



Australian Government

Australian Government response to the
Senate Environment and Communications
References Committee report:

Making waves: the impact of seismic testing on
fisheries and the marine environment

NOVEMBER 2021

Making waves: the impact of seismic testing on fisheries and the marine environment

Introduction

The Australian Government welcomes the report by the Senate Environment and Communications References Committee (the Committee) in relation to the inquiry into the impact of seismic testing on fisheries and the marine environment, and thanks the Committee for the work it has done in preparing this report. The Government would also like to acknowledge the contribution that individuals and organisations have made to this inquiry in preparing written submissions or appearing at public hearings.

The Government remains committed to protecting the marine environment and ensuring sustainable practices by all marine users, both now and in the future. Australia has one of the best and safest regimes for offshore oil and gas exploration and development in the world. The Government considers Australia's rigorous and transparent legislation, overseen by an independent regulator, strikes the right balance to develop the oil and gas industry in an environmentally responsible way, while co-existing with other industries including fisheries.

Recommendations

The report includes 19 majority recommendations and one recommendation from the Australian Greens in the additional comments. The Government's response to each recommendation is provided below.

Recommendations in the Committee majority report

Recommendation 1: The committee recommends that the Australian Government support the development and use of lower-impact technologies for all offshore seismic surveying to reduce the potential impacts of seismic testing on marine animals and the marine environment. This support could include:

- joint government/petroleum industry funding for the development of the alternative technologies;
- consultation with relevant scientific experts, fisheries, environmental and community organisations; and
- an express regulatory requirement for activity proponents to consider and adopt lower-impact technologies in activity proposals.

The Government **notes** this recommendation.

The Government values science and technology as fundamental to our economy, industries and broader wellbeing.

Government support for marine research and development is delivered through a suite of agencies and mechanisms, including:

- The Australian Institute of Marine (AIMS): A dedicated marine research agency with a mission to deliver economic, social and environmental net benefits for marine industries. AIMS research includes studies into the effects of seismic surveys on marine ecosystems and individual species.
- The Commonwealth Scientific and Industrial Research Organisation (CSIRO): Provides scientific knowledge and tools to support sustainable development of Australia's marine resources. This includes the mitigation and amelioration of environmental impacts and conservation of marine biodiversity.
- The National Environmental Science Program (NESP): Delivers research to underpin the management of Australia's marine and coastal environments (see responses to recommendations 3 and 5).
- Geoscience Australia (GA): Supports research into alternative technologies which may reduce the potential impacts of seismic testing on marine animals and the marine environment.

Further, the Government recently announced an additional \$100 million investment to continue leading the world and our region in how we manage ocean habitats and coastal environments, and contribute to the global task of reducing emissions. As part of this investment, \$6 million will be directed towards threatened and migratory marine species programs.

Through these programs, DAWE will facilitate the development and promotion of a National Underwater Anthropogenic Noise Guideline that encompasses threatened marine species such as cetaceans, marine turtles, seals and dugong. DAWE notes this national guideline will aim to encourage the development and uptake of low noise alternatives. DAWE anticipates that this national guideline will be publically available by late 2023. It would be worthwhile for industry to further invest in the development and use of lower-impact technologies for use in offshore seismic surveys. Until alternative technologies are proven effective in providing equivalent or better imaging of the sub-surface, seismic surveys will continue to be a critical part of geological research and petroleum exploration.

An industry-focussed research fund, similar to the Fisheries Research and Development Corporation (FRDC) model but focussed on petroleum research, could support this type of work under a collaborative framework. Equally, voluntary mechanisms for industry-led collaborative research could offer similar benefits and address end-user needs.

The *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGS Act) regulatory regime supports the continual improvement in environmental management and the adoption of innovative technologies to reduce environmental impacts from petroleum activities. Under this regime, the petroleum industry is incentivised to investigate alternative technologies as it may result in the industry being able to operate with lower environmental impacts. As seismic technologies continue to improve, they will allow improved capitalisation on already existing datasets and the need for more seismic acquisition may be reduced. It is important to note that new technologies may introduce different environmental impacts, as compared to traditional

seismic techniques, that are not as well understood nor able to be mitigated and therefore may not necessarily result in a better environmental outcome.

The responses to recommendations 2, 3, 5, 6, 7 and 8 are also relevant to this recommendation.

Recommendation 2: The committee recommends that the Australian Government significantly fund additional research to study the short-term, long-term and cumulative impacts of seismic testing on marine animals and the marine environment.

The Government **notes** this recommendation.

