the extent of the environment that may be affected by all environmental impacts and risks of the activity, the environmental values and sensitivities known to occur within the environment that may be affected by the activity, and the control measures that the titleholder is proposing to implement to manage environmental impacts and risks to ALARP and acceptable levels; and
 - v. the titleholder adapted its approach to consultation in a manner to accommodate the cultural requests of Tiwi Island clans and Traditional Owners. I also note that relevant persons were made aware that they could request the establishment of cultural protocols with the titleholder for the purposes of sharing information in a culturally appropriate and safe way, if required.

- c. the titleholder has allowed a reasonable period for the consultation with these relevant persons. In particular:
- i. the titleholder provided relevant persons with a reasonable period to consider the information and provide feedback on how their functions, interests or activities may be affected by the activity. For example, consultation with Tiwi Island clans and Traditional Owners commenced in December 2022 regarding the wider Barossa Gas Project and the preferred consultation process (Appendix H), and specifically for this EP, there has been an iterative process of information provision and repeated opportunities to provide feedback in writing or verbally at follow-up meetings since 20 April 2023. The titleholder held repeated, in-person meetings in a range of locations, including but not limited to, Milikapiti, Pirlangimpi, and Wurrumiyanga on the Tiwi Islands and in Darwin. In order to ensure timely notification to meet consultation expectations of the community, the titleholder used newspaper (NT Times) and social media advertisements (geotargeted to the Tiwi Islands) to notify of consultation sessions at least four weeks in advance of each session;
 - ii. in circumstances where limited or no responses from a relevant person were received by the titleholder, the EP demonstrates that the titleholder made reasonable efforts to consult the relevant person to understand how their functions, interests or activities may be affected. For example, consultation records in the sensitive information report, show that the titleholder attempted to contact the Land Councils on multiple occasions, using multiple methods (e.g., telephone calls, emails and/or requests for face-to-face meetings) and over a reasonable timeframe (e.g., multiple months);
 - iii. I considered the rationale presented by the titleholder to support its case that a reasonable period was provided for First Nations relevant persons to participate in consultation for this EP. Section 4.6.3 of the EP details that the titleholder process included a minimum of 40 days consultation period. I note that the multiple iterations of the EP have resulted in the consultation period for the EP extending beyond that period. Further, I note that the judicial commentary in the Tipakalippa proceedings stipulates that the consultation process must be capable of being discharged within a reasonable time; and
 - iv. I note that the titleholder consultation approach also included a 30-day public awareness campaign, commencing from 20 April 2023 to seek out Relevant Persons and to raise public awareness of the Barossa Gas Project generally. This was followed by a comprehensive 60-day public awareness campaign, which ran from 12 June to 4 August 2023, specifically seeking feedback from Relevant Persons.

108. I was aware that First Nations relevant persons raised feedback or concerns regarding the adequacy of the consultation process. Whether or not a relevant person agrees that they have been adequately consulted is not determinative of whether I am satisfied reg 34 is met. Rather, I need to consider all the facts and circumstances of the consultation. My consideration of the feedback and concerns regarding the adequacy of the consultation was as follows:

- a. Some Tiwi Island clan members raised concerns about the information provided on the SURF EP being too technical or complex and therefore not suitable for a Traditional Custodian audience that speak English as a second or third language and may not be able to understand the content being delivered if qualified interpreters were not used. Having considered the information that was provided, I found that the EP demonstrated that the claims were addressed with information tailored and in readily accessible forms (e.g., videos and posters as well as face-to-face meetings with multiple translators and repeated meeting opportunities with qualified translators). I also found that the EP demonstrated that opportunities were provided for Tiwi Island clan members to receive additional support with facilitating their understanding of the information provided to them, such as

by funding the attendance of independent environmental scientists at consultation meetings, offering to financially support the provision of independent third-party advice and making relevant project personnel and subject matter experts available to attend consultation meetings to assist with explaining information in further detail and answering any questions. I was satisfied that the EP demonstrated the way the information was presented, and the opportunities provided to clarify and explain the activity, were sufficient to allow the Tiwi Island clan members to make an informed assessment in accordance with reg 25(2);

- b. Some Tiwi Island clan members raised concerns with the timeframe for consultation on the EP not being sufficient given the required time to consider the information provided during the consultations, discuss it with family and clan members and provide instructions back to legal representatives. I note that the titleholder engaged with Tiwi Island clan members between 6 and 8 February 2023 with face-to-face sessions at three locations around the Tiwi Islands (Milikapiti, Pirlangimpi and Wurrumiyanga), seeking advice on how they wish to be consulted on the broader Barossa Project. The consultation process for the EP commenced in April and May with three community engagement sessions for Tiwi Island clans. I noted that 820 clan members were recorded as attending the three sessions. Follow-up clan consultation sessions were held for those same clans in June 2023, with 679 clan members recorded as attending the three sessions. Further, face-to-face consultation sessions were again held in August 2023, with Milikapiti and Wurrumiyanga and 505 clan members recorded as attending the two sessions. A notice seeking final feedback from the Munupi clan was posted on the Pirlangimpi notice board seeking final feedback and outlined a number of ways in which feedback could be provided. The EP makes it clear that over the period of April to August 2023 there were numerous ongoing opportunities provided by the titleholder to Tiwi Island clan members to come forward, seek information, discuss this with their family groups, and then subsequently provide information to the titleholder. However, I found that the timeframes provided to the Tiwi Island clan members were sufficient given the many months of engagement by the titleholder and the iterative process of information provision and various opportunities to provide feedback in writing or verbally at meetings. I also noted that the overall period for consultation (from when Tiwi Islands clan members were contacted and during assessment of the EP) was over 9 months; and
- c. Claims were raised by some Tiwi Island clan members that the consultation that had occurred to date had not been undertaken for the subsea Infrastructure Installation (referred to as SURF) activities and the SURF EP. However, records in the EP show that information about the SURF activity was provided on 20 April 2023, provided during meetings on 26 April 2023 and 16 June 2023 as well as in correspondence from Santos on 8 December 2023. Further, correspondence from Tiwi Island clan members dated 24 November 2023 included a large number of claims about the effects of the activity on their interests. For example, questions were asked about impacts and risks from chemical use and seabed disturbance and impacts on marine fauna from SURF activities. In addition, the EP states that Tiwi Island Clan members attended various meetings between April and August 2023 where information about impacts and risks from the SURF activities was presented. On this basis and for the reasons set out above in [103] to [107], I am satisfied that the EP demonstrates that reg 25 consultation with the Tiwi Island Clan members represented by EDO has occurred for the activities in the EP and the claims raised in correspondence have been assessed by Santos.

