

4.2 NORTH-WEST COMMONWEALTH MARINE RESERVES NETWORK

The North-west CMR Network, established in 2012, includes 13 reserves which cover approximately 335 437 km² of Commonwealth waters from the WA – NT border to Kalbarri, south of Shark Bay. Four reserves now included within the North-west CMR Network (Mermaid Reef Marine National Nature Reserve, Carter Island Marine Reserve, Ningaloo Marine Park and Ashmore Reef National Nature Reserve) were established prior to 2012 (Figure 4.2.1).

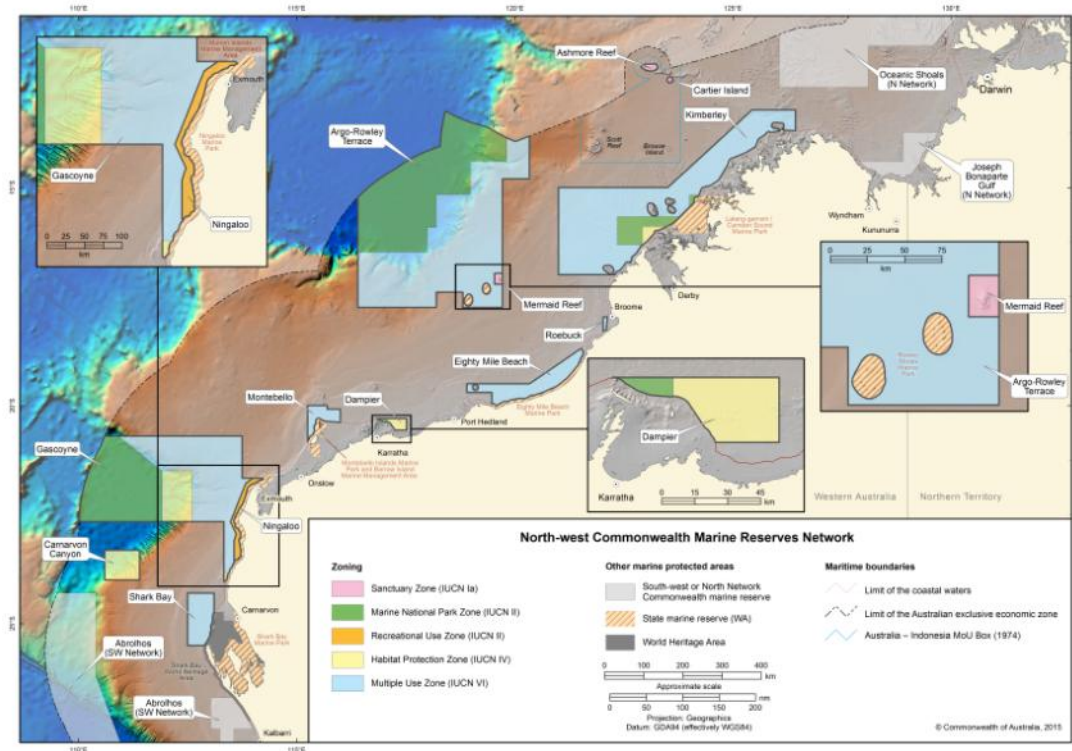


Figure 4.2.1 North-west CMR Network, as proclaimed

Issues raised during the CMR Review that were generic across the North-west Network included:

- Mining, including oil and gas and mineral exploration
- The lack of high-level protection in many reserves and in particular on the shallower shelf
- Removing destructive fishing practices from reserves
- Traditional owner interests and aspirations for economic development—specifically, the role of rangers in marine reserve management
- Access to all MNPZs (IUCN II) by recreational anglers.

A comprehensive list of issues raised is provided at Appendix G.

North-west network—outcomes

Zoning changes are recommended for Kimberley, Argo-Rowley Terrace, Dampier and Gascoyne CMRs. No changes are recommended for Roebuck, Carnarvon Canyon, Cartier Island, Eighty Mile Beach, Montebello and Shark Bay CMRs. Changes in IUCN categories are recommended for Ningaloo, Ashmore Reef and Mermaid Reef CMRs. These are shown in Figure 4.2.2 and summarised in Table 4.2.1