The Government welcomes the growing body of national and international research into the impacts of seismic surveys on marine animals and the marine environment to better enable predictions of potential impacts and to inform evidence-based regulatory assessments and policy development. As noted above, the Government's science agencies (e.g. AIMS, CSIRO and GA) contribute to and consider the science behind the impacts of seismic surveys on the marine environment. The Government is also actively engaged with international regulators, the scientific research community, universities and the petroleum industry to promote and encourage collaborative research that directly addresses key research questions related to seismic survey impacts.

In the 2020-21 Budget, the Government made an investment of \$11.9 billion in science, research and innovation; including \$9.4 billion in direct support for publicly funded research agencies, including CSIRO.

In terms of specific funding of environmental science, the Government provided an additional \$149 million from 2020–21 to 2026–27 for the second phase of NESP¹. This builds on the \$145 million provided for the first phase of NESP which has produced almost 400 successful science projects that are shaping policy and delivering practical environmental outcomes.

The second phase of NESP features four new research hubs: Climate Systems, Resilient Landscapes, Marine and Coastal, and Sustainable Communities and Waste. The Marine and Coastal Hub will deliver research to underpin the management of Australia's marine and coastal environments. It will harness a broad range of research expertise, across estuaries, coast, reefs, shelf and deep-water environments.

The second phase of NESP also introduces four cross-cutting missions on: climate adaptation, threatened and migratory species and threatened ecological communities, protected places and waste impact management. This targeted approach will have the benefit of driving even stronger collaboration across all NESP hubs.

The Government acknowledges the need for additional strategic, co-designed, multi-disciplinary research that integrates the controlled aspects of laboratory studies with field-based (before-after-control-impact) studies. This integrated approach is considered to be the most effective way to establish impact thresholds in the context of realistic seismic exposure levels. A recent example of this approach is the AIMS *North West Shoals to Shore Research Program*

¹ Further information on NESP is available at: www.environment.gov.au/science/nesp.

which aimed to quantify the impacts of exposure to a full-scale, commercial seismic source on tropical demersal fishes targeted by commercial fisheries in Western Australia. This integrated approach could be extended to more mobile and pelagic species, as well as sessile fauna, via targeted experimental studies that more closely mimic real-world conditions.

Further research to study the short-term, long-term and cumulative impacts of seismic testing on the environment is necessary to reduce the need for precautionary control measures and address areas of scientific uncertainty which require the regulator to apply the precautionary principle in decision-making (e.g. exclusion of seismic surveys from important pearl oyster habitat due to uncertainty about the effects of sound exposure).

While there is always an opportunity for further research, it is important that the scope, focus and design of research programs are targeted at areas of importance to environmental impact assessment and management so that it serves a clear purpose and delivers improved outcomes.

Recommendation 3: The committee recommends that the National Offshore Petroleum Safety and Environmental Management Authority take into consideration the extent of seismic activities in a title area to date, and as proposed in an environment plan, to mitigate the potential for unknown impacts to marine animals and the marine environment as a result of the survey.

The Government **notes** this recommendation.

The Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations) require titleholders to identify, evaluate and reduce all environmental impacts and risks (including socio-economic) of their proposed petroleum activity, including seismic surveys, to as low as reasonably practicable (ALARP) and acceptable levels. This includes the potential for cumulative environmental impacts arising from the effects of their proposed activity combined with previous, current and future activity impacts.

In particular, where those activities can be reasonably foreseen or anticipated, and where there is a cause-effect pathway for those activities' impacts to combine or accumulate, titleholders must demonstrate how those impacts and risks are reduced to ALARP and acceptable levels in their environment plan. The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) then thoroughly assesses the environment plan, including whether cumulative environmental impacts have been appropriately assessed and mitigated. The proposed activity is only allowed to proceed if NOPSEMA decides to accept the environment plan, after assessing that all impacts and risks have been addressed in accordance with the stringent requirements of the Environment Regulations.

Recommendation 4: The committee recommends that the Australian Government require activity proponents to collect and share marine animal and marine environment-related data that has been collected before, during and after a seismic survey to improve current understanding of the impacts of seismic testing.

The Government **notes** this recommendation.

Activity proponents collect marine environment-related data, when necessary, to support their environmental impact assessments (EIA) for all proposed offshore petroleum activities. The EIA and associated data, including the commitment to collect further data before, during and/or after the proposed activity, are included in their environment plan submissions to NOPSEMA for assessment under the Environment Regulations.

The most common environmental data collected during seismic surveys is marine mammal observation data and data related to the impacts of seismic surveys on particular fisheries and fish stocks. Marine mammal observers (MMOs) are typically engaged for the duration of a seismic survey to undertake dedicated observations for whales and other marine fauna to inform impact mitigation decisions.