109. I note that there is evidence in the consultation records that the titleholders have advised First Nations relevant persons that they may request that particular information they provide is not published in accordance with reg 25(4) and it is evident that these requests have been addressed by the significant volume of sensitive material that was not to be published with the EP.

110. I was, accordingly, reasonably satisfied that reg 34(g)(i) was met.

111. Having found that reg 34(g)(i) was satisfied, I then considered whether the titleholders adopted, or proposed to adopt, appropriate measures in light of those consultations. I was reasonable satisfied

that the measures adopted by the titleholder as a result of the consultations were appropriate for the following reasons:

- a. The EP includes a summary of any feedback, objections or claims raised by First Nations relevant persons in Section 4.7 and Appendix F, along with the titleholder's assessment of merits of any feedback, objections or claims and its response, and corresponding measures;
- b. The EP demonstrates the titleholder has considered any feedback provided from First Nations relevant persons regarding the proposed approach to management of the environmental impacts and risks of the activity relating to the protection of cultural features of the environment;
- c. The titleholder has adopted a range of control measures in response to the consultation with First Nations relevant persons to ensure that the activity's impacts and risks to cultural features of the environment will be of an acceptable level and reduced to ALARP. For example,
 - i. The titleholder included cultural heritage monitors as a management control to provide an introduction to the Activity to the seas and any First Nations spiritual beings at commencement of the Activity; and
 - ii. the establishment of a Cultural Heritage training package to be completed by all site-based workforce.
- d. The titleholder has adopted further measures as a result of the consultations with First Nations relevant persons. In particular:
 - i. training of Tiwi Ranger Groups prior to the commencement of the activity, provision of rapid spill assessment kits on the Tiwi Islands and notification requirements (Table 4-14) have been included (section 5.4.2 and Section 7.1 of OPEP);
 - ii. no planned crew change flights over the Tiwi Islands (including Seagull Island), unless required for safe operations or emergency response;
 - iii. the titleholder will, through relevant Land Councils and other relevant persons, consult to identify and implement worthwhile First Nations initiatives that could include, but are not necessarily be limited to:
 - A. employment of cultural awareness community observers (CACOs), who will conduct cultural awareness inductions for field based staff across each of the major work packages;
 - B. support of ranger programs and studies to help First Nations people preserve environmental and cultural features and values on their country;
 - C. seeking to facilitate employment opportunities for First Nations people as trainee HSE advisors for subsea infrastructure installation activities, subject to the availability and participation of First Nations trainees, with a view to them obtaining HSE qualifications and competencies to enable future ongoing employment in HSE. Further, Santos plans to discuss the way in which it might be able to facilitate presentations by the trainee advisors to their communities about HSE management of the subsea infrastructure installation activities;
 - D. periodic community townhalls across regional locations relevant to the Barossa Project, to provide Project updates and to provide an opportunity for feedback from CACOs to assist in the development of any potential improvement programs; and
 - E. facilitate trips to the Activity site, at intervals (as necessary), taking into account cultural advice as to the most appropriate clan members to attend such trips.

112. On the basis of the matters outlined above, I was reasonably satisfied that the measures adopted by the titleholders because of the consultations are appropriate, and reg 34(g)(ii) was met.
113. Accordingly, for the reasons set out above, I am reasonably satisfied that consultation as per the requirements of reg 34(g), insofar as they relate to First Nations (individuals and/or groups/entities) has been satisfied.

Other 'relevant persons'

114. The EP clearly identifies who has been identified as a relevant person, includes details of the rationale the titleholder has used to determine who they consider fall within that definition and broadly describes the functions, interests or activities of those persons or organisations identified as relevant persons under reg 25(1)(d). The EP includes reference to multiple sources of information used by the titleholder to assist in the identification of relevant persons, such as publicly available materials, review of databases and registers, published guidance, previous history and advice from authorities and other relevant persons.
115. Table 4-12 of the EP provides a comprehensive overview of the identification and assessment of the relevant persons falling within reg 25(1)(d). I considered the nature of the activity, description of the environment and the possible impacts and risks of the activity have been taken into account when determining whose functions, interests and activities may be affected. For example:
- a. the titleholder considered all known environment values and sensitivities within the full extent of the environment that may be affected by the planned and unplanned impacts and risks of the activity when determining relevant persons; and
 - b. the titleholder considered the nature and scale of the activity and all of the possible impacts and risks of the activity when determining relevant persons.
116. I considered the titleholder's approach to identifying relevant persons located outside of Australia in Section 4.5.2.1 of the EP to be appropriate. This is because in determining whether persons and organisations located outside of Australia may be affected by the activity, the titleholder took into account the nature and scale of the activity, and the likelihood and magnitude of impacts to persons and organisations located outside of Australia. I noted that:
- a. the OA is located entirely within Commonwealth waters; however, the EMBA extends into international waters (Figure 3-1);
 - b. there are no planned impacts identified from the activity that may affect the functions, interests or activities of persons and organisations located outside of Australia;
 - c. in relation to unplanned events, such as an oil pollution incident, the titleholder considered the conservatism of the oil spill modelling, the preventative controls in place to reduce the likelihood of the event occurring and the spill response control measures that would be implemented in the event of a spill. I agreed with the titleholder's conclusion that there is only a remote likelihood that the functions, interests and activities of persons and organisations located outside of Australia may be affected by the activity. I considered that the titleholder sought to reasonably ascertain relevant persons located outside of Australia, in a manner proportionate to the remote likelihood of any effect on the functions, interests or activities of those persons or organisations; and
 - d. the titleholder has taken into account international persons or organisations (such as WTCF, WorldFish, ATSEA-2 Project, Association of Marine Tourism Timor-Leste (AMT-TL)) who self-identified as relevant persons for another Barossa EP and consulted with these organisations as relevant persons. In addition to this, the titleholder conducted an international advertising campaign geotargeting locations including Indonesia and Timor-Leste. The advertisements were published in various languages, including Indonesian, Tetum and English, and contained links to the titleholder's

EP summary website. I note that no further persons or organisations self-nominated as relevant persons, following the international advertising campaign.

