

ENVIRONMENT PLAN

Beehive-1 Exploration Drilling

WA-488-P

17 May 2024

Rev 6

3-Environmental Regulatory Framework

eog resources

3. Environmental Regulatory Framework

In accordance with Regulation 21(4) of the OPGGS(E), this chapter describes the legislative requirements that apply to the activities described in this EP.

3.1. EOG Environmental Policy

In accordance with Regulation 24(a) of the OPGGS(E), EOG's Safety and Environmental Policy is provided in Figure 3.1. The policy provides a public statement of the company's commitment to minimise adverse effects on the environment and to improve environmental performance.

3.2. Commonwealth Legislation

A summary of the key Commonwealth legislation and regulations relevant to the environmental management of the activity is provided below. Details of the most pertinent legislation and regulations are provided in **Appendix 1**.

Offshore Petroleum and Greenhouse Gas Storage Act 2006

The OPGGS Act sets up a system for regulating the exploration for and recovery of petroleum in offshore areas and provides for the grant of exploration permits, retention leases, production licences, infrastructure and pipeline licences, among other things.

Under this Act, NOPSEMA is responsible for the administration of the occupational health and safety, structural integrity and environmental management provisions. Offshore areas start 3 nautical miles (nm) from the baseline from which the territorial sea is measured and extend seaward to the outer limits of the continental shelf.

Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023

The OPGGS(E) addresses all licensing and environmental issues for offshore petroleum and greenhouse gas (GHG) activities in Commonwealth waters. This EP has been prepared in accordance with Part 2 of the OPGGS(E) for NOPSEMA's assessment.

The OPGGS(E) requires the preparation of an EP prior to conducting a petroleum activity for acceptance by NOPSEMA. The EP is an activity-specific document that provides a detailed impact and risk assessment and describes how identified risks will be managed. Upon EP acceptance, the activity may commence.

Amendments made to the OPGGS(E) in 2023 came into effect on 10 January 2024, such that the 2009 regulations have expired and are replaced by the 2023 regulations. References to the new regulation numbers have been made in this version of the EP, and as such they differ from earlier versions of this EP. NOPSEMA advises that the 2023 regulations contain no substantive changes and are limited to minor amendments to provide consistency with current drafting practices and simplify language, with restructuring and renumbering of regulatory provisions for ease of navigation.

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) is the key legislation regulating projects that may have an impact on matters of national environmental significance (MNES). The Commonwealth Department of Department of Climate Change, Energy, the Environment and Water (DCCEEW) is the Regulator of the EPBC Act. Activities that may have impacts to MNES are required to prepare and submit a Referral to the DCCEW for determination on the level of environmental impact assessment (EIA) required.

In February 2014, NOPSEMA became the sole designated assessor of petroleum and GHG activities in Commonwealth waters in accordance with the Minister for the Environment's endorsement of

NOPSEMA's environmental authorisation process under Part 10, section 146 of the EPBC Act. Under the streamlined arrangements, impacts on the Commonwealth marine area by petroleum and GHG activities are assessed solely through NOPSEMA. As such, an EPBC Act Referral has not been prepared and submitted to the DCCEEW for this activity.

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Safety & Environmental Policy

Our Goal
Conduct our operations in a responsible manner to avoid harm to people and the environment.

Our Commitment
EOG Resources, Inc. will conduct its business with a commitment to safeguard people and to protect the environment. Good safety and environmental performance is critical to the success of our business and is the responsibility of every EOG Resources, Inc. employee and contractor.

