



**Australian Government**  
**Director of National Parks**



# Draft North-west Commonwealth Marine Reserves Network management plan 2014–24

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Canberra ACT 2601

# Invitation to comment on the draft North-west Commonwealth Marine Reserves Network Management Plan

The North-west Commonwealth Marine Reserves Network comprises 13 reserves: four existing marine reserves and nine new reserves. The Proclamation of the new reserves came into effect on 17 November 2012.

The primary purpose of the North-west Commonwealth Marine Reserves Network is to protect and maintain biological diversity while also allowing for the sustainable use of natural resources in some areas. The reserves include a vast range of ecosystems, habitats and biological communities representative of the North-west Marine Region. The reserves will help to ensure that our marine environment remains healthy and is more resilient to the effects of climate change and other pressures.

This draft Management Plan has been developed under the Environment Protection and Biodiversity Conservation Act 1999 (s.366) and provides a framework for the management of the North-west Commonwealth Marine Reserves Network as a whole. In preparing this draft Management Plan, the Director of National Parks has considered:

- the Marine Bioregional Plan for the North-west Marine Region completed in 2012 and associated information for the North-west Marine Region
- the report prepared for the Proclamation of the Commonwealth Marine Reserves within the North-west marine reserves network
- the proclamations and purposes governing the use of each marine reserve within the North-west Commonwealth Marine Reserves Network
- previous Management Plans for: the Ningaloo Marine Park (Commonwealth Waters); Ashmore Reef National Nature Reserve; Cartier Island Marine Reserve; and Mermaid Reef National Nature Reserve
- the protection and conservation of biodiversity and heritage in accordance with Australia's obligations under international agreements
- the impact on current uses
- the interests of owners, leaseholders and holders of usage rights
- the interests of Traditional Owners of any Indigenous people's land in the network and any other Indigenous persons interested in the network
- public comments received on the initial proposal to prepare a draft Management Plan (comment period from 17 November to 18 December in 2012).

This draft Management Plan includes a description of the North-west Marine Region, the values of the North-west Commonwealth Marine Reserves Network and the known pressures affecting the marine environment. It includes the suite of management objectives, strategies, actions and management prescriptions that will be implemented over the 10-year life of the Management Plan to protect the conservation values of the reserves network.

The Director of National Parks invites public comment on the draft Management Plan.

All comments received will be considered and the draft management plan may be revised accordingly. To ensure your comments are clear and concise please:

- list your points in order, numbered according to the relevant sections or prescriptions (strategies and actions) of the draft plan
- state whether you agree or disagree with prescriptions and give your reasons
- if you disagree, suggest alternatives
- include any matters relevant to management of the reserves in the North-west Commonwealth Marine Reserves Network that are not covered by the draft plan.

There are two ways to submit feedback:

- Email your comments to:  
[Northwest.draftplan@environment.gov.au](mailto:Northwest.draftplan@environment.gov.au)
- Post your comments free of charge to:

Draft North-west Commonwealth Marine Reserves Network Management Plan  
Department of Sustainability, Environment, Water, Population and Communities  
Reply Paid 787  
Canberra ACT 2601

Comments on the draft management plan for the North-west Marine Reserves Network must be sent by 14 February 2013. Comments sent after this date or to addresses other than those above cannot be taken into account in finalising the management plan.

Please note that all comments may be treated as public documents and may be made public on the department's website.

This draft Management Plan is available at [www.environment.gov.au/marinereserves](http://www.environment.gov.au/marinereserves) and from the Department of Sustainability, Environment, Water, Population and Communities by telephoning the Community Information line on 1800 069 352.

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*Delegate of the Director of National Parks*

# CONTENTS

<b>Part 1</b>	<b>Introduction.....</b>	<b>7</b>
1.1	Structure of this Management Plan.....	9
1.2	Objectives of the Management Plan.....	9
1.3	Introductory provisions for the North-west marine reserves network .....	10
<b>Part 2</b>	<b>Description of the Environment, Values and Pressures in the North-west Marine Reserves Network.....</b>	<b>11</b>
2.1	Description of the North-west Marine Region environment.....	11
2.2	Social, cultural and economic values.....	11
2.3	Values of the North-west Commonwealth Marine Reserves Network .....	13
2.4	Pressures on the conservation values of the North-west Commonwealth Marine Reserves Network.....	22
<b>Part 3</b>	<b>IUCN Categories and Zoning of the Network reserves.....</b>	<b>24</b>
	Categories and zones.....	26
<b>Part 4</b>	<b>Management Strategies.....</b>	<b>28</b>
	Strategy 1—Improve knowledge and understanding of the conservation values of the marine reserve and of the pressures on those values.....	<b>30</b>
	Strategy 2—Minimise impacts of allowable activities through effective assessment of proposals, decision-making and management of reserve specific issues.....	32
	Strategy 3—Protect the conservation values of the marine reserve through management of environmental incidents.....	34
	Strategy 4—Facilitate compliance with this Management Plan through education and enforcement.....	35
	Strategy 5—Promote community understanding of, and stakeholder participation in, the management of the marine reserve.....	37
	Strategy 6 - Support involvement of Indigenous people in management of Commonwealth Marine Reserves.....	38
	Strategy 7—Evaluate and report on the effectiveness of this Management Plan through monitoring and review.....	39
<b>Part 5</b>	<b>Managing Use of the North-West Commonwealth Marine Reserves Network .....</b>	<b>40</b>
5.1	Outline of Part 5.....	40
5.2	Permits and class approvals for allowable activities.....	43
5.3	General use of and access to the North-west Commonwealth Marine Reserves Network .....	45
5.4	Commercial shipping.....	46
5.5	Commercial fishing and pearling.....	47
5.6	Commercial tourism (including charter fishing tours) and commercial media.....	51
5.7	Recreational fishing (including clients of charter fishing tours and organised fishing competitions).....	53
5.8	Mining operations (including exploration).....	54
5.9	Structures and works.....	57
5.10	Research and monitoring activities.....	59
5.11	Defence, border protection, law enforcement and emergency response..	61
5.12	New activities and authorisations.....	62

<b>Appendix A</b>	<b>North-West Commonwealth Marine Reserves Network – Descriptions, Values and Map</b> .....	<b>64</b>
	Shark Bay Commonwealth Marine Reserve.....	65
	Carnarvon Canyon Commonwealth Marine Reserve.....	67
	Gascoyne Commonwealth Marine Reserve.....	69
	Montebello Commonwealth Marine Reserve.....	71
	Dampier Commonwealth Marine Reserve.....	73
	Eighty Mile Beach Commonwealth Marine Reserve.....	75
	Roebuck Commonwealth Marine Reserve.....	77
	Argo-Rowley Terrace Commonwealth Marine Reserve.....	79
	Kimberley Commonwealth Marine Reserve.....	82
	Ningaloo Commonwealth Marine Reserve.....	84
	Mermaid Reef Commonwealth Marine Reserve.....	87
	Ashmore Reef Commonwealth Marine Reserve.....	89
	Cartier Island Commonwealth Marine Reserve.....	92
<b>Appendix B</b>	<b>Legislative Framework for the Reserves Network</b> .....	<b>94</b>
	EPBC Act.....	94
	Other relevant laws.....	101
	International agreements.....	101
<b>Glossary</b> .....		<b>105</b>
<b>Supporting Information</b> .....		<b>107</b>

# PART 1

## INTRODUCTION

Australia has one of the largest marine jurisdictions in the world, containing a vast array of diverse and unique biological and physical features. Our marine environments range from tropical seas in the north to sub-Antarctic waters in the south. These waters are home to a wealth of biodiversity, much of it found nowhere else. The North-west Commonwealth Marine Reserves Network has been established to protect examples of the biodiversity habitats and ecosystems of the North-west Marine Region.

The North-west Commonwealth Marine Reserves Network forms part of Australia's National Representative System of Marine Protected Areas (NRSMPA). The establishment of the NRSMPA has been ongoing since 1998 when the Australian, state and Northern Territory governments agreed to its creation. The states and the Northern Territory are establishing marine protected areas in their coastal waters, while the Australian Government has established marine protected areas in Commonwealth waters around Australia. Commonwealth waters start at the outer edge of state and territory waters, generally three nautical miles (5.5 kilometres) from the shore (territorial sea baseline), and extend to the outer boundary of Australia's exclusive economic zone, 200 nautical miles from the territorial sea baseline. The Commonwealth marine area is defined in s.24 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The NRSMPA aims to meet Australia's international commitments as a signatory to the Convention on Biological Diversity to establish a representative system of marine protected areas within Australia's exclusive economic zone.

The creation and management of marine reserves is an important strategy for the conservation and ecologically sustainable use of the marine environment. Marine reserves, when well designed and managed effectively, make an important contribution to maintaining the overall health and resilience of our oceans. The primary goal of the NRSMPA is to establish and manage a comprehensive, adequate and representative system of marine protected areas to contribute to the long-term ecological viability of marine and estuarine systems, to maintain ecological processes and systems, and to protect Australia's biological diversity at all levels.

Marine reserves are just one of a wide range of tools that support the conservation and ecologically sustainable use of the marine environment and its biodiversity. Other key tools include the adoption of ecosystem-based fisheries management, actions to recover threatened species and actions to avoid or mitigate threats such as invasive species, marine debris and land-based sources of pollution. There is substantial protection for the marine environment and threatened and migratory species under the EPBC Act, as well as under sectoral legislation at the Commonwealth and state level.

The North-west Commonwealth Marine Reserves Network was established in 2012. The network was proclaimed for the purpose of protecting and maintaining marine biodiversity, while allowing for the sustainable use of natural resources in some areas.

The North-west Marine Reserves Network (Figure 1.1) comprises 13 Commonwealth marine reserves, of which nine were proclaimed under s.344 of the EPBC Act, and four were proclaimed under the *National Parks and Wildlife Conservation Act 1975*. Together these reserves represent examples of the ecosystems of the North-west Marine Region. The 13 reserves are:

- Shark Bay Commonwealth Marine Reserve
- Carnarvon Canyon Commonwealth Marine Reserve
- Gascoyne Commonwealth Marine Reserve
- Montebello Commonwealth Marine Reserve

- Dampier Commonwealth Marine Reserve
- Eighty Mile Beach Commonwealth Marine Reserve
- Roebuck Commonwealth Marine Reserve
- Argo-Rowley Terrace Commonwealth Marine Reserve
- Kimberley Commonwealth Marine Reserve
- Ningaloo Commonwealth Marine Reserve, previously named Ningaloo Marine Park (Commonwealth waters)
- Mermaid Reef Commonwealth Marine Reserve, previously named Mermaid Reef Marine National Nature Reserve
- Ashmore Reef Commonwealth Marine Reserve, previously named Ashmore Reef National Nature Reserve; and
- Cartier Island Commonwealth Marine Reserve, previously named Cartier Island Marine Reserve.

The Director of National Parks (the Director) is required to prepare a Management Plan for each Commonwealth reserve under the EPBC Act (ss.366 and 367). The EPBC Act allows a single Management Plan to be prepared to cover a number of reserves. This approach has been adopted for marine reserves as it allows reserves to be managed at a scale that accommodates the dynamics and connectivity of marine ecosystems. The network approach also establishes consistent management arrangements across all reserves within the network.

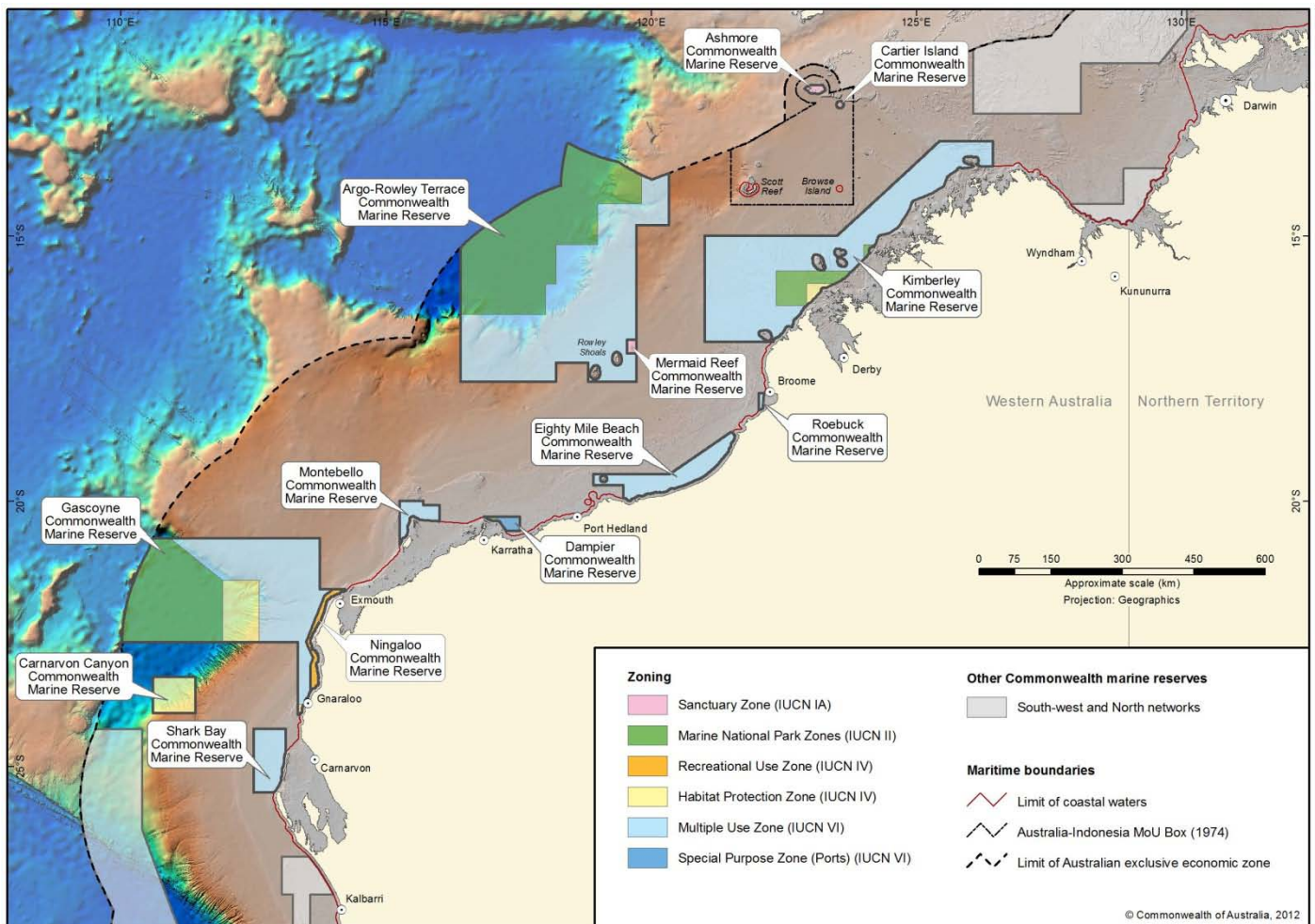


Figure 1.1: North-west Commonwealth Marine Reserves Network



## 1.1 Structure of this Management Plan

The Management Plan provides a broad description of the North-west Marine Region and a summary of regional features represented in the North-west Commonwealth Marine Reserves Network (see Part 2). It also identifies the conservation values protected by the network. The Plan includes information about pressures and potential threats to these values, which require active management and monitoring over time to ensure the objectives of the Management Plan are achieved.

This Management Plan assigns an International Union for Conservation of Nature (IUCN) category to each marine reserve in the North-west Commonwealth Marine Reserves Network, in accordance with the requirements of s.367(1)(a) of the EPBC Act (see Part 3). When a reserve is divided into zones, each zone is also assigned an IUCN category. The Australian IUCN reserve management principles, prescribed in Schedule 8 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations), provide administrative guidance for managing Commonwealth reserves, and also define broadly what activities are allowable in each reserve and zone and under what circumstances they may be undertaken.

Zoning is a fundamental planning tool in managing marine reserves and defines what activities can occur in which locations so as to protect the marine environment and to provide for ecologically sustainable use where this is allowed. Detailed information about the zoning arrangements is provided in Part 3 of this Plan. Maps and descriptions for individual reserves are provided in Appendix A.

The Management Plan outlines the management strategies and actions for research and monitoring, assessment and permitting, compliance, community participation, Indigenous involvement and environmental management (see Part 4). These strategies and actions provide the framework for achieving the Plan's objectives and outcomes. This Management Plan also allows for management of local scale, reserve-specific issues during the life of the Management Plan, as management needs change over time.

Included in this Management Plan are the management prescriptions applying to activities associated with human use in the reserves network. These management prescriptions provide the specific detail for how activities are allowed to occur in the reserves network and of prohibited activities in the marine reserves network (see Part 5). Together with Parts 3 and 4, Part 5 of the Plan provides certainty of management intentions, while providing for flexibility to adapt management responses to emerging needs over the life of the management plan. Legislative context and international agreements that influence the management of the reserves network are provided in Appendix B.

## 1.2 Objectives of the Management Plan

The objectives of the Management Plan are intended to provide clear direction for management of the marine reserves network. The objectives of this Management Plan are to:

- 1. provide for the protection and conservation of biodiversity and other natural and cultural values of the North-west marine reserves network; and**
- 2. provide for sustainable use of the natural resources within the North-west marine reserves network where this is consistent with objective 1.**

The management strategies and actions outlined in Part 4 and the management prescriptions outlined in Part 5 aim to achieve the objectives of this Plan.

## **1.3 Introductory provisions for the North-west marine reserves network**

### **1.3.1 Short title**

This Management Plan may be cited as the North-west Commonwealth Marine Reserves Network Management Plan or, the North-west Marine Reserves Network Management Plan.

### **1.3.2 Commencement and termination**

This Management Plan will come into operation on 1 July 2014. The Plan will cease to have effect 10 years after commencement, unless revoked sooner or replaced with a new Management Plan.

### **1.3.3 Interpretation**

Definitions of terms, concepts, legislation and abbreviations used in this Management Plan are provided in the Glossary.

# PART 2

## DESCRIPTION OF THE ENVIRONMENT, VALUES AND PRESSURES IN THE NORTH-WEST MARINE RESERVES NETWORK

### 2.1 Description of the North-west Marine Region

The North-west Commonwealth Marine Reserves Network is located within the North-west Marine Region, which comprises Commonwealth waters from the Western Australia – Northern Territory border to Kalbarri, south of Shark Bay.

The North-west Marine Region covers approximately 1.07 million km<sup>2</sup> of sub-tropical and tropical waters in the Indian Ocean and Timor Sea.

The region has extensive areas of continental shelf and slope and includes the narrowest continental shelf on Australia's coastal margin as well as two areas of abyssal plain with depths in excess of 5000 metres. The sea-floor features of the region are diverse and include coral reefs, soft sediments, canyons, and limestone pavements which support high species diversity. There are a number of unique features that distinguish the North-west from other marine regions, including the large area of continental shelf and continental slope, its highly variable tidal regimes, and its high cyclone incidence. It is influenced by a complex system of ocean currents that change between seasons and between years, generally resulting in its surface waters being warm and nutrient poor and of low salinity. The southern part of the region is a transition zone between tropical and temperate waters and includes the northern extent of the ranges of some temperate species typical of the South-west Marine Region.

The region is characterised by high species diversity and fewer endemic species than are present in cooler temperate waters. Most of the region's species are tropical and are also found in other parts of the Indian and western Pacific oceans; as such, the region shares many species with the North Marine Region. The region contains more coastal and shelf fish species than anywhere else off the Western Australian coast, particularly in the Kimberley and North West Shelf. The region supports internationally important breeding and feeding grounds for a number of threatened and migratory marine species, including humpback whales, which mate and give birth in the waters off the Kimberley coast. Significant turtle rookeries are found on coastal beaches and offshore islands and the surrounding waters provide important resting inter-nesting (i.e. in between egg laying periods) habitats. Shark Bay and adjacent waters are home to one of the largest remaining dugong populations in the world, and the annual aggregation of whale sharks at and around Ningaloo Reef is the highest known density of whale sharks in the world.

Further information on the North-west Marine Region can be found in the Marine Bioregional Plan for the North-west Marine Region.

### 2.2 Social, cultural and economic values

The waters of the North-west Marine Region are important for their cultural and social values and for their economic contributions to Australia and the region. The activities and industries of most significance in the North-west marine reserves network based on the resources and values of the region include (in alphabetical order):

- Commercial fishing: commercial wild-catch fishing is one of the most widespread activities in the region, including fisheries targeting tuna, billfish, goldband and pink snapper, and mackerel. Fishing effort is relatively evenly distributed, with the highest efforts concentrated along the continental shelf and slope and in state waters adjacent to the region. Land-based activities associated with commercial fishing, such as repair yards, dock handling, transportation, boat construction, fish processing and commercial trade, and the supply of marine equipment like nets and rigging, contribute to the employment and economic activity of coastal communities in the region. At the time of making of this Plan, no aquaculture activities apart from pearling (see below) were occurring in the network.
- Commercial tourism and charter fishing: the North-west Commonwealth Marine Reserves Network supports an important and diverse tourism industry that includes charter fishing, cruise ships, nature and whale watching, charter boat hire and other related activities.
- Indigenous uses: the Indigenous people from at least 35 distinct Aboriginal language groups have occupied, used and managed coastal land and sea environments in and adjacent to the North-west Marine Region for thousands of years. The saltwater peoples of the North-west continue to rely on coastal and marine environments and resources, including for their cultural identity, health and wellbeing. In the region, the flooded countries of Aboriginal ancestors lie beneath Commonwealth waters and may be connected to cultural stories, sites and Dreaming tracks. Dugongs, fish and turtles that move between coastal and Commonwealth waters in the region are important components of Aboriginal people's culture and diet. Aboriginal people continue to actively manage their sea country in and adjacent to the North-west Marine Region in order to protect and manage the marine environment, its resources and cultural values.
- Pearling: Western Australia is the world's largest source of high quality pearls and is the only significant wild stock pearl oyster fishery in the world. The pearling industry is the second most valuable fishing industry in Western Australia after Western Rock Lobster. Pearling operations occur in the Eighty Mile Beach, Kimberley and Roebuck Commonwealth marine reserves.
- Petroleum and mining: the North-west Marine Region is Australia's premier resource area for petroleum exploration and production. There are seven sedimentary petroleum basins in the region: the Northern and Southern Carnarvon basins, Perth, Browse, Roebuck, Offshore Canning and Bonaparte basins. Of these the Northern Carnarvon, Browse and Bonaparte hold large quantities of gas, and comprise most of Australia's reserves of natural gas.
- Ports and commercial shipping: the expansion of mining activities in the North-west of Australia is reflected in the large number of vessel visits to the region's ports and the intensification of shipping activity. There is also a significant increase occurring in the number of offshore support vessels servicing petroleum exploration and development operations. Major ports are adjacent to the Roebuck, Montebello and Dampier Commonwealth marine reserves.
- Recreational uses: the region has important social values for people living in adjacent communities. Many frequently visit the coast, with some travelling long distances offshore beyond the sight of land. A wide range of recreational activities occur within the region, including whale watching, whale shark tours, diving, cruise ship visits, yachting and recreational fishing. Given the population growth in the North-west Region, particularly due to the petroleum and minerals sectors in the Pilbara, the popularity of recreational activities is likely to continue to increase. High incomes, advances in technology and increases in vessel size are likely to result in increased recreational fishing effort and take in both state and Commonwealth waters.

The region attracts a range of other uses, including scientific research and commercial media activities.

Telecommunications cables and energy transmission services (for electricity and gas) cross the region and intersect with a number of marine reserves. The region also has potential for other economic uses including renewable energy (wind and wave power) and carbon storage.

The Australian Defence Force uses the entire marine estate in the course of its activities, with specific areas set aside for training activities. Within the North-west Marine Region there are two military practice and training areas. These are located west of North West Cape and in the far north of the region.

The waters of the region, including within the reserve network, are used by traditional Indonesian fishers, who have visited the northern coast of Australia and its islands and reefs since the early eighteenth century. In recognition of this and the importance of parts of Australia's marine jurisdiction for the livelihoods of some traditional fishers, a Memorandum of Understanding (MoU) was signed between Australia and Indonesia in 1974 to allow traditional Indonesian fishers to fish in an area known as the 'MoU Box'. The MoU defines 'traditional fishermen' as fishers who have traditionally taken fish and sedentary species in Australian waters using traditional fishing methods and non-motorised sailing vessels. Cartier Island and Ashmore Reef Commonwealth Marine Reserves are located within the MoU Box. Access by traditional Indonesian fishers is allowed in some parts of the Ashmore Reef reserve to access fresh water and shelter from storms and for limited fishing for immediate consumption only.

## 2.3 Values of the North-west Commonwealth Marine Reserve Network

The North-west marine reserves network covers 335 437 km<sup>2</sup> of Australia's western sub-tropical and tropical waters and stretching over most of the North-west Marine Region.

The North-west marine reserves network was designed in accordance with the *Goals and Principles for the establishment of the National Representative System of Marine Protected Areas in Commonwealth waters*<sup>1</sup> to represent the region's biodiversity as it varies across provincial bioregions, depth ranges, large scale biological and ecological features and seafloor features. The network also protects habitats important for threatened species and some places listed under national environmental legislation for their heritage values.

### 2.3.1 Provincial bioregions

Provincial bioregions<sup>2</sup> are large areas of the oceans with broadly similar characteristics that have been classified by scientists based on the distribution of fish and other marine species, seafloor types and ocean conditions. The North-west marine reserves network represents eight provincial bioregions (Figure 2.1):

- **Northwest Shelf Transition**- contains complex geomorphology including coastal areas, the shelves and basins in the Joseph Bonaparte Gulf and banks, shoals, terraces and reefs dissected by valleys on the Van Diemen Rise. These features support diverse biological communities including coral communities, benthic sessile fauna, feeding and breeding habitats for sea snakes, fish, sharks, dolphins and marine turtles. The inshore waters off the Kimberley are where the Western Australian population of humpback whales mate and give birth. This bioregion is represented in the Kimberley Commonwealth Marine Reserve.
- **Timor Province**- covers almost 15 per cent of the North-west Marine Region, predominantly covering the continental slope and abyss between Broome and Cape Bougainville. Water depth ranges from approximately 200 metres near the shelf break to 5920 metres over the Argo Abyssal Plain. In addition to the Argo Abyssal Plain, the major geomorphic features are the Scott Plateau, the Ashmore Terrace, part of the Rowley Terrace and the Bowers Canyon. Ashmore Reef and Cartier Island are important features of the provincial bioregion. The reefs and islands of the bioregion are regarded as particular hotspots for biodiversity. A high level of endemism exists in demersal fish communities of the continental slope in the Timor Province. This bioregion is represented in the Argo-Rowley Terrace and Kimberley Commonwealth marine reserves.

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<sup>1</sup> [www.environment.gov.au/coasts/mbp/publications/general/goals-nrsmmpa.html](http://www.environment.gov.au/coasts/mbp/publications/general/goals-nrsmmpa.html) (accessed on 13/01/2013).

<sup>2</sup> Provincial bioregions are identified in the Integrated Marine and Coastal Regionalisation of Australia version 4.0. There are 41 provincial bioregions around Australia.

- Northwest Shelf Province- is located primarily on the continental shelf between North West Cape and Cape Bougainville. It varies in width from approximately 50 kilometres at Exmouth Gulf to more than 250 kilometres off Cape Leveque. Approximately half the bioregion has water depths of only 50–100 metres. The bioregion is a dynamic oceanographic environment, influenced by strong tides, cyclonic storms, long-period swells and internal tides. Humpback whales migrate through the bioregion and Exmouth Gulf is an important resting area, particularly for mothers and calves on their southern migration. This bioregion is represented in a number of reserves including the Eighty Mile Beach, Roebuck and Kimberley Commonwealth marine reserves.
- Northwest Transition - includes shelf break and continental slope and the majority of the Argo Abyssal Plain included in the North-west Marine Region. A topographic feature of the region is Mermaid Reef, a biodiversity hotspot where the steep change in slope around the reef attracts a range of pelagic migratory species including billfish, sharks, tuna and cetaceans. This bioregion is represented in the Argo-Rowley Terrace and Mermaid Commonwealth marine reserves.
- Northwest Province - occurs offshore between Exmouth and Port Hedland and consists entirely of continental slope. Water depths generally range between 1000–3000 metres. The dominant geomorphic feature is the Exmouth Plateau. The Northwest Province represents the beginning of a transition between tropical and temperate marine species. High endemism in demersal fish communities on the slope is also evident in this provincial bioregion. This bioregion is represented in the Gascoyne Commonwealth Marine Reserve.
- Central Western Shelf Transition- is the smallest bioregion in the North-west Marine Region and is located entirely on the continental shelf between North West Cape and Coral Bay. The bioregion is located within a significant biogeographic transition between tropical and temperate species. A large proportion of the bioregion is covered by the Ningaloo Marine Park. Ningaloo Reef is an area of high biodiversity with over 200 species of coral and more than 460 species of reef fish. Marine turtles, dugongs and dolphins frequently visit the reef lagoon and whale sharks and manta rays visit the outer reef. This bioregion is represented in the Ningaloo and Gascoyne Commonwealth marine reserves.
- Central Western Transition- covers the continental slope and abyss between Shark Bay and North West Cape. Almost half the bioregion has water depths of more than 4000 metres and the proximity of deep ocean areas to the continental slope and shelf may have resulted in distinctive biological communities. The level of endemism within demersal fish communities on the slope is less than in the bioregions further north. This bioregion is also within the biogeographic transition between tropical and temperate marine species. This bioregion is represented in the Carnarvon Canyon, Shark Bay and Gascoyne Commonwealth marine reserves.
- Central Western Shelf Province - consists of the continental shelf between Kalbarri and Coral Bay. Most of the bioregion varies in depth between 50–100 metres and has a predominantly flat, sandy substrate. The bioregion abuts the Shark Bay World Heritage Area, a globally important area for dugongs and is represented in the Shark Bay Commonwealth Marine Reserve.

