



Australian Government

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

Shark mitigation and deterrent measures

November 2023

Introduction

The Australian Government welcomes the opportunity to respond to the 2017 Senate Environment and Communications References Committee Report: *Shark mitigation and deterrent measures*. The Australian Government thanks the Committee and those individuals and organisations which have contributed to the Inquiry.

Public safety is of paramount importance. It is the responsibility of state and territory governments to focus on public safety in their waters and managing the risks to humans from sharks. The Australian Government supports the states and territories through funding shark behavioural science and other research to implement measures that reduce risk of interactions between sharks and humans and minimise impacts to sharks and other marine life.

State and territory governments have initiated considerable investment in emerging technologies, integrated strategies, and public information campaigns to reduce the risk of interactions between humans and sharks and to minimise impacts on protected species. Both the Queensland and New South Wales governments have released updated Shark Management Plans, in 2021 and 2022 respectively, which seek to further research into improved shark mitigation measures and to undertake community education.

The Australian Government is concerned about human lives lost to shark attack and is also actively engaged in shark conservation and continues to be committed to the protection of threatened and migratory species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and international agreements, such as the Convention on the Conservation of Migratory Species of Wild Animals.

The Australian Government recognises that state and territory governments remain committed to addressing issues of public safety and conservation of protected species. State and territory governments need to consider whether shark mitigation activities may have a significant impact on matters protected under national environmental law, and to refer activities to the Australian Government accordingly.

Response

Recommendation 1

The committee recommends that the New South Wales and Queensland Governments:

- *immediately replace lethal drum lines with SMART drumlines*
- *phase out shark meshing programs and increase funding and support for the development and implementation of a wide range of non-lethal shark mitigation and deterrent measures.*

The committee further recommends that the Australian Government pursue this recommendation at a future Meeting of Environment Ministers.

Response: Noted

State and territory governments are primarily responsible for the implementation of customised shark control programs. A number of Australian Government agencies including the Department of Climate Change, Energy, the Environment and Water, and the Department of Agriculture, Fisheries and Forestry, work with state and territory governments in undertaking research and delivering programs.

- The New South Wales Government has committed \$85.6 million to the 2022-2026 Shark Management Strategy which aims to continue to deploy SMART (Shark Management Alert in Real Time) drumlines, while continuing to fund drone surveillance programs and research into shark and human behaviour, including increasing community education programs.
- The Queensland Government introduced a four-year Shark Management Plan in 2021, which includes ongoing research and trialling of new shark mitigation technologies and has committed to implement a new shark management plan after 2025. \$5 million was provided to the Queensland Government to assist a transition to a non-lethal shark management program, and trial SMART drumlines within the Great Barrier Reef Marine Park.

Recommendation 2

The committee recommends that, while state government lethal shark control programs remain in place, management arrangements for these programs should include more effective and transparent catch monitoring with the objective of improving understanding of the efficacy of lethal measures for public safety and the effects of the measures on the populations of marine species.

Response: Noted

State and territory governments are responsible for managing the risks to humans from sharks, including implementing, managing and monitoring shark mitigation and deterrent measures.

- The New South Wales and Queensland governments publicly report on bycatch data, including the species, date, location and fate of the individual.
- The Western Australian Government has made all catch data publicly available for the SMART drumline trial conducted between 2019 – 2021.

Recommendation 3

The committee recommends that the Australian Government:

- *establish a publicly accessible national database of target and non-target species interactions with shark control measures*
- *require the Department of the Environment and Energy to use this information to prepare and publish an annual assessment of the impacts of lethal shark control measures on target and non-target marine species.*

Response: Not agreed

State and territory governments are best placed to report on their shark control measures. New South Wales and Queensland governments collect and maintain public records of target and non-target species interactions with shark control measures in their jurisdictions, which are available on their websites.

The New South Wales Government publishes results from their SMART drumline trials and reports annually on their Shark Meshing Program. The Western Australian Government completed a two-year SMART drumline trial in February 2021, with the catch data publicly available on the Western Australia SharkSmart webpage. The Queensland Government publishes all catch data on the QFish webpage. The Queensland Department of Agriculture and Fisheries is also required to report all data of animals captured on shark control equipment within the Great Barrier Reef, and their fate, to the Great Barrier Reef Marine Park Authority (GBRMPA) in September each year.

The Australian Government uses information supplied by the states and territories and other relevant bodies to generate national reporting, for example, to fulfil international obligations under the Convention on the Conservation of Migratory Species in the Wild. The Australian Government also receives quarterly reports on threatened species interactions from the states, which includes the nature and quantity of interactions with EPBC Act listed shark species.

Recommendation 4

The committee recommends that state governments review and regularly audit the quality of the data collected on target and non-target species interactions with shark control measures.

Response: Noted

This recommendation is for state and territory governments.

Recommendation 5

The committee recommends that the Australian Government establish a review into the effectiveness of shark research and, following the review, commit to providing funding on a long-term basis for research areas that are considered likely to significantly contribute to improved knowledge about effective shark mitigation and deterrent measures.