Our Focus Areas

- **Planning** – Make safety and environmental matters an integral part of our business planning, training, development, and decision-making.
- **Compliance** – Conduct our business in a manner designed to comply with all applicable safety and environmental laws and regulations and apply responsible standards where such laws or regulations do not exist.
- **Continuous Improvement** – Strive to continuously drive safety and environmental performance improvement through setting goals, training, monitoring progress and utilizing data-driven decision making and adaptive management.
- **Communication** – Communicate openly with our customers, employees, contractors, neighbors, appropriate officials, public interest groups, shareholders and other stakeholders, regarding significant safety and environmental matters.
- **Leadership** – Provide leadership, professional staff, training, support, and other resources necessary for the implementation of safety and environmental programs that are designed to ensure each individual knows their responsibilities and feels empowered to speak up and take appropriate action.
- **Engagement** – Engage with regulators, industry groups, and others to develop sound, effective laws and regulations, policies and procedures to protect the environment, employees, contractors and the general public and to raise the standards of our industry.
- **Transparency** – Make consistent, informed decisions by promoting knowledge sharing, data stewardship and collaboration within the organization, and with stakeholders.

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Figure 3.1. EOG Safety and Environmental Policy

3.3. State and Territory Legislation

The relevant WA and NT territory legislation is provided in **Appendix 1.** Legislation for these jurisdictions is only likely to be triggered in the event of an emergency situation, such as an oil spill, that requires response activities to be conducted in state or territory waters. Incident reporting requirements under state and territory legislation and regulations is provided in Chapter 9 of this EP.

3.4. Government Guidelines

This EP has been developed in accordance with the NOPSEMA Guidance Note for *Environment Plan Content Requirements* (N04750-GN1344, September 2020). This document provides guidance to the petroleum industry on NOPSEMA's interpretation of the OPGGS(E) to assist titleholders in preparing EPs.

Other relevant government guidelines that have been incorporated or taken into consideration during the preparation of this EP are listed below (and include earlier versions of documents where they have been recently updated):

EPs

- Environment plan assessment (NOPSEMA Policy N-04750-PL1347, January 2024).
- Reducing marine pest biosecurity risks through good practice biofouling management (NOPSEMA Information Paper N-04750-IP1899, January 2024).
- Environment plan decision making (NOPSEMA Guideline GL1721, January 2024).
- Oil spill modelling (NOPSEMA Environment Bulletin, April 2019).
- Acoustic impact evaluation and management (NOPSEMA Information Paper, N-04750-IP1765, January 2024).
- Petroleum activities and Australian marine parks (NOPSEMA Guidance Note, N-04750-GN1785, January 2024).

Oil Pollution Emergency Plans (OPEPs)

- Oil pollution risk management (NOPSEMA Guidance Note N-04750-GN1488, July 2021b).
- Source control planning and procedures (January 2024).
- Australian dispersant acceptance process (January 2024).
- Technical Guideline for the Preparation of Marine Pollution Contingency Plans for Marine and Coastal Facilities (AMSA, January 2015).
- Offshore Petroleum Industry Guidance Note Marine Oil Pollution: Response and Consultation Arrangements (WA Department of Transport, Version 5.0, July 2020).
- WA Oil Spill Contingency Plan (Department of Transport, Version 1.0, January 2015).
- NT Oil Spill Contingency Plan (Department of Transport Marine Safety, Version 5.0, May 2014 - in revision 2021).
- Advisory Note for Offshore Petroleum Industry Consultation with Respect of Oil Spill Contingency Plans and Environmental Plans (AMSA, 2013).

Operational and Scientific Monitoring Programs (OSMPs)

- Operational and scientific monitoring programs (NOPSEMA Information Paper, N-04750-IP1349, January 2024).
- Regulatory advice statement on APPEA's Joint Industry Operational and Scientific Monitoring framework (August 2021).

EPBC Act

- EPBC Act Policy Statement 1.1 – Significant Impact Guidelines – Matters of National Environmental Significance (DoE, 2013).
- EPBC Act Policy Statement 2.1 - Interaction between offshore seismic exploration and whales, Industry guidelines (DEWHA, 2008a).

3.5. International Industry Codes of Practice and Guidelines

A number of international codes of practice and guidelines are relevant to environmental management of the activity. Those of most relevance are described in this section in chronological order. The Commonwealth legislation outlined in **Appendix 1** lists the conventions and agreements that are enacted by, or whose principles are embodied in, that legislation.