The *Environment Protection and Biodiversity Conservation Act (EPBC Act) Policy Statement 2.1 – Interaction between offshore seismic exploration and whales* (EPBC Act Policy Statement 2.1) was developed by the Government with the goal of minimising the likelihood of injury or hearing impairment of whales and other large cetaceans. It does not address all matters protected under national law. The EPBC Act Policy Statement 2.1 states that upon completion of a seismic survey, industry should submit a report of any cetaceans observed during the survey to the Government; currently the Department of Agriculture, Water and the Environment (DAWE).

DAWE's Cetacean Sightings Application was developed to facilitate consistent recording and reporting of cetacean sightings and related seismic survey data by MMOs. The Cetacean Sightings Application also provides functionality to record sightings of non-cetacean species. Data can then be exported to the National Marine Mammal Database (NMMD). The MMO data is not publicly available through the NMMD but raw data can be provided on request. To date, raw data has been provided to industry, consultants and other government agencies.

While there is no regulatory requirement for activity proponents to share all marine environment-related data, including data related to the impact of seismic testing on commercially-important species, this data may be shared at times through the publication of scientific papers or reports. A recent example is the *Examining the potential impacts of seismic surveys on Octopus and larval stages of Southern Rock Lobster (Part A: Southern Rock Lobster)* (2021) study which was supported by funding from the Government's FRDC and funding from the geophysical services company CGG. This paper is published on the FRDC's website at: www.frdc.com.au/project/2019-051.

An increase in the collection and sharing of environmental data, including baseline data, would assist industry and regulators to better understand and predict potential impacts of seismic surveys on the environment, and further inform evidence-based regulatory assessments and

policy development. However, there are confidentiality considerations regarding environmental data that would need to be worked through with relevant stakeholders to fully implement this recommendation.

The collection and sharing of environmental data could be pursued voluntarily by the offshore petroleum industry through collaborative mechanisms or through express regulatory requirements. The latter option will be considered in a future review of the Environment Regulations and in consultation with relevant stakeholders.

Recommendation 5: The committee recommends that the Australian Government commit to funding research studies that aim to identify and evaluate the impacts of seismic testing on individual species, including commercially and ecologically important marine species, to provide baseline information that can be used to build on the existing knowledge base.

The Government **notes** this recommendation.

The Government acknowledges the importance of research studies to identify and evaluate the impacts of seismic surveys on individual species. The Government continues to support national programs that provide marine environmental baseline data and accessible time-series satellite data to provide context for spatio-temporal variability of environmental and biological conditions that may influence seismic signals and potentially mask, enhance or ameliorate impacts. These national programs include:

- AusSeaBed: A national seabed mapping coordination program led by GA but operated by Commonwealth, State and Territory entities, universities and industry. This national collaborative initiative aims to serve the Australian community that relies on seabed data by coordinating collection efforts in Australian waters and improving data access.
- Digital Earth Australia: A platform administered by GA that uses spatial data and images recorded by satellites to detect physical changes across Australia. This observation data is available to governments and industry for use, including monitoring the environment and increasing productivity in the mining industry.
- NESP – Marine and Coast Hub: A program that delivers research to underpin the management of Australia’s marine and coastal environments. The Government has provided an additional \$149 million for the second phase of NESP. This second phase also introduces four cross-cutting missions on: climate adaptation, threatened and migratory species and threatened ecological communities, protected places and waste impact management.

The response to Recommendation 2 is also relevant to this recommendation.

Recommendation 6: The committee recommends that the Australian Government actively consider a levy on oil and gas companies that conduct offshore seismic activities to fund research into the impacts of seismic testing on marine animals and the marine environment.

The Government **does not accept** this recommendation.

The Government welcomes any scientific research which improves the understanding of environmental impacts from the offshore petroleum industry to inform more effective management of offshore seismic activities. However, the Government considers the prioritisation of this research topic, and allocation of funding towards it, can be done without the introduction of a levy on the offshore petroleum industry or legislative changes.

The Government acknowledges that the formation of a petroleum industry-focussed, collaborative research framework in Australia would be of benefit to industry. Collaborative industry research frameworks have been shown to be a successful model to answer key environmental impact assessment questions and improve business, environmental and regulatory outcomes for those industries.

There are great examples of the offshore petroleum industry's partnership with research organisations to advance the understanding of the potential impacts of seismic surveys on the marine environment, in particular individual species. For example:

- The *Multiple – Before After Control Impact (M-BACI) analysis of the effect of a 3D marine seismic survey on Danish Seine catch rates* conducted by the FRDC and geophysical services company CGG. Further information on this project is available at: www.frdc.gov.au/project/2019-072.
- The *North West Shoals to Shore Research Program* conducted by AIMS which was funded through Santos' Good Standing Agreement. Further information on this program is available at: www.aims.gov.au/nw-shoals-to-shore.
- The *INfluence of Structures In The Ecosystem (INSITE) Programme* in the North Sea which was initiated by oil and gas companies to build an independent body of research to provide scientific evidence on the role of artificial structures in the marine ecosystem. Further information on this program is available at: www.insitenorthsea.org/.