117. I note that the probability of relevant persons outside Australia's jurisdiction being affected by an unplanned hydrocarbon spill is remote and the degree to which relevant persons functions, interests and activities would be affected highly uncertain and dependent on the particular nature of the incident, conditions at the time, and the implementation of available mitigations to reduce the extent, severity and duration of a spill. Having considered the various methods adopted by the titleholder to provide an opportunity for relevant persons outside Australia to self-identify as well as the remote potential for the relevant persons functions, interests or activities to be affected I was satisfied that the consultation obligation has been discharged with these relevant persons.
118. Nine non-government groups or organisations have been identified in the EP as relevant persons, including the Australian Marine Conservation Society – NT (AMCS-NT), Greenpeace, Conservation Council of Western Australia (CCWA) and Environment Centre Northern Territory (ECNT).
119. I was satisfied that the process of identifying these other relevant persons was sufficient and appropriate to the activity. I note that consultation extended to those groups or organisations advertising a direct interest in the activity, including those with publicly stated position of opposition (i.e., ECNT).
120. Having identified these relevant persons, I considered the information that had been provided to them in accordance with reg 25(2). I considered that the information provided was sufficient, in particular:
- a. the EP includes a description of the approach to provision of sufficient information that takes into account the functions, interests or activities of relevant persons and the possible consequences of the activity that may affect them;
 - b. the titleholder sufficiently informed relevant persons of the purpose of consultation, including advising relevant persons of titleholder obligations for consultation;
 - c. the consultation provided sufficient information about the environment and impacts on the environment to allow relevant persons to make an informed assessment of the possible consequences of the activity on their functions, interests or activities. For example, the Subsea infrastructure Installation and Pre-commissioning Activity Information Booklet was provided to relevant persons. The consultation package included an overview of the regulatory approval process and requirements, an activity and location summary with maps (including other aspects of the project, such as the Barossa Gas Export Pipeline), water depth, distance to key regional features, petroleum safety zone details and estimated timing and duration. The Information Booklet included a summary of the regional environment and a regional socio-economic summary, in particular in relation to the EMBA. Finally, it also outlined all impact and risk of the activity as evaluated in the EP, each with a summary of expected/ potential impacts as well as a discussion of selected management control measures to manage the impacts and risks. The booklet concludes with an appropriately formulated explanation of relevant person consultation and request for involvement and feedback on the proposed activity;
 - d. the consultation provided relevant persons with the opportunity to provide input and engage in a genuine two-way dialogue. I noted that offers were made to meet and discuss with relevant persons and steps were taken by the titleholder to create awareness of the activity and to encourage potentially relevant persons to make themselves known to the titleholder. In some instances, non-government groups or organisations have presented claims that they have not been provided with sufficient information or a reasonable period for the consultation. I note that consultation with these groups has been ongoing since June 2023. Considering the record of consultation, I am satisfied that the consultation obligation has been discharged with these groups and a reasonable

opportunity has been provided for them to participate in the consultation. While agreed resolutions have not always been achieved with non-government groups or organisations, I was satisfied that there was still a two-way dialogue in which relevant persons were given sufficient information and a reasonable time was attributed to allow the group or organisation to make an informed assessment of the possible consequences of the activity on their functions, interests or activities, and or and relevant matters raised through the consultation have been addressed in the EP;

- e. the consultation method appropriately aligned consultation effort according to the potential for impacting on a relevant person's functions, interests and activities; and the degree to which the relevant person functions, interests and activities are affected. The EP states that the only consultation required is in relation to an unplanned hydrocarbon spill that could reach Indonesian or Timor-Leste waters in worst case circumstances. I note that the probability of this is remote, and the degree to which RP functions, interests and activities would be affected highly uncertain and dependent on the particular nature of the incident, conditions at the time, and the implementation of available mitigations to reduce the extent, severity and duration of a spill;
- f. the titleholder has considered relevant persons' views of what constitutes sufficient information and has considered requests for additional information by relevant persons. The titleholder responded to requests made by relevant persons, either through provision of additional information in relation to impacts and risks of the activity, and advice that the EP was publicly available on the NOPSEMA website, or by clarifying the scope of the activity and where impacts and risks related to the broader project but were not impacts of the activity to which this EP relates. Noting some areas of concern related to the broader Barossa project and subsequent phases of development. For example, GHG emissions from the processing, combustion and consumption of Barossa gas; for these the titleholder committed to assessing the impacts and risks from greenhouse gas emissions and the reduction of impacts and risks to as low as reasonably practicable and acceptable levels in the Barossa Production Operations EP; and
- g. the titleholder has provided responses to reasonable requests for information, and where information has not been provided, there is a reasonable basis as to why this is the case; and although there are examples where the titleholder did not provide certain relevant persons with additional information requested (e.g., scientific literature and modelling reports, copy of the latest version of the EP), I was satisfied that sufficient information was made available to the relevant person including: a link to the publicly available EP; the Information Booklet; numerous email responses tailored to a relevant person's objections and claims raised; as well as the measures the titleholder proposes to adopt as a result of the consultation undertaken. I considered that provision of further information in these circumstances appeared to be beyond what is required to make an informed assessment of the possible consequences of the activity on respective functions, interests or activities.

121. I am satisfied that a reasonable period was provided for the consultations. This is because:

- a. the EP (Section 4.6.3) describes the approach taken to determining a reasonable period for consultation that is based on 40 days for the majority of relevant persons, and case-by-case consideration of the relevant person's particular circumstances and includes consideration of the nature, scale and complexity of the activity; I note that in most instances, the consultation period extended beyond the 30-days;
- b. the process for relevant persons consultation provides for the titleholder to take into account any availability and accessibility issues of relevant persons;
- c. I note a period of more than 3 months was provided for consultation on this activity, from the date of first advertising (which occurred on an international, national, state/territory and local scale)

to the date of last EP submission to NOPSEMA in January 2024, to support the case that the period allowed for consultation has been reasonable; and

- d. the titleholder considered relevant persons' views of what constitutes a reasonable period for consultation, considered requests for additional time by relevant persons, with additional time provided in response to reasonable requests. I also noted that the titleholder was proactive in sending reminders to relevant persons about impending dates for providing any response.

122. Taking all of these matters into account, I am satisfied that a reasonable period for consultation had been given (as per reg 25(3)).

123. I accepted that reg 25(4) was satisfied because relevant persons were informed (in similar terms to those at [93-94] above), that they may request that particular information provided during consultation not be published and information subject to such a request was not published.