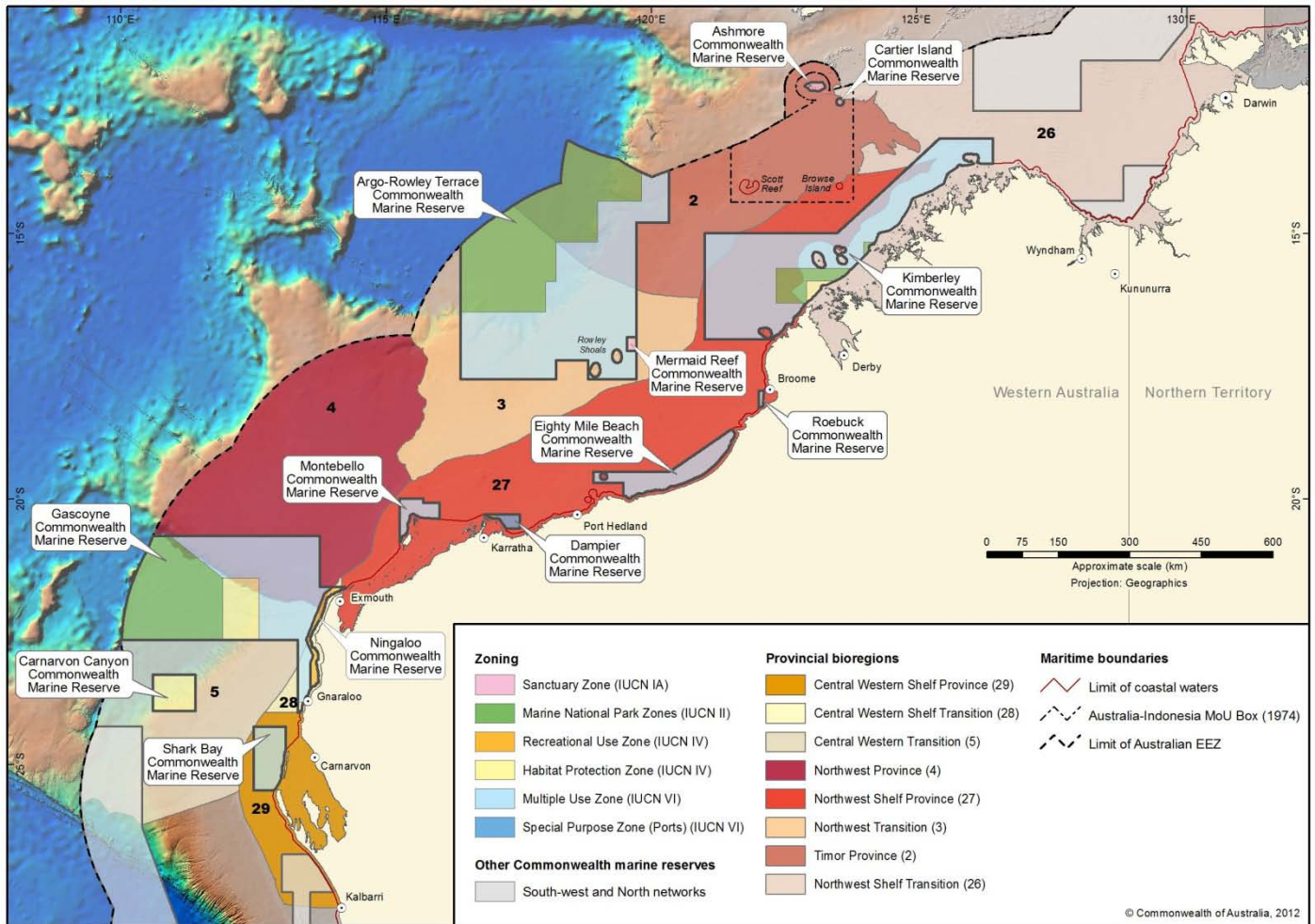


Figure 2.1: Provincial Bioregions represented in the North-west Commonwealth Marine Reserves Network

### 2.3.2 Depths

The North-west marine reserves network ranges from shallow waters of less than 15 metres to approximately 6000 metres depth. Marine biological communities change with depth, while similar depth ranges in different bioregions support different groups of species. The network represents the various depth ranges that occur within each bioregion: a total of 81 depth ranges (or bathomes) are represented in the North-west network.

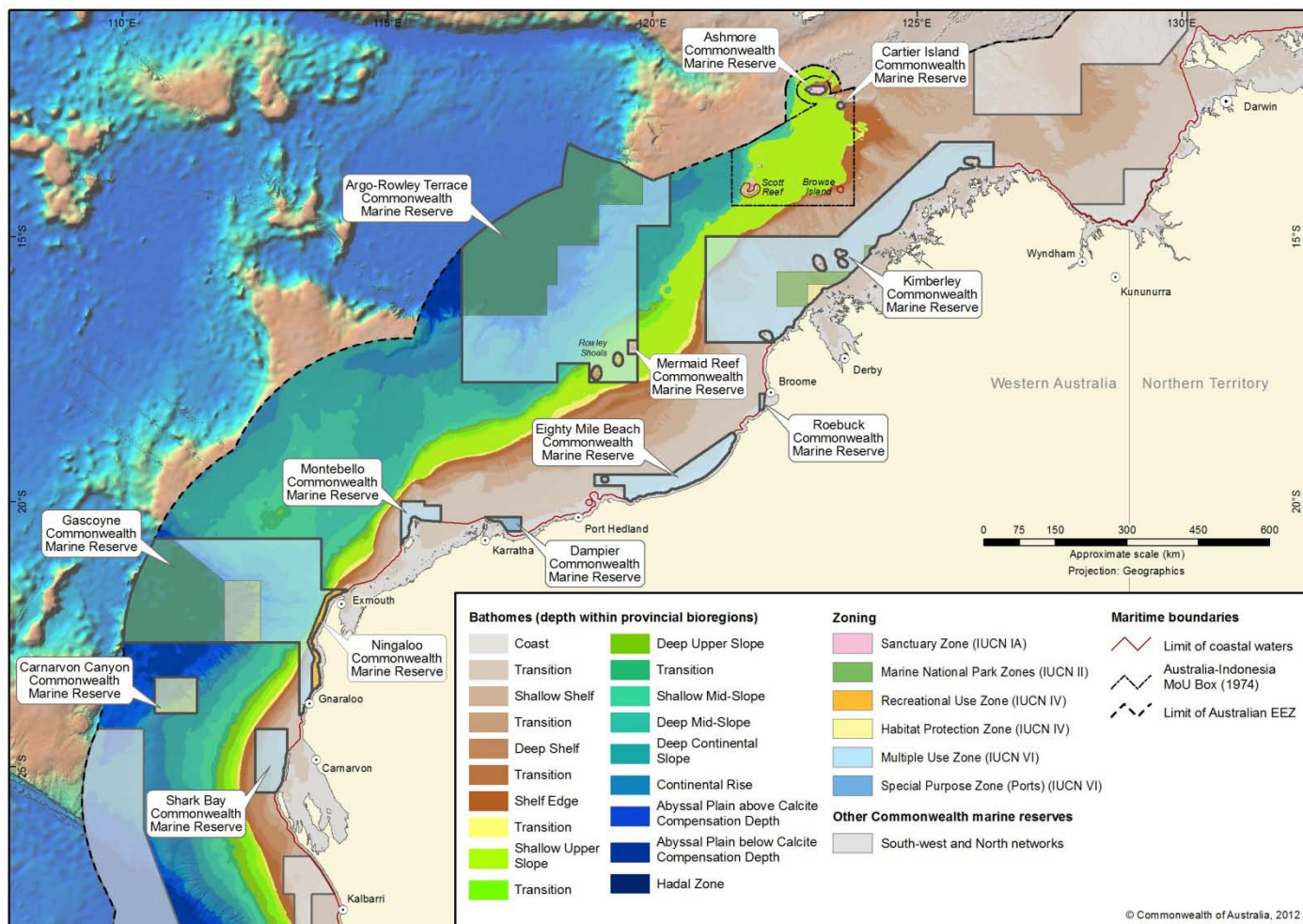


Figure 2.2: Depth ranges represented in the North-west Commonwealth Marine Reserves Network



### 2.3.3 Large scale biological and ecological features

The marine bioregional planning program identified large scale ecological features that support distinct or important ecological communities at a regional scale. Where these features are considered to be of regional importance for either a region's biodiversity or its ecosystem function and integrity, they are known as key ecological features. Eight key ecological features are represented in the North-west Commonwealth Marine Reserve Network:

- Ashmore Reef and Cartier Island and surrounding Commonwealth waters – Ashmore Reef and Cartier Island are regarded as biodiversity hotspots as they support a diverse array of pelagic and benthic marine flora and fauna. The reefs provide varied habitat that attracts a diverse range of species, including a particularly diverse fish fauna. Toothed whales and dolphins are also found around these reefs. Large areas of seagrass in waters surrounding Ashmore Reef are important for a genetically distinct dugong population. Both Ashmore and Cartier reefs support an unusually high diversity and density of sea snakes, for which these reefs are internationally significant. They are also important staging points for migratory wetland birds and the site of some of the most important seabird colonies in the North-west marine network.
- Continental Slope demersal fish communities - demersal slope fish assemblages in the Timor Province, the Northwest Transition and the Northwest Province are characterised by high endemism and species diversity. The level of endemism of demersal fish species in these bioregions is the highest among Australian continental slope environments. The Northwest Province, specifically the continental slope between North West Cape and the Montebello Trough, has more than 500 species of demersal fish, of which 76 are endemic; similarly, the slope of the Timor Province and the Northwest Transition is home to 64 endemic demersal fish species. This key ecological feature is represented in the Gascoyne and Kimberley Commonwealth marine reserves.
- Canyons linking the Argo Abyssal Plain with the Scott Plateau - the canyons on the slope between the Argo Abyssal Plain and Scott Plateau and the north of Scott Reef are believed to be up to 50 million years old and are associated with small periodic upwellings that locally enhance biological productivity. Deep ocean currents upwelling in the canyons create a nutrient rich, cold water habitat attracting fish aggregations that in turn attract large predatory fish, sharks and toothed whales and dolphins. Whaling records from the 19th century indicate that aggregations of sperm whales occurred on the Scott Plateau. There is also anecdotal evidence that the Scott Plateau may be a breeding ground for sperm whales and beaked whales. This key ecological feature is represented in the Argo-Rowley Terrace Commonwealth Marine Reserve.
- Ancient coastline at 125 metre depth contour - parts of the ancient coastline, particularly where it exists as a rocky escarpment, are thought to provide biologically important habitats in areas otherwise dominated by soft sediments. It has been suggested that humpback whales, whale sharks and other migratory pelagic species may use this escarpment as a guide as they move through the region. The topographic variation of the ancient coastline may also facilitate small localised upwellings as a result of internal tide activity or regional mixing associated with seasonal changes in currents and winds. This key ecological feature is represented in the Gascoyne and Kimberley Commonwealth marine reserves.
- Mermaid Reef and the Commonwealth waters surrounding the Rowley Shoals - Mermaid Reef is the only reef of the Rowley Shoals which occurs entirely in Commonwealth waters, and is a Commonwealth marine reserve. Clerke and Imperieuse reefs occur in state waters, and form the Rowley Shoals Marine Park. The reefs are noted for their high species diversity. Biodiversity surveys of the Rowley Shoals have identified 184 species of corals, 264 species of molluscs, 82 species of echinoderms and 389 species of finfish. Unique sponge faunal assemblages are associated with each of the reefs. Because of the predominantly southward flow of currents past the Rowley Shoals and beyond, the Rowley Shoals are also thought to provide a source of invertebrate and fish recruits for reefs further south. Steep changes in slope around the reefs attract a range of migratory pelagic species such as dolphins, tuna, billfish and sharks. This key ecological feature is captured in the Argo-Rowley Terrace and Mermaid Commonwealth marine reserves.

- Exmouth Plateau - the Exmouth Plateau covers an area of approximately 50 000 square kilometres and consists of a generally rough and undulating surface at water depths of approximately 500 metres to more than 5000 metres. The plateau is thought to be dotted with numerous pinnacles. It is an important seafloor feature that modifies the flow of deep waters, and has been identified as a site where internal waves are generated by internal tides, giving rise to the most dynamic and unique oceanographic feature in the region. The plateau also receives settling detritus and other matter from the pelagic environment. This key ecological feature is represented in the Gascoyne Commonwealth Marine Reserve.
- Canyons linking the Cuvier Abyssal Plain with the Cape Range Peninsula - the canyons on the slope between the Cuvier Abyssal Plain and the Cape Range Peninsula include the Cape Range Canyon and the Cloates Canyon. They channel nutrient-rich deep water from the Argo Abyssal Plain up onto the slope, where it mixes with the overlying water layers at the canyon heads. The upwelling zones at the canyon heads are sites of species aggregations such as sweetlip emperor fish. The soft bottom habitats within the canyons themselves are likely to support important assemblages of epibenthic species. Biological productivity at the head of Cape Range Canyon in particular is known to support species aggregations, including whale sharks. The canyons are thought to be significant contributors to the biodiversity of the adjacent Ningaloo Reef, as they channel deep water nutrients up to the reef, stimulating primary productivity. This key ecological feature is represented in the Gascoyne Commonwealth Marine Reserve.
- Commonwealth waters adjacent to Ningaloo Reef - Ningaloo Reef is globally significant as the only extensive coral reef in the world that fringes the west coast of a continent. Ningaloo Reef extends for over 260 kilometres along the Cape Range Peninsula. The waters of the reef are a site of enhanced biological productivity, due to upwelling associated with the adjacent canyons on the slope and interactions between the Ningaloo Current and the Leeuwin Current. The reef is known to support an extremely abundant array of marine species including over 200 species of coral and more than 460 species of reef fish, as well as molluscs, crustaceans and other reef plants and animals. Marine turtles, dugongs and dolphins frequently visit the reef lagoon. The Commonwealth waters around Ningaloo include areas of potentially high and unique sponge biodiversity. Upwellings on the seaward side support aggregations such as whale sharks and manta rays (these waters are the main known aggregation area for whale sharks in Australian waters). Humpback whales are seasonal visitors to the outer reef edge and sea snakes, sharks, large predatory fish and seabirds also utilise the reef and surrounding waters. This key ecological feature is represented in the Gascoyne and Ningaloo Commonwealth marine reserves.

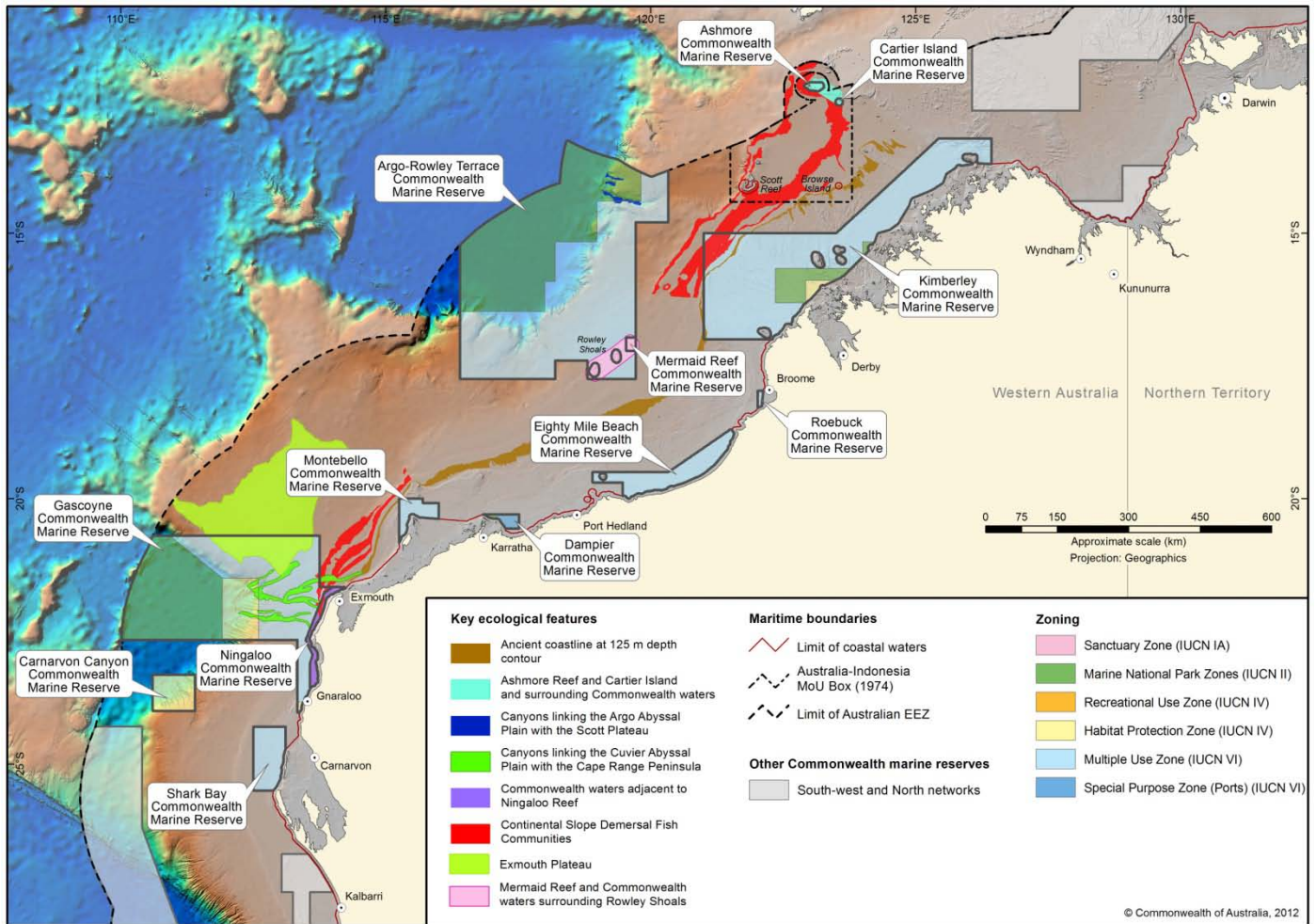


Figure 2.3: Key ecological features represented in the North-west Commonwealth Marine Reserves Network

### 2.3.4 Sea-floor features

The landscape-scale physical structure of the sea-floor is important in determining where habitats or species occur. Large physical sea-floor structures (tens to hundreds of kilometres in scale) are referred to as geomorphic or sea-floor features and include, for example, seafloor pinnacles, canyons and reefs. There is a lack of detailed and comprehensive information on the distribution of biodiversity mainly due to the vastness, remoteness and inaccessibility of the deep ocean environments. There is strong scientific evidence that different types of sea-floor features provide different habitats and are associated with different marine species and communities. For this reason, sea-floor features were used as surrogates for biodiversity to design the marine reserves network.

The North-west marine reserves network contains representative examples of 18 sea-floor features.

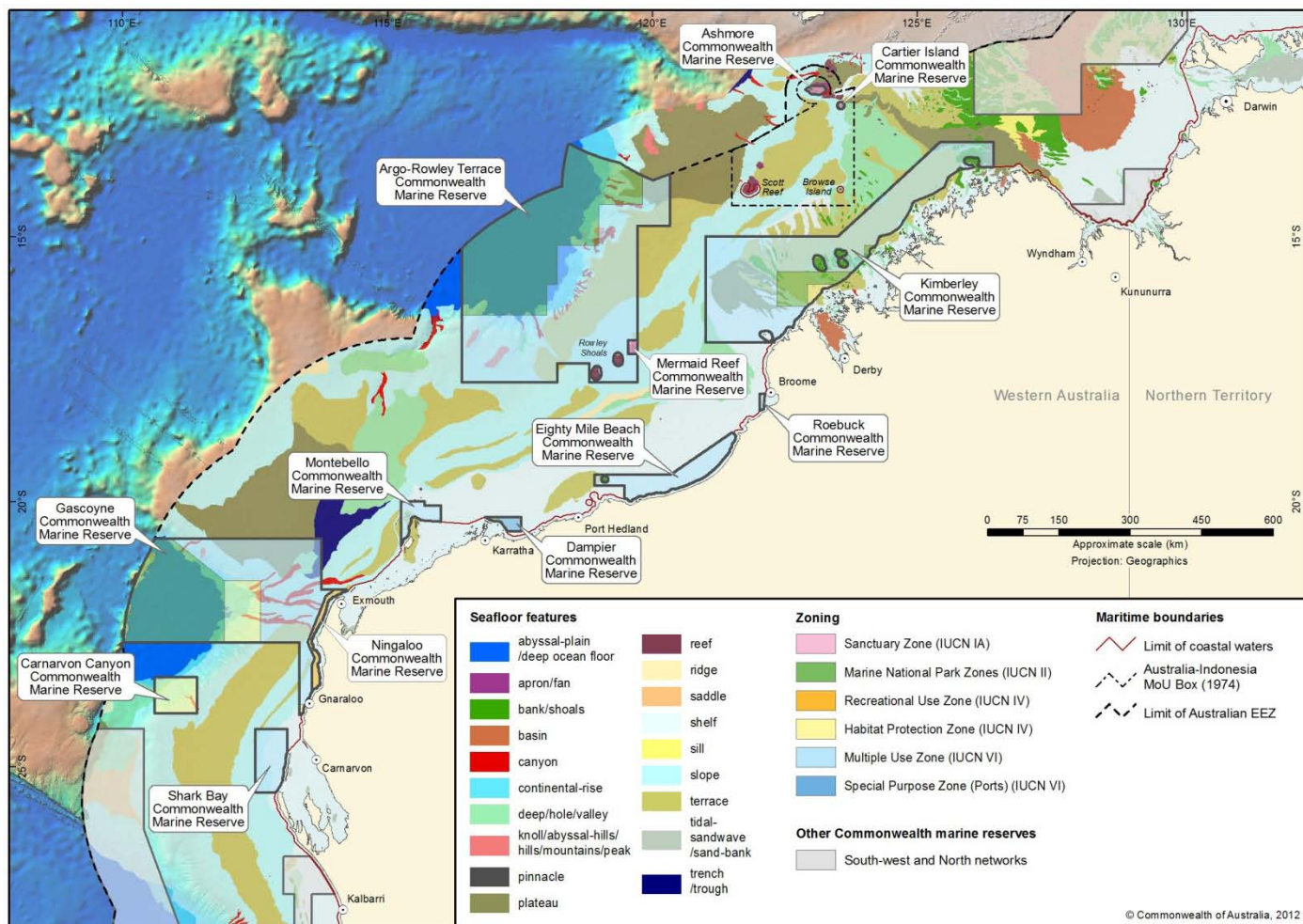


Figure 2.4: Sea-floor features represented in the North-west Commonwealth Marine Reserves Network

### 2.3.5 Protected species and biologically important areas

The North-west marine reserves network provides protection to a number of species listed as endangered or vulnerable under Commonwealth legislation or international agreements, including cetaceans, marine turtles, dugong, sawfish and a variety of seabirds. The network also contains areas important for species listed under:

- the Convention on the Conservation of Migratory Species of Wild Animals 1979 (CMS or Bonn Convention)
- the Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment 1974 (JAMBA)
- the Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment 1986 (CAMBA)
- the Agreement between the Government of Australia and the Government of the Republic Of Korea on the Protection of Migratory Birds 2007 (ROKAMBA).

Biologically important areas are areas where aggregations of individuals of a protected species display behaviours such as breeding, foraging, resting and migration. Biologically important areas highlight those parts of the region that are particularly important for the protection and conservation of protected species. Biologically important areas in the North-west marine reserves network include:

- seasonal calving habitat for the world's largest population of the humpback whale in the Kimberley Commonwealth Marine Reserve
- foraging and inter-nesting habitat for olive ridley, green, flatback, loggerhead and hawksbill marine turtles. BIAs for marine turtles are captured in the Gascoyne, Ningaloo, Argo-Rowley Terrace, Montebello, Dampier, Eighty Mile Beach, Roebuck and Kimberley Commonwealth marine reserves.
- foraging habitat for the whale shark, several species of sea snake, sawfish and several species of migratory seabirds. BIAs for these species are represented in a number of marine reserves including the Kimberley, Ningaloo, Gascoyne, Eighty Mile Beach and Montebello Commonwealth marine reserves.
- foraging and other important habitats for several whale species, dugongs and the Australian snubfin and bottlenose dolphin. BIAs for these species are represented in a number of marine reserves including the Kimberley, Ningaloo, Gascoyne and Roebuck Commonwealth marine reserves.

More information on protected species and biologically important areas can be found in the Marine Bioregional Plan for the North-west Marine Region.

### 2.3.6 Protected places

Protected places are areas protected under the EPBC Act as matters of national environmental significance—places listed as World Heritage, National Heritage, or wetlands listed under the *Convention on Wetlands of International Importance 1971 (Ramsar Convention)*. Protected places may also include places on the Commonwealth Heritage List or shipwrecks listed under the *Historic Shipwrecks Act 1976*.

At the time of writing this Plan, the North-west Commonwealth Marine Reserves Network intersects with six protected places of significance.

Schedules 5, 5B, 6 and 7B of the EPBC Regulations outline the management principles for World Heritage, Commonwealth Heritage or National Heritage places, or wetlands of international importance. As required by the EPBC Act, the strategies and actions in Part 4 of this Plan, and the management prescriptions in Part 5, are consistent with relevant EPBC heritage management principles and take account of Australia's obligations under relevant international agreements, including the World Heritage Convention and Ramsar Convention (as given effect in the EPBC management principles).

**Table 1: Protected places in the North-west Commonwealth Marine Reserves Network**

Protected place	Protection measure	Marine reserve
<b>Ashmore Reef</b>	Commonwealth Heritage List Ramsar site	Ashmore Reef and Cartier Island Commonwealth Marine Reserves
<b>Mermaid Reef</b>	Commonwealth Heritage List	Mermaid Reef Commonwealth Marine Reserve
<b>Ningaloo Reef</b>	World Heritage List National Heritage List Commonwealth Heritage List	Ningaloo Reef Commonwealth Marine Reserve
<b>the <i>Trial</i></b>	Historic shipwreck	Montebello Commonwealth Marine Reserve
<b>the <i>Lively</i></b>	Historic shipwreck	Mermaid Reef Commonwealth Marine Reserve
<b>the <i>Ann Millicent</i></b>	Historic shipwreck	Cartier Island Commonwealth Marine Reserve

### 2.3.7 Other values

Data on marine biodiversity is relatively scarce when compared to terrestrial environments and the knowledge of the occurrence, distribution and ecology of species within the marine reserves of the North-west network is coarse, with fine scale data and understanding of local conditions and assets limited to a few better studied areas. Many of the biodiversity values of the North-west marine reserves are yet to be identified and understood. Strategy 1 of this Plan sets out actions and desired outcomes to ensure that the knowledge basis necessary to underpin management in the long term improves over the life of the plan.

While biodiversity values underpin much of the design of the North-west marine reserves network, each of its marine reserves is likely to contain a range of other values, including cultural, recreational and historical, that also need to be understood and documented. These intentions are articulated in Strategies 5 and 6 of this Plan.

## 2.4 Pressures on the conservation values of the North-west Commonwealth Marine Reserves Network

For the purpose of this Plan, pressures are defined broadly as human-driven processes, events and activities that may detrimentally affect the values of the reserves network. Pressures are characterised by two main types: those that are directly associated with human activities and those that are related to the effects of climate change. Further information on pressures is available in the Marine Bioregional Plan for the North-west Marine Region.

Human pressures on marine ecosystems and biodiversity in the North-west Marine Region are, by global standards, low. This is partly due to the relatively low levels of marine resource use and coastal population pressure across the region (exceptions being in proximity to large ports and industrial centres), and partly due to Australia's generally sound management of the marine environment.

A number of sources of pressures nevertheless exist in the region, which is next to one of the fastest growing regions of economic activity in Australia. The main drivers and sources of anthropogenic pressure on conservation values that occur in the North-west Commonwealth Marine Reserves Network are:

- extraction of living resources (commercial and recreational fishing, and illegal, unreported and unregulated fishing)
- increasing petroleum and mineral exploration and development

- physical habitat modification and changes to hydrological regimes as a result of increasing industrial development in areas adjacent to the region such as increases in shipping activities and development of port infrastructure.

Pressures related to the effects of climate change and associated large-scale effects on the marine environment are unpredictable and may include shifts in major currents, rising sea levels, ocean acidification, and changes in the variability and extremes of climatic features (e.g. sea temperature, winds, and storm frequency and intensity). There remains a high level of uncertainty about the effects that climate change related pressures will have on the conservation values protected by the North-west Commonwealth Marine Reserves

This Management Plan is one of a suite of tools that contribute to the management of pressures on the North-west Commonwealth Marine Reserves Network and surrounding region. It operates alongside other Commonwealth and state programs to manage activities both within and in areas adjacent to the marine reserves network. Other agencies that have an important role in the management of pressures in the region include maritime compliance agencies (e.g. Customs and Border Protection Service, Australian Maritime Safety Authority, National Offshore Petroleum Safety and Environmental Management Authority), fisheries management agencies at both the state and Commonwealth level (e.g. Australian Fisheries Management Authority) and research organisations (e.g. Commonwealth Scientific and Industrial Research Organisation, Geoscience Australia).

This Management Plan establishes a framework for assessing activities and managing pressures on the conservation values of the marine reserves network. This framework includes the use of:

- zoning to reduce pressures across the network and to identify areas where activities can occur with management measures to reduce associated pressures (see Part 3)
- management strategies directed at developing a better understanding of the effects of pressure on the conservation values, avoidance and mitigation of impacts, incident response, compliance of marine reserve users with the provisions of the Management Plan and engaging marine users in collaborative management approaches (see Part 4)
- management prescriptions identifying the activities that require assessment for potential impacts, as part of the permitting or class approvals processes, before they can be undertaken in the marine reserves network (see Part 5)
- determinations, prohibitions and restrictions made under the EPBC Regulations to regulate activities (see Part 5).

# PART 3

## IUCN CATEGORIES AND ZONING OF NETWORK RESERVES

Each of the 13 reserves in the North-west Commonwealth Marine Reserves Network is assigned to an IUCN category by this management plan. In addition, the Gascoyne, Dampier, Argo-Rowley Terrace, Kimberley and Ashmore Reef Commonwealth Marine Reserves, are also divided into two or more zones by the plan. Each zone is also assigned to an IUCN category (see Sections 3.1–3.2 below).

As noted in Appendix B, the EPBC Act requires a Commonwealth reserve to be assigned to an IUCN category. The EPBC Act also allows a Management Plan to divide a reserve into zones and to assign the zones to an IUCN category (which may differ from the overall category of the reserve). Schedule 8 of the EPBC Regulations prescribes the Australian IUCN reserve management principles applicable to each IUCN category. The principles for each IUCN category and the administrative management principles relevant to the North-west marine reserves network are set out in Appendix B.

The categorisation and zoning scheme takes into account the purposes for which the reserves were declared, the objectives of this Plan (see Section 1.2), and the requirements of the EPBC Act and EPBC Regulations, including relevant reserve management principles, and the IUCN category definitions in the IUCN *Guidelines for applying the IUCN Protected Area Management Categories to Marine Protected Areas*. The IUCN categories and associated management principles for each category broadly determine how areas will be managed and which activities covered by the Act and Regulations can and cannot be conducted in them.

This Plan gives a ‘management zone name’ to each undivided reserve and each zone within the reserves that are divided into multiple zones. The management zone name reflects the objectives of the Plan and the activities that can be carried in each zone, consistent with the IUCN category and relevant management principles.

This management plan broadly applies the IUCN categories and management principles as described below.

### Category Ia—Strict Nature Reserve

- IUCN definition—strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphologic features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring
- Key management principle—an area that should be managed mainly for scientific research and environmental monitoring. The detailed management principles are set out in Appendix B.

Management zone name and management approach:

- *Sanctuary zone* - Areas protected and managed to remain in as undisturbed a state as possible. Extractive uses are not allowed in these zones. Non-extractive uses, general access and research and monitoring activities will be limited to those involving no or minimal disturbance.



## Category II—National Park

- IUCN definition—large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities..
- Key management principle— an area that should be protected and managed to conserve its natural condition. The detailed management principles are set out in Appendix B.

Management zone name and management approach:

- *Marine National Park Zone* - Area protected and managed to preserve its natural condition. Intended to provide a high level of protection for the ecosystems, habitats and biodiversity within the area. Activities involving the taking or harvesting of either living or non-living resources will generally be prohibited.

## Category IV—Habitat/Species Management Area

- IUCN definition—areas to protect particular species or habitats, and management reflects this priority. Many will need regular, active interventions to meet the needs of particular species or habitats, but this is not a requirement of this category
- Key management principle—an area managed primarily for conservation, through management intervention if necessary, to maintain habitats or species. The detailed management principles are set out in Appendix B.

Management zone names and management approach:

- *Habitat Protection Zone* – Areas managed to ensure maintenance of the habitat conditions necessary to protect significant species, groups of species, biotic communities or physical features of the environment. Intended to provide a heightened level of protection to ensure the maintenance of habitats, particularly habitats of the seafloor. Recreational fishing, other recreational uses, charter fishing, tourism and aquaculture will be allowed. Some forms of commercial fishing will be allowed, but not those using the following gear types: fish trap, crab and lobster pots, demersal gillnet, demersal trawl and demersal longline. Mining and oil and gas exploration and development involving disturbance of the seabed will be prohibited.
- *Recreational Use Zone* – Areas managed to ensure maintenance of the habitat conditions necessary to protect significant species, groups of species, biotic communities or physical features of the environment. Intended to provide a heightened level of protection to ensure the maintenance of habitats. Recreational fishing, other recreational uses and tourism will be allowed. Commercial fishing, aquaculture, mining and oil and gas exploration and development will be prohibited.