Response: Noted

The Australian Government acknowledges that the safety of human life is of paramount importance and recognises that the states and territory governments have a responsibility to implement policies to protect the health and safety of people using their beaches and coastal waters. States and territories are already implementing a broad suite of measures to reduce the likelihood and occurrence of human-shark interactions. State and territory Governments invest in this area, with recent record investment for shark mitigation programs, including \$85.6 million for the New South Wales Shark Management Program from 2022 to 2026.

State and territory Governments currently implement research programs to understand the efficacy of non-lethal mitigation measures. Measures include non-invasive surveillance, increasing community engagement and funding surf lifesaving programs. The Australian Government acknowledges that over the past 10 years, there has been a noticeable shift away from relying solely on shark nets to using new technology such as Shark Management Alert in Real Time (SMART) drumlines and drones to detect, and safely move target shark species away from people.

States undertake trials to determine the efficacy of mitigation measures, with research showing certain mitigation measures may be highly effective in one state and not suitable in another. For example, the trial of SMART drumlines widely used and effective in New South Wales, was found not suitable for Western Australian conditions. States and territories tend to apply different strategies to suit their needs, based on the different environments.

Relevantly to this recommendation, in 2016, research under the National Environmental Science Program (NESP) found that states and territories were adequately funding and implementing shark mitigation research programs, and no further Australian Government funding was required at that time.

Recommendation 6

The committee recommends that the Australian Government review the funding provided to CSIRO to enable CSIRO to:

- *undertake ongoing data collection and monitoring to support the determination of white shark population trends*
- *develop a predictive model of shark abundance and location*

- *undertake a social survey to determine how the behaviour of water users has changed in response to the recent human–shark interactions.*

The committee further recommends that the Australian Government seek advice from CSIRO as to whether research can be undertaken to address anecdotal evidence presented to the committee on the potential risk that certain ocean-based activities, such as the use of teaser baits in cage diving, crayfish pots and trophy hunting, might increase the risk of human–shark interactions. The Australian Government should review the funding provided for marine science research to enable CSIRO (or another research institution) to conduct the research CSIRO advises could be undertaken.

Response: Noted

The National Environmental Science Program (NESP) Marine and Coastal Hub (the Hub) is a partnership between the Australian Government and Australia’s premier research organisations, including CSIRO (Commonwealth Scientific and Industrial Research Organisation). The Hub considers the scientific merit and priority of proposed research activities to help inform any funding decisions by governments, and research agencies on future shark research.

The NESP has funded projects including identifying juvenile white shark habitat, completing a white shark population assessment, research into human-shark interactions, and delivering the *Action Plan for Australian Sharks and Rays* (the Action Plan). The Action Plan was released in September 2021 and assessed requirements for improved management of all Australian shark and ray species. It included a summary of current population status, guidelines for reducing impacts and improving management, and identification of key knowledge gaps impeding conservation and management. The final report is available at: nespmarine.edu.au/project/project-a11-shark-action-plan.

A list of the approved NESP projects is available at: nespmarine.edu.au/projects-page

Specific research recommended by the Committee would be best addressed by the Hub through their processes.

Recommendation 7

The committee recommends that the Australian Government initiate discussions with state and Northern Territory Governments regarding the clinical information collected about shark bite incidents to enable subsequent expert analysis of shark behaviour.

Response: Not agreed

State and territory governments have established procedures for incident response and investigation. Information about shark interactions is documented in the Australian Shark-Incident Database (ASID), managed by the Taronga Conservation Society Australia. The ASID is available to inform governments and the public, and shares data with the International Shark Attack File, with an express aim of providing source material for research.

Recommendation 8

The committee recommends that the Australian Government match funding provided by state governments in support of the development of new and emerging shark mitigation and deterrent measures.

Recommendation 9

The committee recommends that the Australian Government develop a process to ensure products marketed as personal shark deterrent devices are independently verified as being fit-for-purpose.

Recommendation 10

The committee recommends that the Minister for the Environment and Energy and relevant state governments work with key stakeholder groups, such as national surfing organisations, to encourage water users to take all reasonable steps to reduce the probability of being involved in a shark bite incident, including by endorsing the use of independently verified personal deterrent devices.

Response: Noted

It is the responsibility of state and territory governments to manage the risk to humans from sharks and engage with stakeholder groups, including research bodies and surf lifesaving organisations to implement research, development, and testing of shark mitigation and deterrent measures.

In 2022, the NESP Marine and Coastal Hub's research priorities include targeted biodiversity and taxonomy products, including protecting listed migratory species and reducing impacts of human interactions with marine systems, the NESP is due for completion in 2027.

Product safety for personal shark deterrent devices is regulated under the Australian Consumer Law. It is the responsibility of the supplier to ensure that the products they supply meet claims made about them. The Australian Competition & Consumer Commission has a role in identifying current and emerging risks to consumers. The Commission regularly reviews its priorities for compliance and enforcement.

Recommendation 11

The committee recommends that the Western Australian Government's trial rebate program for independently verified personal deterrent devices be made ongoing in Western Australia and adopted by other relevant state governments.