124. For the purposes of reg 34(g)(ii), I found that:

- a. information gathered through the consultation process with the other relevant persons under reg 25(1)(d) has been incorporated into the EP, and effectively informed the identification of environmental values and sensitivities to ensure impacts and risks are reduced to as low as reasonably practicable and acceptable. For example, information obtained from relevant persons has informed the identification of environmental values and sensitivities where relevant and information obtained from relevant persons has been considered in the evaluation of environmental impacts and risks, and in the titleholders' processes for demonstrating that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable and acceptable levels where relevant. This includes, but is not limited to, the provision of notifications to relevant persons and other marine users as agreed to during consultation and amendments made to the OPEP as a result of relevant persons' feedback received in the preparation of the EP; and
- b. the titleholder's assessment of merit and all responses to objections and claims are reasonable and supported by evidence, and the measures adopted (if any) because of the consultation are appropriate. In some cases, the titleholder's assessment of the merits of objections and claims did not result in the adoption of additional control measures because additional control measures were not reasonably practicable to implement and/or necessary to demonstrate that impacts and risks will be reduced to ALARP and acceptable levels.

125. In relation to environmental conservation groups, I considered the summary of consultation provided at Section 4.7 presents a suitable demonstration that the titleholder has provided sufficient information over a reasonable period of time, for the relevant persons to participate in consultation and make an informed assessment of the possible consequences of the activity on their functions, interests or activities. The record demonstrates a protracted engagement with these relevant persons on this activity. The full text of consultation records provided in the Sensitive Information Report indicate that the relevant persons have demonstrated an understanding of the activity, engaged with the information, asked questions and raised a number of objections and claims. The EP demonstrates that the titleholder has assessed the merits of the objections and claims raised and provided a response.

126. I was satisfied that the measures which the titleholder adopted in response to the consultation were appropriate. Accordingly, I was reasonably satisfied that the EP met the requirements of reg 34(g)(ii).

127. Considering the matters discussed above, I was reasonably satisfied that, in relation to relevant persons as defined by reg 25(1)(d), the EP demonstrates that the titleholder has carried out the consultations required by Division 3 and the measures (if any) that the titleholder has adopted, or propose to adopt, because of the consultations are appropriate, as required by reg 34(g).

Relevant persons under Regulation 25(1)(e)

128. Reg 25(1)(e) states that a titleholder must consult with 'any other person or organisation that the titleholders considers relevant'. The titleholders consulted with the Croker Island Clans (via Mulurryud Consultative Committee) as 'other persons or organisations' that it considered to be relevant.
129. Section 4.5 of the EP outlines the process applied by the titleholder in identifying relevant persons, which I considered to be appropriate. The titleholder made an assessment as to whether the activity to be carried out under the EP may be relevant to persons or organisations. In the case of Croker Island clans, the titleholder considered information contained in the North Marine Parks Network Management Plan 2018, *Yarmirr v Northern Territory and Others (No 2)* (1998) 82 FCR 533 concerning native title in respect of the sea and sea-bed in the Croker Island region and correspondence from the Environmental Defenders Office on behalf of its Croker Island-based client, in determining whether Croker Island clans' functions, interests or activities may be affected by the activity. Whilst the titleholder's consideration of native title determinations is informative about whether those persons have functions, interests and activities that may be affected by the petroleum activity, this is not determinative of the existence of those attributes. I accept the titleholder's reasoning provided in Section 4.6.6 of the EP, regarding the identification of Croker Island clans as relevant persons under reg 25(1)(e).
130. In relation to the titleholder consultations with Croker Island clans, I considered the summary of consultation provided at Section 4.7 and the full text consultation records provided in the sensitive information part of the EP. I was reasonably satisfied that consultations with these persons met the requirements in reg 25(2)-(4) because:
- a. the methods applied to consultation with these relevant persons were appropriate and reasonably adapted. In particular:
 - i. the titleholder's approach to consultation with these relevant persons was undertaken according to their preferred method of engagement as far as reasonably practicable. Consultation occurred with Croker Island clan members, elders and cultural leaders on Croker Island and in Darwin, and resulted in the establishment of the Mulurryud Consultative through a process of self-determination (Section 4.6.6). The titleholder recognises the Mulurryud Consultative Committee as a representative forum for the purpose of reg 25 consultation, which I accepted was an appropriate approach for these relevant persons, having considered the purpose and membership of the Mulurryud Consultative Committee outlined in the Committee's Charter (provided in the sensitive information part of the EP);
 - ii. the purpose of consultation and the opportunity being afforded was communicated to the Mulurryud Consultative Committee in a way which satisfied me that they had an understanding of the purpose of consultation and the role which they would have in the two-way dialogue. The titleholder made the Committee aware that the invitation to participate in consultation provides an opportunity to inform the titleholder of the nature of cultural interests that they may have within the environment that may be affected by the activity. I noted demonstration of the Mulurryud Consultative Committee consultation of the subsea infrastructure installation activity related impacts and risks is evident in the dialogue between the committee and the titleholder (dated 15 September 2023), from the records provided in the sensitive information part of the EP; and
 - iii. in addition, opportunities were provided over multiple months for other groups or individuals to self-identify as relevant persons in response to public notices, advertising, geo-targeted social media campaigns, leveraging existing channels of communication, and hosting community information sessions in Darwin.

- b. the titleholder has provided sufficient information to these relevant persons to allow them to make an informed assessment of possible consequences of the activity on their functions, interests or activities. In particular:
- i. tailored information has been provided to these relevant persons in a readily accessible form and format. For example, the Mulurryud Consultative Committee were provided with videos on the Barossa subsea infrastructure installation activity. Information was also delivered to the Committee in verbal format supported by maps and other graphics;
 - ii. The titleholder responded to the questions and actions arising from the meeting with the Mulurryud Consultative Committee iteratively during the meeting and in follow up correspondence. In considering the full text records of consultation provided in the sensitive information part of the EP, I noted that the Mulurryud Consultative Committee were satisfied with the responses from the titleholder; and
 - iii. accurate and comprehensive information was provided to the Mulurryud Consultative Committee about the subsea infrastructure installation and pre-commissioning activities that was relevant and necessary for allowing an informed assessment. The consultation details within the EP (including the full text records in the sensitive information part) demonstrate that the information that was provided to the Mulurryud Consultative Committee included clear details regarding the nature of the activity (e.g. location, timing, types of infrastructure etc.), the planned and unplanned environmental impacts and risks associated with the activity, the extent of the environment that may be affected by all environmental impacts and risks of the activity, the environmental values and sensitivities known to occur within the environment that may be affected by the activity, and the control measures that the titleholder's proposing to implement to manage environmental impacts and risks to ALARP and acceptable levels.
- c. the titleholder has allowed a reasonable period for the consultation with these relevant persons. In particular:
- i. engagement with Croker Island clans commenced as early as June 2023 and consultation with the Mulurryud Consultative Committee commenced in September 2023. There has been a process of information provision and various opportunities to provide feedback in writing or verbally at meetings;
 - ii. I note that the titleholder's consultation approach also included the following comprehensive public awareness campaigns from 20 April 2023 to 14 July 2023 to seek out relevant persons and to raise public awareness of the Barossa Gas project generally. This was followed by a further campaign from 12 June 2023 – 4 August 2023 seeking feedback on the subsea infrastructure installation EP.
- d. I note that there is evidence in the consultation records that the titleholder advised the Mulurryud Consultative Committee that they may request that particular information they provide is not published in the EP, in accordance with reg 25(4). It is evident that the request from the Mulurryud Consultative Committee for confidential information not be published in the EP, has been addressed by the titleholder. I considered the confidential material contained in the sensitive information part of the EP.