While none of the codes of practice or guidelines described in this section have legislative force in Australia (with the exception of MARPOL and the Minimata Convention on Mercury), they are considered to represent best practice environmental management (BPEM). Aspects of each code or guideline relevant to the impacts and risks presented by the activity are outlined in the demonstrations of acceptability throughout Chapters 7 and 8.

3.5.1. MARPOL

The key international convention relating to marine environmental matters is the International Convention for the Prevention of Pollution from Ships (MARPOL). This convention was adopted in November 1973 by the International Maritime Organisation (IMO), with ongoing additions and amendments. MARPOL aims to prevent and minimise pollution (routine discharges and accidents) from ships generally larger than 400 gross tonnes. It contains six annexes and is in force in more than 170 countries.

In Commonwealth waters, MARPOL is given effect through the *Protection of the Sea (Prevention of Pollution from Ships) Act* 1983 and via Marine Orders made under the *Navigation Act* 2012, administered by AMSA. Table 3.1 lists the annexes of the Convention and identifies how they are given effect under Commonwealth legislation (with WA and NT legislation also included in the event of ingress into State or Territory waters being required in an emergency situation).

3.5.2. Environmental Management in the Upstream Oil and Gas Industry (2020)

These guidelines were released in August 2020 by the International Association of Oil & Gas Producers (IOGP) and the International Petroleum Industry Environmental Conservation Association (IPIECA). They supersede the United Nations Environment Programme Industry and Environment (UNEP IE) Environmental Management in Oil and Gas Exploration and Production guidelines released in 1997 prepared by the International Exploration and Production Forum (E&P Forum), the precursor to the IOGP.

These guidelines provide descriptions of upstream oil and gas activities environmental management practices. Chapter 4 of the guidelines lists the environmental impacts and mitigation measures associated with offshore activities and provide a useful benchmark for BPEM for this activity.