## Category VI—Managed Resource Protected Area

- IUCN definition— areas which conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems. Generally large, mainly in a natural condition, with a proportion under sustainable natural resource management and where low-level non industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.
- Key management principle—areas should be managed mainly for the ecologically sustainable use of natural ecosystems. The detailed management principles are set out in Appendix B.

Management zone names and management approach:

- *Multiple Use Zone*— Areas managed to provide a heightened level of protection for ecosystems, habitats and biodiversity, while also allowing activities that are compatible with the primary objective of biodiversity conservation and the protection and maintenance of natural values in the long term. Recreational fishing, other recreational uses, charter fishing, tourism and aquaculture will be allowed. Mining operations, including oil and gas exploration and development, will be allowed (depending on whether the operations have been authorised under the referral, assessment and approval provisions of the EPBC Act). Some forms of commercial fishing will be allowed, but not those using the following gear types: demersal gillnet, demersal trawl and demersal longline.
- *Special Purpose Zone (Ports)* — Areas managed to provide a heightened level of protection for ecosystems, habitats and biodiversity, while also allowing activities that are compatible with the primary objective of biodiversity conservation and the protection and maintenance of natural values in the long term. Ports development and maintenance activities and shipping operations will be allowed (depending on whether the operations have been authorised under the referral, assessment and approval provisions of the EPBC Act and other relevant legislation). Recreational fishing, other recreational uses, charter fishing, tourism and aquaculture will be allowed. Mining operations, including oil and gas exploration and development, will be allowed (depending on whether the operations have been authorised under the referral, assessment and approval provisions of the EPBC Act). Some forms of commercial fishing will be allowed, but not those using the following gear types: demersal gillnet, demersal trawl and demersal longline.

Table 3.1 sets out the IUCN categories assigned to the network reserves and the zones within reserves, and the relevant management zone name. Details of each marine reserve are given in Appendix A, including a map showing the location of zones, and a general description and major values of each marine reserve.

Management strategies that give effect to the objectives, zoning, IUCN categories and management principles are set out in Part 4. Prescriptions that apply to different zones are set out in Part 5.

## Categories and zones

- 3.1 Each Commonwealth marine reserve in the North-west Commonwealth Marine Reserves Network is assigned to the IUCN category specified in column 2 of Table 3.1, adjacent to the name of the reserve.
- 3.2 Shark Bay, Carnarvon Canyon, Montebello, Eighty Mile Beach, Roebuck, Ningaloo, Mermaid Reef and Cartier Island Commonwealth Marine Reserves are given the network management zone names specified in a Column of Table 3.1 adjacent to the name of the Reserve.
- 3.3 Gascoyne, Dampier, Argo-Rowley, Kimberley and Ashmore Reef Commonwealth Marine Reserves are each divided into the zones as shown in the map of the Reserve in Appendix A, and each zone is assigned to the IUCN category, and given the management zone name, specified in columns of Table 3.1, adjacent to the name of the Reserve.

**Table 3.1: IUCN categories and management zone names in the North-west Commonwealth Marine Reserves Network**

1. Reserve name	2. IUCN category	3. IUCN categories in each reserve and management zone name			
		IUCN Ia	IUCN II	IUCN IV	IUCN VI
<b>Shark Bay</b>	VI				Multiple Use Zone
<b>Carnarvon Canyon</b>	IV			Habitat Protection Zone	
<b>Gascoyne</b>	VI		Marine National Park Zone	Habitat Protection Zone	Multiple Use Zone
<b>Montebello</b>	VI				Multiple Use Zone
<b>Dampier</b>	VI		Marine National Park Zone		Special Purpose Zone (Ports)
<b>Eighty Mile Beach</b>	VI				Multiple Use Zone
<b>Roebuck</b>	VI				Multiple Use Zone
<b>Argo-Rowley Terrace</b>	VI		Marine National Park Zone		Multiple Use Zone
<b>Kimberley</b>	VI		Marine National Park Zone	Habitat Protection Zone	Multiple Use Zone
<b>Ningaloo</b>	IV			Recreational Use Zone	
<b>Mermaid Reef</b>	Ia	Sanctuary Zone			
<b>Ashmore Reef</b>	Ia	Sanctuary Zone		Recreational Use Zone	
<b>Cartier Island</b>	Ia	Sanctuary Zone			

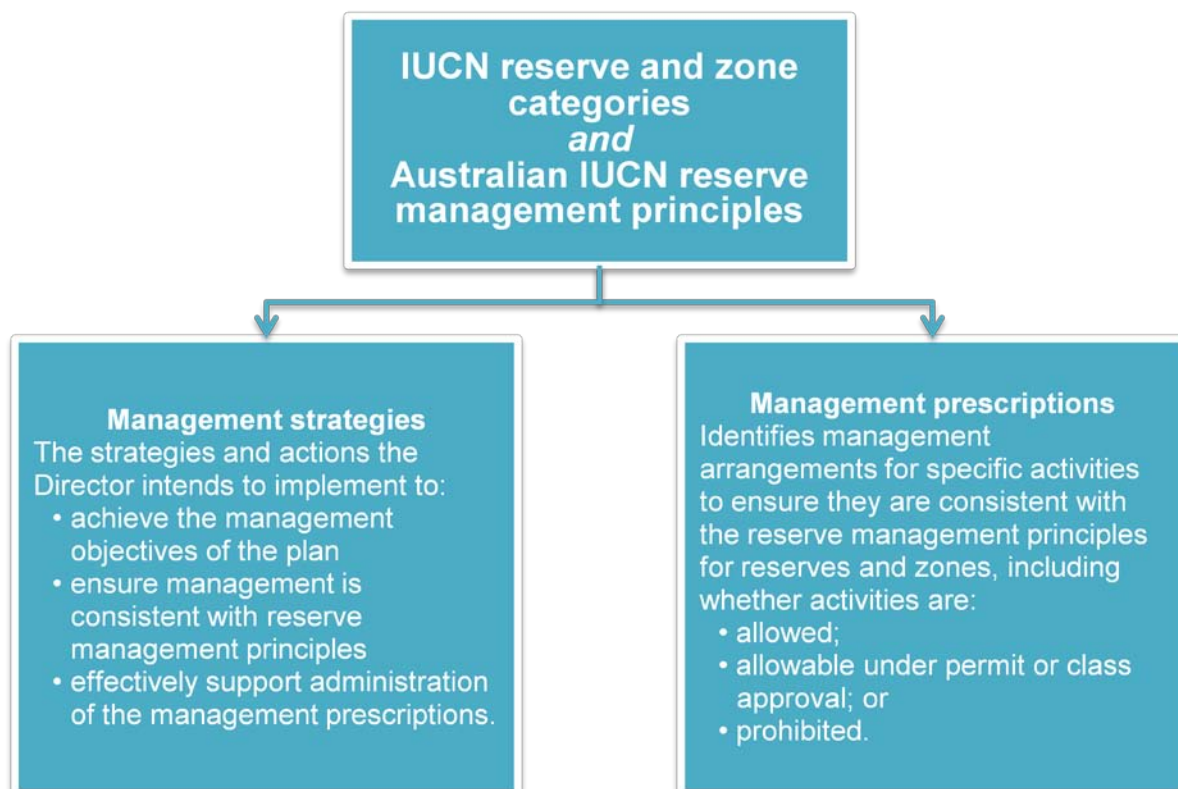
# PART 4

## MANAGEMENT STRATEGIES

The IUCN categories and associated Australian IUCN reserve management principles (see Part 3 of this Plan) guide how the North-west marine reserves network will be managed to achieve the objectives of this Plan (see Section 1.2). The principles also guide the application of provisions in the EPBC Act and Regulations relating to Commonwealth reserves, including whether actions and activities subject to those provisions can be carried on within reserve management zones. Parts 4 and 5 of the Plan set out the management arrangements to achieve the objectives of the Management Plan consistent with the reserve management principles (see Figure 4.1).

Part 4 identifies the management strategies and actions that will be used to achieve the objectives of this Plan, and effectively support the administration of management prescriptions in Part 5. The strategies and actions are consistent with relevant EPBC Act National and Commonwealth Heritage management principles and take account of Australia's obligations under relevant international agreements, including the World Heritage Convention and Ramsar Convention (see Section 2.3.6 – Protected Places).

Part 5 of this Plan sets out the management prescriptions for specific activities in the network to ensure network management zones are managed consistently with the Australian IUCN reserve management principles. Prescriptions specify whether or not actions and activities subject to the EPBC Act and EPBC Regulations are allowed to occur, are allowable under a permit or class approval from the Director, or if they are prohibited in network management zones. Part 5 also sets out the rules for issuing and managing permits and class approvals.



**Figure 4.1: Overview of the relationship between the IUCN zone categories, Australian IUCN reserve management principles, management strategies and management prescriptions**

The management strategies and their associated actions provide a structured framework for achieving the objectives of this management plan. They collectively support protection of the conservation values of the marine reserves network while providing for sustainable use. The seven management strategies for this management plan are as follows:

1. Improve knowledge and understanding of the conservation values of the marine reserves network and of the pressures on those values.
2. Minimise impacts of activities through effective assessment of proposals, decision-making and management of reserve-specific issues.
3. Protect the conservation values of the marine reserves network through management of environmental incidents.
4. Facilitate compliance with this management plan through education and enforcement.
5. Promote community understanding of, and stakeholder participation in, the management of the marine reserves network.
6. Support involvement of Indigenous people in management of Commonwealth Marine Reserves
7. Evaluate and report on the effectiveness of this management plan through monitoring and review.

The management strategies identify how the objectives of this Management Plan will be achieved. Specific guidance on the mechanisms that will be developed to achieve each strategy is provided in the actions. This Management Plan provides for the development of supporting and further detailed policies, strategies and actions over the time of the Plan. These supporting documents will provide for location-specific reserve management and for engagement of users and other stakeholders as needed.

## Strategy 1—Improve knowledge and understanding of the conservation values of the marine reserves network and of the pressures on those values

Improving knowledge and understanding of the conservation values of the marine reserves network and the pressures on those values will increase the capacity to meet the objectives of the management plan.

Between 2006 and 2012, the Australian Government undertook a comprehensive consolidation of the scientific basis underpinning environmental decisions relevant to the Commonwealth marine areas, through the Marine Bioregional Planning Program. The North-west Marine Bioregional Plan (2012) identified and described the region's conservation values, the level of concern with respect to local and global pressures and key knowledge gaps in relation to the marine biodiversity and ecosystems of the North-west Marine Region. Much of this information underpins the extent and design of the North-west marine reserves network and provides the foundation for improving, at a finer scale, the knowledge of the ecological communities that inhabit each marine reserve and the way they connect to the surrounding environment.

Climate change and its implications will influence Australia's tropical marine environment in ways that are yet to be understood. One of the benefits of representative systems of marine protected areas, such as the North-west marine reserves network, is the opportunity they offer for understanding and monitoring large-scale systemic shifts in ecosystem structure and functions. Establishing baseline data for marine reserves and setting up strategic scientific monitoring programs that build on past and current research and utilise Australia's growing ocean observation capabilities are a key focus of this management plan.

Research and monitoring activities in the marine environment are expensive; prioritising knowledge gaps, maximising the benefits and uptake of relevant research programs and facilitating partnerships with government agencies, research institutions and marine reserves users, must all be critical elements of the long-term strategy to build the knowledge basis necessary for managing and evaluating Australia's marine reserves estate.

Part 5.10 of this plan sets out the prescriptions for authorising and permitting research and monitoring activities in the network.

### Actions

- A1 As part of a national-scale program, develop and implement a North-west Commonwealth Marine Reserves Network Research and Monitoring Strategy that contributes to increased understanding of the values of the reserves and provides for ongoing reporting of their condition.
- A2 Develop a framework for the long term scientific monitoring of changes in key conservation values protected by the Commonwealth marine reserves and on the pressures on those values.
- A3 Adopt standards and protocols for biophysical and ecological data collected within Commonwealth Marine Reserves.
- A4 Develop partnerships with marine reserve users and research institutions to deliver on strategic information needs and to inform research programs and government and industry investment in marine research.

### Outcomes

- Understanding and knowledge of those conservation values identified as of priority for management improve over the life of this plan.

- Understanding of the pressures affecting key conservation values, improves over the life of this plan and management actions are adapted to take account of the latest available information.
- Data arising from monitoring and research conducted within the North-west marine reserves and the findings of the research can be easily accessed and shared.
- Research and monitoring needs are met in partnership with relevant research organisations and marine reserves users.

## Strategy 2—Minimise impacts of activities through effective assessment of proposals, decision-making and management of reserve-specific issues

The primary purpose of the North-west Commonwealth Marine Reserves Network is to protect and maintain biological diversity, while also allowing for the sustainable use of natural resources in some areas. This is reflected in the objectives of this Plan (see Part 1). As described in Part 2 of this Plan a range of activities are carried out within and around the marine reserves of the North-west network. Ensuring that these do not impact on the values of the reserves while also reducing unnecessary administrative burdens on marine reserve management resources and stakeholders, is a key focus of this Plan.

The Strategies in this Part of the Plan set out how the Director will work to deliver the objectives of the Plan. The prescriptions in Part 5 set out how activities of users of the Network will be managed and provides that actions and activities that are otherwise prohibited in Commonwealth reserves by a provision of the EPBC Act or Regulations are:

- allowed (and can be done without the need for a permit or class approval);
- allowable (and can be done in accordance with a permit or class approval issued by the Director of National Parks); or
- prohibited (and cannot be authorised to be done).

Allowed activities under Part 5 of this Plan are those that are known to be likely to have minimal if any impact on the values of relevant network management zones, including if they are done in accordance with conditions prescribed in Part 5 and other applicable laws, and necessary limitations imposed by the Director in accordance with this Plan under the EPBC Regulations (these activities include recreational fishing and vessel transit).

Allowable activities will be authorised (where appropriate) by a permit or class approval issued by the Director under Section 5.2 of the Plan. Impacts of allowable activities require assessment before being authorised. A permit or class approval will not be issued if an activity is considered likely to have unacceptable impacts (that cannot be addressed through the conditions of a permit or approval). Allowable activities proposed to be undertaken by the Director of National Parks should also be assessed before proceeding.

This Plan provides for activity assessment that avoids duplication in processes in relation to consideration of actions that relate to matters protected by Part 3 of the EPBC Act, to reduce unnecessary administrative burdens on marine reserve management resources and stakeholders. Actions that have, will have or are likely to have a significant impact on the environment in Commonwealth marine areas and other matters of national environmental significance (e.g. endangered species), or another matter protected by Part 3, are subject to the referral and assessment provisions of Chapter 4 of the EPBC Act. This Management Plan provides for certain activities (e.g. mining operations) to be approved if they have been considered and authorised under Chapter 4. The EPBC Act referral and assessment processes will also be used to inform decision-making by the Director of National Parks in relation to approval of other allowable activities.

The impacts of some allowable activities may also be subject to assessment under other legislation and management frameworks. A separate assessment under this Management Plan may not be required if the Director is satisfied that the impacts of an activity have been adequately assessed under other laws and frameworks.

In carrying out an assessment and making a decision required under this Plan, the Director will assess and take into account likely impacts of the activity, alignment with the objectives of this Management Plan and consistency with the Australian IUCN reserve management principles applicable to the relevant network management zone.

Where Part 5 of this Plan provides that the Director may authorise an allowable activity, authorisation will generally be given by a permit applied for by the proponent and issued under Part 17 of the EPBC Regulations (see Section 5.2.2 of this Plan). Where provided for by Part 5, and considered appropriate having regard to the impacts of a type of activity, the Director may issue a class approval for the activity under Section 5.2.7 as an alternative to the need for each person conducting the activity to apply for a permit.



Permits and class approvals (including those that Part 5 provides the Director will issue) will be issued subject to conditions that are considered necessary, including to ensure the activity is conducted in a manner to avoid or minimise impacts. Permits or approvals may be varied, suspended or cancelled where conditions have not been complied with or it is necessary to protect values or achieve the objectives of this Plan.

The Director may also make prohibitions, restrictions or determinations under the EPBC Regulations and in accordance with relevant prescriptions in Part 5 relating to certain activities where doing so is necessary to protect values or otherwise achieve the objectives of this Plan (see Sections 5.3 (General access and use), 5.5 (Commercial fishing) and 5.7 (Recreational fishing)).

## **Actions**

- A5. Establish efficient and effective processes for assessment, decision-making and authorisation of activities within the North-west Commonwealth Marine Reserves Network.
- A6. When the interests of stakeholders are likely to be affected by a decision under this Management Plan, as far as practicable consult with relevant users in a timely and appropriate way; provide an opportunity to comment on the proposed decision and associated actions; take any comments into account; give reasonable notice before decisions are taken or implemented (except in cases of emergency); and provide reasons for decisions.
- A7. Investigate further use of class approvals, such as for pearling operations, where there is a sound case for effectively assessing and efficiently approving users that carry out a class of activities in a uniform way.
- A8. Identify reserve specific issues and develop, implement and evaluate management responses where appropriate.

## **Outcomes**

- Potential impacts of allowable activities on the conservation values of the marine reserves network are identified and avoided or mitigated by appropriate assessment and authorisation processes.
- Authorisation processes are streamlined to improve efficiency and effectiveness, and reduce duplication.

## Strategy 3—Protect the conservation values of the marine reserves network through management of environmental incidents

The objectives of the Management Plan provide for the protection and conservation of biodiversity and other natural and cultural values.

An important part of the management arrangements is to provide protection for conservation values from detrimental impacts resulting from unexpected or unforeseen incidents.

Environmental incidents have the potential to impact on the conservation values of the network. For example, incidents such as the introduction of marine pests, oil and chemical spills, foundering vessels, lost cargo and ghost nets can occur with little or no warning. Because of this, it is important to be aware of any environmental incident as soon as possible so that any impact to the conservation values can be minimised. The establishment of systems that encourage users of the marine reserves network to report environmental incidents is required for the effective management of such incidents. Collaboration with government agencies and industry stakeholders that possess the capability and expertise to respond to environmental incidents is essential.

### Actions

- A9 Establish systems for timely reporting of and response to environmental incidents.
- A10 Respond to environmental incidents that threaten the values of the marine reserves network.
- A11 Maintain effective liaison and partnerships with relevant Commonwealth and state environmental incident response authorities.

### Outcomes

- Impacts associated with environmental incidents are identified and managed appropriately.
- Systems for timely reporting of and response to environmental incidents are effective.

## Strategy 4—Facilitate compliance with this Management Plan through education and enforcement

People, businesses and organisations that use the marine reserves network are required to comply with this Management Plan.

A well-developed education and risk-based enforcement program tailored to people and industries that use marine reserves is a critical component for effectively managing marine reserves. As a priority, relevant information about the conservation values of the North-west Commonwealth Marine Reserves Network and the zoning and management prescriptions will be produced to support the needs of marine reserve users. Voluntary compliance with this Management Plan will be promoted by increasing users' understanding of the conservation values of the network and the purpose of the North-west Commonwealth Marine Reserves Network. Compliance measures may need to evolve to ensure that the conservation values are protected and that there are no unnecessary imposts on users of the network.

Effective enforcement is supported through risk-based planning, incorporating targeted monitoring and surveillance (e.g. aerial and vessel based), and the collection of intelligence from other sources. In this regard, strong links with Commonwealth and state enforcement agencies to share information and cooperate in joint enforcement activities are important. For example, the Director has agreements with the Australian Customs and Border Protection Service for the provision of surveillance services in marine reserves and with the Australian Fisheries Management Authority for fishing vessel monitoring.

Wardens are appointed under the EPBC Act to enforce compliance with the EPBC Act and Regulations. All Australian Federal Police and Australian Customs officers are wardens for the purposes of the EPBC Act. Officers of other Commonwealth agencies and of Western Australian state government agencies may also be appointed as wardens in relation to the North-west Commonwealth Marine Reserves Network.

The EPBC Act sets out civil and criminal penalties for breaches, and the EPBC Regulations set out criminal penalties. Administrative remedies, such as the issuing of infringement notices, may also be available in some circumstances.

### Actions

- A12 Implement reliable methods for monitoring compliance with this management plan.
- A13 Develop, maintain and disseminate appropriate information to enable users of the marine reserves network to comply with the provisions of this management plan.
- A14 Consult with users of the network to identify opportunities to improve compliance measures.
- A15 Implement a risk-based annual compliance plan.
- A16 Establish a reporting system that supports users and visitors of the marine reserves network to report suspected non-compliant activity.
- A17 Build effective working partnerships and agreements with Commonwealth and state government agencies for the delivery of compliance services.
- A18 Investigate and monitor suspected non-compliant activity and, where appropriate, take enforcement action.
- A19 Support initiatives and programs which promote best practice standards that guide use, and minimise impacts on the marine environment

### Outcomes

- Marine reserves network users have a clear understanding of what is required to comply with this Management Plan.

- Marine reserves network users contribute to the management of the network through the reporting of suspected non-compliant activity.
- Activities within the marine reserves network are undertaken in a manner that is consistent with the management arrangements as specified in this Management Plan.

## Strategy 5—Promote community understanding of, and stakeholder participation in, the management of the marine reserves network

Commonwealth marine reserves protect and maintain Australia's unique marine biodiversity. They are an important part of the overall management arrangements for ensuring our oceans and the life they support are healthy, resilient and used sustainably. It is important that the Australian community understands the importance of the marine reserves network and why it has been established. Marine reserve users can significantly contribute to management of the marine reserves network through sharing their knowledge and understanding of the marine environment and how people use it. Stakeholder participation is an important element of network management. To facilitate this participation it is intended that consultative structures will be established to engage users in the management of the North-west marine reserves network. The Director will use these consultative structures to address conservation issues and other issues of interest to reserve users and the wider public.

### Actions

- A20 Develop and implement a communication and education Plan that increases community understanding of the importance of the marine reserves network and meets reserve-specific needs for communication about the values protected and management arrangements and requirements.
- A21 Maintain effective working relationships with user groups to facilitate the exchange of knowledge, understanding and participation in the management of the marine reserves network.
- A22 Establish consultative structures (e.g. committees) to engage in management of the marine reserves network.

### Outcomes

- Stakeholders and the community understand the importance of the marine reserves network, the values it protects and management arrangements.
- Stakeholders effectively participate in the management of the marine reserves network.

## Strategy 6 - Support involvement of Indigenous people in management of Commonwealth Marine Reserves

The Indigenous peoples of the North-west coast have been sustainably using and managing their sea country, including areas now included within Commonwealth Marine reserves, for thousands of years – in some cases since before rising sea levels created these marine environments. They continue to rely on coastal and marine environments and resources for cultural identity, health and wellbeing, and economic activities. The saltwater people of the North-west belong to discrete clan estates and language groups that occupy, or traditionally occupied, discrete areas or country. 'Country' refers to a place of origin – literally, culturally or spiritually and 'sea country' and/or 'saltwater country' are terms that refer to an estate or cultural domain in which no separation between land and sea is made.

In some locations, Indigenous communities have developed ranger capabilities. Indigenous rangers play a significant role in the management of coastal and marine resources. Activities undertaken include monitoring of the coastline for illegal fishing, protection of native flora and fauna, quarantine surveillance, cleaning up of marine debris (including ghost nets) from beaches, and research into and protection of key species such as dugongs and marine turtles.

The Australian Government recognises and respects the knowledge Indigenous people have in managing Australia's land, fresh water and sea, and in conserving biodiversity. It recognises Indigenous Australians as key partners in managing Australia's environment and cultural heritage.

Native Title is a term that refers to the recognition in Australian law that some Indigenous people continue to hold rights to their lands and waters that come from their traditional laws and customs. The *Native Title Act 1993* provides for the recognition of native title on land and in the sea. Section 8 of the EPBC Act provides that the Act does not affect the operation of the Native Title Act.

Indigenous people can contribute to the management of marine reserves networks through sharing their knowledge and understanding, of the marine environment and through participation the management and sustainable use of the resources of these reserves.

### Actions

- A23 Drawing on the significant body of knowledge built as part of sea country planning and similar initiatives across Australia, and in consultation with relevant representative organisations, consolidate and communicate information about cultural values protected in the North-west Commonwealth marine reserves
- A24 Identify opportunities for Indigenous people to engage in the management of sea country in Commonwealth marine reserves, for example through the delivery of critical management services, such as monitoring and surveillance.
- A25 Build effective partnerships with Indigenous communities and organisations that have an interest in the marine reserves network.

### Outcomes

- Indigenous people and organisations are partners in the management of sea country within Commonwealth marine reserves.
- Management activities within Commonwealth marine reserves respect and complement existing Indigenous governance arrangements and activities.

## Strategy 7—Evaluate and report on the effectiveness of this Management Plan through monitoring and review

The primary focus of this strategy is on evaluating the effectiveness of the management arrangements outlined in this Management Plan in meeting the management objectives for the marine reserves network listed in section 1.2.

A monitoring, evaluation and reporting program will identify monitoring objectives based on the management objectives and information priorities for the network. The monitoring, evaluation and reporting program will establish arrangements to obtain the information needed to review the effectiveness of the implementation of the Management Plan before its expiry, while also enabling periodic reporting as required. Evaluations of effectiveness provide an important mechanism to identify refinements to and opportunities for improvement of the Management Plan and its implementation.

### Actions

- A26 Establish a program that measures and monitors progress on actions and outcomes
- A27 Report annually on the North-west Commonwealth Marine Reserves Network in the Director of National Parks annual report.
- A28 Evaluate and report on the implementation of the Management Plan before its expiry. The report will consider:
  - an assessment of the existing measures to protect the North-west Commonwealth marine reserves network
  - progress of management plan strategies and actions towards achieving the stated outcomes
  - options for improving management of the network.

### Outcomes

- Management is improved on the basis of new information and knowledge.
- Improved understanding of the conservation values, and the pressures on such values, of the marine reserves network.
- The establishment of a program which provides the foundation for the long-term monitoring, evaluation and reporting on the marine reserves network.
- Effective reporting on reserve management to inform stakeholders and meet statutory requirements.

# PART 5

## MANAGING USE OF THE NORTH-WEST COMMONWEALTH MARINE RESERVES NETWORK

This Part of the management plan prescribes how activities that are covered by provisions of the EPBC Act and Regulations relating to Commonwealth reserves will be managed in the North-west marine reserves network. It sets out, through management prescriptions, whether such activities can be undertaken and if so, how they will be managed. This includes the use of permits and class approvals to authorise activities; and determinations, prohibitions and restrictions made under the EPBC Regulations to regulate activities.

Approvals for actions and mining operations under s.359B provide interim authorisation while a management plan is not in operation and cease to have effect when a plan comes into operation. This plan provides for permits or approvals to be issued for these actions and mining operations to continue in appropriate network management zones, and that class approval will be given for commercial fishing and for mining operations in appropriate zones where the operations have been authorised under Chapter 4 of the Act.

In accordance with s.359A of the EPBC Act, this management plan does not prevent Indigenous persons from continuing, in accordance with law, the traditional use of an area in a Commonwealth marine reserve for non-commercial hunting or food-gathering, and for ceremonial and religious purposes. Section 8 of the EPBC Act provides that the Act does not affect the operation of the *Native Title Act 1993*, which also includes provisions that preserve customary rights to use of land and waters.

### 5.1 Outline of Part 5

The EPBC Act (ss.354/354A and 355/355A) prohibits certain actions being taken in Commonwealth reserves except in accordance with a Management Plan (see Appendix B). These actions include killing, injuring, taking, trading, keeping or moving members of native species, actions for commercial purposes and mining operations. The EPBC Regulations control, or allow the Director of National Parks to control, a range of activities in Commonwealth reserves such as access, use of vessels, waste disposal, commercial fishing, recreational fishing and research.

An activity that is otherwise prohibited in the North-west marine reserves network by the EPBC Act or Regulations may be carried on if it is done in accordance with either:

- a prescription in Part 5 that allows the activity to be done (allowed activities)
- a permit or class approval issued by the Director of National Parks under a prescription in Part 5 (allowable activities).

Depending on the type of activity, other provisions of the EPBC Act and/or other Acts may also apply to the activity (e.g. fisheries laws and laws relating to oil and gas exploration and production).

Section 5.2 sets out the prescriptions that apply to the issuing and managing of permits and approvals that are required and provided for by Sections 5.3–5.12. Those sections set out specific prescriptions for different types of activities. Prescriptions in Section 5.3 (General use and access) apply to all activities in the North-west marine reserves network.



Table 5.1 provides a general guide as to whether activities are allowed, allowable under a permit or class approval, or prohibited in the network management zones within the North-west marine reserves network by Sections 5.3–5.12.

**Table 5.1: Summary of management arrangements for activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Habitat Protection Zone (IUCN IV)	Recreational Use (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
General use – including recreational use (non-fishing) and general transit (See Section 5.3)	x	✓	✓	✓	✓	✓
General use – ballast water discharge and exchange (See Section 5.3)	x	✓	✓	✓	✓	✓
Commercial shipping – including general transit (See Section 5.4)	✓	✓	✓	✓	✓	✓
Commercial fishing (not including pearling) (except as indicated below) (See Section 5.5)	x	x	CA	x	CA	CA
Demersal trawl, Demersal gillnet and Demersal longline	x	x	x	x	x	x
Fish traps, Lobster pots, Crab pots	x	x	x	x	CA	CA
Pearling and pearling-related activities (See Section 5.5)	x	x	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>
Commercial tourism – fishing, (including charter fishing tours) (See Section 5.6)	x	x	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>
Commercial tourism – non-fishing, (including nature watching, scuba or snorkel tours) (See Section 5.6)	x	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>
Commercial media – including in-water filming and photography (See Section 5.6)	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Habitat Protection Zone (IUCN IV)	Recreational Use (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Recreational use – fishing including spearfishing, organised fishing competitions and clients of charter fishing (See Section 5.7)	x	x	✓	✓	✓	✓
Mining – authorised under Part 7 or 9 of the EPBC Act (See Section 5.8)	x	x	x	x	CA	CA
Mining – other than mining authorised under Part 7 or Part 8 of the EPBC Act (See Section 5.8)	x	x	x	x	P	P
Mining – construction and operation of pipelines (See Section 5.8)	x	P	P	P	P/CA	P/CA
Structures and works-including moorings, excavation and maintenance (See Section 5.9)	P	P	P	P	P	CA
Structures and works-disposal of dredge spoil (See Section 5.9)	x	x	x	x	P	CA
Research and monitoring (See Section 5.10)	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>
National security defence and emergency response (See Section 5.11)	✓	✓	✓	✓	✓	✓
Activities not otherwise specified (See Section 5.12)	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>	P <sup>1</sup>

✓ Activity is allowed in accordance with Plan prescriptions (without the need for a permit or class approval)

x Activity is not allowed at all (i.e. totally prohibited).

CA Activity is allowable in accordance with a class approval issued by the Director of National Parks.

P Activity is allowable in accordance with a permit from the Director of National Parks.

P/CA Activity is allowable in specified zones in accordance with a permit (if the operation is not authorised under Part 7 or part 9 of the EPBC Act) or a class approval (if the operation is authorised under Part 7 or part 9 of the EPBC Act) issued by the Director of National Parks.

<sup>1</sup> Activity may also be authorised in accordance with a class approval issued by the Director of National Parks.

Note: Only gear types specified in a commercial fishing class approval can be used in the conduct of that activity. Gear types not specified in an approval will be required to undergo assessment of the impacts on the area in which they are proposed to be used before a decision is made on whether to approve their use.

## 5.2 Permits and class approvals for allowable activities

As noted in Section 5.1, this Plan provides for certain activities that are otherwise prohibited in Commonwealth reserves to be carried on in accordance with either a permit or a class approval issued by the Director of National Parks ('allowable activities'). Part 17 of the EPBC Regulations contains provisions for issuing and managing permits, including permit applications, preconditions and content of permits; and varying, suspending and cancelling permits. These provisions are adopted for permits authorised by this Plan. Class approvals, and the rules for their issue and management, are established by this Plan.

Permits are used to authorise the person(s) named in the permit to conduct an activity. Class approvals are used to authorise all persons, or a class of persons, carrying on a type of activity specified in the approval.