131. I noted that in some instances, feedback and concerns were raised regarding the adequacy of the consultation process. In particular, individuals of the Minjilang community presented concerns to the titleholder, which I have considered. In particular:

- a. concerns were raised in relation to the titleholder's consultation process with Croker Island clans. I noted that the titleholder consulted with the Mulurryud Consultative Committee, as a representative forum for the purpose of reg 25 consultation, in accordance with the manner in which the Mulurryud Consultative Committee requested to be consulted. I accepted that this was an appropriate approach for consultation with Croker Island clans having considered the purpose and membership of the Committee, outlined in the Committee's Charter (provided in the sensitive information part of the EP). I also note statements made by, or on behalf of the Committee (Sensitive Information Report, pp 268ff) regarding how, and with whom, consultations should be conducted and that this sought that consultation be conducted with the "elders who sit on the Mulurryud Consultative Committee". Whilst representations were made about how consultations should be conducted with the Croker Island people (contained within the same part of the Sensitive Information Report), I did not find them to be persuasive or to detract from the consultation that was actually conducted by the titleholder;
 - b. concerns were raised that the information provided was not sufficient for the individual to make an informed assessment of the possible consequences of the activity on their functions, interests or activities. Having considered the information that was provided, I found that the titleholder had provided the individual with a copy of the Subsea infrastructure Installation and Pre-commissioning Activity Information Booklet and a link to the titleholder's EP summary website. I was satisfied that the way the information was presented, in this Booklet and on the titleholder's website, was sufficient; and
 - c. concerns were raised that the timeframe for consultation was not reasonable. The titleholder commenced the consultation process in April 2023. Since that time, there has been ongoing opportunities provided by the titleholder for individuals to identify themselves and provide information to the titleholder (i.e. public awareness campaigns, community meetings, community events and social media/website links). I found that a reasonable period was afforded to relevant persons provide the titleholder with feedback (including offers to meet with the titleholder).
132. I also considered that the measures adopted as a result of the consultations were appropriate for the purposes of reg 34(g)(ii). This is because:
- a. the EP includes a summary of any feedback, objections or claims raised by these relevant persons in Section 4.7, as well as the titleholder's assessment of merits of any feedback, objections or claims and its response, and corresponding measures. In considering the full text records of consultation provided in the sensitive information part of the EP, I noted that the Mulurryud Consultative Committee raised no objections or claims about the adverse impact of the activity;
 - b. the EP includes evidence that demonstrates the titleholder has considered any feedback provided from these relevant persons regarding description of the environment and the proposed approach to management of the environmental impacts and risks of the activity;
 - c. the titleholder has adopted control measures in response to the consultation to ensure impacts and risks are acceptable and ALARP. For example, the titleholder adopted the following control measures (EPS6.2.6.1):
 - i. Cultural training completed by all site-based workforce by end of their first rotation offshore and every 12 months thereafter; and
 - ii. Cultural heritage monitors to provide an introduction to the Activity to the seas and any First Nations spiritual beings at commencement of the Activity.
 - d. The titleholder has adopted several additional measures as a result of the consultations which are appropriate. These measures include:

- i. the titleholder will, through relevant Land Councils and other relevant persons, consult to identify and implement worthwhile First Nations initiatives that could include, but are not necessarily be limited to:
 - A. employment of cultural awareness community observers, who will conduct cultural awareness inductions for field-based staff across each of the major work packages;
 - B. support of ranger programs and studies to help First Nations people preserve environmental and cultural features and values on their country;
 - C. seeking to facilitate employment opportunities for First Nations people as trainee HSE advisors for subsea infrastructure installation activities, subject to the availability and participation of First Nations trainees, with a view to them obtaining HSE qualifications and competencies to enable future ongoing employment in HSE. Further, Santos plans to discuss the way in which it might be able to facilitate presentations by the trainee advisers to their communities about HSE management of the subsea infrastructure installation activities;
 - D. periodic community townhalls across regional locations relevant to the Barossa Project, to provide Project updates and to provide an opportunity for feedback from cultural awareness community observers to assist in the development of any potential improvement programs; and
 - E. facilitate trips to the activity site, at intervals (as necessary), taking into account cultural advice as to the most appropriate clan members to attend such trips.

133. Section 4.7 and Appendix E of the EP provides the titleholder's assessment of merit and all responses to objections and claims, which are reasonable and supported by evidence, and that measures adopted (if any) because of the consultation are appropriate.

134. I also acknowledged the ongoing consultation commitment in the EP. I considered this was appropriate measure which would ensure that any future feedback, objections or claims which may arise from such persons would be assessed and reported.

135. I was therefore reasonably satisfied that Reg 34(g) was met in relation to 'relevant persons' as defined by reg 25(1)(e).

The EP complies with the Act and Regulations: regulation 34(h)

136. I considered the EP and was satisfied that it was compliant with the Act and Regulations, in particular that:

- a. the EP does not allow for any equipment that is not to be used for future production to be left on the seabed at the completion of the activity and includes provision for the inspection, maintenance, monitoring, and repair of subsea infrastructure installed for future production, consistent with the requirements of section 572 of the OPGGS Act. All infrastructure to be installed has been selected and designed to allow for removal when no longer used or to be used, as per requirements of section 572 of the OPGGS Act (Section 2.12). For example, the petroleum activity involves the installation of a reversible spool and flexible pipe connection system allowing disconnection of the risers and spools from their associated seabed structures. This results in the ability to recover spools to surface by crane and flexible risers to be recovered to surface onto storage reels or carousels; and
- b. consultation with relevant persons (Section 4) has informed the titleholder in its obligations under section 280 of the OPGGS Act that, the proposed petroleum activity will not interfere with navigation, fishing, conservation of resources of the sea and seabed, other offshore electricity infrastructure and petroleum activities, and the enjoyment of native title rights and interests

(within the meaning of the *Native Title Act 1993*) to a greater extent than is necessary for the reasonable exercise of the titleholder's rights and obligations.

