

**AUSTRALIA'S REPORT ON THE CONVENTION FOR THE PROTECTION OF THE NATURAL RESOURCES
AND ENVIRONMENT OF THE SOUTH PACIFIC REGION AND RELATED PROTOCOLS**

(NOUMEA CONVENTION)

1 July 2021 – 30 June 2023

1. What are the main issues and priorities concerning marine pollution for your country?

Every five years, in accordance with Australia's principal environment legislation, the Environment Protection and Biodiversity Conservation (EPBC) Act 1999, the Government conducts a comprehensive review of the state of the Australian environment. National State of the Environment (SoE) reports provide information about environmental and heritage conditions, trends and pressures for the Australian continent, surrounding seas and Australia's external territories.

The Marine chapter looks at the oceans and seas around Australia. SoE2021 reported that 'pressures associated with human population have high impact on Australia's marine environment...the state of marine debris and plastics continues to worsen.' Population pressure globally is leading to an 'increasingly crowded and noisy' ocean with the impacts of anthropogenic noise and pollution (including plastics, marine debris, petrochemicals, excess nutrients, sediments and pesticides) degrading marine ecosystems.

A key priority for Australia is to enhance measures to sustainably manage our marine estate, including through development of a Sustainable Ocean Plan as a member of the High Level Panel for a Sustainable Ocean Economy.

Marine Debris

Marine debris has a particularly large impact on sea turtles, sea snakes and sea birds. However, marine debris is known to impact marine fauna as small as plankton and as large as cetaceans, covering the range of the marine ecosystem through three main types of interaction: entanglement, ingestion and chemical contamination. Large quantities of microplastics have been reported in the Australian Bight and entanglement in discarded fishing gear is a major problem in northern Australian waters.

As Australia transitions to a circular economy, understanding whether plastic bag bans, banning of microbeads in personal care products and awareness-raising campaigns are successful in reducing impacts on Australia's coastal and marine estates will be imperative. Container deposit schemes, waste abatement campaigns and waste infrastructure have already proven to be effective.

A [2022 Annexure to the National Waste Policy Action Plan](#) demonstrated that Australia has delivered or is on the path to delivering all seven of its targets to reduce its overall waste including the impact of waste on the marine environment. These targets include banning the export of waste paper, plastic, glass and tyres; reducing the total waste generated in Australia by 10% per person by 2030; an 80% average resource recovery rate from all waste streams following the waste hierarchy of 2030; significantly increasing the use of recycled content by governments and industry; phasing out problematic and unnecessary plastics by 2025; halving the amount of organic waste sent to landfill for disposal by 2030; and, making comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions. The Commonwealth Science and

Industrial Research Organisation (CSIRO) has been supporting this work through the development of a Circular Economy Roadmap.

In the second half of 2021, Australia released its National Plastics Plan following the 2020 National Plastics Summit. The Plan sets a timeline for the combined action of government, industry and community on plastic pollution including plastics in our oceans and waterways. This includes the increased recycling and use of recycled plastic material, and the phase out of the most common plastic litter including micro-beads and single-use plastics such as straws. Overall, Australia's management of marine pollution is considered to be partially effective and improving.

In 2018, the International Maritime Organization (IMO) adopted an Action Plan (Action Plan) to address marine plastic litter from ships. This Action Plan is referenced in Australia's National Waste Policy Action Plan (2019).

As part of the Action Plan, the IMO has agreed to introduce measures on fishing gear to:

- Require the mandatory marking of certain types of fishing gear through a 'goal-based' approach, and
- Require vessel operators to report fishing gear lost or discharged into the sea (to a vessel's flag Administration, the coastal state where the loss occurred and the IMO), not just gear that poses a significant threat to the environment or navigation, as currently required under MARPOL.

Australia has been an active participant in the Correspondence Group on Marine Plastic Litter from Ships which is developing the expanded reporting requirements, and which will report to the Pollution Prevention and Response (PPR) Sub-Committee in 2024. We have also been an active participant in discussions on the development of the new marking requirements, which will next be considered at PPR in 2024.

As part of the IMO Action Plan, Australia has contributed funding towards an IMO study on marine plastic litter. This study aims to estimate the contribution of ships to marine plastic litter (including both macro and microplastics) and identify any knowledge gaps in determining this contribution.

Australia is also involved in the work of the IMO to introduce regulatory measures to reduce the risk of plastic pellet loss during shipping.

Air Pollution from Ships

The Australian Government is working with the IMO to address greenhouse gas (GHG) emissions from ships. In 2018, the IMO adopted an initial strategy on the reduction of GHG emissions from ships (the Strategy), which set out the future vision for international shipping, the levels of ambition to reduce GHG emissions and guiding principles. This year the IMO has adopted a revised Strategy, which aims to reach net-zero GHG emissions by or around 2050. The revised Strategy includes interim checkpoints of 20-30 per cent reduction by 2030 and 70-80 per cent reduction by 2040. It aims to make zero or near-zero GHG energy, fuels and technologies 5-10 per cent of international shipping's energy mix by 2030.

Domestically, Australia has legislated an economy-wide 43% reduction in carbon intensity by 2030 (from 2005 levels) and net-zero emissions by 2050. The Australian Government is developing a Maritime Emissions Reduction National Action Plan (MERNAP) that will set Australia's strategic

direction towards reducing global shipping emissions and advance Australia's domestic decarbonisation initiatives.

Anthropogenic Noise

Underwater radiated noise from shipping can have short-term and long-term impacts on marine life, especially marine mammals. Noise travels more than four times faster in water than air, and engine noise from shipping can make it difficult for many whale species to communicate, rest, breed and avoid danger, as well as to echolocate, which species such as killer whales rely on to hunt and navigate.