Sourcing funding to conduct research is a matter for science and research bodies and academic institutions. Research organisations seek funding for their projects through a range of avenues, including grants, loans, public procurement, collaborations and other means.

Recommendation 7: The committee recommends that the Australian Government review the Good Standing Agreements mechanism with a view to more effectively using those arrangements to advance research into the impacts of offshore seismic testing on marine animals, including commercial fish species, and the marine environment.

The Government **notes** this recommendation.

As noted in the Department of Industry, Science, Energy and Resources (DISER) supplementary submission to this inquiry, the Government has committed to a review of the Good Standing Agreement (GSA) policy.

The review will include consideration of the options available to companies to discharge their GSA.

Recommendation 8: The committee recommends that the Australian Government establish and fund a larger-scale research capability to continually improve the evidence base with respect to environmental marine impacts, including impacts from seismic signal exposure. This capability should utilise a multi-disciplinary and collaborative approach to achieve its objectives.

The Government **notes** this recommendation.

The responses to recommendations 1, 2, 5 and 6 are relevant to this recommendation.

Recommendation 9: The committee recommends that the Department of Infrastructure, Science, Energy and Resources [*sic*] and the Department of Agriculture, Water and the Environment explore options for how proponents who submit project proposals for seismic activities to the National Offshore Petroleum Safety and Environmental Management Authority can meet the remediation of proven long-term impacts. In particular, the departments should consider whether there should be any exemptions, including for government research bodies and marine scientists.

The Government **notes** this recommendation.

The Environment Regulations already require the evaluation and mitigation of long-term environmental impacts of seismic activities. A titleholder must submit an environment plan that demonstrates that the environmental impacts and risks of a proposed activity will be reduced to an acceptable level (amongst other criteria) before it can be accepted and the proposed activity can proceed. Australia's expert regulator, NOPSEMA, undertakes a thorough assessment of the environment plan including taking into account public submissions and existing scientific research.

A proposed petroleum activity (e.g. a seismic survey) must be carried out in a manner:

- that is consistent with the principles of ecologically sustainable development (as set out in the EPBC Act); and
- by which all environmental impacts and risks of the activity will be reduced to ALARP and acceptable levels.

There are numerous examples where uncertainty around the potential for long-term impacts has resulted in BACI studies to measure impacts and allow for remediation where necessary. For example, the FRDC study (Project Number 2019-051) was established as part of the environment plan process for a seismic survey in the Gippsland Basin to address uncertainty about the potential impacts on the octopus.

The Government acknowledges the need for ongoing research to enable better predictions of the impacts of seismic surveys on the environment and further inform evidence-based regulatory assessments and policy development. DISER will consider the results of any national and international research into the remediation of proven long-term impacts, and other relevant scientific evidence, in a future review of the Environment Regulations and in consultation with relevant stakeholders.

Recommendation 10: The committee recommends that the Department of Infrastructure, Science, Energy and Resources [*sic*] and the Department of Agriculture, Water and the Environment, in collaboration with relevant stakeholders, conduct a public consultation to develop a nationally agreed compensation framework for fishers who are financially affected by the impacts of seismic surveys.

The Government **notes** this recommendation.

The Government acknowledges that commercial fishing is an important industry in Commonwealth waters and their interests are equally important as, and must be fairly balanced with, those of other marine users, including the offshore petroleum industry.

The Government further acknowledges that seismic surveys have the potential to impact on a commercial fisher's operations. Since early 2021, DISER, NOPSEMA and DAWE have been facilitating engagement between the offshore petroleum industry and commercial fishing industry to co-design a guidance framework to support a more collaborative co-existence of the two industries in Australia's Commonwealth marine area.

One of the key measures to be outlined in the proposed guidance framework is a mutually-agreed process for the management of financial claims by commercial fishers due to the impact of seismic surveys, and where losses cannot be avoided. The Government is of the view that this can be achieved through the co-development of an effective, baseline standard 'loss adjustment protocol' by both industries, where impacts on fishing operations are evidenced by verifiable information (e.g. catch records). However, there may be a need for regional issues to be considered in the implementation of a compensation framework, so a nationally-agreed framework may not be optimal or achievable.

To date, there has been a good level of participation from a range of stakeholders during the meetings and workshops. The guidance framework is expected to be finalised in late 2021.

Recommendation 11: The committee recommends that, for areas proposed for inclusion in an annual acreage release, the Department of Industry, Science, Energy and Resources:

- improve the current public consultation process to include all relevant stakeholders; and
- implement mechanisms to enable greater consideration of environmental risks and impacts.

The Government **notes** this recommendation.