The committee further recommends that relevant state governments consider developing programs for subsidising independently verified personal deterrent devices for occasional surfers at beaches associated with the risk of dangerous shark encounters.

Response: Noted

This recommendation is for state and territory governments.

Recommendation 12

The committee recommends that the Australian Government hold a National Shark Summit of shark experts.

Recommendation 13

The committee recommends that the Australian Government establish a National Shark Stakeholder Working Group comprising key stakeholders in shark management policies. The principal function of the Working Group would be to further the objective of ending lethal shark control programs by developing strategies and facilitating information sharing about the effective use of non-lethal measures.

Recommendation 14

The committee recommends that the National Shark Stakeholder Working Group review the adequacy of information available to beachgoers regarding the risk presented by sharks, such as signage at beaches and how real-time information provided through shark alert applications can be made available at beaches.

Response: Noted

The Department of Agriculture, Fisheries and Forestry provides secretarial support to the Shark-Plan Representative Group (SRG), tasked with monitoring and reporting on the implementation of the *Operational Strategy for Australia's National Plan of Action for the Conservation and Management of Sharks 2012* (the Shark Plan). The Shark Plan details specific actions jurisdictions will implement, progress, and report on, over the life of the Shark Plan. During annual meetings, progress towards meeting Australia's international commitments through specific actions is reported on by each jurisdiction.

Where changes to bather protection policies and actions impact on the conservation and management of sharks, these changes are reported to the SRG for consideration and review. These reports are publicly available on the website of the Department of Agriculture, Fisheries and Forestry.

The SRG includes representatives from state, Northern Territory and Commonwealth government fisheries agencies, commercial and recreational fishing sectors, environmental non-government organisations, a First Nations representative, and independent scientists. Australian Government agencies include the Australian Fisheries Management Authority, the Department of Agriculture, Fisheries and Forestry, the Department of Climate Change, Energy, the Environment and Water, the Great Barrier Reef Marine Park Authority and the Fisheries Research and Development Corporation.

Bather protection programs are the responsibility of state, territory and relevant local governments.

Recommendation 15

The committee recommends that the Australian Government, working with relevant state governments, develop a program to provide grants for specialised trauma kits at venues near beaches associated with the risk of human–shark encounters.

Response: Noted

State and territory governments are responsible for managing the risks to humans from sharks.

Recommendation 16

The committee recommends that relevant state governments review the water safety education programs and education about sharks generally that is provided in schools (particularly schools in coastal areas), with a view to enhancing the education provided on reducing the risk of shark interactions and improving knowledge about shark behaviour and the ecological value of sharks.

As part of these reviews, the committee recommends that state governments consider the role that relevant community and scientific organisations with expertise in human–shark encounters could have in supporting the delivery of such programs.

Response: Noted

This is a recommendation for state and territory governments.

Recommendation 17

The committee recommends that the National Shark Stakeholder Working Group review the various social media accounts and apps that distribute real-time information about shark sightings and warnings about the risk of shark activity to consider whether an integrated national database and app should be established.

Response: Noted

See responses to Recommendations 12, 13, and 14.

Recommendation 18

The committee recommends that the New South Wales Department of Primary Industries improve its consultation and communication with animal rescue groups regarding marine wildlife caught in or injured by lethal shark control measures.

Response: Noted

This is a recommendation for the New South Wales Government.

Recommendation 19

In light of the repeated use of section 158 exemptions for lethal shark control programs, the committee recommends that the next independent review of the Environment Protection and Biodiversity Conservation Act 1999 carefully consider whether section 158 is operating as intended.

In particular, the committee recommends that the independent review consider:

- *whether the matters the Minister may consider in determining the national interest should be limited*
- *whether section 158 should be amended to prohibit the repeated granting of exemptions for the same controlled action or any other controlled action of a similar nature.*

Response: Noted

The most recent independent statutory review of the EPBC Act, completed in 2020, did not consider the application of section 158 of the EPBC Act. The next review is due by 2030.

Recommendation 20

The committee recommends that the Minister for the Environment and Energy refrain from granting exemptions under section 158 of the Environment Protection and Biodiversity Conservation Act 1999 for matters relating to shark control programs until after the operation of section 158 has been reviewed in accordance with Recommendation 19.

Response: Not agreed

The EPBC Act makes provisions for any person proposing to take an action that may trigger the EPBC Act to apply for a 'national interest' exemption under section 158 of the EPBC Act. There are no limitations on the number of times a person may apply for an exemption.

Under section 158 of the EPBC Act, the Australian Government Minister for the Environment and Water may exempt a person proposing to take an action from the requirement to conduct an environmental assessment and/or obtain approval in relation to the action to which the exemption relates if the Minister is satisfied that it is in the national interest to do so. In determining the national interest, the Minister may consider Australia's defence or security or a national emergency, including an emergency to which a national emergency declaration (within the meaning of the *National Emergency Declaration Act 2020*) relates.

The Minister for the Environment and Water must consider any applications submitted to her in accordance with the EPBC Act.