Research funded by the National Environmental Science Programme (NESP) examined the noise contribution of vessel traffic in Australian waters. The final report was published in July 2021 entitled *Characterising anthropogenic underwater noise to improve understanding and management of acoustic impacts to marine wildlife*. Pristine marine soundscapes (dominated by natural, biological and physical sound) were found to remain, particularly near offshore reefs and islands with strong wind noise dominating the southern Australian coast. However, underwater shipping noise dominates areas along the eastern seaboard and northwest shelf close to shipping lanes.

Australia supports the management of anthropogenic underwater noise to mitigate the impact on marine life. Australia is currently developing national anthropogenic underwater noise guidelines that will address vessels as an acoustic source – due for completion in mid-2024. These guidelines will align with the IMO's draft guidelines for the reduction of underwater noise from commercial shipping. This work responds to the publication of the final report of a Senate Inquiry on the impact of seismic testing on fisheries and the marine environment in June 2021 that included 19 recommendations for reducing the potential impacts of seismic testing on marine animals and the marine environment.

Guidance on key terms within the Blue Whale Conservation Management Plan, produced in September 2021, drew attention to the legal requirement – Action A.2.3 from the Blue Whale Conservation Management Plan that “anthropogenic noise in biologically important areas will be managed such that any blue whale continues to utilise the area without injury and is not displaced from a foraging area.”

National and state regulation of oil and gas exploration and production includes consideration of impacts associated with noise generation. Marine-based military training activities that lead to anthropogenic noise (e.g. active sonar, explosive use) are limited to specially designated areas and take place in accordance with the management principles in the Australian Defence Force Maritime Activities Environmental Management Plan). Other marine noise-generating activities that might have significant impacts on matters of national significance (e.g. dredging, infrastructure development) are required to be assessed under the EPBC Act 1999.

Other Marine Pollutants

Land based sources

In addition to marine plastic debris and anthropogenic noise, land-based nutrients, pesticides, sediment inputs and hydrocarbons are of national concern. Land-based run-off and dredging activity associated with the development and maintenance of ports, and excess nutrients and toxins from river plumes are pressures on inshore areas. At sea disposal of dredge material decreased from 2016-2021 with disposal of dredged material on land preferred to reduce the impact of the marine environment.

Offshore oil and gas

NOPSEMA is the regulator for the offshore oil and gas industry and greenhouse gas storage activities in Commonwealth waters, as well as for offshore renewable energies. High levels of industry compliance are reported by NOPSEMA with the low numbers of environmental incidents reported and the relatively low number of environment-related enforcement actions indicate that offshore oil and gas activities are being conducted within acceptable levels of environmental impact and risks, and consistent with environmental performance outcomes.

Sea Dumping

The deliberate discarding or dumping of waste at sea is prohibited by the *Environmental Protection (Sea Dumping) Act 1981* (as amended) and the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (as amended). At the time of publication of this report Australia is considering the Environment Protection (Sea Dumping) Amendment (Using New Technologies to Fight Climate Change) Bill 2023 in Parliament. This Bill proposes to amend the Australia's *Sea Dumping Act* to implement 2009 and 2013 amendments to the *London Protocol* to allow for the issue of export permits for carbon sequestration into sub-seabed geological formations and allow for the issue of permits for the placement of wastes or other material for marine geoengineering activity for the purpose of scientific research.

2. What measures generally have you initiated to implement this Convention and Protocols?

Marine Debris

Ghost Nets Initiative

Increasingly, the views and perspectives of Traditional Owners and Indigenous Voice are being incorporated into the management of Sea Country. Ghost nets, also known as discarded fishing gear, have been the focus of considerable ongoing attention, effort and engagement by Indigenous community groups.

Australia's \$14.88m Ghost Nets Initiative implemented by Parks Australia tackles the issue of ghost nets and plastic litter in the waters and beaches of northern Australia, with a focus on the known ghost net 'hot spot' of the Gulf of Carpentaria. A range of activities have been implemented under this 4-year program (2020-24). The \$6.7 million Indigenous Ranger Coastal Clean-up Project is the largest component of the Program. To date, 16 Indigenous ranger groups had joined the project. Rangers had removed at least 220 ghost nets and more than 540 cubic metres of marine debris weighing more than 58,000 kg from hundreds of beaches and reefs in the Gulf of Carpentaria.

As another part of the Program, in May 2023, the Australian Government announced eleven new ghost net projects worth over \$3 million to help detect, remove, or dispose of marine debris in northern Australia. The Initiative also includes in-water retrieval of ghost nets in collaboration with the Australian Fisheries Management Authority (AFMA) and ghost net and marine debris recycling projects. The Torres Strait Island Regional Council (TSIRC) is being supported under the Innovative Solutions Grant Program to establish a Marine Debris Taskforce aimed at increasing the capacity of Torres Strait communities to manage ghost nets and marine debris, including appointing a Marine Debris Coordinator.

More information on the Ghost Nets Program can be found here:

<https://parksaustralia.gov.au/ghost-nets-initiative/>.

Great Barrier Reef

Marine debris is one of the biggest threats to the Great Barrier Reef. Since 2019, the ReefClean program has facilitated 1,162 clean-up events and removed more than 97.5 tonnes of marine debris. More than 6,500 hectares across the Reef region has been cleaned, with 10,820 volunteers taking part in the Program's activities. ReefClean is funded by the Australian Government's Reef Trust and implemented by Tangaroa Blue, in partnership with Reef Check Australia, Capricornia Catchments, Eco Barge Clean Seas, OceanWatch Australia, South Cape York Catchments, AUSMAP and Think Spatial. The ReefClean program continued throughout the duration of the reporting period.