The petroleum acreage release process includes comprehensive consultation – undertaken with Commonwealth, State and Territory government agencies in the first instance, followed by inviting submissions from the public.

Targeted communication is undertaken for interested stakeholders such as environmental non-government organisations and other marine groups (e.g. the fishing industry). The list of stakeholders is regularly reviewed and updated. This targeted communication informs relevant stakeholders of the public consultation process and advises them on how to make a submission.

The petroleum acreage release process involves DISER working in consultation with DAWE and NOPSEMA. This ensures decision-makers have all of the relevant information to consider any environmental sensitivities associated with the release of particular acreage. Each nominated acreage area is discussed with relevant stakeholders in the Commonwealth, State and Territory governments, and, in some cases, extended to other stakeholders including local councils and fishing representatives. All comments are considered and contribute to the decision to release, remove or re-shape acreage areas.

The award of an exploration permit does not automatically allow petroleum activities to occur. Before an activity such as a seismic survey may take place, an environment plan must first be accepted by NOPSEMA. NOPSEMA's environment plan assessment process involves comprehensive consideration of the potential impacts and risks on the environment from a proposed activity, and the proposed management and mitigation of those impacts and risks.

NOPSEMA cannot accept an environment plan unless it is satisfied that the impacts and risks of the proposed activity will be reduced to ALARP and to acceptable levels. This includes consideration of the potential impacts and risks to other marine users, including tourism, fishing and other regional industries, and the natural environment. As part of the environment plan assessment process, consultation with relevant stakeholders occurs and comments related to the content of the environment plan are taken into account by NOPSEMA in deciding to accept the environment plan under the Environment Regulations.

Recommendation 12: The committee recommends that the Australian Government introduce legislation:

- to create exclusion zones for seismic activities in or around Australian Marine Parks in 'Commonwealth marine areas', as defined in the *Environment Protection and Biodiversity Conservation Act 1999*; and
- to prohibit acreage release and acceptance of environment plans that propose seismic activities in Biologically Important Areas, to comply with environmental protection legislation and international obligations.

The Government **does not accept** this recommendation.

Seismic surveys occurring in or near to Australian Marine Parks (AMPs) and Biologically Important Areas (BIAs) are managed in accordance with environmental protection legislation and consistent with international obligations. The Government does not consider that introducing further legislation, as recommended by the Committee, is required.

Australian Marine Parks (AMPs)

AMPs are zoned based on the International Union for the Conservation of Nature (IUCN) principles with the aim of including representative examples of marine habitats and features within the Commonwealth marine area. The AMPs include IUCN category Ia, II, IV and VI zones.

Management plans for the five marine park networks (South-east, South-west, North-west, North and Temperate East networks) and the Coral Sea Marine Park have been established under the EPBC Act. The marine park management plans exclude seismic surveys in all AMP zones except for Multiple Use Zones and Special Purpose Zones (IUCN category VI), in accordance with a Class Approval authorisation issued by the Director of National Parks. Within the Multiple Use Zones and Special Purpose Zones, seismic surveys are only allowed if the potential impacts and risks of the proposed activity on marine park values will be avoided or reduced to ALARP and are acceptable.

There is a Class Approval for each AMP network and these class approvals authorise activities undertaken in accordance with an environment plan accepted by NOPSEMA under the Environment Regulations. When developing an environment plan, titleholders are required to consult with all relevant persons, including the Director of National Parks, if there is the potential for impacts and risks on AMPs. The environment plan assessment process explicitly takes into consideration impacts on matters protected under the EPBC Act and AMPs within the Commonwealth marine area. NOPSEMA cannot accept an environment plan that is inconsistent with the relevant marine park management plans.

Biologically Important Areas (BIAs)

BIAs represent spatially defined areas where aggregations of individuals of a species are known to display biologically important behaviours such as breeding, foraging, resting or migration. BIAs are a key element of the listed threatened species recovery plans, conservation advices and Marine Bioregional Plans prepared under the EPBC Act. DAWE creates and

maintains BIA maps with assistance from specialist research scientists and others who provide geospatial data and new information.

BIAs are considered in the petroleum acreage release process. Companies are advised to consider BIAs when nominating an area for acreage. BIAs are considered in DISER's consultation with DAWE and NOPSEMA prior to the release of an acreage area. Further, guidance information advising nominating companies to consider BIAs when bidding on an area is included in the gazette notice advertising the acreage areas.

All seismic surveys undertaken in the Commonwealth marine area require an environment plan accepted by NOPSEMA under the Environment Regulations. Titleholders must detail and evaluate potential environmental impacts and risks, consult with relevant persons and demonstrate that impacts and risks will be reduced to a level that is ALARP and acceptable.