Decision-making about permits and approvals will be consistent with the objectives of this Management Plan as set out in Section 1.2, the IUCN categories and zoning prescribed in Part 3, and the actions required for assessment of proposals and decision-making prescribed in Strategy 2 in Part 4 of this Plan.

### Prescriptions

5.2.1 This section applies where Sections 5.3–5.12 of this management plan provide that an activity may be done in accordance with a permit or class approval issued by the Director.

### Permits

5.2.2 A permit may be issued for allowable activities where provided for by Sections 5.3–5.12 of this Plan, in accordance with Part 17 of the EPBC Regulations, subject to the prescriptions (if any) in the section of this Plan relating to the particular activity.

### Permit rules

- 5.2.3 In assessing a permit application, the Director may ask the applicant for more information if the Director considers there is insufficient information to decide whether to issue the permit.
- 5.2.4 In assessing a permit application for an activity that has been subject to a referral under Part 7 of the EPBC Act, the Director will consider any referral or assessment documents and related information.
- 5.2.5 A permit may be suspended or cancelled and permit conditions may be varied or revoked in accordance with Part 17 of the EPBC Regulations.

### Class approvals

#### ***Mining operations, commercial fishing and structures and works***

- 5.2.6 The Director will issue class approvals for:
- commercial fishing operations (subject to prescriptions in Sections 5.5.1 to 5.5.9 of this Plan);
  - mining operations covered by Sections 5.8.4 and 5.8.5 of this Plan (subject to the other prescriptions of Section 5.8); and
  - excavations, erection of structures or works and disposal of dredge spoil covered by Sections 5.9.6 and 5.9.7.

#### ***Other activities***

- 5.2.7 A class approval may be issued for other allowable operations where provided for by Sections 5.3–5.12 of this Plan, if the Director is satisfied that:
- the operations are not likely to have an unacceptable impact on the values of the marine reserve; and

- b) the operations will be conducted in a manner consistent with achieving the objectives of this Management Plan.

### **Approval rules**

5.2.8 A class approval may be issued subject to conditions, including (without limitation):

- a) to specify the area in which and the periods during which the approved activity may be carried on
- b) to regulate the use of, prohibit or require the use of, specified gear, equipment or practices
- c) the provision of or consent for access to data for compliance and monitoring purposes.

5.2.9 A class approval may be suspended or cancelled, and approval conditions may be varied or revoked if the Director is satisfied that:

- a) the operations to which the approval relates have not been, are not being, or likely will not be, carried on in accordance with the approval or a condition of the approval; or
- b) the operations to which the approval relates are having, or are likely to have, an unacceptable impact on the values of the area to which the approval relates; or
- c) the operations to which the approval relates are likely to cause an unacceptable risk to public health and safety,

and class approval conditions may also be:

- d) revoked if the Director is satisfied that the condition is not necessary and revocation will not be likely to result in the operation to which the approval relates having an unacceptable impact on the values of the area to which the approval relates; or
- e) varied if the Director is satisfied that the condition as varied
  - i. is more appropriate for protection of the values of the area to which the approval relates, or
  - ii. will not be likely to result in the operation to which the approval relates having an unacceptable impact on the values of the area to which the approval relates.

5.2.10 A class approval issued under Section 5.2.6 or 5.2.7 may be varied, suspended or cancelled if the Director is satisfied there are reasonable grounds for believing that if the decision to issue the approval were being considered again the approval would not be issued (for example, because of new information, if a relevant matter that the Director took into account in deciding to issue an approval has changed or no longer exists).

5.2.11 A class approval may be revoked at the request of the persons to whom the approval relates, and may be varied to remove a person from the class of approved persons at the request of that person.

5.2.12 A class approval may be varied to remove a person from the class of approved persons if the Director is satisfied the person:

- a) has breached a condition of the approval; or
- b) the person has in the previous 10 years been convicted of, or is subject to proceedings for, an offence under the EPBC Act or Regulations or any other law of the Commonwealth about the protection, conservation or management of native species or ecological communities.

**Note: Part VIIC of the *Crimes Act 1914* includes provisions that, in certain circumstances, relieve persons from the requirement to disclose spent convictions and require persons aware of such convictions to disregard them.**

## 5.3 General use of and access to the North-west Commonwealth Marine Reserves Network

Economic activity within the North-west Commonwealth Marine Reserves Network includes international and domestic commercial shipping, petroleum resources exploration and development, commercial fishing, pearling and commercial tourism (including charter fishing). Recreational activities include nature watching, boating, diving and fishing.

As noted in Section 5.1 and Appendix B of this Plan, the EPBC Act and Regulations control or enable the Director of National Parks to control a range of activities in Commonwealth reserves. Some provisions apply to particular classes of activities, such as commercial activities, mining operations, camping and research. Other provisions relate to activities generally and include provisions enabling the Director to:

- determine areas where waste may be disposed of (r.12.14A and 12.14B) (where this is consistent with any relevant Commonwealth laws or international agreements)
- prohibit or restrict entry or activities (rr.12.23 and 12.23A)
- determine adventurous activities and areas where adventurous activities may be done (r.12.26)
- make determinations about use of vessels, including to prohibit use, control anchoring and mooring, and set speed limits (r.12.56); and
- make determinations about use of aircraft in and over reserves (r.12.58).

At the time of making this Plan instruments were in place under the EPBC Regulations for some of the long established network reserves:

- Ashmore Reef – Entry to the reserve, other than parts of West Lagoon and West Island has been prohibited under r.12.23 for many years to protect the reserve's fragile habitats and biodiversity. The prohibition allows access to a freshwater well. A corresponding determination under r.12.56 prohibits use of vessels in the reserve other than in the open area in the West Lagoon.
- Cartier Island – Entry to Cartier Island has been prohibited under r.12.23 at all times since the Reserve was declared. A corresponding determination under r.12.56 prohibits use of vessels in the reserve.
- Mermaid Reef – While the reserve is open to passive recreational use, a determination has been in place under r.12.56 for a number of years prescribing where vessels must be anchored in order to minimise damage to the reef.

These instruments will continue subject to Section 5.3.1 of this Plan.

The prescriptions in this section apply to all users of the network, including those carrying on activities provided for under other sections of this part of the Plan.

Table 5.2 provides a general guide to the prescriptions in this Plan applying to all users of the network.

### Prescriptions

5.3.1 The Director may make, amend and revoke prohibitions, restrictions and determinations under rr.12.23, 12.23A, 12.26, 12.56 and 12.58 of the EPBC Regulations where it is necessary:

- c) to protect and conserve natural and cultural heritage values
- d) to ensure human safety or visitor amenity; or
- e) where it is otherwise necessary to give effect to this Plan.

and the Director may issue a permit for an activity that would otherwise be prohibited by such an instrument. This Section applies despite any other prescription in this Plan.

- 5.3.2 The Director may make a determination under r. 12.14B of the EPBC Regulations specifying areas that may be used for the discharge, disposal of, release or leaving of industrial or domestic waste; and may issue permits to do so in areas of the network not subject to such a determination.
- 5.3.3 Disposal of waste in connection with activities authorised under Section 5.9 of this Plan will be managed in accordance with that Section 5.9.
- 5.3.4 Ballast water may be discharged or exchanged, in network management zones other than Sanctuary zones (IUCN Category Ia), subject to compliance with:
- the Australian Ballast Water Management Requirements and relevant state ballast water management arrangements
  - relevant Commonwealth and state legislation or international agreements (if any) relating to ballast water management; and
  - relevant prohibitions, restrictions and determinations made by the Director under this Plan.
- 5.3.5 A person may camp in areas above the high water mark in the North-west Commonwealth Marine Reserves Network in accordance with a permit issued for the purposes of r.12.28 of the EPBC Regulations under Section 5.2.

**Note: Overnight stays on vessels do not require a permit.**

**Table 5.2: Summary of management arrangements for general use activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Recreational use – non-fishing (nature watching)	x <sup>1</sup>	✓	✓	✓	✓	✓
Ballast water discharge and exchange	x	✓	✓	✓	✓	✓
Vessel transiting	✓	✓	✓	✓	✓	✓

✓ Activity is allowed in accordance with Plan prescriptions (without the need for a permit or class approval).

x Activity is not allowed at all (i.e. totally prohibited).

P Activity is allowable in accordance with a permit issued by the Director of National Parks.

Note: Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

<sup>1</sup> Recreational use (non-fishing) is permitted in the Mermaid Reef Commonwealth Marine Reserve

## 5.4 Commercial shipping

Maritime transport is vital to Australia's economy. The North-west Marine Region includes some of Australia's busiest shipping routes. There is significant vessel traffic associated with commercial and recreational fishing, tourism, international shipping, onshore mining and oil and gas operations. There are several major harbours adjacent to the Region including the ports of Broome, Port Hedland and Dampier, and new ports were under development at the time

this Plan was being prepared. Major shipping routes transect some of the North-west reserves, particularly the Montebello, Dampier and Kimberley Commonwealth marine reserves.

Sections 354 and 354A of the EPBC Act require commercial activities, including incidental activities such as transit, to be undertaken in accordance with this Plan.

Australia is a party to a number of international agreements relevant to shipping, in particular the United Nations Convention on the Law of the Sea (UNCLOS) and the International Convention for the Prevention of Pollution from Ships (MARPOL), which are outlined in more detail in Appendix B. UNCLOS provides a right of innocent passage through the territorial sea for foreign vessels, and right of freedom of navigation through Australia's exclusive economic zone. MARPOL deals with the preservation of the marine environment through the prevention and minimisation of pollution from ships.

There are also a range of national policies and procedures relevant to shipping such as the National Plan to Combat Pollution of the Sea by Oil and the Australian Ballast Water Management Requirements. Prescriptions dealing with waste disposal and ballast water discharge and exchange are in Section 5.3 (General use and access).

A summary of management arrangements for shipping activities in the North-west marine reserves network is provided in Table 5.3.

## Prescription

5.4.1 Commercial shipping may transit through the North-west marine reserves network, subject to compliance with prescriptions in Section 5.3 (General use and access) and relevant prescriptions in Sections 5.5–5.12 relating to the activity in which shipping is involved.

**Table 5.3: Summary of management arrangements for shipping activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Vessel transiting	✓	✓	✓	✓	✓	✓

✓ Activity is allowed in accordance with Plan prescriptions (without the need for a permit or class approval)

Note: Section 5.3.4 applies to prescriptions regarding ballast water discharge or exchange

Note: Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

## 5.5 Commercial fishing and pearling

Commercial fishing is an important industry in many coastal economies in the North-west Marine Region. Pearling, pearl oyster hatchery activities and pearl oyster farming are also important. Associated activities, such as processing, trade and marketing, ship repair yards, marinas and dock facilities, transportation, boat construction, and the supply of marine equipment such as nets and rigging, are important to the region's employment and economic activity. Apart from pearling, at the time of making of this Plan, no aquaculture activities are being undertaken in the network.

Both Commonwealth and Western Australia managed open ocean fisheries operate within the North-west Commonwealth Marine Reserves Network. They involve use of a range of fishing methods and gear types to target a wide variety of species. Commercial fishing is generally managed by the Australian Fisheries Management Authority (AFMA) for Commonwealth fisheries, and relevant state fisheries management agencies for state-managed fisheries. Some fisheries are jointly managed by AFMA and the Western Australian fisheries management agency.



Under ss.354 and 354A of the EPBC Act, commercial fishing operations including pearling, and also pearling related activities (being actions for commercial purposes that involved the taking, killing, injuring, moving or keeping of native species) are prohibited in the North-west Commonwealth Marine Reserves Network unless done in accordance with this Management Plan. Regulation 12.34 of the EPBC Regulations, which operates subject to this Plan, provides for the Director of National Parks to make determinations about the manner in which commercial fishing operations may be conducted.

Commercial fishing operations in the network are also subject to regulation under the Fisheries Management Act 1991 or Western Australian fisheries laws (under arrangements made under Part V of the Fisheries Management Act). Pearling and related activities are managed under Western Australian laws relating to those activities (at the time of making this Plan the Pearling Act 1990). These laws apply to the extent that they can operate consistently with the EPBC Act and Regulations and this Management Plan.

The prescriptions in this section provide for commercial fishing in the network consistent with the objectives of the Plan (Section 1.2) and the IUCN categorisation and zoning of the Reserves (Section 3).

A class approval for commercial fishing issued under Section 5.2 will specify methods and gear types that have been assessed and may be used. Other methods and gear types will need to be assessed before approval may be given.

Research in connection with commercial fishing operations will be managed in accordance with Section 5.10 of the plan.

A summary of management arrangements for commercial fishing activities in the North-west marine reserves network is provided in Table 5.4.

## Prescriptions

### ***Commercial fishing (other than pearling)***

- 5.5.1 Unless otherwise authorised in accordance with this Plan, commercial fishing operations may be carried on in the North-west marine reserves network in accordance with and subject to:
- a) a class approval issued under Section 5.2
  - b) the following prescriptions in this section
  - c) the prescriptions in Section 5.3 (General use and access)
  - d) the prescriptions in Section 5.4 (Commercial shipping); and
  - e) any determinations made under r.12.34 of the EPBC Regulations.
- 5.5.2 Commercial fishing operations (other than pearling) may be carried on in the following network management zones:
- a) Habitat Protection Zones (IUCN IV);
  - b) Multiple Use Zones (IUCN VI); and
  - c) Special Purpose Zones (IUCN VI).
- 5.5.3 Operations must be carried on in accordance with a commercial fishing concession issued under Commonwealth or state fisheries laws to the extent those laws are capable of operating concurrently with this Plan.
- 5.5.4 The following fishing methods must not be used:
- a) demersal trawl;

- b) demersal gillnet;
  - c) demersal longline.
- 5.5.5 The following fishing methods must not be used in Habitat Protection zones (IUCN IV):
- a) fish traps;
  - b) lobster pots;
  - c) crab pots.
- 5.5.6 Fishing methods and gear types not specified in a commercial fishing class approval, or conditions of a class approval must not be used.
- 5.5.7 Fishing gear must be kept stowed and secured at all times during transit through network management zones in which commercial fishing operations are not authorised.
- 5.5.8 Fishing gear that is:
- a) used in operations covered by Sections 5.5.6;
  - b) specified in Section 5.5.7;
  - c) not specified in a class approval as gear that may be used, or
  - d) prohibited by a determination under r.12.34 of the EPBC Regulations,
- must be kept stowed and secured at all times during transit through network management zones in which that gear is not allowed.
- 5.5.9 The Director may make determinations under r.12.34 of the EPBC Regulations relating to the conduct of commercial fishing operations.

### ***Pearling and pearling-related activities***

- 5.5.10 Unless otherwise authorised in accordance with this Plan, pearling and pearling related activities may be carried on in the North-west marine reserves network in accordance with and subject to:
- a) a permit or class approval issued under Section 5.2
  - b) the following prescriptions in this section
  - c) the prescriptions in Section 5.3 (General use and access)
  - d) the prescriptions in Section 5.4 (Commercial shipping); and
  - e) in relation to pearling, any determinations made under r.12.34 of the EPBC Regulations
- 5.5.11 Pearling operations, pearl oyster hatchery activities and pearl oyster farming may be carried on in the following network management zones:
- a) Habitat Protection Zones (IUCN IV);
  - b) Multiple Use Zones (IUCN VI); and
  - c) Special Purpose Zones (IUCN VI).

5.5.12 Operations must be carried on in accordance with applicable Commonwealth or state laws relating to pearling operations, pearl oyster hatchery activities and pearl oyster farming, to the extent those laws are capable of operating concurrently with this Plan.

5.5.13 Pearling equipment must be kept stowed and secured at all times during transit through network management zones in which their use is not authorised.

5.5.14 The Director may make determinations under r.12.34 of the EPBC Regulations relating to the conduct of pearling operations.

**Note: Refer to the maps in Appendix A for the location of zones within the reserves network.**

**Table 5.4: Summary of management arrangements for commercial fishing activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Commercial fishing (except as indicated below)	x	x	x	CA	CA	CA
Fish Traps	x	x	x	x	CA	CA
Lobster Pots	x	x	x	x	CA	CA
Crab Pots	x	x	x	x	CA	CA
Demersal trawl	x	x	x	x	x	x
Demersal Longline	x	x	x	x	x	x
Demersal gillnet	x	x	x	x	x	x
Pearling and pearling-related activities	x	x	x	P	P	P
Vessel transiting	✓	✓	✓	✓	✓	✓

✓ Activity is allowed in accordance with Plan prescriptions (without the need for a permit or class approval).

x Activity is not allowed at all (i.e. totally prohibited).

P Activity is allowable in accordance with a permit issued by the Director of National Parks. Pearling and pearling-related activities may also be authorised under a class approval issued under Section 5.2.7.

CA Activity is allowable in accordance with a class approval issued by the Director of National Parks

Note: Gear types not specified in a class approval as gear that may be used will require assessment before use may be approved.

Note: Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

## 5.6 Commercial tourism (including charter fishing tours) and commercial media

Marine and coastal tourism is an important industry in the North-west Region, with commercial tour operations in the North-west marine reserves network including offshore charter fishing and yachting, charter boat hire, nature and whale watching, charter flights and scuba diving tours. Incidents and events that take place in the region occasionally will be of interest to the commercial media.

Under ss.354 and 354A of the EPBC Act, commercial activities, including commercial tours and commercial media operations, are prohibited in the North-west marine reserves network unless done in accordance with this Management Plan. Under r.12.36 of the EPBC Regulations, commercial tourism flights over the network (up to 3000 metres above sea level) are similarly prohibited. Requirements for interacting with cetaceans and whale watching in the Australian Whale Sanctuary (the marine reserves network is part of the sanctuary) are set out in Part 8 of the EPBC Regulations.

The prescriptions in this section provide for sea-based commercial tourism to be conducted in most network management zones under either a permit or class approval from the Director of National Parks. Aviation tourism is allowed over the North-west marine reserves network subject to the prescriptions of this section. A permit or class approval may be issued for commercial media operations (including filming, video or audio recording and photography) in all zones.

A summary of management arrangements for commercial tourism and media activities is provided in Table 5.5.

### Prescriptions

- 5.6.1 Commercial tourism and media operations may be carried on in the North-west Commonwealth Marine Reserves Network in accordance with and subject to:
- a) a permit or class approval issued under Section 5.2
  - b) the other prescriptions in this section
  - c) the prescriptions in Section 5.3 (General use and access);
  - d) the prescriptions in Section 5.4 (Commercial shipping); and
  - e) in relation to charter fishing tours, the prescriptions in Section 5.7 (Recreational fishing).
- 5.6.2 Commercial media operations for the purposes of reporting news and events of the day may be carried on without a permit or class approval.
- 5.6.3 Charter fishing tours may be carried on in the following network management zones:
- a) Habitat Protection Zones (IUCN IV);
  - b) Recreational Use Zones (IUCN IV);
  - c) Multiple Use Zones (IUCN VI); and
  - d) Special Purpose zones (IUCN VI).
- 5.6.4 Fishing gear on charter fishing tour vessels must be kept stowed and secured at all times during transit through network management zones in which charter fishing tour operations are not authorised.

5.6.5 Commercial aviation tours may be carried on in the airspace up to 3000 metres above sea level over the North-west marine reserves network, and tour operators may land aircraft in Network reserves, in accordance with a permit issued under Section 5.2 and relevant provisions of Part 8 of the EPBC Regulations.

**The EPBC Act and Regulations do not apply to commercial tour flights in airspace over 3000 metres above sea level.**

**Table 5.5: Summary of management arrangements for commercial tourism (including charter fishing) and commercial media activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose zone (Ports) (IUCN VI)
Commercial tourism - fishing, including charter fishing tours	x	x	P	P	P	P
Commercial tourism - non-fishing, including nature watching, scuba and snorkel tours	x <sup>1</sup>	P	P	P	P	P
Commercial aviation tours	P	P	P	P	P	P
Commercial media, including in-water filming and photography	P	P	P	P	P	P
Commercial media – regarding news and events of the day	✓	✓	✓	✓	✓	✓
Vessel transiting	✓	✓	✓	✓	✓	✓

✓ Activity is allowed in accordance with Plan prescriptions (without the need for a permit or class approval).

x Activity is not allowed at all (i.e. totally prohibited).

P Activity is allowable in accordance with a permit from the Director of National Parks. Commercial tourism and media activities may also be authorised under a class approval issued under Section 5.2.7.

Note: Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

Note: <sup>1</sup> Commercial tourism (excluding fish feeding) is allowable in the Sanctuary zone of Mermaid Reef Commonwealth Marine Reserve in accordance with a permit issued by the Director of National Parks

## 5.7 Recreational fishing (including clients of charter fishing tours and organised fishing competitions)

Recreational (i.e. non-commercial) fishing is a popular pastime in the North-west Marine Region. Most recreational fishing occurs in state internal and coastal waters (i.e. within 3 nautical miles of the shore), notably in bays and estuaries. However, increasingly, recreational fishing is taking place in Commonwealth- waters, bringing the activity within areas of the North-west Commonwealth Marine Reserves Network.

Recreational fishing includes individual/group fishing, clients of charter fishing tours and organised fishing competitions, and consists of all forms of recreational taking of fish and other marine life, including line fishing, netting, trapping, spear fishing and hand collecting.

Under ss. 354 and 354A of the EPBC Act, recreational fishing (i.e. taking native species of fish for non-commercial purposes) is prohibited in the North-west Commonwealth Marine Reserves Network unless done in accordance with this Management Plan. Regulation 12.35 of the EPBC Regulations, which operate subject to this Plan, provides for the Director of National Parks to make determinations about the manner in which recreational fishing operations may be done (r. 12.35(3)) and prohibits certain fishing equipment and practices (rr. 12.35(4) and (5)).

The recreational fishing laws of Western Australia also apply to recreational fishing in Commonwealth waters and in the reserves. They apply to the extent they can operate consistently with the EPBC Act and Regulations and this Management Plan. Special rules may apply to recreational fishing done as part of licensed charter fishing tours.

At the time of making this Plan a determination under r.12.56 prohibited the use of vessels in Mermaid Reef Commonwealth Marine Reserve for the purpose of recreational fishing reflecting the Reserve's IUCN Category Ia (strict nature reserve). See Section 5.3 in relation to this determination.

The prescriptions in this section provide for recreational fishing in most network management zones, without the need for a permit or approval from the Director, consistent with the objectives of the Plan (Section 1.2) and the IUCN categorisation and zoning of the network reserves (Section 3). Fishing will be subject to relevant Western Australian laws and any determinations under r.12.35 (3) of the EPBC Regulations. The limitations in rr.12.35 (4) and (5) of the Regulations will not apply except in relation to Ashmore Reef Commonwealth Marine Reserve (as they are not generally necessary or appropriate to recreational fishing in the network) and except that the use of equipment that allows a person to breathe under the surface of the water by means of compressed air must not be used for the purpose of recreational fishing.

A summary of management arrangements for recreational fishing activities in the North-west marine reserves network is provided in Table 5.6.

### Prescriptions

5.7.1 Recreational fishing (taking fish for non-commercial purposes) may be carried on in the North-west marine reserves network in accordance with and subject to:

- a) the other prescriptions in this section
- b) the prescriptions in Section 5.3 (General use and access)
- c) any determinations made under r. 12.35(3) of the EPBC Regulations.

5.7.2 Recreational fishing may be carried on in the following network management zones:

- a) Recreational Use Zones (IUCN IV)
- b) Habitat Protection Zones (IUCN IV)
- c) Multiple Use Zones (IUCN VI) and

d) Special Purpose Zones (IUCN VI)

- 5.7.3 Recreational fishing must be carried on in accordance with relevant laws of Western Australia applying to the area of the network in which the activity is being done (to the extent those laws are capable of operating concurrently with this Plan).
- 5.7.4 The Director may make determinations under r. 12.35 (3) of the EPBC Regulations relating to the conduct of recreational fishing.
- 5.7.5 Except in relation to recreational fishing in the Recreational Use zone (IUCN IV) of Ashmore Reef Commonwealth Marine Reserve, regulations 12.35 (4) and (5) of the EPBC Regulations do not apply to recreational fishing in the Network reserves.
- 5.7.6 A person may possess and use a hand spear or spear gun for the purposes of recreational fishing in accordance with this section.
- 5.7.7 Notwithstanding Section 5.7.5, equipment that allows a person to breathe under the surface of the water by means of compressed air must not be used for the purposes of recreational fishing.
- 5.7.8 Fishing gear must be kept stowed and secured at all times during transit through network management zones in which recreational fishing is not allowed.

**Table 5.6: Summary of management arrangements for recreational fishing activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Recreational use <sup>a</sup> - (including spearfishing) organised fishing competitions	x	x	✓ <sup>b</sup>	✓	✓	✓
Clients of charter fishing	x	x	✓	✓	✓	✓
Vessel transiting	✓	✓	✓	✓	✓	✓

✓ Activity is allowed in accordance with Plan prescriptions (permit or class approval not required).

x Activity is not allowed at all (i.e. totally prohibited).

a Recreational fishing is managed by the states and the Northern Territory. Western Australian laws apply to recreational fishing in the Network unless they are inconsistent with this Management Plan.

b Fishing for immediate consumption only is allowed in the Recreational Use Zone (IUCN IV) of the Ashmore Reef Commonwealth Marine Reserve

Note: Refer to Appendix A for information on zones within reserves of the North-west marine reserves network.

## 5.8 Mining operations (including exploration)

Oil and gas exploration and development has been carried on in the North-west Marine Region since the late 1960s. There are seven sedimentary basins in the Region: the Northern Carnarvon, Southern Carnarvon, Perth, Browse, Roebuck, Offshore Canning and Bonaparte. Significant exploration and production activities occur within the region, with considerable exploration occurring within the reserves.

Mining operations are prohibited in the North-west Commonwealth Marine Reserves network by the EPBC Act (ss. 355 and 355A) unless done in accordance with this Management Plan. Mining operations include all operations and activities connected with, or incidental to, the mining or recovery of minerals or the production of material from minerals (s. 355(2)). 'Mineral' is defined as a naturally occurring substance or mixture of substances (s. 355(3)). Mining operations do not include capture and storage of greenhouse gases, including carbon dioxide. Under s.359 of the Act, ss.355 and 355A do not apply to usage rights to conduct mining operations that were held immediately before the Proclamation of the reserves.

The prescriptions in this section provide for mining operations in the network to be undertaken consistent with the objectives of the Plan (Section 1.2) and the IUCN categorisation and zoning of the reserves (Section 3). They allow for the possible authorisation of the transport of minerals by pipeline through zones where mining is not allowed where doing so is critical for the effective conduct of mining operations in zones where this activity is allowed. The prescriptions in this section and Section 5.2 also remove duplication of processes where mining operations have been authorised under Chapter 4 of the EPBC Act.

Mining operations that may be controlled actions under Part 3 of the Act will be subject to consideration and assessment under Chapter 4 and will not be allowed to proceed if the operations are likely to have unacceptable impacts. Decision-making under Chapter 4 of the Act is well established and takes account of the impacts of individual projects on marine reserves. Mining operations are also subject to assessment and approval processes under either the *Offshore Petroleum or Greenhouse Gas Storage Act 2006* (OPGGGS Act) or the *Offshore Minerals Act 1994*. Additional assessment by the Director of National Parks is not required because these mining operations will be assessed under Chapter 4 of the EPBC Act and these assessments will take account of impacts on marine reserves values.

Transit through the network for the purposes of mining operations conducted elsewhere is covered by Section 5.4 of this Plan.

## Prescriptions

5.8.1 Unless otherwise authorised in accordance with this Plan, mining operations may be carried on in the North-west marine reserves network in accordance with and subject to:

- a) a permit or class approval issued under Section 5.2
- b) the other prescriptions in this section
- c) the prescriptions in Section 5.3 (General use and access); and
- d) the prescriptions in Section 5.4 (Commercial shipping).

5.8.2 Mining operations:

- a) may be carried on in:
  - i. Multiple Use Zones (IUCN VI), and
  - ii. Special Purpose Zones (IUCN VI),in accordance with Sections 5.8.4 to 5.8.6; and
- b) that are the construction and operation of pipelines for the transport of minerals may be carried on in:
  - i. Marine National Park Zones (IUCN II),
  - ii. Habitat Protections Zones (IUCN IV), and



iii. Recreational Use Zones (IUCN IV)

in accordance with Section 5.8.7.

**See Table 5.7 and Appendix A for the location of zones within marine reserves.**

- 5.8.3 Mining operations must be carried on in accordance with an authorisation (however described) under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* or the *Offshore Minerals Act 1994* (to the extent those laws are capable of operating concurrently with this Plan).
- 5.8.4 Mining operations in Multiple Use and Special Purpose zones that have been approved under Part 9 of the EPBC Act may be carried on in accordance with conditions of that approval and a class approval issued under Section 5.2.6.
- 5.8.5 Mining operations in Multiple Use and Special Purpose zones that are the subject of a decision under Part 7 of the EPBC Act that the operations are not a controlled action if taken in particular manner may be carried on in that manner and in accordance with the conditions of a class approval issued under Section 5.2.6.
- 5.8.6 Mining operations in Multiple Use and Special Purpose zones not authorised by a class approval referred to in Sections 5.8.4 or Section 5.8.5 may be carried on in accordance with a permit issued under Section 5.2.2., or a class approval issued under Section 5.2.7.
- 5.8.7 The Director may issue a permit for the construction and operation of pipelines for the transport of minerals through Marine National Park zones (IUCN II), Habitat Protection zones (IUCN IV) and Recreational Use zones (IUCN IV) if the Director is satisfied:
- a) the operations are necessarily critical to the mining or recovery of minerals being conducted elsewhere;
  - b) it is not practicable for the operations to be conducted outside the zone;
  - c) the operations are not likely to have an unacceptable impact on the values of the zone or the reserve, and
  - d) the operations will be conducted in a manner not inconsistent with achieving the objectives of this Management Plan.

**Table 5.7: Zoning arrangements for mining activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Mining – authorised under Part 7 or 9 of the EPBC Act	x	x	x	x	CA	CA
Mining – other than mining authorised under Part 7 or Part 8 of the EPBC Act	x	x	x	x	P	P
Mining – construction and operation of pipelines	x	P	P	P	P/CA	P/CA
Vessel transiting	✓	✓	✓	✓	✓	✓

- ✓ Activity is allowed in accordance with Plan prescriptions (permit or class approval not required).
  - x Activity is not allowed at all (i.e. totally prohibited).
  - CA Activity is allowable in specified zones in accordance with a class approval issued by the Director of National Parks.
  - P Activity is allowable in accordance with a permit issued by the Director of National Parks.
  - P/CA Activity is allowable in specified zones in accordance with a permit (if the operation is not authorised under Part 7 or part 9 of the EPBC Act) or a class approval (if the operation is authorised under Part 7 or Part 9 of the EPBC Act) issued by the Director of National Parks.
- Note: Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

## 5.9 Structures and works

The installation of structures and carrying out of other works, including excavations, may be necessary to support commercial, recreational and public good activities in the North-west Commonwealth Marine Reserves Network. Examples of such installations include moorings to minimise anchoring damage to the seabed habitats, maritime navigation aids, and weather or ocean monitoring stations.

Carrying on an excavation, erecting a structure or carrying out works, and associated commercial activities, is prohibited in the North-west Commonwealth Marine Reserves Network under ss.354 and 354A of the EPBC Act unless done in accordance with this Management Plan. Structures and works may include for example, shipping channel dredging, construction of critical infrastructure (eg. for telecommunications and navigation aids) and the disposal of dredge spoil associated with port development. Some structures and works related to mining operations are covered by ss.355 and 355A of the Act and will be managed in accordance with Section 5.8 of this Plan.

The prescriptions in this section allow for actions of this type, consistent with the Plan and not covered by Sections 5.3 to 5.8, to be carried out in the network.

The prescriptions in this section also provide for dredge spoil disposal and other port-related activities in the Special Purpose Zone (Ports) to be authorised under a class approval when authorised under Chapter 4 of the EPBC Act and under the *Environment Protection (Sea Dumping) Act 1981*.