Table 3.1. Commonwealth, WA and NT legislation enacting the MARPOL Convention

Annex (entry into force in Australia)	Commonwealth waters (*Protection of the Sea (Prevention of Pollution from Ships) Act* 1983 & *Navigation Act* 2012)	WA waters (*Pollution of Waters by Oil and Noxious Substances Act* 1987)	NT waters (*Marine Pollution Act* 1999)	General requirements for operating in Commonwealth, WA and NT state waters
I Regulations for the Prevention of Pollution by Oil (1988)	AMSA Marine Orders Part 91; Marine Pollution Prevention – Oil.	Part II – Pollution by oil.	Part 2 – Prevention of pollution by oil.	Addresses measures for preventing pollution by oil from regulated Australian vessels or foreign vessels, and specifies that: • An IOPP is required; • A SMPEP is required; • An oil record book must be carried; • Oil discharge monitoring equipment must be in place; and • Incidents involving oil discharges are reported to AMSA.
II Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk (1988)	AMSA Marine Orders Part 93; Marine Pollution Prevention – Noxious Liquid Substances.	Part III - Pollution by noxious substances.	Part 3 – Prevention of pollution by noxious substances in bulk.	Addresses measures for preventing pollution by 250 noxious liquid substances carried in bulk from regulated Australian vessels or foreign vessels, and specifies that: • An international pollution prevention (IPP) is required; • A SMPEP is required; • A cargo record book must be carried; • Incidents involving noxious liquid substance discharges are reported to AMSA; • The discharge of residues is allowed only to reception facilities until certain concentrations and conditions (which vary with the category of substances) are complied with; and • No discharge of residues containing noxious substances is permitted within 12 nm of the nearest land.
III Prevention of Pollution by harmful Substances Carried by Sea in Packaged Form (1995)	AMSA Marine Orders Part 94; Marine Pollution Prevention – Harmful Substances in Packaged Form.	Not enacted.	Part 4 – Prevention of pollution by packaged harmful substances.	Addresses measures for preventing pollution by packaged harmful substances (as defined in the International Marine Dangerous Goods (IMDG) code, which are dangerous goods with properties adverse to the marine environment, in that they are hazardous to marine life, impair the taste of seafood and/or accumulate pollutants in aquatic organisms) from regulated Australian vessels or foreign vessels, and specifies that: • The packing, marking, labelling and stowage of packaged harmful substances complies with Regulations 2 to 5 of MARPOL Annex III; • A copy of the vessel manifest or stowage plan is provided to the port of loading prior to departure; • Substances are only washed overboard if the Vessel Master has considered the physical, chemical and biological properties of the substance; and • Incidents involving discharges of dangerous goods are reported to AMSA.
IV Prevention of Pollution by Sewage from Ships (2004)	AMSA Marine Orders Part 96; Marine Pollution Prevention – Sewage.	Not enacted.	Not enacted.	Addresses measures for preventing pollution by sewage from regulated Australian vessels or foreign vessels, and specifies that: • An ISPP is required; • The vessel is equipped with a sewage treatment plant (STP), sewage comminuting and disinfecting system and a holding tank approved by AMSA or a recognised organisation; • The discharge of sewage into the sea is prohibited, except when an approved STP is operating or when discharging comminuted and disinfected sewage using an approved system at a distance of more than 3 nm from the nearest land; and • Sewage that is not comminuted or disinfected has to be discharged at a distance of more than 12 nm from the nearest land.
V Prevention of Pollution by Garbage from Ships (1990)	AMSA Marine Orders Part 95; Marine Pollution Prevention – Garbage. * Not made under the *Navigation Act* 2012.	Not enacted.	Part 6 – Prevention of pollution by garbage.	Addresses measures for preventing pollution by garbage from regulated Australian vessels or foreign vessels, and specifies that: • Prescribed substances (as defined in the IMO 2012 *Guidelines for the Implementation of MARPOL Annex V*) must not be discharged to the sea; • A Garbage Management Plan must be in place; • A Garbage Record Book must be maintained; • Food waste must be comminuted or ground to particle size <25 mm while en route and no closer than 3 nm from the nearest land (or no closer than 12 nm if waste is not comminuted or ground); and • It is prohibited to discharge wastes including plastics, cooking oil, packing materials, glass and metal.
VI Prevention of Air Pollution from Ships (2007)	AMSA Marine Orders Part 97; Marine Pollution Prevention – Air.	Not enacted.	Not enacted.	Addresses measures for preventing air pollution from regulated Australian vessels or foreign vessels, and specifies that: • An IAPP certificate is in place; • An EIAPP certificate is in place for each marine diesel engine installed; • An IEE certificate is in place; • Specifies that incineration of waste is permitted only through a MARPOL-compliant incinerator, with no incineration of Annex I, II and III cargo residues, polychlorinated biphenyls (PCBs), garbage containing traces of heavy metals, refined petroleum products and polyvinyl chlorides (PVCs); • Marine incidents are reported to AMSA; • Sets limits on sulphur content of fuel oil (3.5% m/m); • A bunker delivery note must be provided to the vessel on completion of bunkering operations, with a fuel oil sample retained; and • Emissions of ozone depleting substances (ODS) must not take place and an ODS logbook must be maintained.

3.5.3. Best Available Techniques Guidance Document on Upstream Hydrocarbon Exploration and Production (2019)

The Best Available Techniques Guidance Document on Upstream Hydrocarbon Exploration and Production (European Commission, 2019) aims to identify best available techniques (BAT) and best risk management approaches for key environmental issues associated with onshore and offshore oil and gas exploration and production activities. The BATs included are not prescriptive nor exhaustive but included as a point of comparison with documents such as this EP to ensure the desired environmental outcomes commensurate with BAT can be achieved for the European context.

3.5.4. World Bank Group EHS Guidelines (2015)

The Environmental, Health and Safety Guidelines for Offshore Oil and Gas Development (World Bank Group, 2015) is a technical reference document with general and industry-specific examples of good international industry practice. These guidelines are applied when one or more members of the World Bank Group are involved in a project.