Marine Parks

Australia is a world leader in marine protected areas management. Australia's National Representative System of Marine Protected Areas (NRSMPA) is made up of Australian, state and territory government marine parks and covers 48% of Australian waters, or around 4.3 million km².

As part of this network, Parks Australia manages 60 Australian Marine Parks that are proclaimed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). These marine parks cover 43%, or around 3.8 million km² of Australia's marine environment.

The marine estate managed by Parks Australia has expanded over the reporting period. Christmas Island and Coco (Keeling) Islands (Indian Ocean Territories) Marine Parks were proclaimed in March 2022. They cover 744,070 square kilometres with 99 per cent of this green zones (highly protected). As of 1 July 2023, Macquarie Island Marine Park was expanded to cover a total area of 475,465 km², close to a 300% increase from the previous marine park area.

Statutory management plans set out Parks Australia's approach to managing Australian Marine Parks. There are six management plans, one for each of five marine park networks (the North, North-west, South-west, South-east and Temperate East networks) and one for the Coral Sea Marine Park. Work has commenced to prepare management plans for the Indian Ocean Territories Marine Parks.

Information about Australian Marine Parks and management arrangements can be found at

<https://parksaustralia.gov.au/marine>.

Sustainable Ocean Plan

As a member of the High Level Panel for a Sustainable Ocean Economy, Australia is developing a Sustainable Ocean Plan that will chart how Australia will manage our ocean for future generations. It will set a shared national vision for our ocean to 2040, and position Australia to grow its ocean economy sustainably and equitably, underpinned by a healthy and resilient marine environment. Sustainable Ocean Plans can provide a unifying 'umbrella' for national and regional ocean governance. In particular, they provide an opportunity to consider the ocean and its management in a holistic way, including the impact of land-based and transboundary activities.

In Australia, our ocean is used and managed by multiple actors, including the Australian Government, our states and territories, First Nations people, industry, and community-based groups. While collectively we have a huge breadth of ocean policies and frameworks in place to sustainably manage our ocean, the reality is that decisions are often taken on a jurisdiction-by-jurisdiction or sector-by-sector basis. Developing a Sustainable Ocean Plan is providing an opportunity for Australian ocean

users and managers to come together, harmonise our approach, and ensure everyone is working towards the same long-term vision for the ocean.

Vessels

Partnership to Address Risk of WWII Oil Spill at Chuuk Lagoon

The Australian Government is partnering with SPREP and the Major Projects Foundation (MPF) to enhance existing efforts to address the risks to human health and safety, and to environmental and economic security posed by volumes of toxic fuel and unexploded ordnance held within shipwrecks in Chuuk Lagoon. Chuuk Lagoon in the Federated States of Micronesia contains the largest concentration of potentially polluting shipwrecks in the Pacific Ocean, 19 of which have been identified as posing significant environmental risks. The Australian Government has committed AUD\$2.12 million to complement work underway by the Government of Japan through the Japanese Mine Action Service to remove oil from the high-risk shipwrecks.

MARPOL

In June 2021, the IMO adopted a short-term measure under the MARPOL Convention that requires international ships to take technical and operational measures to reduce their carbon intensity by an average of at least 40% by 2030 (compared to 2008 levels). This measure became mandatory for the relevant ship types in Australia and internationally on 1 January 2023. The IMO is now developing technical and economic mid-term measures to support the strategy for adoption in 2025, to enter into force in 2027. Measures include technical, design, and operational mechanisms to reduce emissions (e.g. alternative fuel and energy supply to a ship, such as biofuels, renewable power, hydrogen, etc.) as well as market-based measures, which could take the form of a carbon levy or some other market mechanism.

Under the National Waste Policy Action Plan, the Australian Maritime Safety Authority (AMSA) is undertaking a project to develop a nationally consistent framework for the recycling of ship's garbage in Australian ports. This project aims to encourage recycling of ships' recyclable wastes, reduce the volume of ships' garbage going to landfill and reduce the likelihood of illegal discharge into the marine environment.

Management of biofouling

On 15 June 2022 the Australian Government implemented new requirements for managing biofouling on international vessels arriving in Australia. The policy approach was approved on 30 November 2021 by the Minister for Agriculture and Northern Australia and is consistent with the direction of the [International Maritime Organization's 2023 Guidelines for the Control and Management of Ships' biofouling to Minimize the Transfer of Invasive Aquatic Species](#). The policy is also informed by the [Review of National Marine Pest Biosecurity 2015](#) and the Australian biofouling management requirements for international vessel arrivals [consultation regulation impact statement](#).

The Australian Government remains a strategic partner of the GEF-UNDP-IMO GloFouling Partnership project helping to implement the IMO's Biofouling Guidelines in lead partner countries, including Fiji, Samoa and Tonga.

3. Give details of new or amended legislation that covers marine pollution beyond internal waters including any definition of ‘pollution’ and the institutions responsible.

Biosecurity Act 2015

The Department of Agriculture, Fisheries and Forestry’s (DAFF) manages biosecurity risk associated with biofouling under the *Commonwealth Biosecurity Act 2015* and associated legislation. The new requirements for managing biofouling on international vessels arriving in Australia began with an education-first phase on 15 June 2022. From 15 December 2023 this phased approach will transition to enforcement ready.