137. For the reasons set out above (at [18] – [40]) I was satisfied that the EP addressed the content requirements of regs 21-24 of the Environment Regulations with enough clarity, consistency and detail commensurate to the nature and scale of the activity. Specifically:
- a. the titleholder has submitted the EP in writing as required by regulation 26(6) of the Environment Regulations; and
 - b. the EP commits to complying with the requirements in regs 47-54 regarding various notifications and reporting to NOPSEMA as well as storage and access to records (Section 8).
138. Based on the above, I was reasonably satisfied that the EP met the requirements of reg 34(h).

Other considerations

Principles of ecological sustainable development (ESD)

139. The Environment Regulations provide that their object is to ensure that any activity or greenhouse gas activity carried out in an offshore area is carried out in a manner consistent with the principles of ESD set out in section 3A of the EPBC Act. I considered that the EP was consistent with the principles of ESD, as provided below:
- a. Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the 'integration principle'):
 - i. The EP includes the titleholder's evaluation of the socio-economic, cultural and ecological features of the EMBA by the activity and consultation with relevant persons which demonstrates an integrated approach to considering all environmental features, including relevant social, cultural and economic features that make up the definition of environment under reg 5. Further, the EP includes an evaluation of the potential impacts and risks of the petroleum activity on cultural heritage, commercial fisheries, traditional fisheries, tourism and recreation, commercial shipping, oil and gas and defence activities. In the context of the duration of the activity (18 months), I considered that the EP demonstrated that both long term and short term economic, environment, social and equitable considerations has been considered and addressed.
 - b. If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the 'precautionary principle'):
 - i. The EP detailed the titleholder's evaluation of environmental impacts and risks, the reasons and evidence in support of how the impacts and risks will be of an acceptable level and suitable approaches for addressing scientific uncertainty associated with predictions of environmental impacts and risks and the measures in place for continuing to identify and manage impacts and risks during the life of the activity. Consideration was also given in the EP to the effectiveness of management measures in ensuring the petroleum activity will not result in serious or irreversible environmental harm, specifically it was noted that the petroleum activity will not have a significant impact on a MNES and will not result in serious or irreversible environmental damage.
 - c. That the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the 'intergenerational principle'):

- i. In the context of the duration of the activity (18 months), the EP identifies appropriate measures to minimise the environmental impacts and risks of the petroleum activity. The titleholder applied a mitigation hierarchy, such that where avoidance was not possible, control measures were adopted to ensure impacts and risks are managed to ALARP and an acceptable level. I considered this was consistent with the intergenerational principle.
- d. The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the 'biodiversity principle'):
 - i. The EP included the titleholder's evaluation of environmental impacts and risks to the biodiversity and ecological values of the Commonwealth marine area, including EPBC Act listed threatened and/or migratory species, and the EPOs defined in the EP. I noted that the titleholder defined acceptable levels of impact and risk for biodiversity and ecological values at levels that are below the significant impact criteria (defined in Significant Impact Guidelines 1.1 – Matters of National Environmental Significance) for matters protected under Part 3 of the EPBC Act.
 - ii. There is evidence in the EP that the titleholder undertook a robust evaluation of environmental impacts and risks using appropriate impact assessment tools (such as noise and oil spill modelling) to provide the basis for assessing higher order impacts and risks and demonstrating that impacts and risks will be managed at or below the acceptable level;
 - iii. The EP contains an assessment against relevant requirements of statutory instruments to demonstrate that the activity would not be inconsistent with these instruments (such as the National Light Pollution Guidelines for Wildlife and the Recovery Plan for Marine turtles in Australia 2017-2027).
 - iv. The environmental impact and risk evaluations and EPOs in the EP collectively demonstrate that the activity will be managed such that impacts and risks to biological diversity and the ecological integrity of the Commonwealth marine area will be of an acceptable level.
 - v. I concluded that the petroleum activity will not have a significant impact on MNES protected under the EPBC Act including World Heritage properties, National Heritage properties, Ramsar wetlands of international significance, listed threatened species and communities, listed migratory species, Commonwealth marine areas, and the Great Barrier Reef Marine Park.
- e. Improved valuation, pricing and incentive mechanisms should be promoted (the 'valuation principle').
 - i. The EP construct is such that the titleholder is required to bear the costs relating to environmental management of the activity, to ensure that environmental impacts and risks are managed to ALARP and to an acceptable level. I considered that the onus is on the titleholder to protect ecological services and capital associated with the EMBA of the activity, and to the extent that the valuation principle is relevant for an individual activity, the EP demonstrates compliance with Australian government legislation and policy requirements relating to environmental management.

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

140. 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.
141. 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.

142. I considered matters protected under Part 3 of the EPBC Act, including listed threatened and migratory species and the Commonwealth marine area, and was reasonably satisfied that the activity under the EP met the requirements of the Program on the basis that:
- a. the activity will not result in unacceptable impacts on listed threatened species and is not inconsistent with relevant recovery plans and threat abatement plans for listed threatened species. I note my reasons above (see [51], [54]), where I have considered these documents when determining the acceptability of the EP where impacts to listed threatened species may arise;
 - b. there are control measures in place to ensure 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 DCCEEW website. See my reasons at [51], [53] and [54]; and
 - c. there are control measures in place to ensure that the petroleum activity 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 DCCEEW website. See my reasons at [51], [53] and [54].

The Program: indirect consequences of an action

143. Under the Program, NOPSEMA must have regard to EPBC Act requirements, including *EPBC Act Policy Statement - 'Indirect consequences' of an action: Section 527E of the EPBC Act (indirect consequences policy)*. NOPSEMA gives consideration to the policy to determine where indirect consequences may be considered an 'impact' of a petroleum activity. This consideration is on a case-by-case basis against the particular circumstances of the petroleum activity in accordance with the criteria set out in the policy.
144. In assessing the EP, I had regard to the indirect consequences policy, in particular in relation to indirect GHG emissions. I gave consideration as to whether the petroleum activity is a substantial cause of GHG emissions from the processing, consumption and combustion of gas, and are facilitated to a major extent by the petroleum activity, within the contemplation of the titleholder, and are a reasonably foreseeable consequence of the petroleum activity.
145. Having regard to the indirect consequences policy, I agreed that:
- a. the activity the subject of this EP relates to the installation of subsea infrastructure as a conduit to the production wells and floating production unit. The extraction of gas for processing is therefore not authorised by my decision;
 - b. while the activity is a necessary precursor to the extraction of gas, further activities are required prior to the point any gas can be extracted, processed, consumed or combusted and will themselves be subject to a separate assessment and approval process; and
 - c. future activities require their own EP under the Environment Regulations including consideration of the indirect consequences policy and appropriate coverage of impacts for each activity, based on the case specific circumstances. Therefore, I consider that emissions from gas processing, consumption and combustion of gas are not facilitated to a major extent by the activity and would not be considered a substantial cause of emissions generated in the future from processing, consumption, or combustion of gas.