Commonly applied control measures to mitigate impacts on AMP values or marine species within BIAs include:

- Eliminating the impact by applying temporal and/or spatial limitations in the survey design to avoid overlap with important areas at biologically sensitive time periods.
- Applying engineering controls by changing the survey configuration or array size to reduce the levels of sound being produced and propagating into sensitive areas.
- Applying administrative controls such as adaptive management/mitigation procedures (e.g. powering down or shutting down the seismic source when marine fauna are observed within close proximity of the seismic array where impacts could occur, or moving to a different part of a survey area if high numbers of marine fauna are encountered).

In assessing environment plans, NOPSEMA must have regard to relevant recovery plans, conservation advices and Marine Bioregional Plans, including advice and actions that relate to BIAs. NOPSEMA cannot accept an environment plan that is inconsistent with a recovery plan for a listed threatened species or ecological community. Further, NOPSEMA cannot accept environment plans that propose activities in BIAs or AMP zones (IUCN category VI) that are inconsistent with the relevant marine park management plans.

Recommendation 13: The committee recommends that the Department of Agriculture, Water and the Environment urgently revise *EPBC Act Policy Statement 2.1—Interaction between offshore seismic exploration and whales: Industry Guidelines*:

- to encompass all marine animals;
- to incorporate contemporary scientific research findings;
- to require the use of independent, trained Marine Mammal Observers; and
- to require the use of passive acoustic monitoring at night-time by trained operators.

In particular, the department should conduct the review using stakeholder feedback and establish independent working groups to advise the department on technical aspects arising from that feedback, similar to the review process used by the New Zealand Department of Conservation in its 2015 review of the Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations.

The Government **notes** this recommendation.

DAWE is reviewing the EPBC Act Policy Statement 2.1 to:

- Identify and incorporate new scientific literature related to anthropogenic noise (including seismic noise).
- Develop a contemporary understanding of mechanisms for injury and hearing impairment to whales and the implications of behavioural disturbance from anthropogenic noise.
- Assess whether the mitigation and avoidance strategies currently outlined in the EPBC Act Policy Statement 2.1 reflect current scientific information, technological developments and international best practice.

Following the review, it is expected that the EPBC Act Policy Statement 2.1 will include updated advice for activity proponents on the assessment and management of potential impacts on the marine environment from seismic surveys. This will include a review of the operational experience to date with granted approvals, including conditions requiring the collection of data on the marine environment.

The response to Recommendation 1 is also relevant to this recommendation.

Recommendation 14: In addition to Recommendation 13, the committee recommends that the Department of Agriculture, Water and the Environment commission an independent review of the Marine Mammal Observation data collected over a five year period in accordance with the *EPBC Act Policy Statement 2.1— Interaction between offshore seismic exploration and whales: Industry Guidelines*, to obtain a better understanding of the efficacy of that policy.

The Government **does not accept** this recommendation.

Sightings data, including that collected by marine mammal observers (MMOs) during a seismic survey, is one of a range of inputs into the assessment of government policies and conservation approaches. Other inputs include satellite tracking of marine mammals to gain insights into behaviour and timing of movements, which are undertaken by independent scientific bodies.

The National Marine Mammal Database (NMMD) is managed jointly by the Australian Mammal Centre and the Australian Antarctic Data Centre of the Australian Antarctic Division, in DAWE. The NMMD is a national repository for marine mammal sightings, strandings, bycatch and ship-strike data, and is part of a suite of data inputs into reviews of government policies and guidelines.

As noted in the response to Recommendation 4, the EPBC Act Policy Statement 2.1 was developed by the Government with the goal of minimising the likelihood of injury or hearing impairment of whales and other large cetaceans. The EPBC Act Policy Statement 2.1 states that upon completion of a seismic survey, industry should submit a report of any cetaceans observed during the survey to the Government; currently DAWE.

Further, DAWE's Cetacean Sightings Application was developed to facilitate consistent recording and reporting of cetacean sightings and related seismic survey data by MMOs. Data can then be exported to the NMMD.

Recommendation 15: The committee recommends that the National Offshore Petroleum Safety and Environmental Management Authority issue a Guidance Note to specifically address the interpretation and demonstration of the key regulatory terms 'as low as reasonably practicable' and 'acceptable level'.

The Government **does not accept** this recommendation.

NOPSEMA has several recently-published guidance documents that provide advice about ALARP and acceptable levels of impact and risk on the environment, and how these should be addressed by activity proponents in an environment plan.

These documents were developed to provide greater clarity around matters including acceptability and ALARP, and are applicable to seismic surveys.

The published guidance documents include:

- Offshore Project Proposal Decision Making Guidelines (2021)
- Environment Plan Decision Making Guidelines (2021)
- Environment Plan content requirements (2020)
- Acoustic impact evaluation and management information paper (2020)

NOPSEMA also regularly engages with the fishing industry and broader community through a variety of mechanisms on a range of topics, including ALARP and acceptable levels of impact and risk on the environment.