Operators of all vessels subject to biosecurity control under the Biosecurity Act 2015 are required to provide information on how biofouling has been managed prior to arriving in Australian territorial seas. This information is reported through the Department of Agriculture, Fisheries and Forestry’s (DAFF) Maritime Arrivals Reporting System (MARS) and used to target vessel interventions. Vessel operators will receive less intervention for biofouling if they comply with one of the following three accepted biofouling management practices:

1. Implementation of an effective biofouling management plan; or
2. Cleaned all biofouling within 30 days prior to arriving in Australian territory; or
3. Implementation of an alternative biofouling management method pre-approved by the department.

DAFF is continuing to implement its international obligations for the implementation of the *International Convention for the Control and Management of Ships’ Ballast Water and Sediments* (BWM Convention) through Australia’s ballast water legislation established under the Biosecurity Act 2015. A package of priority amendments for the International Maritime Organization’s review of the BWM Convention are being developed during 2023-2026, with a view to improving implementation and reducing biosecurity risks associated with ballast water transfers. Australia, through DAFF, is an active participant in the IMO’s Marine Environment Protection Committee and Sub-Committee on Pollution, Prevention Response who are coordinating the review of the implementation and effectiveness of the BWM Convention and the development of guidance for the removal of biofouling from vessels (in-water cleaning).

Amendments to Marine Order 97

In 2022, AMSA amended Marine Order 97 (Marine pollution prevention – air pollution) to reflect amendments to MARPOL Annex VI, which introduced a short-term measure to reduce carbon intensity of international shipping by 40% by 2030. The amendments entered into force on 1 January 2023 and require ships to make improvements under the Energy Efficiency Existing Ship (EEXI) framework, and operational improvements under the Carbon Intensity Indicator (CII) framework.

Amendments to the Harmful Anti-fouling Systems Act and Marine Order 98

In 2022, the Australian Government amended the *Protection of the Sea (Harmful Anti-fouling Systems) Act 2006* (HAFS Act) to reflect amendments to the International Convention on the Control of Harmful Anti-fouling Systems (AFS Convention), which banned vessels from applying or re-applying anti-fouling systems containing the chemical biocide cybutryne. The amendments entered into force on 1 January 2023 and added cybutryne to the list of banned substances.

Subsequently, AMSA amended Marine Order 98 (Marine pollution – anti-fouling systems) to reflect the amendments to the IAFS Convention and HAFS Act which banned the use of cybutryne. These amendments updated the International Anti-fouling System Certificate to reflect the ban and gave effect to the revised Guidelines for survey and certification of anti-fouling systems on ships. These amendments entered into force on 1 March 2023.

Ratification of the Minamata Convention on Mercury

Australia ratified the Minamata Convention on Mercury on 7 December 2021. The treaty became legally-binding for Australia on 7 March 2022. The Minamata Convention is an international treaty to protect human health and the environment from anthropogenic emissions and releases of mercury. It sets of a range of measures to reduce and control releases of mercury at all stages of the lifecycle, from its entry into economy; to its uses in products, its releases and emissions from industrial processes; through to waste management and storage.

To reduce emissions and releases of mercury and meet our Convention obligations, the import, manufacture, use, export of mercury and mercury added products are controlled in Australia through the following Commonwealth Government legislation: *the Industrial Chemicals Act 2019, the Therapeutic Goods Act 1989, the Agricultural and Veterinary Chemicals (Administration) Act 1992, the Customs Act 1901 and the Recycling and Waste Reduction Act 2020*. Australia has obligation to control mercury emissions (to the air) and releases (water and land) from industrial facilities. Responsible authorities employ a variety of mechanisms, including licencing frameworks, to implement pollution controls at these sites, aligning with measures required by the Convention.

4. What is the estimated volume/type of marine pollution per year in the Convention area from the following sources; the number of permits/licenses issued; and any other measures taken to prevent, reduce and control such pollution:

a. vessels (art. 6)

The number of pollution incidents in Australian waters reported to AMSA as from (or potentially from) vessels during the reporting period was 327. This includes all incidents, confirmed and unconfirmed, regardless of the amount of the pollutant reported.

As outlined in Section 1 of this report, measures taken to prevent and reduce such pollution are primarily based on active administration and enforcement of IMO conventions, including MARPOL, through mechanisms such as port State control. AMSA's compliance strategy can be viewed here: [AMSA's Compliance Strategy 2023-2027](#).

In regard to prevention, Australia's National Plan for Maritime Environmental Emergencies includes national arrangements for emergency towage capability, managed by AMSA, and is supported by arrangements with States and the Northern Territory to manage the risks within their respective jurisdictions.

AMSA assesses all reported vessel incidents (e.g. machinery failure, main engine breakdowns, fire, flooding, groundings, collisions) to determine whether preventative action is required.

b. land based sources (art. 7)

In 2015, The Australian and Queensland governments released the *Reef 2050 Long-Term Sustainability Plan* (Reef 2050 Plan), in response to the World Heritage Committee's

recommendation that Australia develop a long-term plan for sustainable development to protect the Outstanding Universal Value of the Great Barrier Reef. The Reef 2050 Plan is based on scientific research, analysis and lessons learnt over four decades of management. It is a flexible framework that is reviewed every five years with the completion of the first five-yearly review producing the *Reef 2050 Long Term Sustainability Plan 2021-2025* in December 2021. Within this renewed version of the Plan, one of the goals remains to improve the quality of the water through increased effective land management practices in catchments, including the commitment to update the *Reef 2050 Water Quality Improvement Plan 2017-2022* (WQIP). The *Reef 2050 Water Quality Improvement Plan* is still current and is under review with a new plan due to be completed by mid-2025. The *Reef 2050 Water Quality Improvement Plan* aims to reduce the amount of sediment, nitrogen and phosphorus lost to the Reef from broad scale land use through erosion control in priority grazing regions, improving fertiliser efficiency on sugar cane farms and improving grazing land management practices.