The Program: cumulative environmental impacts

146. In the context of the Program, cumulative impacts refer 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.
147. 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 petroleum activity combined with existing and future pressures on the Commonwealth marine area would be of an acceptable level, because:
- a. the EP considered the potential cumulative impacts from spatial and temporal overlap of concurrent subsea infrastructure installation activities (section 6) which are limited to a very short duration (days) and restricted to the OA. It was determined that cumulative impact from activities within the subsea infrastructure installation activities (this EP), as well as from other concurrent petroleum activities (e.g. Barossa Drilling and Completions and the Barossa Gas Export Pipeline Installation), was negligible for acoustic and light emissions and vessel discharges. The impact evaluations in combination with the associated control measures provide confidence that impacts of the petroleum activity, when considered in the context of other anthropogenic pressures, will be of an acceptable level; and
 - b. the EP considered the potential cumulative impacts of other petroleum activities proposed for the Barossa project, including the Barossa Gas Export Pipeline Installation (GEP) and the Barossa Gas Drilling and Completions activity as both petroleum activities may result in cumulative impacts due to both a spatial and temporal overlap with this petroleum activity (Barossa Subsea Infrastructure Installation). These impacts have been described and assessed in the EP. NOPSEMA notes that other petroleum activities proposed for the Barossa project will be subject to separate EPs, of which NOPSEMA will consider as part of the EP assessment, the potential for cumulative impacts to the Commonwealth marine area.

Conclusion

148. For the reasons set out above, I was reasonably satisfied that the EP met the following criteria set out in sub-reg 34 of the Environment Regulations and should therefore be accepted:
- 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 3; 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.

Signed



Director – Production (Environment)

6 February 2024

Appendix A: Relevant terms

149. 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 2023 are referred to as the Environment Regulations.
- d. The Environment Plan (EP) means the Barossa Subsea Infrastructure Installation Environment Plan (Document No: BAA-200 0636, Revision 2, dated 16 January 2024).
- e. The Environment Protection and Biodiversity Conservation Act 1999 is referred to as the EPBC Act.
- f. The titleholder means Santos NA Barossa Pty Ltd.
- g. The term 'petroleum activity' means the Barossa Subsea Infrastructure Installation activity.
- 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 25 of the Environment Regulations.
 - q. The term 'Operational Area' (OA) is taken to be the operational area for the petroleum activity as defined in Section 2.3 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. The term 'as low as reasonably practicable' is referred to as 'ALARP'.
150. Terms used in this Statement of Reasons which are defined in the Environment Regulations or the OPGGS Act have the same meaning as under the Environment Regulations or OPGGS Act.

Appendix B: Legislative framework

151. All offshore petroleum activities that are undertaken for the purpose of petroleum recovery, other than on an appraisal basis, are required to have an Offshore Project Proposal (OPP) accepted by NOPSEMA under the Environment Regulations or an equivalent approval by the Environment Minister under the EPBC Act.
152. The OPP framework enables a proponent to achieve a whole of project authorisation; however, it does not permit offshore petroleum activities to commence until an EP (or multiple EPs) for the activities has been accepted by NOPSEMA under the Environment Regulations.
153. Additional approvals may be required before a titleholder can commence a petroleum activity. A Well Operations Management Plan (WOMP) is required to be accepted by NOPSEMA under the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011 for petroleum activities that involve well-related activities. A Safety Case is required to be accepted by NOPSEMA under the Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009 for facilities involved in the petroleum activity.
154. The Environment Regulations provide that:
- a. Before commencing a petroleum activity¹, a titleholder must submit an EP for the petroleum activity to the Regulator (reg 26(1)).
 - b. A petroleum activity means any operation or works in an offshore area carried out for the purpose of (a) exercising a right conferred on a petroleum titleholder under the OPGGS Act by a petroleum title; or (b) discharging an obligation imposed on a petroleum titleholder by the OPGGS Act or a legislative instrument under the OPGGS Act (reg 5).
 - c. An EP for a petroleum activity that is, or is part of, an offshore project may only be submitted if the Regulator has accepted an OPP that includes that activity or if the Environment Minister has made a decision or granted approval under the EPBC Act relating to an action that is equivalent or includes that activity (reg 26(3)).
 - d. 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 (reg 32).
 - e. If a titleholder receives a request under regulation 32, 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.
 - f. If the EP is resubmitted under reg 32, the Regulator must have regard to that further information in making the decision under reg 33.
 - g. Within 30 days after the day the Regulator publishes the EP (reg 28) if the Regulator is:
 - i. reasonably satisfied that the EP meets the criteria set out in regulation 34, the Regulator must accept the EP (regulation 33(1)(a));
 - ii. not reasonably satisfied that the EP meets the criteria set out in regulation 34, the Regulator must give the titleholder notice in writing (regulation 33(5)); or

¹ Petroleum activity is defined under regulation 4 of the Environment Regulations.

- 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 33(3)(b)).
 - h. A notice to a titleholder under regulation 33(5) 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 34;
 - ii. identify the criteria set out in regulation 34 about which the Regulator is not reasonably satisfied; and
 - iii. set a date by which the titleholder may resubmit the EP.
 - i. Pursuant to regulation 16, NOPSEMA must not accept an environment plan unless it is reasonably satisfied that the titleholder is compliant with subsection 571(2) of the Act in relation to the petroleum activity, and the compliance is in a form that is acceptable to NOPSEMA.
 - j. Regulation 34 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 3; 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.
 - k. Reg 33(10)(a)(ii) provides that the Regulator may accept the plan subject to limitations or conditions applying to operations for the activity.
155. The Environment Regulations provides for the authorisation of a petroleum activity, but does not authorise an oil spill, which is considered for risk evaluation and contingency planning in the EP only. Section 569 of the OPGGS Act places obligations on petroleum titleholders to control the flow and prevent the escape of petroleum within the permit area, lease area or licence area.
156. The Environment Regulations impose a duty on the titleholder to demonstrate to NOPSEMA in the EP that a proposed activity will be carried out in a manner:
- a. consistent with the principles of ecological sustainable development set in section 3A of the EPBC Act; and

- b. by which impacts and risks of the activity will be reduced to as low as reasonably practicable (ALARP) and acceptable levels.