Recommendation 16: The committee recommends that the Australian Government review the consultation requirements of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 and ensure these requirements meet reasonable community expectations and good practice principles.

The Government **does not accept** this recommendation.

The Government is committed to ensuring the community has confidence in the regulatory process for offshore petroleum activities and that the assessment of these activities is transparent.

In 2016, the then-Department of Industry, Innovation and Science undertook a comprehensive review of the consultation and transparency requirements for offshore petroleum activities in the Environment Regulations. The review identified a range of regulatory improvements to assist the Australian public to better understand the processes used to decide where, when and how offshore petroleum activities take place, and ensure more information on environmental management is made public.

The review process included multiple opportunities for public submissions and several consultation forums were held across Australia between 2016 and 2018. These forums were attended by the offshore petroleum industry, environmental groups, members of the fishing industry, and State and Territory government officials. Submissions were taken into consideration by the department in developing the amendments to the Environment Regulations.

The Environment Regulations were amended, effective 25 April 2019, to implement the outcomes of the review. The amendments introduced a mandatory 30-day public comment period for environment plans related to seismic surveys or exploratory drilling activities, prior to assessment by NOPSEMA. All comments related to the content of the environment plan received during the public comment period must be taken into account by the titleholder and by NOPSEMA when assessing the environment plan.

Specifically:

- The titleholder must prepare a report on its response to comments received, which is published by NOPSEMA.
- NOPSEMA is required to prepare and publish a statement detailing how it has taken into account any public comments in its assessment of the environment plan.

The amendments also introduced a requirement for an environment plan to be published in full by NOPSEMA when submitted to NOPSEMA and also if it is accepted under the Environment Regulations.

As detailed in the response to Recommendation 17, the Government is exploring options for consultation opportunities between the offshore petroleum industry and other marine users that are additional to statutory requirements. For example, DISER, NOPSEMA and DAWE have been facilitating engagement between the offshore petroleum industry and commercial fishing industry throughout 2021 to co-design a guidance framework to support a more collaborative co-existence of the two industries in Australia's Commonwealth marine area. A key measure of the proposed guidance framework is for both industries to participate in regular coordination meetings in key regions to enable better communication, activity planning and information-sharing.

Recommendation 17: The committee recommends that the Department of Infrastructure, Science, Energy and Resources [*sic*], in collaboration with relevant stakeholders, develop a collaborative consultation framework to assist activity proponents and relevant persons to comply with the consultation requirements set out in the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009, including any changes that result from Recommendation 16.

The Government **notes** this recommendation.

The Government encourages strategic, early and cooperative engagement between all stakeholders undertaking activities within Commonwealth waters. The OPGGS Act and Environment Regulations impose consultation requirements on activity proponents and require petroleum operators to carry out offshore activities in a manner which does not interfere with other marine users' rights to a greater extent than is necessary.

NOPSEMA has published a suite of documents that provide information and advice in relation to engagement with stakeholders. This includes:

- Guidance Note on Environment Plan Content Requirements
- Guideline on Environment Plan Decision Making
- NOPSEMA Bulletin 2 (Nov 2019) – Clarifying statutory requirements and good practice consultation
- Guidance Note on Petroleum Activities and Australian Marine Parks

- Brochure – Public comment on environment plans
- Brochure – Requirements for consultation and public comment on petroleum activities in Commonwealth waters

Since early 2021, DISER, NOPSEMA and DAWE have been facilitating engagement between the offshore petroleum industry and commercial fishing industry to co-design and develop a proposed guidance framework to support a more collaborative co-existence of the two industries in Australia’s Commonwealth marine area.

The proposed guidance framework will outline key measures which the industries can voluntarily adopt to enhance their interactions, including scheduled regular coordination meetings in key regions to enable better communication, activity planning and information-sharing between the two industries. This measure is intended to supplement the statutory ‘relevant persons’ consultation during the preparation of environment plans, as required by section 11A of the Environment Regulations.

The guidance framework is expected to be finalised in late 2021.

Recommendation 18: The committee recommends that the Australian Government amend:

- the definition of ‘relevant person’ in the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 to include any relevant local governments and local communities in consultations concerning proposed offshore seismic activities; and
- the public comment provisions in the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 to require activity proponents to proactively engage with local governments and local communities that might be impacted by proposed seismic activities.

The Government **notes** this recommendation.

The consultation with ‘relevant persons’ by titleholders is a key statutory requirement in the preparation of an environment plan. Views on the definition of ‘relevant persons’ vary widely between and within stakeholder groups. Some see the definition as too broad and burdensome, and others think it should be further expanded. Some stakeholders have noted that it is burdensome to prove relevance and interest in a proposed petroleum activity, particularly because the relevance of the person is not always material to the validity of the concern raised.