A summary of management arrangements for these operations in the North-west marine reserves network is provided in Table 5.8.

## Prescriptions

- 5.9.1 The Director may carry out an excavation, erect a structure or carry out works in the North-west Commonwealth Marine Reserves Network where the action is consistent with the objectives of the Plan (Section 1.2) and the IUCN categorisation and zoning of the network reserves (Section 3).
- 5.9.2 Unless otherwise authorised in accordance with this Plan, a person other than the Director may carry out an excavation, erect a structure or carry out works in the North-west Commonwealth Marine Reserves Network in accordance with and subject to:
- a) a permit or, in relation to Special Purpose Zone (Ports) (IUCN VI) a class approval under Section 5.2
  - b) the other prescriptions in this section; and
  - c) the prescriptions in Section 5.3 (General use and access).
- 5.9.3 A permit may only be issued for excavations, structures or works in Sanctuary zones (IUCN Ia), Marine National Park zones (IUCN II), Habitat Protection Zone (IUCN IV) and Recreational Use Zone (IUCN IV) if the Director is satisfied the action is necessary for:
- a) maritime or visitor safety, including aiding navigation
  - b) maintaining the natural values of the North-west marine reserves network (e.g. a mooring may prevent anchor damage);
  - c) scientific monitoring purposes (e.g. marine weather station); or
  - d) critical infrastructure in the national interest (e.g. telecommunications cables), and
    - i. it is not practicable for the action to be conducted outside the zone,
    - ii. the action is not likely to have an unacceptable impact on the values of the zone or the reserve, and
    - iii. the action will be conducted in a manner not inconsistent with achieving the objectives of this Management Plan.
- 5.9.4 Dredge spoil must not be disposed of in:
- a) Sanctuary zones (IUCN Ia);
  - b) Marine National Park zones (IUCN II);
  - c) Habitat Protection zones (IUCN IV);
  - d) Recreational Use zones (IUCN IV).
- 5.9.5 A permit may be issued for disposal of dredge spoil in Multiple Use zones (IUCN VI) if the Director is satisfied:
- a) the operation is necessarily critical to other operations in the zone or elsewhere;
  - b) it is not practicable for the operation to be conducted outside the zone;
  - c) the operation is not likely to have an unacceptable impact on the values of the zone or the reserve, and
  - d) the operation will be conducted in a manner consistent with achieving the objectives of this Management Plan.

5.9.6 Excavations, erection of structures or works in Special Zone (Ports) (IUCN VI):

- a) that have been approved under Part 9 of the EPBC Act may be carried on in accordance with conditions of that approval and a class approval issued under Section 5.2.6; and
- b) that are the subject of a decision under Part 7 of the EPBC Act that the actions are not a controlled action if taken in particular manner may be carried on in that manner and in accordance with the conditions of a class approval issued under Section 5.2.6.

5.9.7 Disposal of dredge spoil in Special Zone (Ports) (IUCN VI) that is authorised by a permit issued under the *Environment Protection (Sea Dumping) Act 1981* may be carried on in the zone in accordance with the conditions of that permit and a class approval issued under Section 5.2.6.

**Table 5.8: Summary of management arrangements for structures and works activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Structures and works-including moorings, excavation and maintenance	P	P	P	P	P	CA
Structures and works-disposal of dredge spoil	x	x	x	x	P	CA

**x** Activity is not allowed at all (i.e. totally prohibited).

**P** Activity is allowed in accordance with a permit issued by the Director of National Parks.

**CA** Activity is allowed in accordance with a class approval issued by the Director of National Parks.

**Note:** Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

## 5.10 Research and monitoring activities

Research and monitoring is important for understanding marine biodiversity, improving capacity for sustainable use, weather prediction and understanding climate change. Research and monitoring activities are conducted by both public and private institutions, including, on occasion, by foreign institutions and companies.

Research and monitoring activities in the North-west Commonwealth Marine Reserves Network are prohibited by r.12.10 of the EPBC Regulations unless authorised by this Management Plan. Research and monitoring that involves actions which affect members of native species are prohibited by ss.354 and 354A of the EPBC Act unless done in accordance with this Plan. Actions that affect listed threatened species or ecological communities, listed migratory species, cetaceans or listed marine species must also comply with the provisions of Part 13 of the EPBC Act, unless carried out in accordance with this Plan.

Where biological resources are sought for research and development on their genetic or biochemical components, a permit is required under Part 8A of the EPBC Regulations, which operates subject to this Plan.

The prescriptions in this section enable research and monitoring activities to be undertaken. Research and monitoring will be allowable in all zones of the North-west marine reserves network in accordance with a permit issued by the Director of National Parks. In Marine National Park zones, extractive activities are generally considered inconsistent. However, in recognising the important contribution that scientific research makes to the effective management of marine reserves, this Plan provides for authorisation of extractive research activities.

A summary of management arrangements for research and monitoring activities in the North-west Commonwealth Marine Reserves Network is provided in Table 5.9.

## Prescriptions

- 5.10.1 The Director may carry out research and monitoring in the North-west Commonwealth Marine Reserves Network that involves actions covered by ss.354 and 354A and Part 13 of the EPBC Act.
- 5.10.2 A person other than the Director may carry out research and monitoring in the North-west Commonwealth Marine Reserves Network, including taking actions covered by the EPBC Act ss.354 and 354A and Part 13 of the EPBC Act in accordance with and subject to:
- a) a permit or class approval issued under Section 5.2
  - b) the other prescriptions in this section; and
  - c) the prescriptions in Section 5.3 (General use and access).
- 5.10.3 A class approval will not be issued for research that involves activities covered by Sections 5.10.6 and 5.10.7.
- 5.10.4 Research that involves access to biological resources within the meaning of Part 8A of the EPBC Regulations must comply with the requirements of that Part (in addition to the requirements of this section).
- 5.10.5 In assessing permit applications, consideration will be given to the nature of and potential impacts of the actions, the aim of the project, ethical issues and how knowledge from the project might benefit the understanding and management of the North-west Commonwealth Marine Reserves Network.
- 5.10.6 A permit may be issued to carry on extractive research and monitoring activities in Marine National Park zones (IUCN II) in the North-west marine reserves if the Director is satisfied
- a) it is not practicable for the action to be conducted outside the zone;
  - b) the research is relevant to, or a priority for, the management of the marine reserve network;
  - c) the action is not likely to have an unacceptable impact on the values of the zone or the reserve, and
  - d) the action will be conducted in a manner not inconsistent with achieving the objectives of this Management Plan.
- 5.10.7 A permit may be issued to carry on, in the North-west marine reserves network, research and monitoring that involves activities that are prohibited under Section 5.5 if the Director is satisfied:
- a) the project is proposed to be conducted in an area where the same or similar research and monitoring has been conducted previously
  - b) it is not practicable for the project to be conducted outside the proposed area,
- and,
- c) the project will provide information relevant to understanding the impacts of the activities on the marine environment or to supporting sustainable use within the marine reserves;

- d) the project activities will not have an unacceptable impact on the values of the area in which the research or monitoring will be conducted;
- e) the project will be conducted in a manner not inconsistent with achieving the objectives of this management plan.

5.10.8 Permit holders must make results of research and monitoring available to the Director, (and in a specific format where relevant), where that information will improve the knowledge and understanding of the biodiversity and ecosystems of the North-west Commonwealth Marine Reserves Network and might benefit management of the Network.

**Table 5.9: Summary of management arrangements for research and monitoring activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Research and monitoring activities	P	P	P	P	P	P

P Activity is allowable in accordance with a permit issued by the Director of National Parks. Research and monitoring activities may also be authorised under a class approval issued under Section 5.2.7, but not where 5.10.6 and 5.10.7 apply.

Note: Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

## 5.11 Defence, border protection, law enforcement and emergency response

A number of Commonwealth agencies enter marine reserves for purposes relating to defence, border protection, law enforcement and emergency response. These agencies include the Australian Defence Force, the Australian Customs and Border Protection Service, Australian Fisheries Management Authority, the National Offshore Petroleum Safety and Environmental Management Authority and the Australian Maritime Safety Authority. There is no intention to limit training or operations for the Australian Defence Force, Customs and Border Protection Service, law enforcement or emergency response through the marine reserves network.

Provisions of the EPBC Act (ss.354 and 354A) and the Regulations (Division 12.2) relating to Commonwealth reserves apply generally to the Commonwealth and its agencies. In addition, s.362 (2) of the Act requires the Commonwealth and Commonwealth agencies to perform functions and exercise powers in relation to Commonwealth reserves in a way that is not inconsistent with this Management Plan. This Plan allows for the conduct of necessary government operations in the North-west marine reserves network.

A summary of management arrangements for defence, border protection, law enforcement and emergency response activities in the North-west marine reserves network is provided in Table 5.10.

### Prescriptions

5.11.1 The Commonwealth and Commonwealth agencies may take actions in the North-west marine reserves network that are covered by ss. 354 and 354A and Part 13 of the EPBC Act, and activities covered by Division 12.2 of the EPBC Regulations:

- a) for the purposes of training and operations for defence, customs, border protection, law enforcement or emergency response (without the need for a permit or class approval issued under Section 5.2); or
- b) for other purposes under a permit or class approval issued by the Director in accordance with Section 5.2 of this Plan, subject to the prescriptions in Section 5.3 (General use and access).

5.11.2 The Commonwealth and Commonwealth agencies should, so far as practicable, liaise with the Director in relation to the performance of functions and exercise of powers in the North-west marine reserves network to minimise the risk of unacceptable impacts and unnecessary interference with the use of the network by other users.

**Table 5.10: Summary of management arrangements for defence, border protection, law enforcement and emergency response activities in the North-west Commonwealth Marine Reserves Network**

Activity	Sanctuary Zone (IUCN Ia)	Marine National Park Zone (IUCN II)	Recreational Use Zone (IUCN IV)	Habitat Protection Zone (IUCN IV)	Multiple Use Zone (IUCN VI)	Special Purpose Zone (Ports) (IUCN VI)
Actions by Commonwealth and Commonwealth agencies - Defence, border protection, law enforcement and emergency response	✓	✓	✓	✓	✓	✓
Actions by Commonwealth and Commonwealth agencies - other and not covered elsewhere by this plan	P	P	P	P	P	P

- ✓ Activity is allowed in specified zones in accordance with Plan prescriptions (permit or class approval not required).
- P Activity is allowable in accordance with a permit issued by the Director of National Parks. This activity may also be authorised under a class approval issued under Section 5.2.7.

Note: Refer to Appendix A for information on zones within specific marine reserves of the North-west marine reserves network.

## 5.12 New activities and authorisations

Circumstances may arise or proposals may be brought forward for activities that were not known or anticipated at the time this Management Plan was prepared.

As noted in Appendix B and other sections in this part of the Plan, a range of actions and activities are prohibited or may be controlled by the Director of National Parks in Commonwealth reserves under the EPBC Act and Regulations, and certain actions may only be taken by the Director of National Parks in accordance with this Plan.

The purpose of this section is to allow the Director to respond to circumstances that are not covered by prescriptions in other sections of this Plan, provided that doing so is consistent with the objectives of the Plan in Section 1.2, the IUCN categories and zoning in Part 3 and the Strategies in Part 4.

Ensuring activities do not impact on the values of the reserve while also reducing unnecessary administrative burdens on marine reserve management resources and stakeholders, is a key focus of this Plan as reflected in Strategy 2 in Part 4 of the Plan. It is possible that during the life of this Plan more efficient and effective means of authorising actions under this Plan may be identified. Consistent with Strategy 2 this section would enable the Director to implement such mechanisms.

**Note: Proposals for actions not covered by Prescriptions in other sections of this Plan will be subject to assessment as outlined in Part 4 (strategy 2) of this Plan.**

## Prescriptions

- 5.12.1 The Director may take actions that are not covered by specific prescriptions in this Management Plan, including actions covered by ss. 354 and 354A of the EPBC Act.
- 5.12.2 The Director may authorise (by a permit or class approval under Section 5.2) actions by other persons that are not covered by specific prescriptions in this Management Plan, including actions covered by ss. 354 and 354A of the EPBC Act and the EPBC Regulations.
- 5.12.3 The Director may grant new authorisations (approvals, permits or usage rights) in place of existing authorisations under this Plan.
- 5.12.4 The Director may make determinations, prohibitions or restrictions under provisions of Division 12.2 of the EPBC Regulations that are not covered by prescriptions in other sections of this part of the Plan.



# APPENDIX A

## The North-west Commonwealth Marine Reserves Network—marine reserve descriptions, values and maps

The following sections provide an overview of the 13 marine reserves in the North-west Commonwealth Marine Reserves Network, providing information on the Proclamation, the assigned zones, the total area, the values, the location, a general description and a map for each reserve.

The individual activity tables in Part 5 should be referred to when determining the allowable activities in each of the 13 reserves and their respective zones.

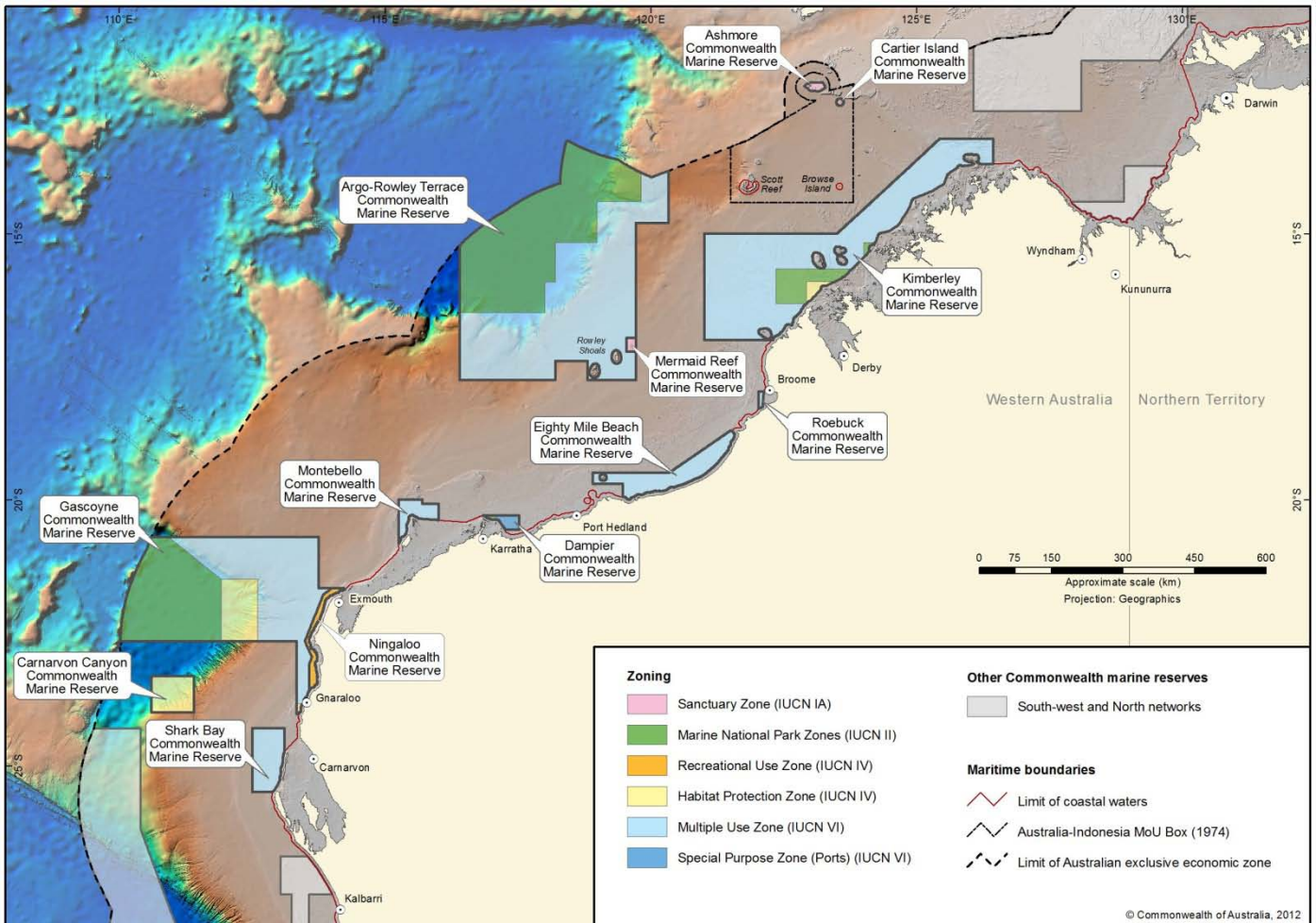
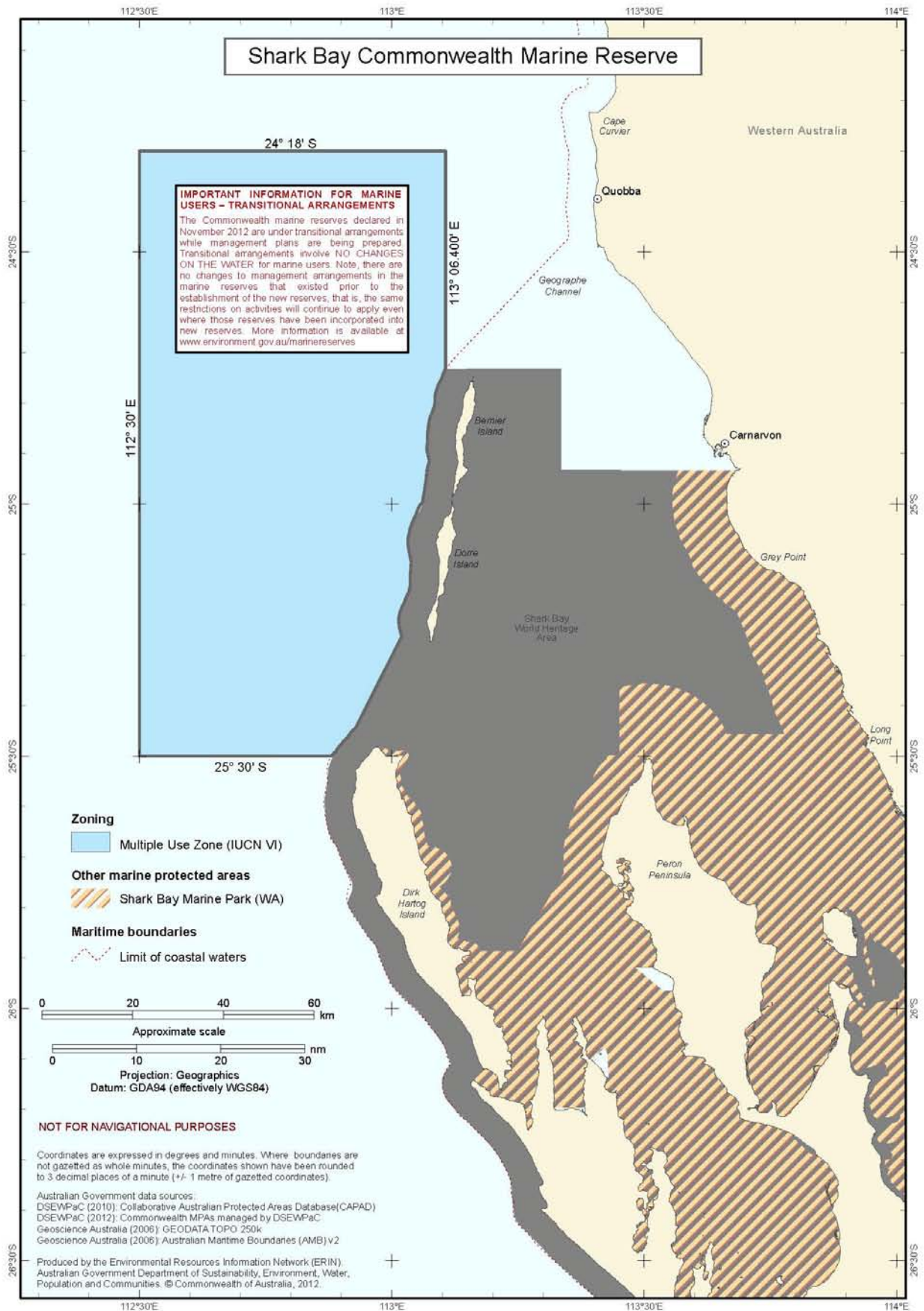


Figure A1: North-west Commonwealth Marine Reserves Network

## Shark Bay Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Multiple Use Zone (IUCN VI) (7443 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	7443 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Foraging areas adjacent to important breeding sites for several species of migratory seabirds</li> <li>• Includes part of the migratory pathway of protected humpback whales</li> <li>• Adjacent to the largest nesting area for loggerhead turtles</li> <li>• Provides protection to shelf and slope habitats as well as a terrace feature</li> <li>• Examples of the shallower ecosystems of the Central Western Shelf Province and Central Western Transition provincial bioregions including the Zuytdorp meso-scale bioregion</li> <li>• The reserve also provides for connectivity between the inshore waters of the Shark Bay World Heritage Area and the deeper waters of the area</li> </ul>
<b>Location</b>	The Shark Bay Commonwealth Marine Reserve is adjacent to the Shark Bay World Heritage Area.
<b>General description</b>	<p>The Shark Bay Commonwealth Marine Reserve is representative of the Central Western Transition provincial bioregion and the Central Western Shelf Province provincial bioregion; the latter generally demonstrates strong connectivity between biophysical and ecological processes occurring in state and Commonwealth waters.</p> <p>The reserve includes waters used for the northern and southern migration of humpback whales and is adjacent to important resting areas in Shark Bay. Green turtles are also found within the reserve as are loggerhead turtles, which in adjacent coastal areas have important nesting and inter-nesting habitat. The Commonwealth waters in the area provide an important food source for wedge tailed shearwaters and fairy and roseate terns, which breed in coastal areas adjacent to the reserve. The reserve is also adjacent to coastal waters considered to be internationally significant for dugong. The reserve and adjacent coastal areas are also important areas for shallow water snapper.</p>



**Figure A2: Shark Bay Commonwealth Marine Reserve**

## Carnarvon Canyon Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN IV
<b>Assigned zones in reserve under this management plan</b>	Habitat Protection Zone (IUCN IV) (6177km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	6177 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Contains the whole of the Carnarvon Canyon – a single channel canyon along with representations of slope, continental rise and deep hole and valleys</li> <li>• The Carnarvon Canyon ranges in depth from 1500 metres to over 5000 metres and hence provides a wide range of habitats for benthic and demersal species</li> <li>• Examples of the ecosystems of the Central Western Transition provincial bioregion</li> </ul>
<b>Location</b>	The Carnarvon Canyon Commonwealth Marine Reserve is located far offshore (approximately 300 km) north-west of Carnarvon.
<b>General description</b>	<p>The Carnarvon Canyon Commonwealth Marine Reserve lies in a biogeographic faunal transition between tropical and temperate species. Water depths within the reserve are between 1500-4000 metres (approx.).</p> <p>The reserve includes the entirety of the Carnarvon Canyon, a relatively small, single channel canyon that occurs on the slope between the Carnarvon Terrace and the deep abyss of the Cuvier Abyssal Plain. Generally canyon heads are believed to be sites of relatively higher productivity and the soft-bottom environment at the bases of canyons are likely to support species that are typical of the deep seafloor (e.g. holothurians, polychaetes and sea-pens).</p> <p>The reserve lies within a biogeographic faunal transition between tropical and temperate species. The predominantly southward flowing surface currents bring tropical Indo-Pacific species into this bioregion, while the northward flowing Leeuwin Undercurrent transports temperate species from the southern areas. The benthic slope communities of this bioregion comprise both tropical and temperate species along a north-south gradient.</p>

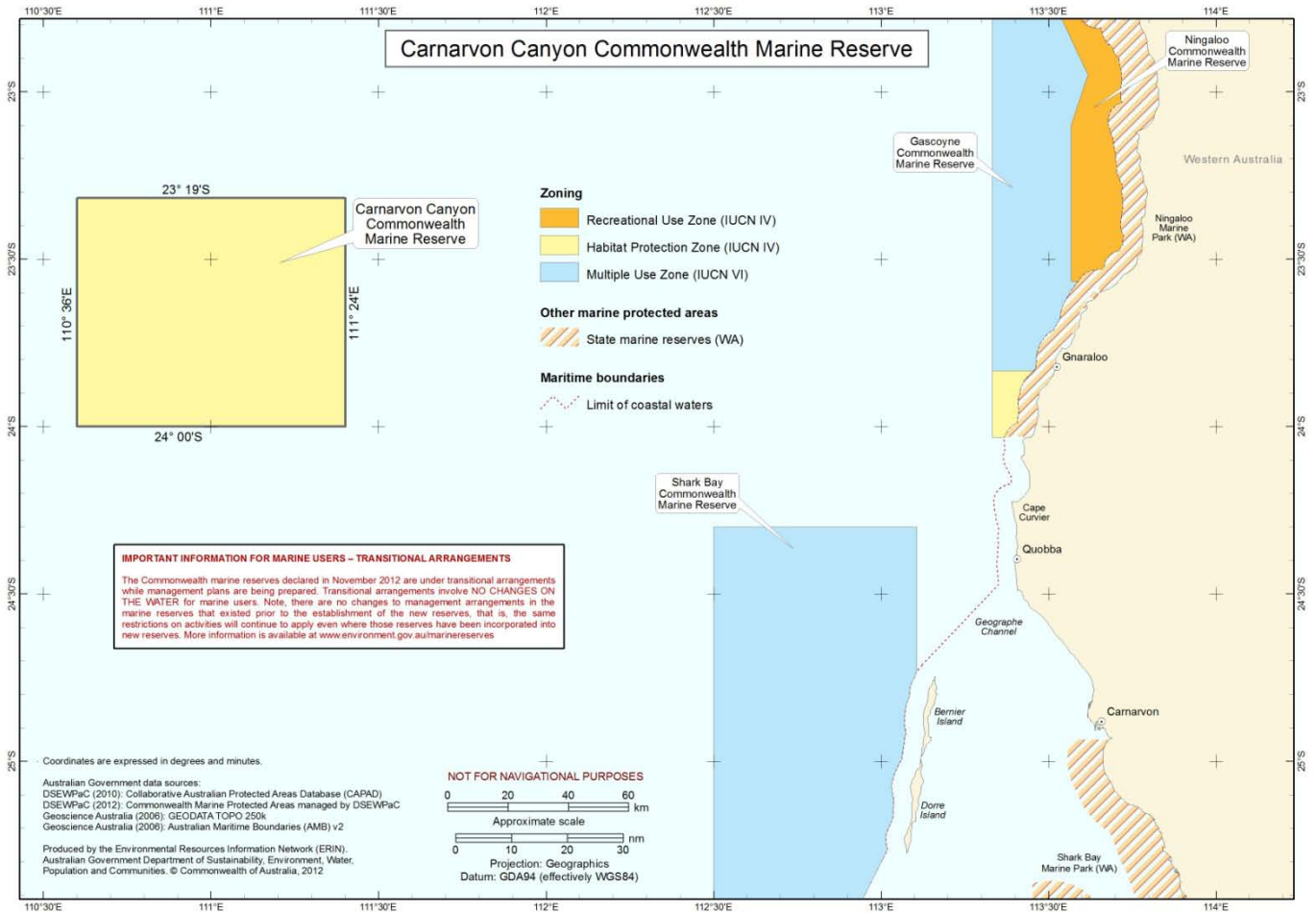


Figure A3: Carnarvon Canyon Commonwealth Marine Reserve

## Gascoyne Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Marine National Park Zone (IUCN II) (33 451km <sup>2</sup> ) Habitat Protection Zone (IUCN IV) (9 272km <sup>2</sup> ) Multiple Use Zone (IUCN VI) (39 043 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	81 766 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Important foraging areas for: <ul style="list-style-type: none"> <li>- migratory seabirds</li> <li>- threatened and migratory hawksbills and flatback turtles</li> <li>- vulnerable and migratory whale shark</li> </ul> </li> <li>• Examples of the ecosystems of the Central Western Shelf Transition, the Central Western Transition and the Northwest province provincial bioregions as well as the Ningaloo meso-scale bioregion</li> <li>• Three key ecological features for the region: <ul style="list-style-type: none"> <li>- canyons on the slope between the Cuvier Abyssal Plain and the Cape Range Peninsula (enhanced productivity, aggregations of marine life and unique sea-floor feature)</li> <li>- Exmouth Plateau (unique sea-floor feature associated with internal wave generation)</li> <li>- continental slope demersal fish communities (high species diversity and endemism – the most diverse slope bioregion in Australia with over 500 species found with over 64 of those species occurring nowhere else)</li> </ul> </li> </ul>
<b>Location</b>	The Gascoyne Commonwealth Marine Reserve is situated adjacent to and to the west of the Ningaloo Commonwealth Marine Reserve, and extends into deep waters of the region out to the limit of the exclusive economic zone.
<b>General description</b>	<p>The Gascoyne Commonwealth Marine Reserve abuts, at its southern boundary, the Western Australian Ningaloo Marine Park. The deep waters of the reserve extend over the Cuvier Abyssal Plain, which has an average depth of 5070 metres.</p> <p>The reserve includes some of the most diverse continental slope habitats in the whole of Australia, in particular the continental slope area between North West Cape and the Montebello Trough; more than 500 fish species, 76 of which endemic, have been recorded from this area. The canyons linking the Cuvier Abyssal Plain with the Cape Range Peninsula are in the reserve and are unusual because their heads are particularly close to the coast.</p> <p>The canyons, Exmouth Plateau and Commonwealth waters adjacent to Ningaloo Reef are believed to form a system that creates conditions for enhanced productivity</p>

resulting in seasonal aggregations of marine species including whale sharks, manta rays, humpback whales, sharks and other large predatory fish and seabirds. The canyons are also believed to support the productivity and species richness of Ningaloo Reef, which is the only extensive coral reef that fringes the west coast of a continent in the world.

Flatback and green turtles occur within the proposed marine reserve as do wedge tailed shearwaters. The reserve is adjacent to Exmouth Gulf, which is considered to be a significant foraging and nursing area for dugong, an important nesting and inter-nesting area for hawksbill and loggerhead turtles, a breeding area for roseate and fairy terns and a resting area for humpback whales.