In February 2022, Australia published the *State Party Report on the State of Conservation of Australia's Great Barrier Reef* in response to Decision 44 COM 7B.90 of the World Heritage Committee. This report outlined how Australia's approach to water quality improvements is delivering progress towards the 2025 water quality targets in the *Reef 2050 Water Quality Improvement Plan*. In April 2022, Australia released the *2020 Reef Water Quality Report Card*. It assessed the results of all *Reef 2050 Water Quality Improvement Plan* actions up to June 2020. It was informed by five regional report cards that detailed local waterway conditions and report on social, cultural, economic health and stewardship indicators. Overall, progress is now more than halfway towards meeting the 2025 sediment, particulate nitrogen and particulate phosphorous targets, and is almost halfway towards meeting the 2025 dissolved inorganic nitrogen target.

The *Report on the Joint World Heritage Centre and International Union for Conservation of Nature's (IUCN) Reactive Monitoring Mission to the Great Barrier Reef*, which took place in March 2022, recommended increased investment and accelerated actions to improve Great Barrier Reef water quality, including upscaling of restoration and remediation activities and continuing to advance and increase the uptake of best practice land management within the agricultural industry. Poor water quality is compromising the resilience of the Reef to recover from climate change impacts and one of the most important things we can do to protect the Reef is improve water quality.

In January 2022, The Australian Government announced an additional AUD\$1 billion for protection and management of the Great Barrier Reef extending to 2030. In October 2022, the Australian Government committed AUD\$91.8 million to deliver shovel-ready catchment and reef restoration projects and programs that will improve water quality across the Reef through ecosystem restoration of wetlands, mangroves and seagrass. This is part of the more than AUD\$4.4 billion the Australian and Queensland governments have committed from 2014/15 to 2029/30 to build Reef resilience through management, protection and restoration, including AUD\$579.9 million for projects to improve Reef water quality and accelerate action towards meeting set targets for all Reef catchments.

On 31 July 2023, UNESCO released a draft decision on the state of conservation of the Great Barrier Reef. This decision recommended delaying the decision to place the Great Barrier Reef on a list of 'in danger' World Heritage sites. It recognised that significant progress has been made to improving the health of the Reef, but warned the Reef is still under 'serious threat' from pollution and ocean warming.

Further information on water quality in the Great Barrier Reef can be found at:

<https://reefknowledgesystem.gbrmpa.gov.au/>.

Water quality - AquaWatch

The Commonwealth Science and Industrial Research Organisation (CSIRO) is working with collaborators from across industry, research and government to co-design and deliver a 'weather service for water quality' to help safeguard freshwater and coastal resources in Australia and around the world. The goal of AquaWatch is to establish an integrated ground-to-space national water quality monitoring system that combines satellite sensors and in-situ water quality sensors with data analysis and artificial intelligence to deliver more timely and accurate water quality monitoring and forecasting across Australia and the world.

c. mining and coastal erosion, i.e., dredging, land reclamation (art. 14)

Management of Australia's coastal areas is a responsibility of both states and territories, and the Australian Government. The Australian Government has in place a range of programs and policies designed to minimise the environmental impact of, amongst other things, land based sources of marine pollution.

Australia's substantial investment in better land management is improving water quality entering the Great Barrier Reef from catchment areas (refer 4.b for detail). In June 2015 the Australian Government established a new regulation under then-named *Great Barrier Reef Marine Park Regulations 1983* that ends the disposal of dredge material in the Great Barrier Reef Marine Park from capital dredging projects such as port developments. These *Great Barrier Reef Marine Park Regulations* were remade in 2019 and retained these restrictions. The Queensland Government also introduced the *Sustainable Ports Development Bill 2015*, which came into effect in November 2015; this increases the ban on the disposal of capital dredge material to the entire World Heritage Area of the Great Barrier Reef.

d. sea-bed and sub-soil activities (art. 8)

Petroleum and Greenhouse Gas

Offshore mining activities in Australian waters are regulated through the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGGS Act) and associated regulations; and the *Offshore Minerals Act 1994*. These are administered by the Australian Government Department of Industry, Energy, Science and Resources. State and Northern Territory legislation applies similar arrangements to coastal and inland waters.

The National Offshore Petroleum Titles Administrator (NOPTA) is responsible for the day-to-day administration of petroleum and greenhouse gas titles in Australian waters in Australia. This includes oil and gas exploration and production licences.

During the period 1 July 2021 – 30 June 2023 the following titles were granted:

- 6 of petroleum exploration permits (initial grant)
- 1 of petroleum exploration permits (renewed)
- 4 of petroleum production licenses (initial grants)
- 1 of petroleum production licenses (renewed)
- 7 of petroleum retention leases (initial grants)
- 28 of petroleum retention leases (renewed)
- 5 of Greenhouse Gas (GHG) assessment permits (initial grant)

- 1 of GHG cross-boundary permit (grant)
- 1 of GHG consolidated permit (grant)

Note: this data is for titles in all Australian waters and therefore is not specific to the Convention area only.

Oil Pollution – Environmental Management

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) is Australia's independent expert regulator for health and safety, environmental management, structural and well integrity for offshore petroleum facilities and activities in Australian waters.

During the reporting period there have been no oil pollution events in the Convention area from activities regulated by NOPSEMA.

It is a requirement of Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGs Act) regime that an environment plan (EP) is assessed and accepted by NOPSEMA before oil and gas activities in Australian waters can commence. Based on comprehensive identification and evaluation of environmental impacts and risks for the activity, the EP details activity-specific measures, as well as the levels of performance required of those measures to prevent, reduce and control pollution (refer Section 6 of this report).