The document contains measures considered to be achievable in new facilities, using existing technology, at reasonable costs. The guidelines are designed to be tailored to the applicable hazards and risks established for a given project.

While the World Bank Group is not involved in financing or assessing this activity, control measures adopted for this activity that adhere to these guidelines can be referenced as examples of BPEM.

3.5.5. Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2015)

The International Association of Drilling Contractors (IADC) developed the Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2015) for drilling contractors to provide, among other things, a demonstration to external stakeholders that their management system's risk reducing measures meet agreed stakeholder expectations.

These guidelines present broad environmental (along with health and safety) considerations for achieving BPEM. The guidelines are recommended for use as a demonstration of good industry practice for drilling contractors.

3.5.6. Minimata Convention on Mercury (2013)

The Minimata Convention on Mercury is an international treaty that seeks to protect human health and the environment from emissions and releases of mercury and mercury compounds caused by humans. Australia ratified the convention on the 7th of December 2021. Countries that have ratified the convention are bound to put controls in place to manage the discharges, emissions and disposal or mercury and mercury compounds. In Australia, the convention is regulated via the Recycling and *Waste Reduction Act* 2020 (Cth). In particular, the Recycling and Waste Reduction (Mandatory Product Stewardship – Mercury-added Products) Rules 2021 made under the Act give effect to Australia's obligations under Article 4(5) of the Minimata Convention.

Mercury is a highly toxic heavy metal that can harm the immune system, brain, heart, kidney and lungs of humans and animals, and cause serious harm to ecosystems through bioaccumulation. The effects of mercury exposure can occur at very low concentrations. For this activity, the Minimata Convention applies to trace volumes of mercury that may be contained with drilling fluids (particularly barite), and is addressed in Section 7.6 of the EP.

3.5.7. IPIECA: Best Practice Guidelines

IPIECA is the International Petroleum Industry Environmental Conservation Association, established in 1974 (since 2002, IPIECA stopped using the full title). As of March 2022, IPIECA's members comprise

74 members, comprising oil and gas exploration and production companies, associations and contractors.

IPIECA's vision is for an oil and gas industry whose operations and products meet society's environmental and social performance expectations, with a focus on the key areas of climate and energy, environment, social and reporting. It develops, shares and promotes good practices and knowledge to help the industry improve its environmental and social performance. IPIECA's work is embodied in publications that are made freely available on its website (www.ipieca.org).

Relevant guidelines have been referenced in this EP (and associated OPEP) as relevant, primarily in the areas of atmospheric emissions and oil spill response and preparedness.

EOG has applied IPIECA's Mapping the Oil and Gas Industry to the Sustainable Development Goals: An Atlas (July 2017) to the activity. Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development) is the most relevant to this survey, and has been met by fulfilling the following:

- Incorporating environmental assessments into management plans – this EP satisfies this sub-goal; and
- Accident prevention, preparedness and response – the OPEP and OSMP demonstrate that EOG takes prevention, preparedness and response seriously and is well prepared to act in the event of an environmental emergency.

3.5.8. ITOPF Oil Spill Response Technical Information Papers

The International Tanker Owners Pollution Federation Limited (ITOPF) was established in 1968 to promote effective response to marine spills of oil, chemicals and other hazardous substances by providing five core services (spill response, claims analysis and damage assessment, information services, contingency planning and advice and training and education). Membership of ITOPF comprises owners or demise charterers of tankers, defined as any ship (whether or not self-propelled) designed, constructed or adapted for the carriage by water in bulk of crude petroleum, hydrocarbon products or other liquid substances. While this definition excludes MODU and MODU operators becoming members of ITOPF, owners of support vessels servicing MODUs may become members.

More broadly, ITOPF's series of 17 Technical Information Papers relate to marine pollution, including the effects of oil pollution, contingency planning for marine oil spills and responding to oil spills assist the upstream petroleum industry in preparing for and responding to oil spills.