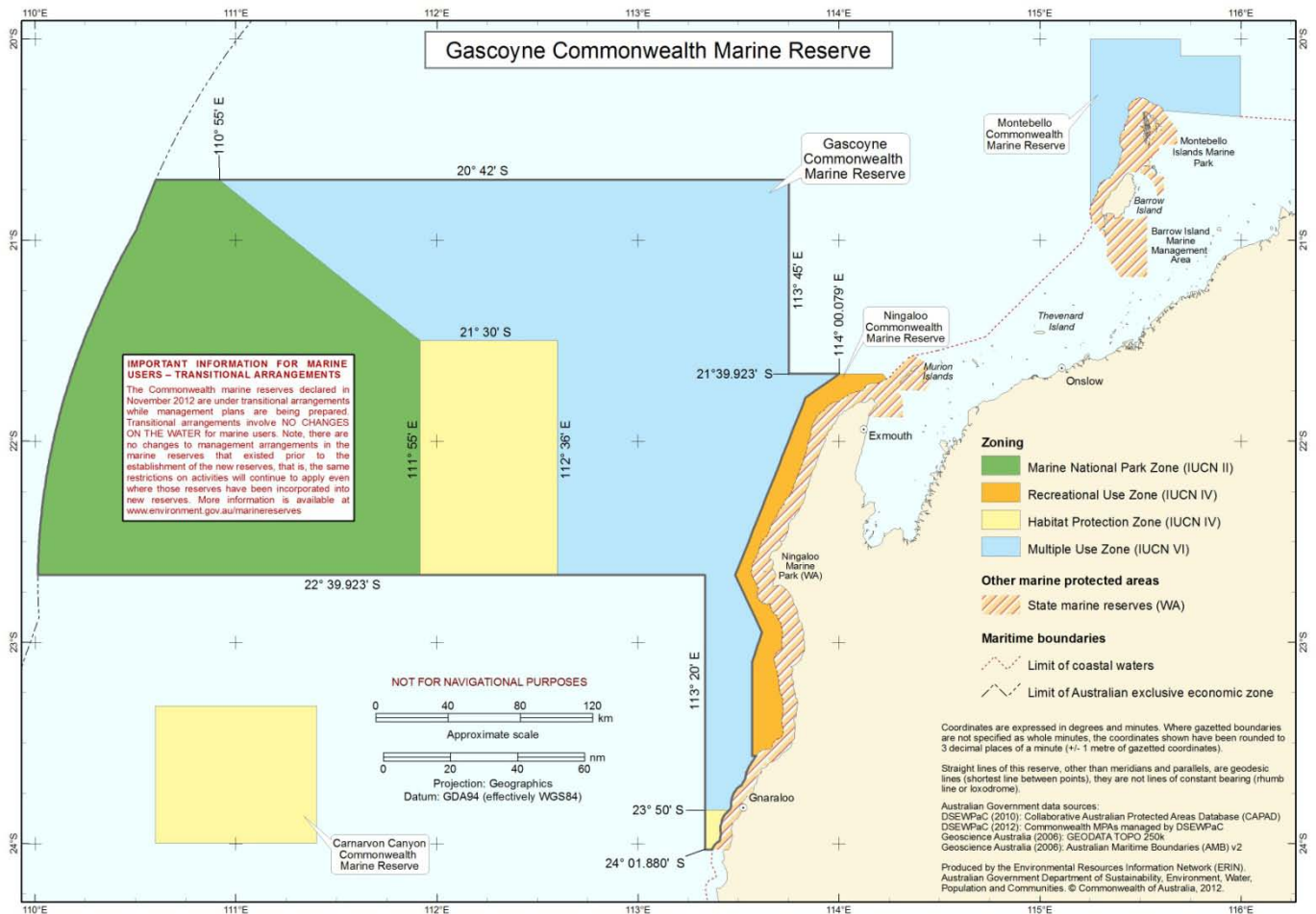
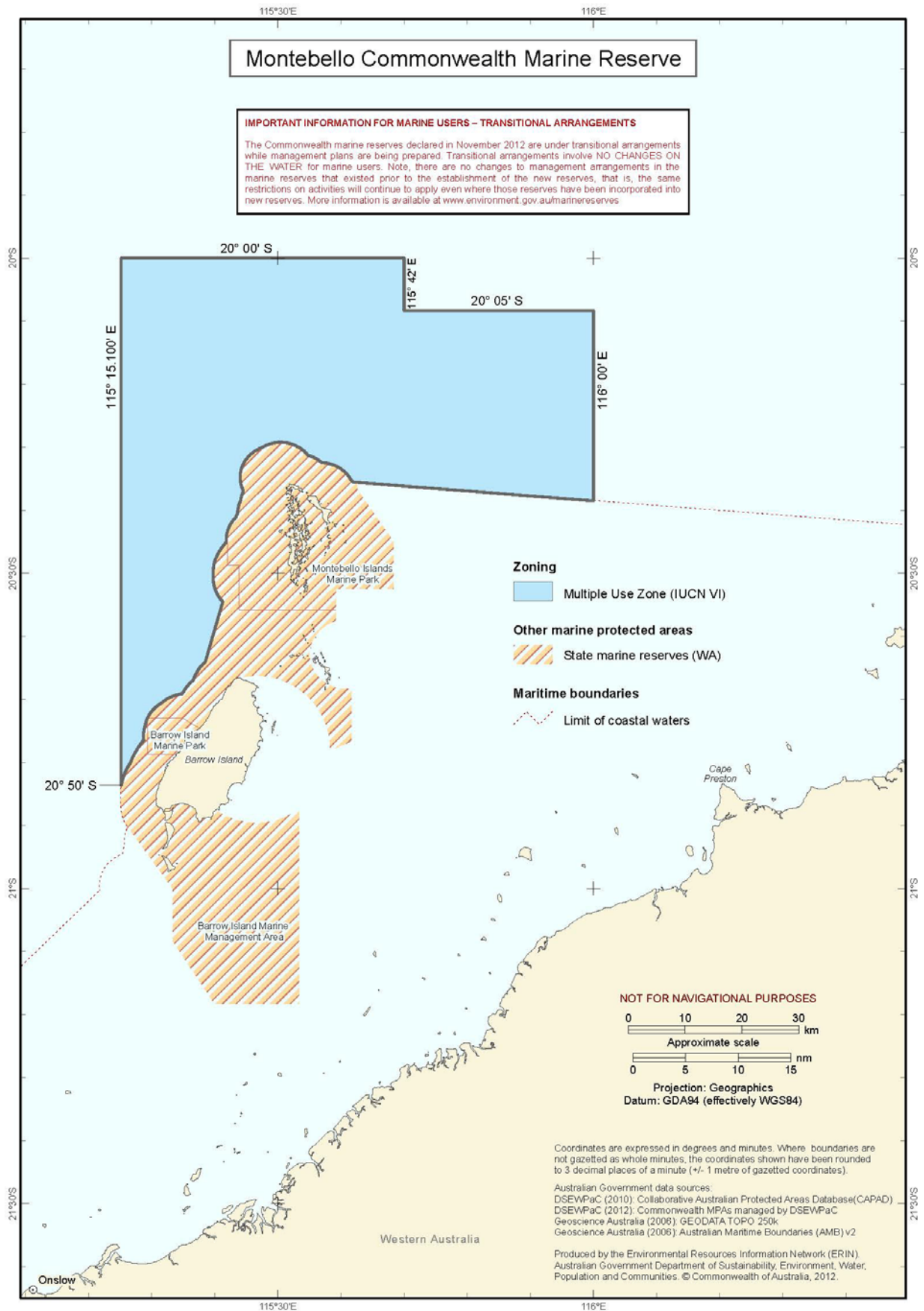


Figure A4: Gascoyne Commonwealth Marine Reserve

## Montebello Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Multiple Use Zone (IUCN VI) (3413 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	3413 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Foraging areas adjacent to important breeding areas for migratory seabirds</li> <li>• Foraging areas for vulnerable and migratory whale sharks</li> <li>• Foraging areas and adjacent to important nesting sites for marine turtles</li> <li>• Includes part of the migratory pathway of the protected humpback whale</li> <li>• The Reserve includes shallow shelf environments with depths ranging from 15 metres to 150 metres and provides protection for shelf and slope habitats, as well as pinnacle and terrace seafloor features</li> <li>• Examples of the seafloor habitats and communities of the Northwest Shelf Province provincial bioregions as well as the Pilbara (offshore) meso-scale bioregion</li> <li>• One key heritage feature for the region: <ul style="list-style-type: none"> <li>- Wreck of the '<i>Trial</i>'</li> </ul> </li> <li>• One key ecological feature for the region: <ul style="list-style-type: none"> <li>- ancient coastline (a unique seafloor feature that provides areas of enhanced biological productivity) is represented in this reserve</li> </ul> </li> </ul>
<b>Location</b>	The Montebello Commonwealth Marine Reserve is located approximately 20 kilometres north of Barrow Island and 125 kilometres west of Dampier. The reserve abuts the Western Australian Barrow Island and the Montebello islands Marine Parks
<b>General description</b>	<p>The Montebello Commonwealth Marine Reserve provides representation and protection of continental shelf environments and habitats. It is a resting area for migrating humpback whales and supports resident populations of common bottlenose dolphins and Indo-Pacific humpback dolphins. The Montebello Islands – in the adjacent state waters - have been identified as critical nesting and inter-nesting habitat for green, flatback and hawksbill turtles. Summer mating aggregations of green turtles also occur in the area.</p> <p>The Montebello area is also home to wedge-tailed shearwaters, bridled terns, roseate terns, ospreys, white-bellied sea-eagles, eastern reef egrets, Caspian terns and lesser crested terns.</p> <p>The Montebello Commonwealth Marine Reserve contains the Trial, which is the earliest known shipwreck in Australian waters. It is an English East Indian ship wrecked on Trial Rocks north of the Montebello Islands in 1622, on its way to the port of Batavia in Indonesia from Plymouth in England.</p>





**Figure A5: Montebello Commonwealth Marine Reserve**

## Dampier Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Marine National Park Zone (IUCN II) (150km <sup>2</sup> ) Special Purpose Zone (Ports) (IUCN VI) (1102 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	1252 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Foraging areas adjacent to important breeding areas for migratory seabirds</li> <li>• Foraging areas and adjacent to important nesting sites for marine turtles</li> <li>• Includes part of the migratory pathway of the protected humpback whale</li> <li>• The reserve provides a high level of protection for offshore shelf habitats adjacent to the Dampier Archipelago</li> <li>• The reserve provides high level protection for the shallow shelf with depths ranging from 15 metres to 70 metres</li> <li>• Examples of the communities and seafloor habitats of the Northwest Shelf Province provincial bioregion as well as the Pilbara (nearshore) and Pilbara (offshore) meso-scale bioregions</li> </ul>
<b>Location</b>	The Dampier Commonwealth Marine Park is located offshore from Dampier and abuts the proposed Western Australian Dampier Archipelago Marine Park.
<b>General description</b>	The Dampier Commonwealth Marine Reserve covers depths ranging from approximately 15 to 70 metres. The area between Dampier and Port Hedland, in which the reserve is located, is a hotspot for sponge biodiversity. This biodiversity may reflect short pelagic stages for sponge larvae, resulting in minimal larval exchange and high population differentiations between sponge communities.

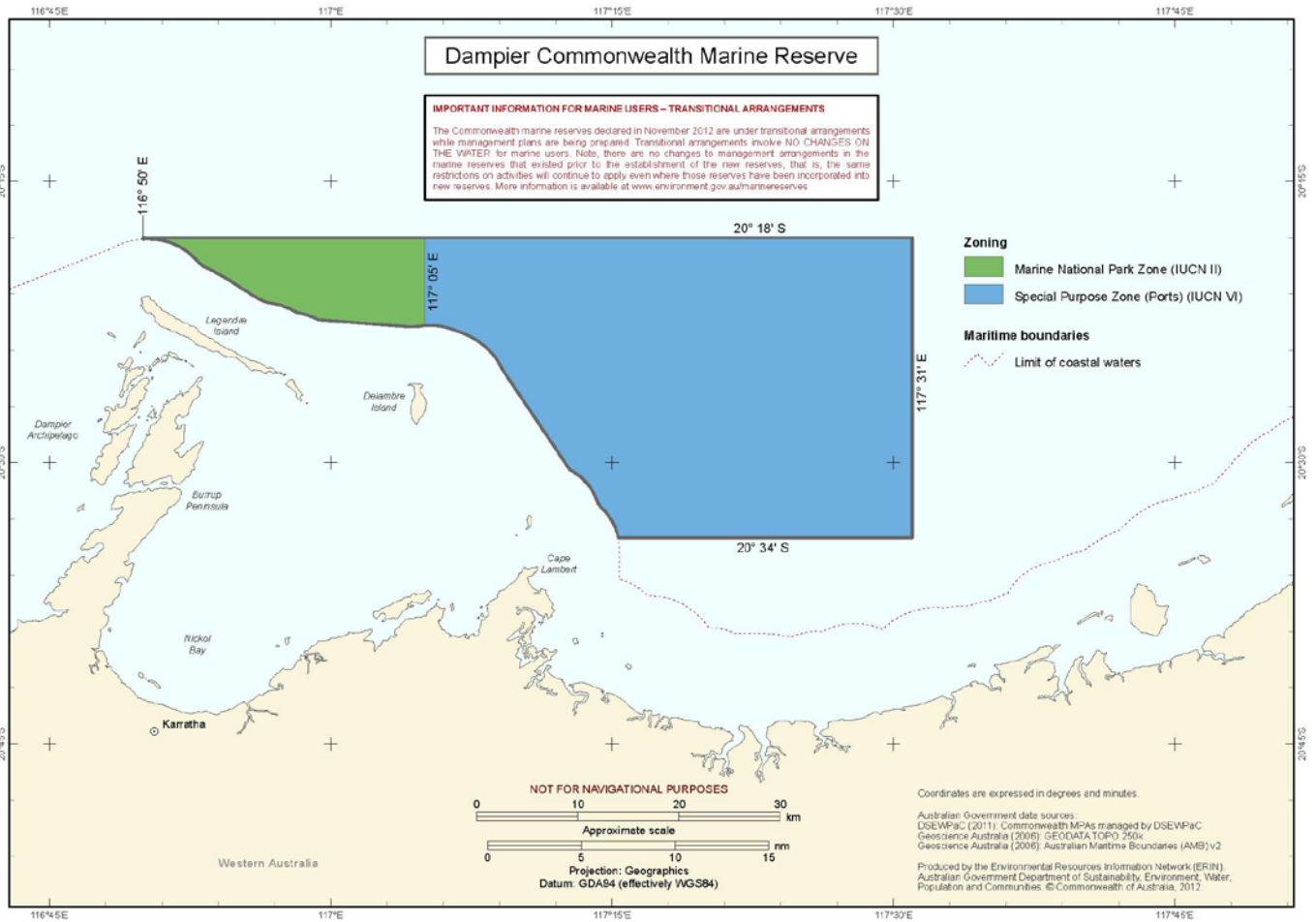


Figure A6: Dampier Commonwealth Marine Reserve

## Eighty Mile Beach Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Multiple Use Zone (IUCN VI) (10 785km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	10 785 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Foraging areas adjacent to important breeding areas for migratory seabirds</li> <li>• Foraging areas adjacent to important nesting sites for marine turtles</li> <li>• Includes part of the migratory pathway of the protected humpback whale</li> <li>• Adjacent to important foraging, nursing and pupping areas for freshwater, green and dwarf sawfish</li> <li>• The reserve provides protection for the shelf, including terrace and banks and shoal habitats, with depths ranging from 15 to 70 metres</li> <li>• Examples of the communities and seafloor habitats of the Northwest Shelf Province provincial bioregion and the Canning, Northwest Shelf, Pilbara (nearshore), Pilbara (offshore) and Eighty Mile Beach meso-scale bioregions</li> </ul>
<b>Location</b>	The Eighty Mile Beach Commonwealth Marine Reserve is located north east of Port Headland and abuts the proposed (as at the time of preparing this plan) Western Australian Eighty Mile Beach Marine Park.
<b>General description</b>	<p>The Eighty Mile Beach Commonwealth Marine Reserve covers approximately 10 785 square kilometres of the Commonwealth marine environment. It covers part of the continental shelf, adjacent to the entire length of Eighty Mile Beach, from Cape Bossut in the north to Commonwealth waters adjacent to Bedout Island. The waters off Eighty Mile Beach are important for a number of species including dugongs, humpback whales, sawfish and migratory seabirds.</p> <p>Eighty Mile Beach is a Ramsar wetland and is recognised as one of the three most important areas for migratory shorebirds in Australia. It is estimated that more than 500 000 shorebirds use Eighty Mile Beach as a migration terminus each year, while another 150 000-200 000 use the site as a migration stop-over site on their way to south-western, southern and south-eastern Australian coasts. In terms of total numbers, the site is one of the most important non-breeding and migratory stop-over areas in the East Asian – Australasian Flyway for use by migrant shorebirds. The waters of the reserve provide a vital food source for many of these species.</p>

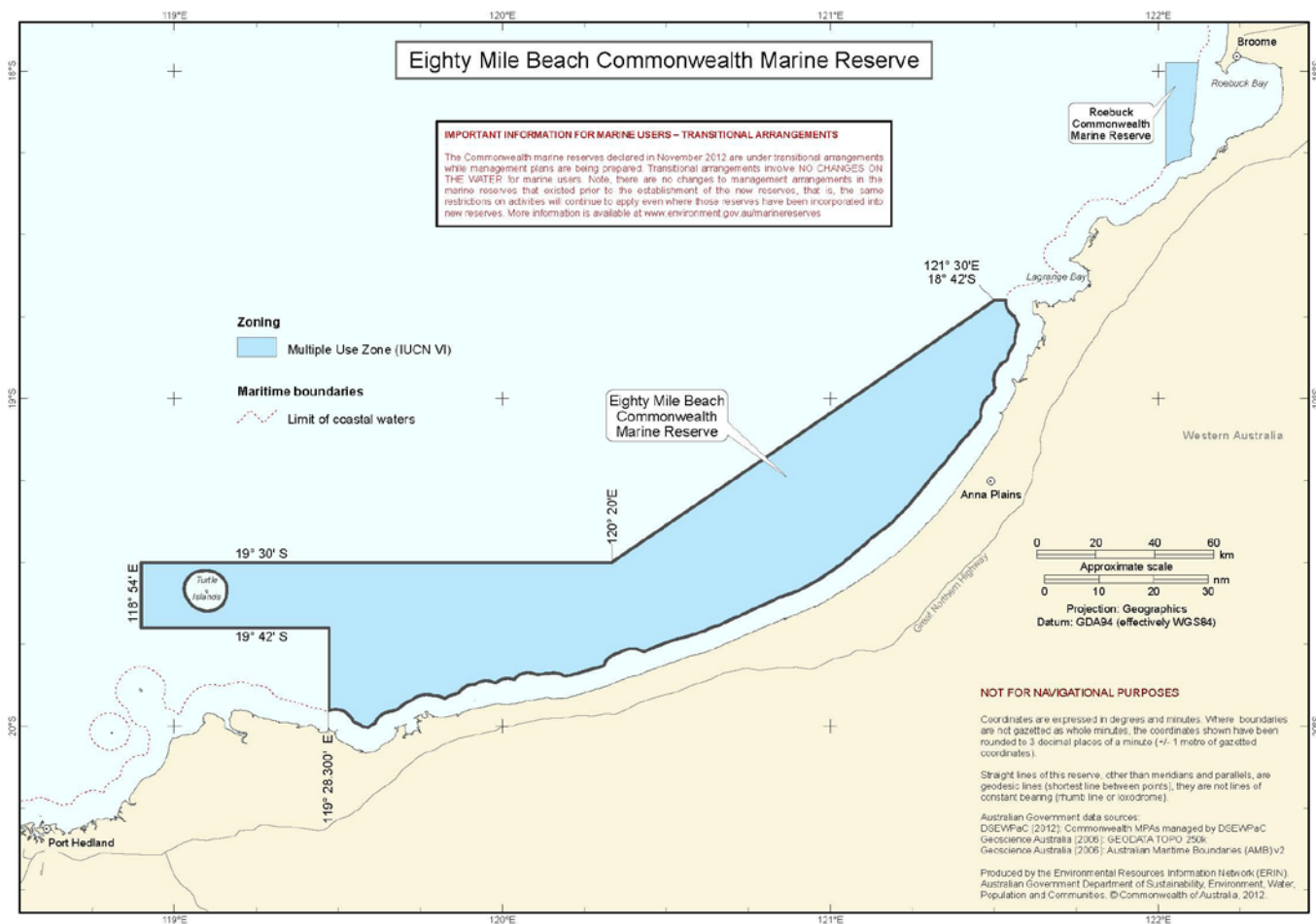


Figure A7: Eighty Mile Beach Commonwealth Marine Reserve

## Roebuck Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Multiple Use Zone (IUCN VI) (304km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	304 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Foraging area adjacent to important breeding areas for migratory seabirds</li> <li>• Foraging area adjacent to important nesting sites for flatback turtles</li> <li>• Includes part of the migratory pathway of the protected humpback whale</li> <li>• Adjacent to important foraging, nursing and pupping areas for freshwater, green and dwarf sawfish and foraging and calving areas for Australian Snubfin, Indo-Pacific Humpback and Indo-Pacific bottlenose dolphins</li> <li>• The reserve provides protection for shallow shelf habitats ranging in depth from 15 metres to 70 metres</li> <li>• Examples of the ecosystems of the Northwest Shelf Province provincial bioregion and the Canning meso-scale bioregion</li> </ul>
<b>Location</b>	The Roebuck Commonwealth Marine Reserve is located off the coast of the Kimberley region, just to the southeast of Broome.
<b>General description</b>	The Roebuck Commonwealth Marine Reserve consists entirely of shallow continental shelf habitats and supports a significant population of Australian snubfin dolphins, along with many species of migratory seabirds. The area is subject to high tidal ranges although wave energy in the area tends to be low. These tides contribute to the mixing of surface water layers and sediments in the shallower waters which may drive productivity in the area. The reserve provides important connectivity between the coastal and embayment waters of Roebuck Bay which supports mangroves and sub tidal seagrass beds, and the deeper waters of the continental shelf.

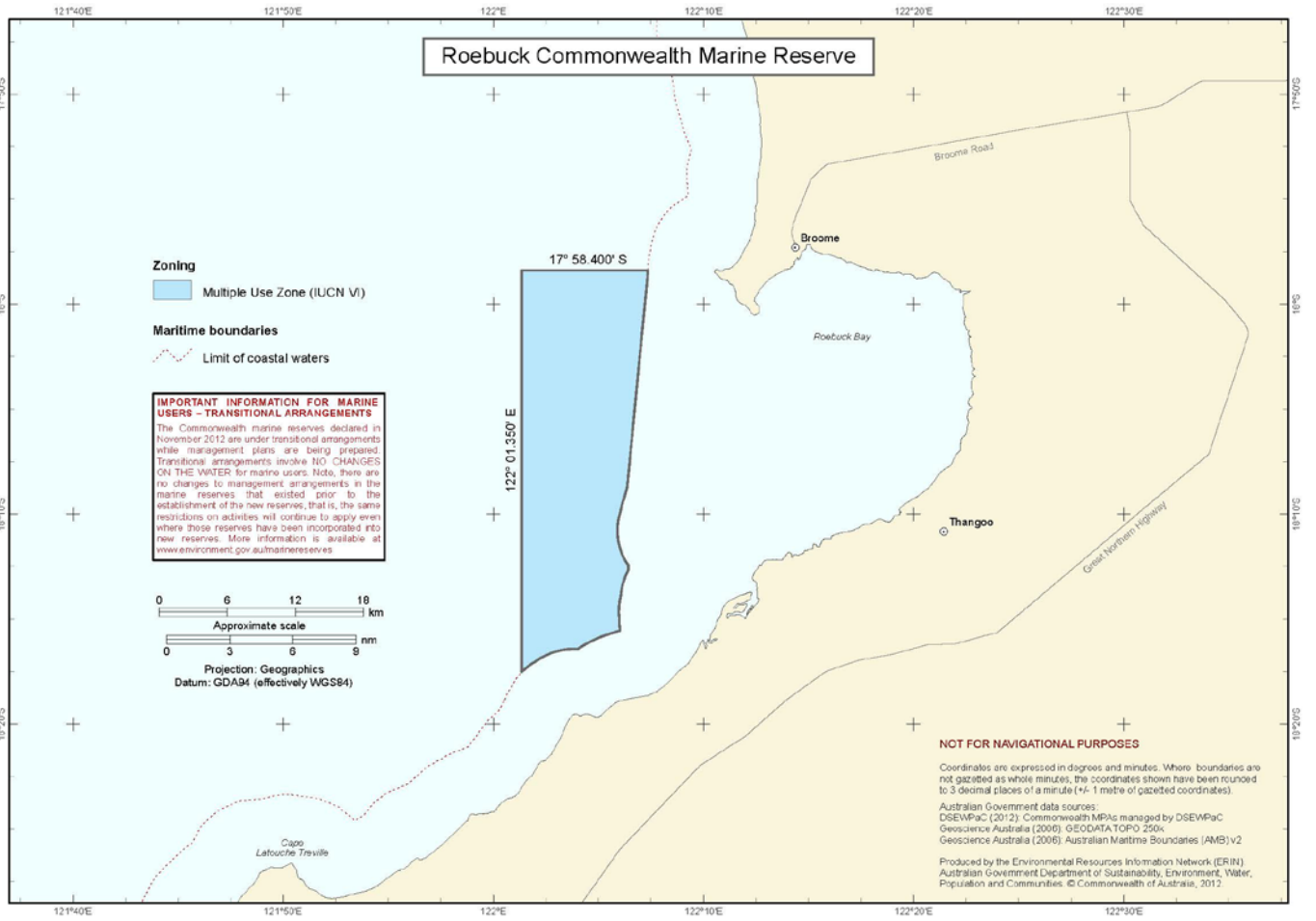


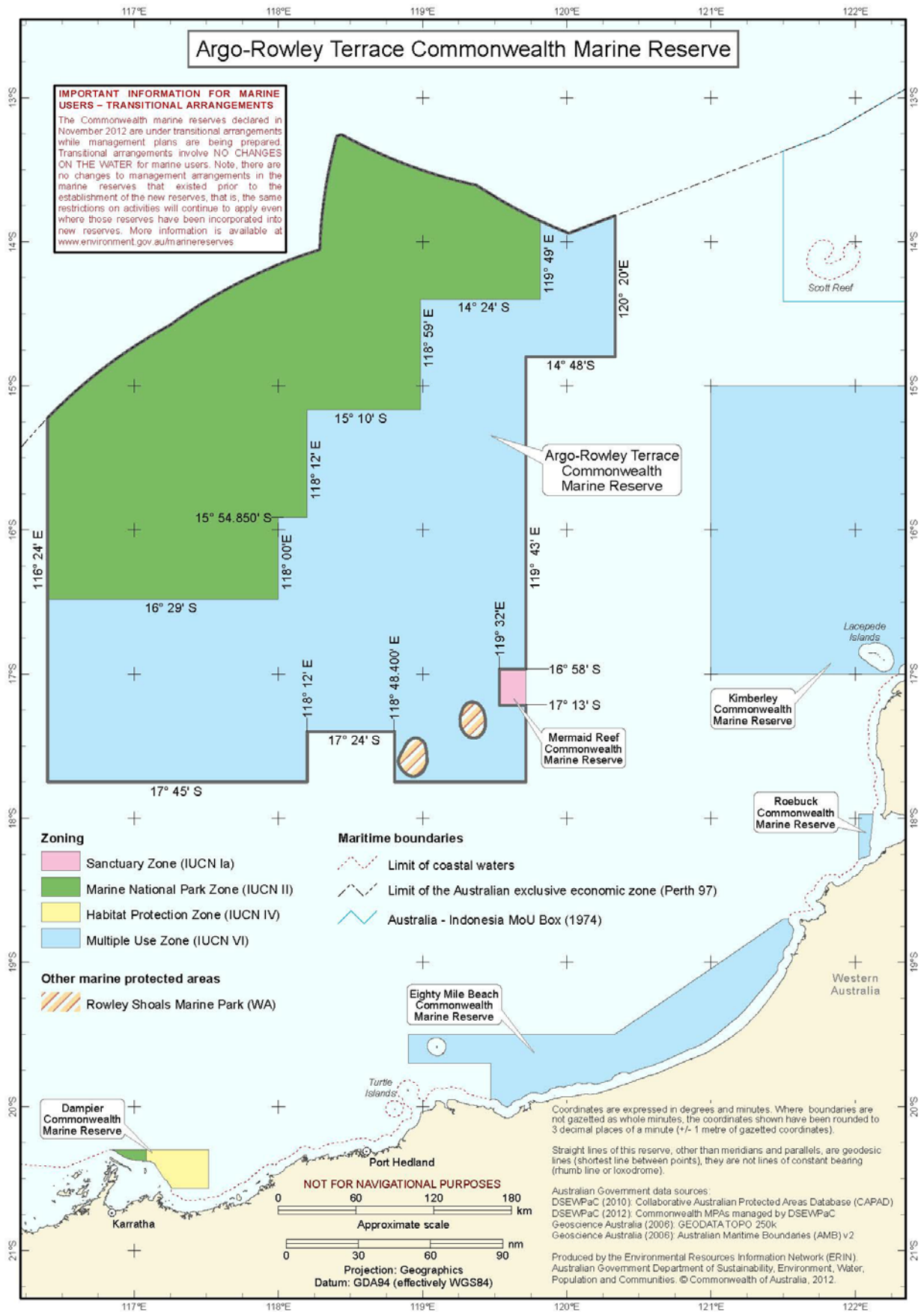
Figure A8: Roebuck Commonwealth Marine Reserve

## Argo-Rowley Terrace Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Marine National Park Zone (IUCN II) (62 721km <sup>2</sup> ) Multiple Use Zone (IUCN VI) (83 378km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	146 099 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Important foraging areas for: <ul style="list-style-type: none"> <li>- migratory seabirds</li> <li>- the endangered loggerhead turtle</li> </ul> </li> <li>• Important area for sharks, which are found in abundance around the Rowley Shoals relative to other areas in the region</li> <li>• The reserve provides protection for the communities and habitats of the deeper offshore waters of the region in depth ranges from 220 metres to over 5000 metres</li> <li>• The reserve provides protection for many sea-floor features including aprons and fans, canyons, continental rise, knolls/abyssal hills and the terrace and continental slope</li> <li>• Examples of the communities and seafloor habitats of the Northwest Transition and Timor Province provincial bioregions</li> <li>• The reserve provides connectivity between the existing Mermaid Reef Commonwealth Marine Reserve and reefs of the Western Australian Rowley Shoals Marine Park and the deeper waters of the region</li> <li>• Two key ecological features are included in the reserve: <ul style="list-style-type: none"> <li>- the canyons linking the Argo Abyssal Plain with the Scott Plateau (unique seafloor feature with enhanced productivity and feeding aggregations of species)</li> <li>- the Commonwealth waters surrounding Rowley Shoals (an area of high biodiversity with enhanced productivity and feeding and breeding aggregations)</li> </ul> </li> </ul>
<b>Location</b>	The Argo-Rowley Terrace Marine Reserve is located offshore North-west of Broome and spans a large area from the limit of Australia's exclusive economic zone to the beginnings of the North-west Transition. It abuts the Mermaid Reef Commonwealth Marine Reserve and encloses Western Australia's Rowley Shoals Marine Park.
<b>General description</b>	The Argo-Rowley Terrace Commonwealth Marine Reserve covers approximately 145 833 square kilometres and is the largest reserve in the North-west region. The reserve surrounds the Rowley Shoals (a key ecological feature) as well as parts of the Rowley Terrace, Scott Plateau and Argo Abyssal Plain.