The regulatory regime includes the requirement for proponents to include an oil pollution emergency plan (OPEP) as a part of the EP for their activity. The OPEP details the proponent's preparedness and response arrangements for oil spills that may be associated with the activity. NOPSEMA implements a compliance monitoring program to secure compliance against requirements of EPs and OPEPs.

The requirement to prepare an OPEP aligns with the 'polluter pays' requirements in the OPGGS Act, which apply in the event of the escape of petroleum in relation to a petroleum activity being carried out in a titleholder's title area. Those requirements place responsibility on the titleholder to take all reasonably practicable steps to control the escape of petroleum, to clean up any escaped petroleum and to remediate any resulting damage to the environment.

Other measures

Other regulatory requirements that apply to management of workforce safety and facility integrity risks in the offshore oil and gas sector in Australian waters also contribute to the prevention, reduction and control of pollution. For example, a Well Operations Management Plan is required for well activities in Australian waters and must identify the technical and managerial aspects of managing the risks to integrity of the wells.

Renewable energy infrastructure activities

The Offshore Infrastructure Regulator (OIR) was established under the Offshore Electricity Infrastructure Act 2021 to oversee the offshore renewables industry in Australian Commonwealth waters. The functions of the OIR are administered by the NOPSEMA, and include the regulation of work health and safety, infrastructure integrity and environmental management for offshore renewable energy infrastructure activities. The OIR will implement regulatory oversight of offshore renewable energy activities as licences for such activities are granted by the Australian Government.

There are currently no offshore minerals exploration or production activities underway in Australian waters.

e. discharges into atmosphere (art. 9)

Domestic arrangements

Any impacts to the marine environment from air pollutants are likely to be restricted to local settings dominated by commercial shipping and to a lesser extent from marine outboard motors used in recreation or pleasure crafts.

In 2022, Australia legislated an economy-wide 43% reduction in carbon intensity by 2030 (from 2005 levels) and net-zero emissions by 2050.

In May 2023, the Australian Government also committed to developing a Maritime Emissions Reduction National Action Plan (MERNAP). The MERNAP will set Australia's strategic direction towards reducing global shipping emissions and advance Australia's domestic decarbonization initiatives.

Emissions from oil and gas facilities in Australian Commonwealth waters are regulated by NOPSEMA.

International shipping

Since 1 January 2020, all ships globally have been required under MARPOL to use fuel which contains a maximum of 0.50% sulphur. This aims to reduce the impact of sulphur oxide (SOx) emissions on the environment and human health. To support implementation and compliance with the 0.50% sulphur limit, since 1 March 2020, ships have also been prohibited from carrying non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship. These requirements are enacted in Australia through the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* and *Marine Order 97 (marine pollution prevention – air pollution)* (Marine Order 97).

In June 2021, the IMO adopted a short-term measure under the MARPOL Convention to require international ships to take technical and operational measures to reduce their carbon intensity by an average of at least 40% by 2030 (compared to 2008 levels). This measure is enacted in Australia through Marine Order 97 and entered into force on 1 January 2023.

f. dumping and disposal from vessels, aircraft, man-made structures of waste including radioactive waste or matter (art. 10)

The Australian Government regulates the disposal of waste materials at sea under the Environment Protection (Sea Dumping) Act 1981 (Sea Dumping Act), which implements Australia's obligations under the 1996 Protocol to the Convention on the Prevention of Marine Pollution by dumping of Wastes and Other Matter, 1972 (London Protocol), refer to section 5 and section 6 for further discussion on the Sea Dumping Act and the London Protocol. The Sea Dumping Act prohibits ocean disposal of radioactive waste, in accordance with the provisions of the London Protocol. In Australia sea dumping permits are most commonly issued for disposal at sea of dredged material and for placement of artificial reefs. Information on permits issued under the Sea Dumping Act is provided to the London Protocol Secretariat.

As placement of artificial reefs is not considered dumping, the regulation of artificial reefs exists under the Sea Dumping Act only. As such, issuing of artificial reef permits are not required to be reported to the International Maritime Organisation and are therefore not reflected in the below table.

A summary of items disposed in Australia in 2021-2022 can be found in the following table:

Material	Permits issued in 2021-2022	Number of active permits in 2023	Permitted volume/amount for disposal in 2021-2022	Actual volume/amount disposed in 2021-2022 ¹
Dredged material	19	34	190,418,267 m ³	7,788,242 m ³
Vessels, platforms or manmade objects	1	3	93 wooden vessels 1 platform (320 tonnes)	72 wooden vessels 1 platform (320 tonnes)
Treated sewage	0	3	2,322,300 litres	≤1,948,620 litres
Organic material of natural origin (human burials)	4	0	4	4
Excavated material	0	1	700,000 m ³	0 m ³
Total	24	41		

Note: values in this table covers disposal in all Australian waters and therefore is not specific to the Convention area only.

g. the storage of toxic and hazardous wastes, including radioactive wastes or matter (art. 11)

The Australian Government and each state and territory government have passed laws establishing a regulatory framework for the acquisition, use, storage, transfer and disposal of material (including radioactive waste) to help ensure that storage of toxic and hazardous wastes is conducted in a manner that will protect human health and the environment. In addition to controlling storage facilities, there are requirements for appropriate labelling, handling, packaging and transport of these wastes. The tools used to promote sound storage practices include legislation, codes of practice, permits and licences.