In this EP (and associated OPEP), these ITOPF guidelines have been referenced to support the oil spill response strategies.

3.6. Australian Industry Codes of Practice and Guidelines

There are few Australian industry codes of practice or guidelines regarding environmental management for offshore petroleum exploration. Those that do apply to this activity are briefly discussed in this section in chronological order.

Aspects of each code or guideline relevant to the impacts and risks presented by the activity are described in the 'demonstration of acceptability' throughout Chapters 7 and 8 of this EP.

3.6.1. Australian Biofouling Management Requirements (2022)

The Australian Biofouling Management Requirements (DAWE, 2022a) entered into force on the 15th of June 2022 (under the Biosecurity Amendment (Biofouling Management) Regulations 2021) and contain vessel operator obligations for the management of biofouling within Australian territorial

seas. Vessels entering Australian waters need to demonstrate they have adopted one of three accepted management techniques. The measures outline in this EP are designed to comply with these requirements.

3.6.2. Australian Ballast Water Management Requirements (2020)

The Australian Ballast Water Management Requirements (DAWR, 2020, v8) detail the mandatory ballast water management requirements and provide information on ballast water pump tests, reporting and exchange calculations.

The measures outlined in this EP are designed to minimise the risk of introducing harmful aquatic organisms into Australian waters.

3.6.3. National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna (2017)

The National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna (DoEE, 2017a) provides a framework for identifying megafauna species (principally whales, dolphins, turtles and whale sharks) most at risk from vessel collision and outlines mitigation measures to reduce this risk.

The measures outlined in this EP are designed to minimise the risk of colliding with megafauna.

3.6.4. Australian National Guidelines for Whale and Dolphin Watching (2017)

The Australian National Guidelines for Whale and Dolphin Watching (DoEE, 2017b) principally apply to commercial marine tourism operations involves in whale and dolphin watching, outlining measures to comply with the EPBC Act and minimise disturbance to these cetaceans.

In the context of this activity, EOG will apply these guidelines to the support vessels so that approach distances to cetaceans are adhered to.

3.6.5. National Biofouling Management Guidance for the Petroleum Production and Exploration Industry (2009)

The National Biofouling Management Guidance for the Petroleum Production and Exploration Industry (DAFF, 2009) provides a generic approach to a biofouling risk assessment and practical information on managing biofouling on hulls and niche areas.

The measures outlined in this EP are designed to minimise the risk of introducing harmful aquatic organisms into Australian waters.

3.6.6. AEP Code of Environmental Practice (2008)

In Australia, the petroleum exploration and production industry operates to an industry code of practice developed by the AEP; the *AEP Code of Environmental Practice* (CoEP) (2008). This code provides guidelines for activities that are not formally regulated and have evolved from the collective knowledge and experience of the oil and gas industry, both nationally and internationally.

The AEP CoEP covers general environmental objectives for the industry, including planning and design, assessment of environmental risks, emergency response planning, training and inductions, auditing and consultation, and communication. For the offshore sector specifically, it covers issues relating to geophysical surveys, drilling and development and production.

The AEP CoEP has been used as a reference for the EIA and Environmental Risk Assessment (ERA) in this EP to ensure that all necessary environmental issues and controls for petroleum exploration have been incorporated into the management of this activity.

3.6.7. National Strategy for Ecologically Sustainable Development (1992)

The National Strategy for Ecologically Sustainable Development (ESDSC, 1992) defines the goal of Ecologically Sustainable Development (ESD) as *"development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends."* Section 3A of the EPBC Act defines the principles of ESD as:

- Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
- 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 principle of inter-generational equity – 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 conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making; and
- Improved valuation, pricing and incentive mechanisms should be promoted.

Ensuring that any petroleum activity is undertaken in a manner consistent with the ESD principal is a core aim of the OPGGS(E) and it has been taken into consideration in the demonstrations of acceptability in this EP (see Chapter 6).