	<p>Water depths within the reserve range approximately between 15 and 800 metres. The reserve includes examples of key seafloor features such as aprons/ fans and the canyons on the slope between the Argo Abyssal Plain, Rowley Terrace and Scott Plateau. The canyons on the slope between the Argo Abyssal Plain and Scott Plateau are believed to be up to 50 million years old and are associated with small, periodic upwellings that result in localised higher levels of biological productivity. Scott Plateau may be a breeding site for sperm and beaked whales and is a significant seafloor feature in this area. It is fringed by numerous spurs and valleys and is separated from the Rowley Terrace by a number of major canyons including the Bowers and Oates canyons. These canyons are believed to support fish aggregations that, in turn, attract larger predatory fish, sharks and cetaceans.</p> <p>The upper and mid-slope areas of the continental slope support rich and diverse demersal fish communities with a high level of endemism (64 species). There are two distinct demersal community types associated with the upper slope (water depths of 225–500 m) and the mid-slope (water depths of 750–1000 m)</p> <p>The Rowley Shoals and the waters surrounding them are a hotspot for biodiversity. The coral reefs of the Rowley Shoals support a diverse marine fauna and may play an important role in the maintenance of gene flow among the north-west Australian coral reefs. The steep changes in slope around the reefs attract a range of migratory pelagic species including cetaceans, tunas, billfish and sharks.</p>
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**Figure A9: Argo-Rowley Terrace Commonwealth Marine Reserve**

## Kimberley Commonwealth Marine Reserve

<b>Date of Effect</b>	17 November 2012
<b>IUCN category assigned to the reserve</b>	IUCN VI
<b>Assigned zones in reserve under this management plan</b>	Marine National Park (IUCN II) (6777 km <sup>2</sup> ) Habitat Protection Zone (IUCN IV) (1129 km <sup>2</sup> ) Multiple Use Zone (IUCN VI) (66 563 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	74 469 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Important foraging areas for: <ul style="list-style-type: none"> <li>- migratory seabirds</li> <li>- migratory dugongs</li> <li>- dolphins</li> <li>- threatened and migratory marine turtles</li> </ul> </li> <li>• Important migration pathway and nursery areas for the protected humpback whale</li> <li>• Adjacent to important foraging and pupping areas for sawfish and important nesting sites for green turtles.</li> <li>• The reserve provides protection for the communities and habitats of waters offshore of the Kimberley coastline ranging in depth from less than 15 metres to 800 metres</li> <li>• Continental shelf, slope, plateau, pinnacle, terrace, banks and shoals and deep hole/valley seafloor features are all represented in this reserve</li> <li>• Examples of the communities and seafloor habitats of the Northwest Shelf Transition, Northwest Shelf Province and Timor Province provincial bioregions along with the Kimberley, Canning, Northwest Shelf and Oceanic Shoals meso-scale bioregions</li> </ul> <p>Two key ecological features are included in the reserve:</p> <ul style="list-style-type: none"> <li>- ancient coastline (an area of enhanced productivity attracting baitfish which, in turn, supplies food for migrating species)</li> <li>- continental slope demersal fish communities (the second richest area for demersal fish species in Australia)</li> </ul>
<b>Location</b>	The Kimberley Commonwealth Marine Reserve covers approximately 74 469 square kilometres of the Commonwealth marine environment from the Lacepede Islands in the north to the Holothuria Banks offshore from Cape Bougainville.
<b>General description</b>	The waters offshore from the Kimberley coastline play host to a rich and diverse marine life and many protected marine species use these areas as nursery and feeding grounds. The Kimberley is particularly important for the Western Australian population of humpback whales and Australian snubfin dolphins. Thousands of humpback whales migrate through the region each year and give birth in the tropical

waters off the Kimberley coast, especially around Camden Sound.

The rugged coastline, numerous islands, submerged cliffs and banks and coral reefs along with the surrounding Commonwealth waters support a high diversity of tropical species including marine turtles, dugongs and seabirds. For example, the waters around the Lacepede Islands are crucial for migrating marine turtles as they move between nesting and feeding areas. These Islands provide critical nesting habitat for marine turtles and are the site of the largest green turtle rookery in Western Australia. The Lacepede Islands also support the largest brown booby rookery in the state and the Commonwealth waters in this area play an important role for feeding seabirds.

Many of the islands along the Kimberley coastline have extensive reef formations that support a high abundance and diversity of coral and associated species. The Kimberley meso-scale bioregion, in particular has been reported to be one of the most diverse coral areas in Western Australia. There is important connectivity between the biophysical and ecological processes occurring in state and Commonwealth waters in this area.

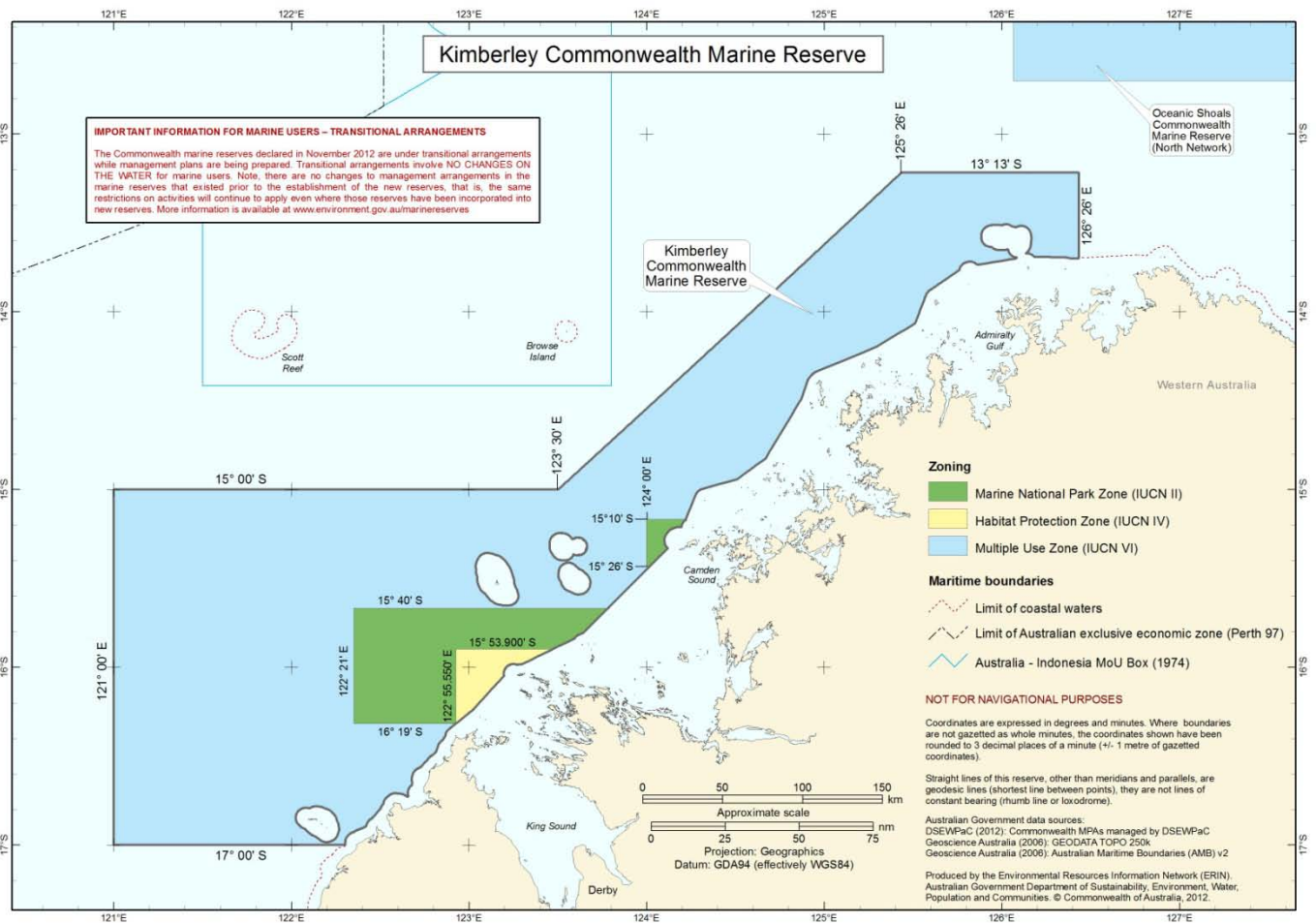


Figure A10: Kimberley Commonwealth Marine Reserve

## Ningaloo Commonwealth Marine Reserve

<b>Date of Effect</b>	Proclaimed under the <i>National Parks and Wildlife Conservation Act 1975</i> (NPWC Act) on 20 May 1987 as the Ningaloo Marine Park (Commonwealth Waters). Renamed Ningaloo Commonwealth Marine Reserve on 17 November 2012.
<b>IUCN category assigned to the reserve</b>	IUCN IV
<b>Assigned zones in reserve under this management plan</b>	Recreational Use Zone (IUCN IV) (2326km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	2326 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Foraging areas adjacent to important breeding areas for migratory seabirds</li> <li>• Foraging areas for vulnerable and migratory whale sharks</li> <li>• Foraging areas and adjacent to important nesting sites for marine turtles</li> <li>• Includes part of the migratory pathway of the protected humpback whale</li> <li>• The reserve includes shallow shelf environments with depths ranging from 15 metres to 150 metres and provides protection for shelf and slope habitats, as well as pinnacle and terrace sea-floor features</li> <li>• Examples of the seafloor habitats and communities of the Central Western Shelf Transition</li> </ul>
<b>Location</b>	The Ningaloo Commonwealth Marine Reserve is located along the west coast of the Cape Range peninsula near Exmouth in western Australia, approximately 1200 km north of Perth. It abuts the Western Australian Ningaloo Marine Park.
<b>General description</b>	<p>The reserve's water depths range from a relatively shallow 30 metres to oceanic waters over 500 metres deep. A key feature of the reserve is the rapid increases in depth, particularly in the reserve's northern area. The reserve is located in a transition zone between tropical and temperate waters and sustains tropical and temperate plants and animals, with many species at the limit of their distribution. The reserve includes many elements of this important bio-geographic boundary. The reserve incorporates a diversity of habitats including open ocean, the continental slope and the continental shelf, as well as pelagic habitats bordering the open ocean. The seabed of the continental slope and shelf supports demersal and benthic Plants and animals including fish, molluscs, algae, sponges and soft corals.</p> <p>The reserve has international and national significance due to its diverse range of marine species and unique geomorphic features. The reserve provides essential biological and ecological links that sustain the biodiversity and ecological processes, including the supply of nutrients to reef communities from deeper waters further offshore, of Ningaloo Reef, the longest fringing barrier reef in Australia, which occurs in the adjacent state waters and is protected in the Western Australian Ningaloo Marine Park.</p>

	<p>A diverse range of sea creatures is found in the reserve, from microscopic plankton to large pelagic species, for which the reserve is particularly well known. Four marine turtle species have been recorded in the reserve and the area is part of the migratory route of many transequatorial shorebirds and waders. The reserve is recognised internationally for its annual aggregations of whale sharks and humpback whales migrate through twice a year on their annual migration between their calving grounds off the Kimberley and their feeding grounds in Antarctica. Blue and sperm whales have been observed in the offshore regions of the reserve as have minke, Bryde's, southern right and killer whales. Dolphins are also relatively common in the reserve. The deeper water communities of the reserve are dominated by sponges with soft corals and algae found living among them. The high numbers of species and unusual forms found in the diverse sponge garden habitats add to the reserve's importance.</p>
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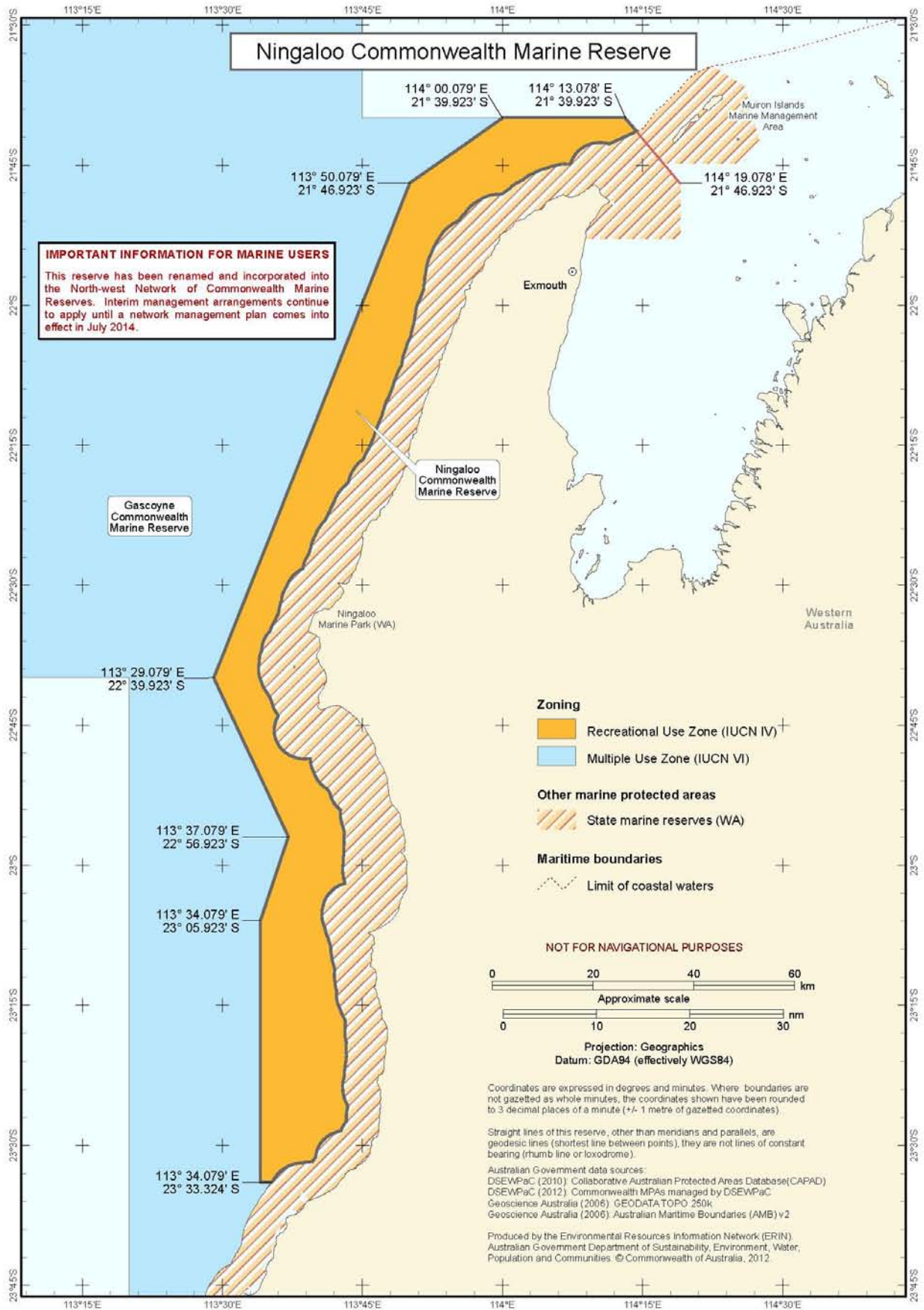


Figure A11: Ningaloo Commonwealth Marine Reserve

## Mermaid Reef Commonwealth Marine Reserve

<b>Date of Effect</b>	Proclaimed under the <i>National Parks and Wildlife Conservation Act 1975</i> (NPWC Act) on 10 April 1991 as the Mermaid Reef Marine National Nature Reserve. Renamed Mermaid Reef Commonwealth Marine Reserve on 17 November 2012.
<b>IUCN category assigned to the reserve</b>	IUCN Ia
<b>Assigned zones in reserve under this management plan</b>	Sanctuary Zone (IUCN Ia) (540 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	540 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Examples of ecosystems, habitats and communities associated with: <ul style="list-style-type: none"> <li>- the best geological example of shelf atolls in Australia</li> <li>- coral formations in pristine condition</li> </ul> </li> <li>• The islands are important areas for the following protected species: <ul style="list-style-type: none"> <li>- red-tailed tropicbirds, white-tailed tropicbirds and little terns breed in this area</li> <li>- sand cays of the Rowley Shoals are important resting and feeding sites for migratory shorebirds</li> <li>- Mermaid Reef is an important foraging area for marine turtles</li> </ul> </li> <li>• Cultural and heritage sites: <ul style="list-style-type: none"> <li>- Wreck of the '<i>Lively</i>'</li> </ul> </li> </ul>
<b>Location</b>	The Mermaid Reef Commonwealth Marine Reserve is the most north-easterly atoll of the Rowley Shoals. It lies 29 kilometres to the north of Clerke Reef. The reserve abuts the Argo-Rowley Terrace Commonwealth Marine Reserve and is close to the Western Australian Rowley Shoals Marine Park.
<b>General description</b>	<p>The total area of the reserve is 53 984 hectares. Mermaid Reef is 14.5 kilometres long, 7.6 kilometres wide and the average depth of its lagoon is 20 metres.</p> <p>Mermaid Reef is one of three reefs forming the Rowley Shoals. The reef is completely submerged at high tide and therefore falls under Australian Government jurisdiction. The other two reefs of the Rowley Shoals, Clerke Reef and Imperieuse Reef, lie to Mermaid Reef's southwest and emerge at low tide, falling under Western Australian jurisdiction. They form the Western Australian Rowley Shoals Marine Park.</p> <p>All three reefs are similar in shape, size, orientation and distance from each other. Each has a large lagoon area containing small sand cays or islands, narrow lagoon entrance channels on the eastern side and an outer reef edge dropping off relatively steeply into oceanic waters between 500 and 700 metres deep. Oval in shape, the reefs follow a south-west to north-east alignment along the edge of the continental shelf and lie 30 to 40 kilometres apart.</p> <p>Mermaid Reef has national and international significance due to its pristine character, coral formations, geomorphic features and diverse marine life. The environmental</p>



values are its biodiversity, the marine ecosystems on which this biodiversity depends and the high water quality which is a key feature of the reserve's marine habitat.

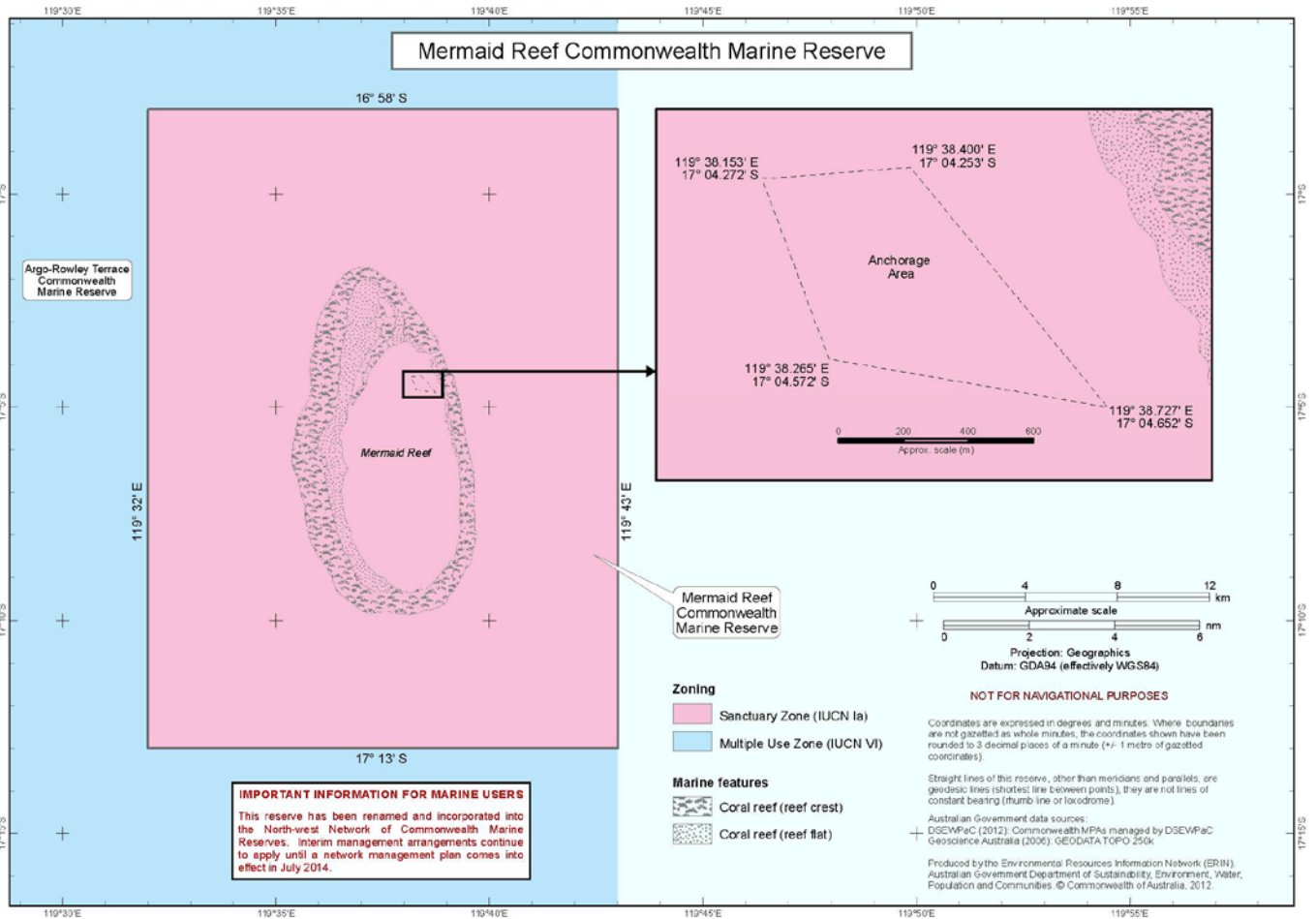


Figure A12: Mermaid Reef Commonwealth Marine Reserve

## Ashmore Reef Commonwealth Marine Reserve

<b>Date of Effect</b>	Proclaimed under the <i>National Parks and Wildlife Conservation Act 1975</i> (NPWC Act) on 16 August 1983 as the Ashmore Reef National Nature Reserve. Renamed Ashmore Reef Commonwealth Marine Reserve on 17 November 2012.
<b>IUCN category assigned to the reserve</b>	IUCN Ia – Strict Nature Reserve
<b>Assigned zones in reserve under this management plan</b>	Sanctuary Zone (IUCN Ia) (550 km <sup>2</sup> ) Recreational Use Zone (IUCN IV) (33 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	583 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Ecosystems, habitats and communities associated with: <ul style="list-style-type: none"> <li>- the North West Shelf</li> <li>- emergent oceanic reefs</li> </ul> </li> <li>• The islands are important areas for the following protected species: <ul style="list-style-type: none"> <li>- Ashmore Reef is internationally significant for its abundance and diversity of sea snakes.</li> <li>- Ashmore Reef has been identified as critical nesting and interesting habitat for green turtles, supporting one of three genetically distinct breeding populations in the North-west Marine Region. Low level nesting activity by loggerhead turtles has also been recorded.</li> <li>- large and significant feeding populations of green, hawksbill and loggerhead turtles occur around the reefs. It is estimated that approximately 11 000 marine turtles feed in the area throughout the year.</li> <li>- Ashmore Reef supports a small dugong population of less than 50 individuals that breeds and feeds around the reef. This population is thought to be genetically distinct from other Australian populations.</li> <li>- the islands support some of the most important seabird rookeries on the North West Shelf including colonies of bridled terns, common noddies, brown boobies, eastern reef egrets, frigatebirds, tropicbirds, red-footed boobies, roseate terns, crested terns and lesser crested terns.</li> <li>- Ashmore Reef are important staging points/feeding areas for many migratory seabirds</li> </ul> </li> <li>• Cultural and heritage sites: <ul style="list-style-type: none"> <li>- Indonesian artefacts</li> <li>- Grave sites</li> </ul> </li> </ul>
<b>Location</b>	Ashmore Reef Commonwealth Marine Reserve lies some 450 nautical miles west of Darwin, 330 nautical miles north of Broome and 60 nautical miles south of the Indonesian island of Roti.

<p><b>General description</b></p>	<p>The marine environment at Ashmore includes two extensive lagoons, mobile channelled carbonate sand flats, shifting sand cays and an extensive reef flat. The reef front at Ashmore has large numbers of many different types of robust hard and soft corals, gorgonians (e.g. sea fans), sponges and a range of encrusting organisms. The reef crests are generally algal dominated, while the reef flats feature ridges of coral rubble and large areas of seagrass that are important for dugong and sea snake species. Ashmore is thought to be the greatest number of reef building species of any reef area off the West Australian coast.</p> <p>The sand flat habitats support a range of species including feeding dugongs, turtles, stingrays, echinoderms (such as starfish), molluscs and crustaceans and migrating shorebirds. The lagoons at Ashmore support corals, sponges, burrowing shrimp and a range of holothurians (e.g. sea-cucumbers), echinoderms, molluscs (shellfish) and polychaetes (worms) on and beneath the sand.</p> <p>The reefs provide varied structural habitat that attracts a diverse range of primary and secondary consumers including sea cucumbers, small pelagic fish, parrot fish, and groupers. These, in turn, attract higher order consumers such as trevally, coral trout, emperors, snappers, dolphinfish, marlin and sailfish, as well as cetaceans and seabirds.</p> <p>The Ashmore islands provide important nesting habitat for many species, including marine turtles and a number of seabirds and migratory shorebirds. Despite the small size of the islands, Ashmore supports some of the most important seabird rookeries on the North-west Shelf and is an important staging point for migratory wetland birds. It was designated a Ramsar Wetland of International Importance in 2003 due to the importance of its islands providing a resting place for migratory shorebirds and supporting large seabird breeding colonies.</p>
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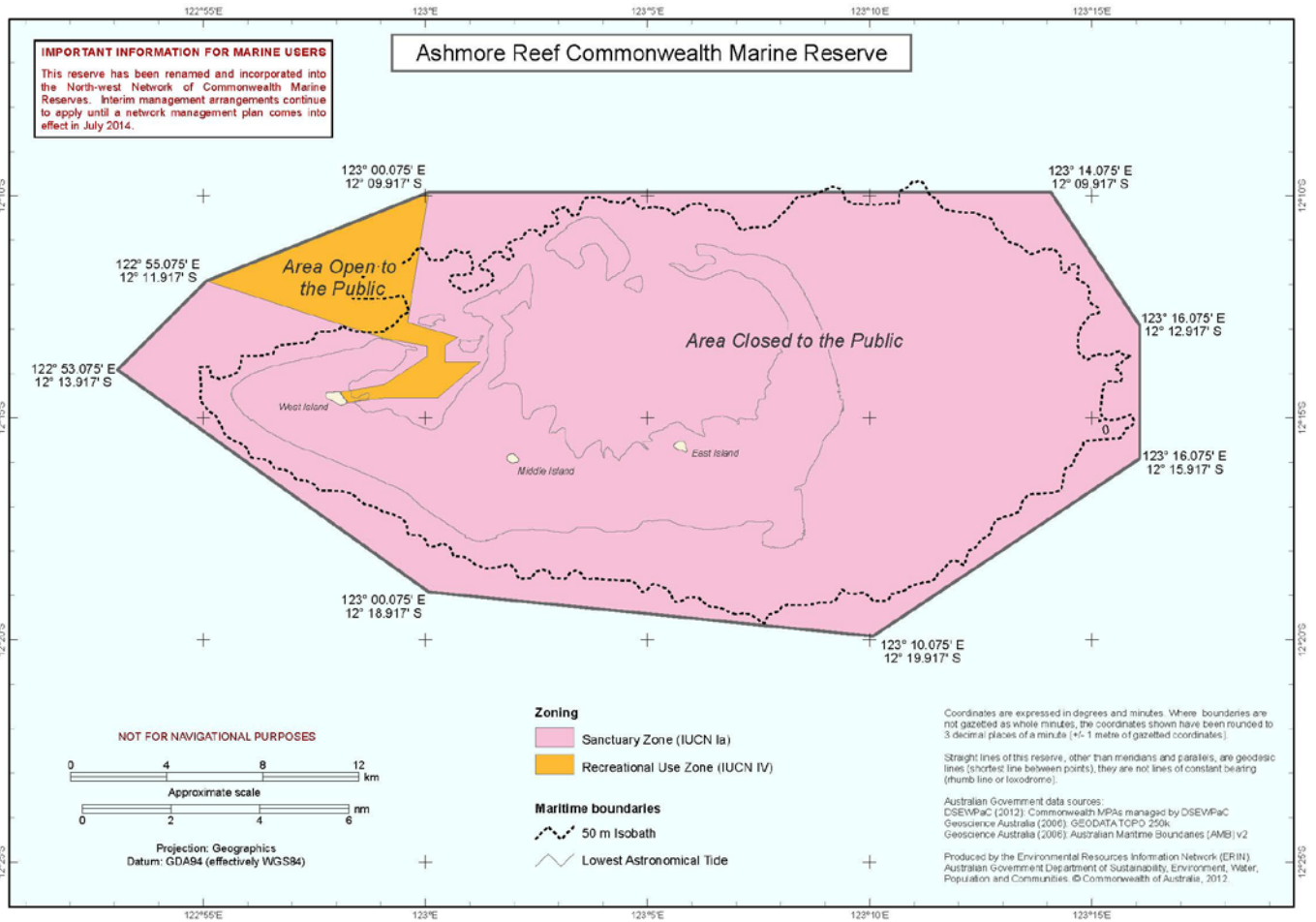


Figure A13: Ashmore Reef Commonwealth Marine Reserve

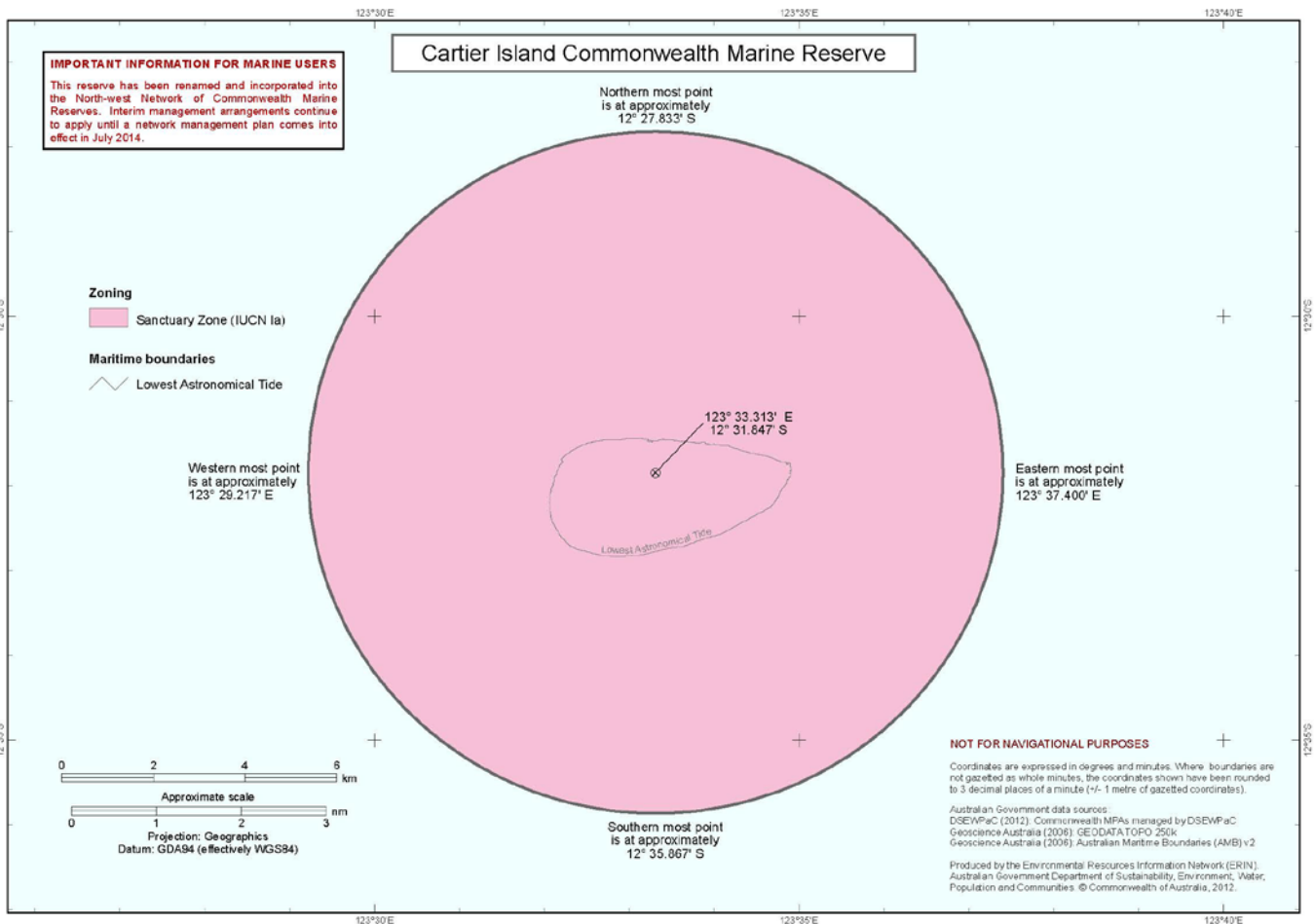
## Cartier Island Commonwealth Marine Reserve

<b>Date of Effect</b>	Proclaimed under the <i>National Parks and Wildlife Conservation Act 1975</i> (NPWC Act) on 21 June 2000 as the Cartier Island Marine Reserve. Renamed Cartier Island Commonwealth Marine Reserve on 17 November 2012.
<b>IUCN category assigned to the reserve</b>	IUCN Ia Sanctuary Zone
<b>Assigned zones in reserve under this management plan</b>	Sanctuary Zone (IUCN 1a) (167 km <sup>2</sup> )
<b>Depth of reserve below seabed</b>	1000 m
<b>Total area</b>	167 km <sup>2</sup>
<b>Major conservation values</b>	<ul style="list-style-type: none"> <li>• Ecosystems, habitats and communities associated with: <ul style="list-style-type: none"> <li>- the North West Shelf</li> <li>- emergent oceanic reefs</li> </ul> </li> <li>• The islands are important areas for the following protected species: <ul style="list-style-type: none"> <li>- Cartier Island is internationally significant for its abundance and diversity of sea snakes.</li> <li>- large and significant feeding populations of green, hawksbill and loggerhead turtles occur around the reefs.</li> <li>- the islands support some of the most important seabird rookeries on the North West Shelf including colonies of bridled terns, common noddies, brown boobies, eastern reef egrets, frigatebirds, tropicbirds, red-footed boobies, roseate terns, crested terns and lesser crested terns.</li> <li>- Cartier Island is important staging points/feeding areas for many migratory seabirds</li> </ul> </li> <li>• Cultural and heritage sites: <ul style="list-style-type: none"> <li>- Historic shipwreck the '<i>Ann Millicent</i>'</li> </ul> </li> </ul>
<b>Location</b>	Cartier Island Commonwealth Marine Reserve is located 25 nautical miles (45 km) south-east of Ashmore Reef.