For further information see:

1. <http://www.infrastructure.gov.au/transport/australia/dangerous/index.aspx>
2. <http://www.safeworkaustralia.gov.au/sites/swa/whs-information/hazardous-chemicals/dangerous-goods/pages/hazardous-substances>
3. <http://www.environment.gov.au/topics/environment-protection/hazardous-waste>
4. <https://www.amsa.gov.au/marine-environment>

h. testing of nuclear devices (art. 12)

Australia does not test any nuclear devices and has signed and ratified the Comprehensive Test Ban Treaty (CTBT). Australia firmly supports the entry into force of the CTBT and establishment of a fully

¹ Actual data is only available on calendar year basis and data for 2023 is not currently available.

effective treaty verification system. Australia is also a signatory to the South Pacific Nuclear Free Zone Treaty, which prohibits the use, testing, and possession of nuclear weapons within the borders of the treaty zone.

5. Have you prohibited the storage and disposal of radioactive waste in the Convention area and the continental shelf beyond the Convention area? If so, what is the legislative provision and what is the penalty? (art. 10)

The Sea Dumping Act prohibits ocean disposal of radioactive waste in accordance with the provisions of the London Protocol. Australia has not yet had cause to prohibit the storage and disposal of radioactive waste in the Convention area and the continental shelf beyond the Convention area.

Offence provisions and penalties are included in the Sea Dumping Act at:

<https://www.legislation.gov.au/Series/C2004A02478>.

6. What technical guidelines and legislation do you have concerning EIA of development activities likely to impact on the marine environment (art. 16)? How many assessments occurred, what were the measures adopted to prevent pollution and what was the extent of public involvement.

Offshore Petroleum and Greenhouse Gas Storage

The OPGGS Act and Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations) provide for regulation of environmental management in the offshore petroleum and greenhouse gas sectors that operate in Australian waters. Since 2014, NOPSEMA has been the sole regulator for environmental management in these sectors. For more information see www.nopsema.gov.au.

The Environment Regulations provide for project-level decisions on overall acceptability through NOPSEMA's assessment and acceptance of Offshore Project Proposals (OPPs), which are prepared by project proponents. The regulatory process for assessment of OPPs includes a requirement for OPPs to be published for a period of at least four weeks, during which time public comments may be given. Following the public comment period, proponents are required to summarise comments received and assess the merits of each objection or claim made about the project or any project activity.

Over the reporting period 1 July 2021 – 30 June 2023, NOPSEMA accepted two OPPs for new offshore projects in Australian waters (one of which was submitted to NOPSEMA and under assessment during the previous reporting period).

All offshore oil and gas activities in Australian waters (including activities that are parts of an offshore project proposal) must have an EP assessed and accepted by NOPSEMA under the Environment Regulations. The EP is an activity-specific document that provides a detailed environmental impact and risk assessment and describes how those impacts and risks will be managed to a level that is acceptable and as low as reasonably practicable (ALARP) for the life of the activity.

EPs are required to be published in full both on submission to and on acceptance by NOPSEMA, and a 30 day public comment period applies to EPs for seismic surveys and exploratory drilling.

The Environment Regulations include a formal process for consultation with 'relevant persons' (persons or organisations whose functions, interests or activities may be affected by the activities to

be carried out under an EP) during development of the plan. The broader public comment mechanism also provides interested stakeholders with the opportunity to input to environmental management decision-making processes, and access to information about proposed activities.

Over the reporting period 1 July 2021 – 30 June 2023, NOPSEMA received 81 EP submissions for assessment. Over that same period NOPSEMA accepted 45 EPs. From time to time NOPSEMA publishes and updates information and guidance materials applicable to implementation of the Environment Regulations. These materials along with the publication dates are available at: www.nopsema.gov.au.

During the reporting period NOPSEMA published the following guidance of note:

- [Consultation in the course of preparing an environment plan guideline](#) - The purpose of this guideline is to support clarity and transparency on the legal requirements, including recent case law, for consultation by titleholders in the course of preparing their EPs prior to submission to NOPSEMA. The guideline will also support clarity and transparency around what NOPSEMA will take into consideration when assessing and deciding whether the consultation requirements of the Environment Regulations have been met.
- [Petroleum activities and Australian Marine Parks guidance note](#) - This guidance note has been prepared by NOPSEMA and Parks Australia to assist petroleum titleholders to understand their obligations to manage risks and impacts to Australian Marine Parks (AMPs) and to support consultation with the Director of National Parks. The guidance note aims to assist titleholders to develop EPs which appropriately describe how proposed activities will be consistent with the requirements of the AMP management plans. The note also provides transparency about the processes, expectations and requirements that apply to petroleum activities in AMPs.

Where proposed development and activities (other than from offshore petroleum and greenhouse gas activities undertaken in Australian waters) is likely to have significant impact on the environment, these are referred and assessed under the EPBC Act. These include activities conducted on land which may impact matters of national environmental significance that are marine based, as well as activities such as offshore wind farms.

The EPBC Act, in its environmental impact assessment process, assesses the potential effects of proposed actions on the Australian marine environment, including on listed threatened, migratory and marine species. The EPBC Act provides for extensive public consultation in deciding whether an action requires approval, and during the environmental assessment process. Guidances of note include:

- [Key environmental factors in offshore windfarm EIA](#)
- [EPBC Act Policy Statement Industry Offshore-aquaculture](#)
- [Impacts on birds from offshore wind farms Australia](#)
- [Guidance on key terms Blue Whale conservation management plan](#)
- [Marine bioregional plans](#)

London Protocol

Australia is a Contracting Party to the 1996 Protocol to the Convention of the Prevention of Marine Pollution by Dumping of Wastes and other Matter, 1972 (London Protocol). Australia fulfils its international obligations under the London Protocol through its Environment Protection (Sea

Dumping) Act 1981. In accordance with Annex 1 of the London Protocol, the only wastes that Australia will consider permitting for ocean disposal, following a rigorous assessment process, are:

1. dredged material;
2. fish waste, or material resulting from industrial fish processing operations;
3. vessels and platforms or other man-made structures at sea;
4. inert, inorganic geological material;
5. organic material of natural origin;
6. bulky items primarily comprising iron, steel, concrete and similarly unarmful materials for which the concern is physical impact, and limited to those circumstances where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping; and
7. Carbon dioxide streams from carbon dioxide capture processes for sequestration.