Appendix C: Key materials considered in making the decision

157. In making this decision, NOPSEMA considered the documents making up the EP submission in accordance with legislative requirements and NOPSEMA's policies and procedures. The key material that NOPSEMA had regard to in making this decision includes, but not limited to:

- a. The EP, comprising:
 - i. Barossa Subsea Infrastructure Installation EP (Document No. BAA-200 0636, Revision 2, dated 16 January 2024);
 - ii. Barossa Subsea Infrastructure Installation Oil Pollution Emergency Plan (Document No. BAS-210 0109, Revision 0, dated 14 September 2023); and
 - iii. Sensitive Information Report SURF EP
- b. Barossa Area Development Offshore Project Proposal (Document No. BAA-00-EN-RPT-00001, Revision 5, dated March 2018) accepted by NOPSEMA on 13 March 2018;
- c. The legislative framework relevant to EP assessments, including:
 - i. the OPGGS Act;
 - ii. the Environment Regulations; and
 - iii. the Program².
- d. NOPSEMA Environment plan assessment policies, guidelines and guidance:
 - i. NOPSEMA Assessment policy (N-04000-PL0050);
 - ii. NOPSEMA Environment plan assessment policy (N-04750-PL1347);
 - iii. NOPSEMA Financial assurance for petroleum titles policy (N-04730-PL1780);
 - iv. NOPSEMA Section 572 Maintenance and removal of property regulatory policy (N-00500-PL1903);
 - v. NOPSEMA Managing gender-restricted information (draft) (N-04750-PL2098);
 - vi. NOPSEMA Financial assurance for petroleum titles guideline (N-04730-GL1381);
 - vii. NOPSEMA Environment plan decision making guideline (N-04750-GL1721);
 - viii. NOPSEMA Consultation in the course of preparing an Environment Plan guideline (N-04750-GL2086);
 - ix. NOPSEMA Environment plan content requirements guidance note (N-04750-GN1344);
 - x. NOPSEMA Making submissions to NOPSEMA guideline (N-04000-GL0225);
 - xi. NOPSEMA Petroleum activities and Australian marine parks guidance note (N-04750-GN1785);
 - xii. NOPSEMA Consultation with Commonwealth agencies with responsibilities in the marine area guideline (N-06800-GL1887);

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

- xiii. NOPSEMA Oil pollution risk management guidance note (N-04750-GN1488);
 - xiv. NOPSEMA Operational and scientific monitoring programs information paper (N-04750-IP1349);
 - xv. NOPSEMA Acoustic impact evaluation and management information paper (N-04750-IP1765);
 - xvi. NOPSEMA Petroleum activity guidance note (N-04750-GN1343);
 - xvii. NOPSEMA Source control planning and procedures information paper (N-04750-IP1979);
 - xviii. NOPSEMA Environmental bulletin — oil spill modelling (April 2019);
 - xix. NOPSEMA Blue Whale Conservation Management Plan – Frequently asked questions (November 2021); and
 - xx. NOPSEMA Consultation on offshore petroleum environment plans brochure (May 2023).
- e. Procedures:
- i. NOPSEMA Environment plan assessment standard operating procedure (N-04750-SOP1369).
- f. Other relevant documents and records:
- i. NOPSEMA's assessment team notes regarding assessment of how the EP met the acceptance criteria set out in regulation 34 of the Environment Regulations;
 - ii. Published consultation guidance by relevant persons:
 - A. Australian Fisheries Management Authority, Petroleum industry consultation with the commercial fishing industry, available at: <https://www.afma.gov.au/petroleum-industry-consultation-commercial-fishing-industry>;
 - B. Department of Agriculture, Fisheries and Forestry (DAFF), Fisheries and the environment – Offshore Petroleum and Fisheries, available at: <https://www.agriculture.gov.au/agriculture-land/fisheries/environment/opgga>;
 - C. Department of Climate Change, Energy, the Environment and Water, Interim Engaging with First Nations People and Communities on Assessments and Approvals under the *Environment Protection and Biodiversity Conservation Act 1999* (2023);
 - D. WA Department of Fisheries, Guidance statement for oil and gas industry consultation with the Department of Fisheries, Fisheries Occasional Publication No. 113, July 2013;
 - E. WA Department of Transport, Offshore Petroleum Industry Guidance Note, Marine Oil Pollution: Response and Consultation Arrangements, July 2020; and
 - F. Western Australian Fishing Industry Council, Consultation approach for unplanned events, available at: <https://www.wafic.org.au/what-we-do/access-sustainability/oil-gas/consultation-approach-for-unplanned-events/>.
 - iii. relevant published, peer-reviewed scientific literature, including the scientific literature cited in the EP.
 - iv. relevant policies, plans of management, recovery plans, conservation advice and other guidance for matters protected under the EPBC Act, including, but not limited to:
 - A. Department of the Environment, Water, Heritage and the Arts, Significant Impact Guidelines 1.1 – Matters of National Environmental Significance, EPBC Act Policy Statement (2013);
 - B. Department of Sustainability, Environment, Water, Population and Communities, 'Indirect consequences' of an action: Section 527E of the EPBC Act, EPBC Act Policy Statement (2013);

- C. Department of the Environment and Energy, National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds (2020);
 - D. Commonwealth of Australia, Recovery Plan for Marine Turtles in Australia 2017–2027 (2017);
 - E. Commonwealth of Australia, Conservation Management Plan for the Blue Whale 2015–2025 (2015);
 - F. Department of Agriculture, Water and the Environment, Guidance on key terms within the Blue Whale Conservation Management Plan (2021);
 - G. Commonwealth of Australia, Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans (2018);
 - H. Commonwealth of Australia, Wildlife Conservation Plan for Seabirds (2020);
 - I. Department of Sustainability, Environment, Water, Population and Communities, Marine Bioregional Plan for the North-west Marine Region (2012); and
 - J. Director of National Parks, North-west Marine Parks Network Management Plan (2018).
- v. relevant legislative requirements that apply to the activity and are relevant to the environmental management of the activity.
- vi. relevant Federal Court of Australia authority.