**General description**

Covering an area of 167 square kilometres, Cartier Island Marine Reserve includes an un-vegetated sand island (Cartier Island) and the area within a four nautical mile radius of the centre of the island, to a depth of one kilometre below the sea floor. The area around the island includes a variety of habitats including a mature reef flat, a small submerged pinnacle, known as Wave Governor Bank and two shallow pools to the north-east of the island. The unvegetated island at Cartier supports large populations of nesting marine turtles.

Cartier Island has large numbers and a high diversity of hard and soft corals, gorgonians (e.g. sea fans), sponges and a range of encrusting organisms. The reef crests are generally algal dominated, while the reef flats feature ridges of coral rubble and large areas of seagrass that are important for dugong and sea snake species. The sand flat habitats support a range of species including feeding dugongs, turtles, stingrays, echinoderms (such as starfish), molluscs and crustaceans and migrating shorebirds.



**Figure A14: Cartier Island Commonwealth Marine Reserve**

# APPENDIX B

## Legislative framework for the Reserves Network

The reserves of the North-west Commonwealth Marine Reserves Network are established under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Act and the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations) under the Act provide the legal basis and framework for management of the network reserves. Other laws referred to in this Appendix may also be relevant to activities in the reserves. A number of international agreements relevant to management of the reserves are also described.

### EPBC Act

#### *Director of National Parks*

The Director is a corporation under the EPBC Act (s. 514A) and a Commonwealth authority for the purposes of the *Commonwealth Authorities and Companies Act 1997*. The corporation is controlled by the person appointed by the Governor-General to the office that is called the Director of National Parks (s. 514F of the EPBC Act).

The functions of the Director (s. 514B) include the administration, management and control of Commonwealth reserves established under the Act. The Director generally has power to do all things necessary or convenient for performing the Director's functions (s. 514C). The Director has a number of specified powers under the EPBC Act and EPBC Regulations, including to prohibit or control some activities, and to issue permits for activities that are otherwise prohibited. The Director performs functions and exercises powers in accordance with this Plan.

The Director can delegate all or any of the Director's powers or functions under the EPBC Act (s. 515) and EPBC Regulations (r. 19.01A). At the time of preparing this Management Plan, the Director has delegated certain powers and functions for managing the North-west marine reserves network to relevant executive officers of the Marine Division within the Australian Government Department of Sustainability, Environment, Water, Population and Communities.

#### *IUCN categories and management principles*

The EPBC Act requires Commonwealth reserves, and any zones into which a reserve is divided, to be assigned to one of the seven IUCN categories prescribed by the EPBC Regulations (r. 10.03H), which correspond to the protected area management categories identified by the IUCN (see Appendix C):

- strict nature reserve;
- wilderness area;
- national park;
- natural monument;
- habitat/species management area;
- protected landscape/seascape; or
- managed resource protected area.

Reserve management must be consistent with the relevant Australian IUCN reserve management principles prescribed for each category by Schedule 8 to the EPBC Regulations and described below.

## General administrative principles

Part 1 of Schedule 8 sets out general administrative principles applicable to all Commonwealth reserve. These principles underpin management approaches with regard to:

- community participation - management arrangements should, to the extent practicable, provide for broad and meaningful participation by the community, public organisations and private interests in designing and carrying out the functions of a reserve or zone
- effective and adaptive management - management arrangements should be effective and appropriate to the biodiversity objectives and the socio-economic context of the reserve or zone. They should be adaptive in character to ensure a capacity to respond to uncertainty and change
- the precautionary principle - a lack of full scientific certainty should not be used as a reason for postponing measures to prevent degradation of the natural and cultural heritage of a reserve or zone where there is a threat of serious or irreversible damage
- minimising impacts - the integrity of a reserve or zone is best conserved by protecting it from disturbance and threatening processes. Potential adverse impacts on the natural, cultural and social environment and surrounding communities should be minimised as far as practicable
- ecologically sustainable use - if resource use is consistent with the management principles that apply to a reserve or zone, it should be based on the principle (the principle of ecologically sustainable use) that:
  - natural resources should only be used within their capacity to sustain natural processes while maintaining the life-support systems of nature, and
  - the benefit of the use to the present generation should not diminish the potential of the reserve or zone to meet the needs and aspirations of future generations
- transparency of decision-making - the framework and processes for decision-making for management of the reserve or zone should be transparent. The reason for making decisions should be publicly available, except to the extent that information, including information that is culturally sensitive or commercial-in-confidence, needs to be treated as confidential
- Joint management - if the reserve or zone is wholly or partly owned by Aboriginal people, continuing traditional use of the reserve or zone by resident indigenous people, including the protection and maintenance of cultural heritage, should be recognised.

## Principles for each IUCN category

Part 2 of the Schedule sets out management principles applicable to each IUCN category. The principles provide guidance on the purposes for which an area should be used and the general types of activities that may be conducted. They underpin decisions and prescriptions for each IUCN category.

### 1. Strict Nature Reserve (IUCN Category Ia)

The reserve or zone should be managed primarily for scientific research or environmental monitoring based on the following principles:

- 1.1 Habitats, ecosystems and native species should be preserved in as undisturbed a state as possible.
- 1.2 Genetic resources should be maintained in a dynamic and evolutionary state.
- 1.3 Established ecological processes should be maintained.
- 1.4 Structural landscape features or rock exposures should be safeguarded.
- 1.5 Examples of the natural environment should be secured for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded.
- 1.6 Disturbance should be minimised by careful planning and execution of research and other approved activities.
- 1.7 Public access should be limited to the extent it is consistent with these principles.



## **2. National Park (IUCN Category II)**

The reserve or zone should be protected and managed to preserve its natural condition according to the following principles:

- 2.1** Natural and scenic areas of national and international significance should be protected for spiritual, scientific, educational, and recreational or tourist purposes.
- 2.2** Representative examples of physiographic regions, biotic communities, genetic resources and native species should be perpetuated in as natural a state as possible to provide ecological stability and diversity.
- 2.3** Visitor use should be managed for inspirational, educational, cultural and recreational purposes at a level that will maintain the reserve or zone in a natural or near-natural state.
- 2.4** Management should seek to ensure that exploitation or occupation inconsistent with these principles does not occur.
- 2.5** Respect should be maintained for the ecological, geomorphologic, sacred and aesthetic attributes for which the reserve or zone was assigned to this category.
- 2.6** The needs of indigenous people should be taken into account, including subsistence resource use, to the extent that they do not conflict with these principles.
- 2.7** The aspirations of traditional owners of land within the reserve or zone, their continuing land management practices, the protection and maintenance of cultural heritage and the benefit the traditional owners derive from enterprises, established in the reserve or zone, consistent with these principles should be recognised and taken into account.

## **3. Habitat/Species Management Area (IUCN Category IV)**

The reserve or zone should be managed primarily, including (if necessary) through active intervention, to ensure the maintenance of habitats or to meet the requirements of collections or specific species based on the following principles:

- 3.1** Habitat conditions necessary to protect significant species, groups or collections of species, biotic communities or physical features of the environment should be secured and maintained, if necessary through specific human manipulation.
- 3.2** Scientific research and environmental monitoring that contribute to reserve management should be facilitated as primary activities associated with sustainable resource management.
- 3.3** The reserve or zone may be developed for public education and appreciation of the characteristics of habitats, species or collections, and of the work of wildlife management.
- 3.4** Management should seek to ensure that exploitation or occupation inconsistent with these principles does not occur. People with rights or interests in the reserve or zone should be entitled to benefits derived from activities in the reserve or zone that are consistent with these principles.
- 3.5** If the reserve or zone is proclaimed for the purpose of a botanic garden, it should also be managed for the increase of knowledge, appreciation and enjoyment of Australia's plant heritage by establishing, as an integrated resource, a collection of living and herbarium specimens of Australian and related plants for study, interpretation, conservation and display.

## **4. Managed Resource Protected Area (IUCN Category VI)**

The reserve or zone should be managed mainly for the sustainable use of natural ecosystems based on the following principles:

- 4.1** The biological diversity and other natural values of the reserve or zone should be protected and maintained in the long term.
- 4.2** Management practices should be applied to ensure ecologically sustainable use of the reserve or zone.
- 4.3** Management of the reserve or zone should contribute to regional and national development to the extent that this is consistent with these principles.

## Management Plans

The EPBC Act requires the Director to prepare a Management Plan for the Reserve. When prepared, a Plan is given to the Minister administering the EPBC Act for approval. A Management Plan is a 'legislative instrument' for the purposes of the *Legislative Instruments Act 2003* and must be registered under that Act. Following registration, the Plan is tabled in each House of the Commonwealth Parliament and may be disallowed by either House on a motion moved within 15 sitting days of the House after tabling.

A Management Plan for a Commonwealth reserve has effect for ten years, subject to being revoked or amended earlier by another Management Plan for the reserve. The Director must give effect to a Management Plan in operation for a Commonwealth reserve. The Commonwealth and Commonwealth agencies must also not perform functions or exercise powers in relation to the reserve inconsistently with the Plan (s.362).

Under the EPBC Act (s. 367) a Management Plan for a Commonwealth reserve must provide for the protection and conservation of the reserve and, so far as relevant to the reserves, must:

- assign the reserve to an IUCN category
- state how the reserve, or each zone of the reserve, is to be managed
- state how the natural features of the reserve, or of each zone of the reserve, are to be protected and conserved
- specify any limitation or prohibition on the exercise of a power, or performance of a function, under the EPBC Act in or in relation to the reserve
- specify any mining operation, major excavation or other works that may be carried on in the reserve, and the conditions under which it may be carried on
- specify any other operation or activity that may be carried on in the reserve
- indicate generally the activities that are to be prohibited or regulated in the reserve, and the means of prohibiting or regulating them.

A Management Plan must also:

- indicate how the Plan takes account of Australia's obligations under each agreement with one or more other countries that is relevant to the reserve (including the World Heritage Convention and the Ramsar Convention, if appropriate);
- if the reserve includes a National Heritage area
  - not be inconsistent with the National Heritage management principles
  - address the matters prescribed by regulations made for the purposes of paragraph 324S (4)(a); and
- if the reserve includes a Commonwealth Heritage area
  - not be inconsistent with the Commonwealth Heritage management principles
  - address the matters prescribed by regulations made for the purposes of paragraph 341S(4)(a).

A Management Plan may:

- divide a reserve into one or more zones, and must assign each zone to an IUCN category; and
- cover more than one Commonwealth reserve (s. 367(5)), as is the case with the North-west Commonwealth Marine Reserves Network Management Plan.

In preparing a Management Plan the EPBC Act (s. 368) requires account to be taken of various matters. In relation to the Network reserves these matters include:

- the regulation of the use of the Reserve for the purpose for which it was declared;
- the protection of the special features of the Reserve, including objects and sites of biological, historical, palaeontological, archaeological, geological and geographical interest;

- the protection, conservation and management of biodiversity and heritage within the Reserve;
- the protection of the Reserve against damage; and
- Australia's obligations under agreements between Australia and one or more other countries relevant to the protection and conservation of biodiversity and heritage.

### ***Control of actions in Commonwealth reserves***

The EPBC Act (ss. 354 and 354A) prohibits certain actions being taken in Commonwealth reserves except in accordance with a Management Plan. These actions are:

- kill, injure, take trade, keep or move a member of a native species; or
- damage heritage; or
- carry on an excavation; or
- erect a building or other structure; or
- carry out works; or
- take an action for commercial purposes.

The EPBC Act (ss. 355 and 355A) also prohibits mining operations being taken in Commonwealth reserves except in accordance with a Management Plan.

Section 358 allows the Director to grant a lease or a licence relating to land or sea-bed in a Commonwealth reserve in accordance with a Management Plan.

The EPBC Regulations control, or allow the Director to control, a range of activities in Commonwealth reserves. Activities that are prohibited under the EPBC Regulations (Division 12.2) may be carried on if an exemption applies (r. 12.06); for example, where an activity is authorised by a permit issued by the Director, or where a Management Plan that is in force for a Commonwealth reserve allows for the activity. The EPBC Regulations do not apply to the Director or to wardens or rangers appointed under the EPBC Act who are carrying out their duties.

### ***Actions that may require additional approval under the EPBC Act***

#### ***Environmental Impact Assessment***

Actions that are likely to have a significant impact on 'matters of national environmental significance' are subject to the referral, assessment and approval provisions of Chapters 2 to 4 of the EPBC Act (irrespective of where the action is taken).

At the time of preparing this Plan, the matters of national environmental significance identified in the EPBC Act are:

- World Heritage listed properties
- National Heritage listed places
- Ramsar wetlands of international importance
- nationally-listed threatened species and ecological communities
- listed migratory species
- nuclear actions (including uranium mining).
- Commonwealth marine areas
- Great Barrier Reef Marine Park

The referral, assessment and approval provisions also apply to actions on Commonwealth land that are likely to have a significant impact on the environment and to actions taken outside Commonwealth land that are likely to have a significant impact on the environment on Commonwealth land.

Responsibility for compliance with the assessment and approvals provisions of the EPBC Act lies with persons taking relevant 'controlled' actions. A person proposing to take an action that the person thinks may be or is a controlled action should refer the proposal to the Minister for the Minister's decision whether or not the action is a controlled action. The Director of National Parks may also refer proposed actions to the Minister.

### *Wildlife Protection*

Part 13 of the EPBC Act contains provisions that prohibit and regulate actions in relation to listed threatened species and ecological communities, listed migratory species, listed marine species in Commonwealth areas and to cetaceans (whales and dolphins) in the Australian Whale Sanctuary (encompassing all Commonwealth waters) established by the Act.

All whales, dolphins and porpoises are protected under the EPBC Act through the establishment of the Australian Whale Sanctuary, which includes all Commonwealth waters. Within the Australian Whale Sanctuary it is an offence to kill, injure or interfere with cetaceans. They are also protected in State and Territory waters.

Migratory species listed under the EPBC Act are species listed under international agreements (to which Australia is a signatory) as species whose protection requires, or would significantly benefit from, international cooperation. These international agreements are discussed in more detail in Appendix B.

Marine species listed under the EPBC Act are species occurring naturally in the Commonwealth marine area that the Australian Government recognises require protection to ensure their long-term conservation. Species listed as marine species are identified in Section 3.3 of the Act.

In relation to threatened species and communities, the EPBC Act also provides for the identification and listing of key threatening processes and the preparation of threat abatement plans and species recovery plans.

Actions taken in accordance with a Commonwealth reserve management plan that is in operation are exempt from prohibitions in Part 13 of the Act.

### *Access to biological resources*

Access to biological resources in Commonwealth areas is regulated under the EPBC Regulations Part 8A and a permit from the Minister is required. Access to biological resources is defined in the EPBC Regulations and broadly means the taking of biological resources of native species for research and development on any genetic resources, or biochemical compounds, comprising or contained in the biological resources. Biological resources are defined by the EPBC Act as genetic resources, organisms, parts of organisms, populations and any other biotic component of an ecosystem with actual or potential use or value for humanity. Genetic resources are defined by the EPBC Act as any material of Plant, animal, microbial or other origin that contains functional units of heredity, and that has actual or potential value for humanity.

### *Heritage Protection*

The EPBC Act heritage protection provisions (ss.324A to 324ZC and ss.341A to 341ZH) relevantly provide:

- for the establishment and maintenance of a National Heritage List and a Commonwealth Heritage List, criteria and values for inclusion of places in either list and heritage management principles for places that are included in the two lists;
- that Commonwealth agencies must not take an action that is likely to have an adverse impact on the heritage values of a place included in either list unless there is no feasible and prudent alternative to taking the action and all measures that can reasonably be taken to mitigate the impact of the action on those values are taken; and
- that Commonwealth agencies that own or control places must:

- prepare a written heritage strategy for managing those places to protect and conserve their Commonwealth Heritage values. The strategy must address any matters required by the EPBC Regulations, and not be inconsistent with the Commonwealth Heritage management principles; and
- identify Commonwealth Heritage values for each place, and produce a register that sets out the Commonwealth Heritage values (if any) for each place (and do so within the timeframe set out in the place's heritage strategy).

The prescriptions within this plan are consistent with the Commonwealth Heritage and National Heritage management principles and other relevant obligations under the EPBC Act for protecting and conserving the heritage values for which the reserve has been listed on the National Heritage List.

### *Wetlands of international importance*

The EPBC Act management of wetlands of international importance provisions (ss.325 to 336) relevantly provide:

- that the Commonwealth may designate a wetland for inclusion in the List of Wetlands of International Importance kept under the Ramsar Convention only after seeking the agreement of relevant States, self-governing Territories and land-holders;
- that the Minister must make plans for managing wetlands listed under the Ramsar Convention that are entirely in Commonwealth areas. The Commonwealth and Commonwealth agencies must not contravene such plans;
- that the Commonwealth must try to prepare and implement management plans for other wetlands listed under the Ramsar Convention, in co-operation with the relevant States and self-governing Territories;
- that the Commonwealth and Commonwealth agencies have duties relating to declared Ramsar wetlands in States and Territories; and
- that the Commonwealth can provide assistance for the protection or conservation of declared Ramsar wetlands.

All wetlands listed under the Ramsar Convention are recognised as matters of national environmental significance under the EPBC Act. As such, approval is required for actions that will have, or are likely to have a significant impact on the ecological character of a Ramsar listed wetland.

The prescriptions within this plan are consistent with the Australian Ramsar management principles described in Schedule 6 of the EPBC Act and other relevant obligations under the EPBC Act for the management of wetlands included in the List of Wetlands of International Importance kept under the Ramsar Convention.

### ***EPBC Act and Indigenous traditional rights and native title rights***

Native title rights can exist in waters over which Australia asserts sovereign rights under the *Seas and Submerged Lands Act 1973*. Native title determinations need not have been made in order for native title rights to exist. To the extent a Commonwealth reserve may intersect with native title rights and interests, the Commonwealth has no intention of impacting native title rights and interests. If native title parties consider that their native title rights and interests may be affected by the Proclamation of a Commonwealth reserve or the content of a reserve Management Plan the Commonwealth invites them to make a submission detailing their concerns.

Prohibitions and other provisions of the EPBC Act and EPBC Regulations dealing with activities in Commonwealth reserves do not prevent Indigenous people from continuing their traditional use of an area in a reserve for hunting or gathering (except for purposes of sale), or for ceremonial and religious purposes, in accordance with the EPBC Act s.359A.

The EPBC Act also does not affect the operation of s. 211 of the *Native Title Act 1993*, which in certain circumstances allows native title holders to hunt (and undertake other activities) in the exercise of native title rights without a permit or licence (s.8 EPBC Act).

## **Penalties**

Civil and criminal penalties may be imposed for breaches of the EPBC Act and criminal penalties may be imposed for breaches of the EPBC Regulations.

## **Other relevant laws**

### ***Historic Shipwrecks Act 1976***

The Historic Shipwrecks Act 1976 protects historic wrecks and associated relics, which are more than 75 years old and in Commonwealth waters, extending from below the low water mark to the edge of the continental shelf. The Minister can also make a declaration to protect any historically significant wrecks or articles and relics that are less than 75 years old.

The Act aims to ensure that historic shipwrecks are protected for their heritage values and maintained for recreational, scientific and educational purposes. It also seeks to control actions that may result in damage, interference, removal or destruction of an historic shipwreck or associated relic. Divers can use wreck sites for recreational purposes, but relics must not be removed from the wreck site and the physical fabric of the wreck must not be disturbed, unless a permit has been obtained.

Some historic shipwrecks lie within protected or no-entry zones. These zones may cover an area up to a radius of 800 metres around a wreck site, and may be declared where circumstances place it at particular risk of interference. Permits are required to transit or enter a protected zone for activities such as diving, fishing or commemorative ceremonies. Permits are also required to undertake any activities otherwise prohibited or restricted by the Act.

### ***Environment Protection (Sea Dumping) Act 1981***

Australia regulates the loading and dumping of waste at sea under the Environment Protection (Sea Dumping) Act 1981 (the Sea Dumping Act). This Act also fulfils Australia's international obligations under the London Protocol<sup>3</sup> to prevent marine pollution by controlling dumping of wastes and other matter.

Under the Sea Dumping Act, the Commonwealth aims to minimise pollution threats by:

- prohibiting ocean disposal of waste considered too harmful to be released in the marine environment; and
- regulating permitted waste disposal to ensure environmental impacts are minimised.

The Sea Dumping Act applies to all vessels, aircraft and platforms in Australian waters and to all Australian vessels and aircrafts in any part of the sea.

Permits are required for all sea dumping operations. Permits are most commonly issued for dredging operations and the creation of artificial reefs. Permits have also been issued for the dumping of vessels, platforms or other man-made structures, and for burials at sea.

## **International agreements**

This Management Plan takes into account Australia's obligations under international agreements that are relevant to the North-west marine reserves network.

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<sup>3</sup> [www.austlii.edu.au/au/other/dfat/treaties/2006/11.html](http://www.austlii.edu.au/au/other/dfat/treaties/2006/11.html)

## ***United Nations Convention on the Law of the Sea (UNCLOS)***

The convention, which was agreed in 1982 and came into force for Australia in 1994, provides a framework to regulate many aspects of the uses of the sea and conservation of the marine environment. UNCLOS includes the right of innocent passage of foreign ships through the territorial sea, and of freedom of navigation through Australia's exclusive economic zone (EEZ).

UNCLOS requires foreign ships in territorial seas to comply with the relevant country's laws relating to certain matters, including conservation of the living resources of the sea; prevention of infringement of the fisheries laws; preservation of the environment and the prevention, reduction and control of pollution of the environment; and marine scientific research and hydrographical surveys.

Within Australia's EEZ, foreign ships have rights closely associated with their rights on the high seas, including the freedom of navigation.

On Friday 6 July 2012, the International Maritime Organization (IMO) Sub-Committee on Safety of Navigation approved an Australian submission to establish an area to be avoided off the West Australian coast around Ningaloo Reef. Two main reasons gave rise to Australia's submission:

1. Owing to the region's outstanding natural values, Ningaloo Reef was listed on UNESCO's World Heritage register in 2011. UNESCO recommended that Australia use existing management methods, such as those used in the Great Barrier Reef, to protect the area surrounding Ningaloo Reef.
2. Shipping traffic generated by the nearby North West Shelf oil and gas fields is increasing rapidly. Export shipping, transport of construction material by barges and the operation of off-shore support vessels, are generating concern for Ningaloo Reef.

This recommendatory ship routing measure aims to increase the distance between ships and the reef and prevent incursions by off-loading tankers and offshore support vessels. The Sub-Committee's approval will now be forwarded to the IMO Maritime Safety Committee meeting in November this year. If endorsed, Australia can introduce the routing measure on 1 July 2013.

## ***International Convention for the Prevention of Pollution from Ships (MARPOL Convention)***

The MARPOL deals with preventing and minimising ship-generated pollution from being discharged into the sea. MARPOL is given effect in Australia by the Commonwealth Protection of the Sea (Prevention of Pollution from Ships) Act 1983 and the Navigation Act 1912. It is the basis for Australian and state government regulation of pollution from all ships, including fishing vessels, in Australian waters. The International Maritime Organisation, a specialised agency of the United Nations, administers this convention and related conventions.

## ***The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, London 1972 (the London Convention 1972) and 1996 Protocol***

Australia is a signatory to the London Convention 1972, the objective of which is to control all sources of marine pollution and prevent pollution through the regulation of waste dumping into the sea. In Australia, the deliberate loading, dumping and incineration of waste at sea is regulated by the Environment Protection (Sea Dumping) Act 1981.

## ***UN Declaration on the Rights of Indigenous Peoples***

On 3 April 2009 the Australian Government announced its support for the UN Declaration on the Rights of Indigenous Peoples. Although the Declaration is non-binding and does not affect existing Australian law, it does set important

international principles for nations to aspire to, and many of its provisions are grounded in the core human rights treaties to which Australia is a party.

### ***Convention on Biological Diversity (CBD)***

Australia is a signatory to the CBD, which requires parties to pursue the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. Article 8 of the convention identifies that parties should 'establish a system of protected areas or areas where special measures need to be taken to conserve biodiversity'. The establishment and management of the North-west marine reserves network assists Australia in meeting its obligations under the CBD.

In 2010, the Conference of Parties to the Convention on Biological Diversity adopted a 'Strategic Plan for Biodiversity'. It includes the following target relevant to protected areas:

#### *Target 11*

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes

The strategic Plan complements, but does not replace, the commitment to establish representative networks of marine protected areas by 2012, made at the 2002 World Summit on Sustainable Development. The strategic Plan commitment acknowledges the unfortunately slow progress towards the 2012 target. Australia has met and exceeded this target.

### ***World Heritage Convention***

Australia is a party to the World Heritage Convention, which aims to promote cooperation among nations to protect heritage that is of such outstanding universal value that its conservation is important for current and future generations. The operational guidelines for implementing the World Heritage Convention include requirements that each World Heritage area should have a Management Plan and should have adequate long-term legislative protection.

### ***Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971 (Ramsar Convention)***

This international agreement is more commonly known as the Ramsar Convention on Wetlands, and originally aimed to conserve and wisely use wetlands primarily as habitat for waterbirds. Over the years, the Ramsar Convention's scope has broadened to cover all aspects of wetland conservation and wise use, recognising that wetland ecosystems are important for both biodiversity conservation and the well-being of human communities.

To achieve its aims, the Ramsar Convention requires international cooperation, policy making, capacity building and technology transfer from its members. Under the Ramsar Convention, a wide variety of natural and human-made habitat types can be classified as wetlands, including features in the marine environment.

All wetlands listed under the Ramsar Convention are recognised as matters of national environmental significance under the EPBC Act. As such, approval is required for actions that will have, or are likely to have a significant impact on the ecological character of a Ramsar listed wetland.



## ***Convention on the Conservation of Migratory Species of Wild Animals (CSM or Bonn Convention)***

As a party to the Bonn Convention, Australia has agreed to protect migratory species and to negotiate and implement agreements for the conservation and management of migratory species with other range states, including cooperation and support of research relating to migratory species:

- The agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment 1974 (JAMBA).
- The agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds in Danger of Extinction and their Environment 1986 (CAMBA).
- The agreement between the Government of Australia and the Government of the Republic of Korea for the Protection of Migratory Birds 2007 (ROKAMBA).

## ***International Convention for the Regulation of Whaling***

Australia has obligations as a member of the International Whaling Commission and as a signatory to the International Convention for the Regulation of Whaling. Some of these obligations include providing for the conservation of whale species through the complete protection of certain species and designation of whale sanctuaries, and through promoting relevant research. All Commonwealth waters are assigned as the Australian Whale Sanctuary.

## ***Agreement on the Conservation of Albatrosses and Petrels (ACAP)***

This agreement provides for parties to conserve highly migratory and threatened seabirds over their normal range by protecting critical habitat, controlling non-native species detrimental to albatrosses and petrels, introducing measures to reduce the incidental catch of seabirds in fisheries, and supporting research into the effective conservation of albatrosses and petrels.

# GLOSSARY

<b>Australian Fisheries Management Authority (AFMA)</b>	Australian Government agency responsible for the management and sustainable use of Commonwealth fish resources on behalf of the Australian community.
<b>Australian Government</b>	The Government of the Commonwealth of Australia.
<b>biodiversity</b>	According to the EPBC Act, the variability among living organisms from all sources (including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part) and includes: (a) diversity within species and between species; and (b) diversity of ecosystems.
<b>bioregion</b>	A large area that has similar types of Plants, animals and ocean conditions compared with other similarly sized areas, and, in this document, those bioregions as defined in the Integrated Marine and Coastal Regionalisation of Australia Version 4.0.
<b>Commonwealth area</b>	Has the meaning given by s. 525 of the EPBC Act.
<b>Commonwealth reserve</b>	A reserve established and managed under Division 4 of Part 15 of the EPBC Act.
<b>controlled action</b>	Has the meaning given by s. 67 of the EPBC Act.
<b>department</b>	The Australian Government Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC), including any agency that succeeds to the functions of the department.
<b>Director</b>	The Director of National Parks under s. 514A of the EPBC Act, and includes any person to whom the Director has delegated powers and functions under the EPBC Act in relation to the North-west Commonwealth Marine Reserves Network.
<b>endemic</b>	Native to or confined to a certain region.
<b>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</b>	The Australian Government's key environmental Act, which came into effect on 16 July 2000, and includes any Act amending, repealing or replacing the Act.
<b>Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations)</b>	The Australian Government's key environmental regulations, which came into effect on 16 July 2000, and includes any Regulations amending, repealing or replacing the Regulations.
<b>gazette</b>	The Commonwealth of Australia Gazette.

<b>Integrated Marine and Coastal Regionalisation of Australia (IMCRA or IMCRA v4.0)</b>	A spatial framework for classifying Australia's marine environment into bioregions that form the basis for the development of a National Representative System of Marine Protected Areas.
<b>International Union for the Conservation of Nature (IUCN)</b>	A democratic membership union with more than 1000 government and non-government organisation member organisations, and almost 11 000 volunteer scientists in more than 160 countries that brings governments, non-government organisations, United Nations agencies, companies and local communities together to develop and implement policy, laws and best-practice environmental management and sustainable development.
<b>Management Plan</b>	This draft Management Plan unless otherwise stated.
<b>management principles</b>	The Australian IUCN reserve management principles set out in Schedule 8 of the EPBC Regulations.
<b>mining operations</b>	Mining operations as defined by s. 355(2) of the EPBC Act.
<b>Minister</b>	The Minister administering the EPBC Act.
<b>National Representative System of Marine Protected Areas (NRSMPA)</b>	A comprehensive, adequate and representative system of marine protected areas that contribute to the long-term ecological viability of marine and estuarine systems, maintain ecological processes and systems, and protect Australia's biological diversity at all levels.
<b>proclamation</b>	A proclamation by the Governor-General that is registered on the Federal Register of Legislative Instruments
<b>North-west Commonwealth Marine Reserves Network (North-west marine reserves network or the marine reserves network)</b>	Fourteen Commonwealth marine reserves managed as a network that contain representative examples of the major sea-floor features of the North-west Marine Region:
<b>stowed and secured</b>	All fishing equipment, including nets and lines, are not in contact with the water, are onboard the nominated vessel, and lines are unrigged, unless otherwise determined by the Director.
<b>transit</b>	Passage of a vessel through a reserve without any other activity occurring in the reserve, whereby the transit is in a straight direction and the vessel does not stop for any reason other than a notified emergency.
<b>unrigged</b>	All tackle must be removed, leaving only a bare line on the reel.

# SUPPORTING INFORMATION

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