Persons who may be considered relevant will vary depending on the nature, location and likely impacts of the proposed activity. This targeted consultation is important to enable:

- Relevant persons to identify early their key environmental values, including social, economic and cultural features, which may be impacted by the proposed activity.
- Titleholders to evaluate and manage any potential impacts or risks raised during consultation in the development of their environment plan, and potentially inform the acceptability of impacts on the environment.

Section 11A of the Environment Regulations requires titleholders to consult with relevant authorities, persons and organisations who may be affected by a proposed activity during the preparation of an environment plan, prior to the commencement of operations. However, while the definition for ‘relevant persons’ does not specifically reference local governments or local communities, they would fall within scope of the definition if their functions, interests or activities may be affected by the proposed activity.

The Environment Regulations were amended in 2019 to introduce the public comment mechanism for environment plans for exploration drilling and seismic survey activities. The public comment process is intended to supplement the mandatory consultation with relevant persons, not to replace it. Where the functions, interests or activities of local governments and/or local communities may be affected by a proposed seismic survey, the titleholder is required to undertake consultation with those relevant persons, and to demonstrate to NOPSEMA how their concerns about the environmental management of that proposed activity have been addressed.

Recommendation 19: The committee recommends that the National Offshore Petroleum Safety and Environmental Management Authority adapt its environmental approvals process to ensure all proponents meet the Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities under the Convention on the Conservation of Migratory Species of Wild Animals.

The Government **does not accept** this recommendation.

The Government notes there are inconsistencies in the majority report regarding this issue. The majority report states that it is difficult to identify when the *Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities* (CMS Guidelines) have been incorporated into NOPSEMA’s assessment process of environment plans. However, the majority report also acknowledges that NOPSEMA has regard to the CMS Guidelines; and that relevant aspects of the CMS Guidelines are implemented under the Environment Regulations, and NOPSEMA’s assessment and decision-making processes. The Government notes NOPSEMA provided a supplementary submission to the Committee during this inquiry to clarify its position on the CMS Guidelines.

Activity proponents demonstrate compliance with relevant environmental laws and other relevant requirements in their environment plans. Many of the key elements of the CMS Guidelines are incorporated within the requirements of the Environment Regulations and relevant NOPSEMA advice. Further, in its assessment of an environment plan under the Environment Regulations, NOPSEMA has regard to the CMS Guidelines to ensure relevant aspects will be implemented by the activity proponent.

Recommendation included in the additional comments from the Australian Greens

Recommendation 1: The Australian Greens recommend that the Australian Government amend the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* to allow for a ban on the issuance of any new permits for offshore seismic testing, oil and gas exploration.

The Government **does not accept** this recommendation.

The Government remains committed to encouraging the responsible development of the offshore petroleum industry while ensuring the marine environment is protected and there is a cooperative co-existence with other stakeholders.

Developing Australia's offshore resources has helped build Australia's economy and deliver energy security, provide jobs, build industry, and lead innovation and productivity. Direct benefits are returned to the Australian people during infrastructure development and production, as well as benefits during the exploration phase such as direct and indirect employment. Oil and gas production in Australia continues to play a part in maintaining global and domestic long-term energy security.

The Government is also committed to ensuring the community has confidence in the regulatory process for offshore petroleum activities, including seismic surveys, and that the assessment of these activities is transparent.

The OPGGS Act and Environment Regulations only allow petroleum activities to proceed if the potential impacts on the environment have been reduced to ALARP and acceptable levels. The robust objectives-based regulatory framework requires activity proponents to demonstrate in an environment plan how acceptable outcomes for environmental matters will be achieved. It places a clear onus on the offshore petroleum industry to:

- Identify and evaluate all potential impacts and risks that may arise from the proposed activity.
- Propose mechanisms to be implemented to manage or mitigate relevant potential impacts.
- Set appropriate performance measures (outcomes and standards) to be achieved.
- Demonstrate that the proposed activity has the flexibility to implement new technologies to meet and exceed the set performance outcomes and standards.

As noted above, and confirmed through numerous reviews and audit processes, NOPSEMA is the expert regulator that ensures all petroleum activities in Commonwealth waters are undertaken in a safe and environmentally responsible manner. NOPSEMA assesses environment plans against stringent regulatory requirements and ensures decisions are well-informed and scientifically robust, including drawing on published scientific literature. Where scientific understanding of potential impacts is limited, NOPSEMA applies precaution to its regulatory decision-making. NOPSEMA will only accept an environment plan once it has determined the plan meets the stringent requirements set out in the Environment Regulations.