Contracting Parties agreed in October 2022 to remove sewage sludge as a permit category from Annex 1. Effective from January 2023, permits are no longer able to be applied for or granted for disposal of sewage sludge.

In accordance with Annex 2 of the London Protocol, measures to prevent pollution include waste management auditing, consideration of alternatives to disposal, and detailed analysis of the chemical, physical and biological properties of the material proposed for disposal. Permit applicants are required to provide an assessment of the potential impacts from disposal and undertake appropriate monitoring and management of the disposal. Permit applicants must also demonstrate that they have consulted with other users of the sea that may be impacted by the action.

Applications for sea dumping of dredged material are assessed in accordance with the National Assessment Guidelines for Dredging. These guidelines were approved in March 2009 and guide dredging and sea dumping assessments under the EPBC Act and the Sea Dumping Act.

These guidelines are available here: [National Assessment Guidelines for Dredging 2009 - DCCEEW](#)

- 7. Outline the cooperation/coordination with the other Contracting Parties in implementing the Convention and Protocols (such as agreements for protection, development or management of the marine environment, information sharing, research, monitoring and technical assistance, protection against the threat and effects of 'pollution incidents' (arts. 4, 17, and 18)).**

Australia is an active participant in the Pacific Islands Regional Marine Spill Contingency Plan (PACPLAN), developed as part of the SPREP Pacific Ocean Pollution Prevention Programme (PACPOL).

In June 2021, Australia and SPREP entered an agreement (AU\$2 million, 2021 – 2025) to support Pacific Island countries to prepare and respond to oil spills. Australian government agencies, including AMSA, participated in training workshops developed under this agreement.

The high-level project objective is to:

Support Pacific Island Countries to improve their response capabilities and preparedness to respond to oil spill disasters, in accordance with commitments under the regionally agreed PACPLAN.

Australia is also providing ongoing training to Papua New Guinea to enhance effective delivery of Port State Control inspection functions, with a focus on inspection of Liquefied Natural Gas (LNG)

carriers. Additionally, Australia is currently assisting Papua New Guinea to develop new domestic maritime legislation which will include regulations for environmental protection.

The AUD\$16 million Australian-funded Pacific Ocean Litter Project 2019-2027 with SPREP continues to support Pacific Island countries and territories to address marine debris by refusing, reducing and replacing single-use plastics items that make up much of the plastic waste in their inshore waters and on their beaches.

8. How many 'pollution incidents' have there been and what were the laws, regulations, institutions and operational procedures used in each? (Protocol on Pollution Emergencies)

The number of pollution incidents in Australian waters, reported to AMSA for the reporting period was 327 (refer to question 4).

Australia's National Plan for Maritime Environmental Emergencies (National Plan) provides a single comprehensive and integrated response arrangement to minimise the impacts of marine pollution from vessels and oil spills from offshore petroleum facilities, as well as other environmental impacts arising from a maritime environmental emergency.

In April 2023, AMSA commenced a review of the National Plan, which will consider and make recommendations on:

- The types and nature of the maritime environmental risks that Australia may face over the next decade,
- The desired operation effects of the National Plan,
- The scope of the National Plan, and
- The effectiveness of existing funding and governance arrangements for pollution preparedness and response activities.

This review is expected to conclude in early 2024.

9. What are the reporting requirements regarding 'pollution incidents' of:

a. Government officials;

As a signatory to MARPOL, Australia is required under Article 11 to provide an annual report to IMO, which includes information on significant pollution incidents.

b. Masters of vessels flying your flag; and

Under Australian legislation applying the regulations of MARPOL, masters of Australian vessels must comply with the reporting requirements set out in MARPOL. Article 8 and Protocol I of MARPOL require that coastal states are notified without delay when an incident occurs that involves:

- A discharge or probable discharge of oil or noxious substances carried in bulk, resulting from damage to the ship or its equipment, or for the purpose of securing the safety of a ship or saving a life at sea,
- A discharge or probable discharge of harmful substances in packaged form, or

- A discharge during the operation of the ship of oil or noxious substances in excess of the quantity or instantaneous rate permitted under MARPOL.

A report must also be made when an incident involves damage, failure or breakdown of a ship (15 metres in length or more) that:

- Affects the safety of the ship, including but not limited to collision, grounding, fire, explosion, structural failure, flooding and cargo shifting, or
- Results in the impairment of the safety of navigation, including but not limited to failure or breakdown of steering gear, propulsion plan, electrical generating system and essential shipborne navigational aids.

The master or other person having charge of any ship involved in an incident is required to make the report. If this cannot be done, then the owner/charterer/manager/operator of the ship, or their agent is responsible for making the report. Reports must include the following details:

- Name of ship/s involved,
- Time, type and location of incident,
- Quantity and type of harmful substance,
- Assistance and salvage measures.

c. Masters of all vessels and pilots of all aircraft in the vicinity of your coasts (art. 5).

The same obligations as set out in (b) above apply to all ships in Australian waters, regardless of flag. The obligations do not formally apply to aircraft, although it is understood reporting pollution incidents is part of standard operating procedure for commercial pilots.