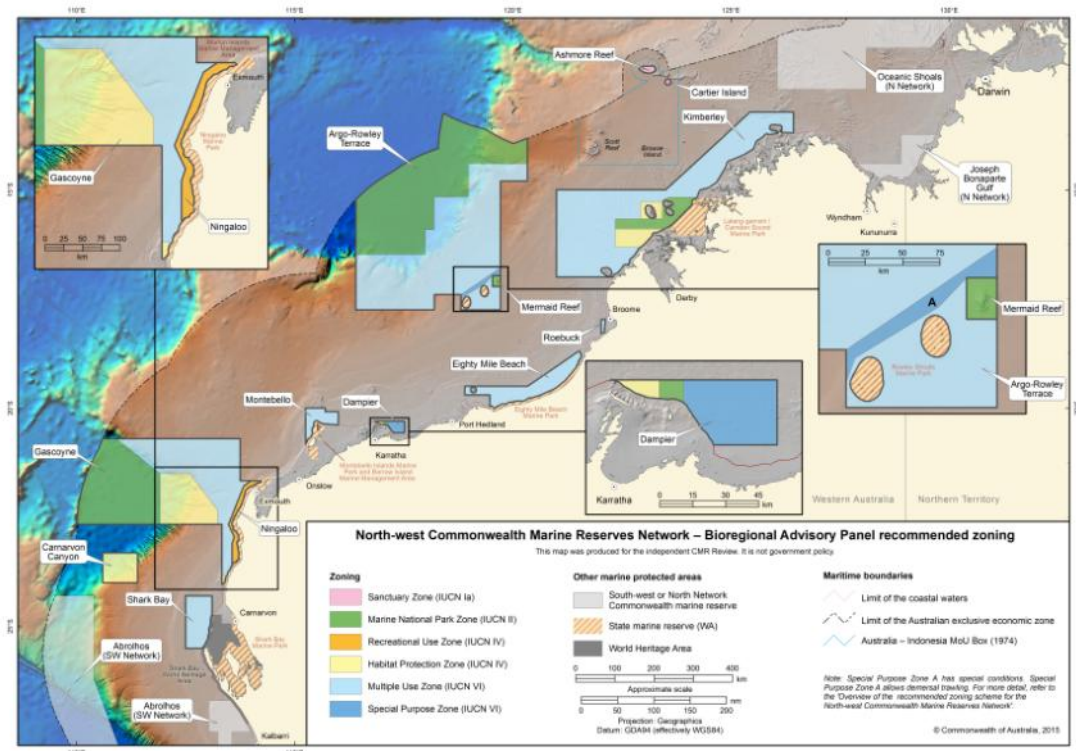


Figure 4.2.2 Recommended zoning for North-west CMR Network

Table 4.2.1 indicates how the areas of different zone types (within the outer boundaries of the network) will change between the proclaimed and recommended zoning. The change in the zoning of Mermaid Reef to MNPZ decreases the area of reef under SZ, but this is balanced by the overall increase in area zoned as no-take. This is complemented by a small increase in HPZ which, combined with MNPZ and SZ, sees almost 40% of the network under high-level protection. There is a small decrease in MUZ. Two types of SPZ are introduced which together make up 0.7% of the area of the network.

Table 4.2.1 Comparison of areas of zone types between proclaimed and recommended zoning for North-west CMR Network

Zone	Proclaimed		Recommended		Difference	
	Area (km ²)	% of Network	Area (km ²)	% of Network	Area (km ²)	% of Network
SZ (IUCN Ia)	1 262	0.38%	722	0.22%	-540	-0.16%
MNPZ (IUCN II)	103 082	30.73%	106 338	31.70%	+3 256	+0.97%
HPZ (IUCN IV)	17 682	5.27%	26 631	7.95%	+8 972	+2.67%
RUZ (IUCN IV)	2 469	0.74%	2 469	0.74%	Nil	Nil
MUZ (IUCN VI)	210 943	62.89%	197 078	58.75%	-13 888	-4.14%
SPZ (IUCN VI)	Nil	Nil	1 054	0.31%	+1 054	+0.31%
SPZ A (IUCN VI)	Nil	Nil	1 146	0.34%	+ 1 145	+0.34%
Total	335 437	100%	335 437	100%		

Note: All figures are rounded to the nearest km² (and therefore in some instances can appear to not add up to the totals supplied). No changes have been made to the outer boundaries and total area of the reserves. Percentages are calculated based on the rounded figures.

Conservation outcomes

The recommended zoning changes provide the following improvements to conservation outcomes for the North-west CMR Network:

- The introduction of new or improved MNPZs in three reserves that in aggregate amount to a small overall increase in area of MNPZ (1%) due to:
 - Extension of the MNPZ in the Argo-Rowley Terrace CMR
 - Reassignment of Mermaid Reef CMR from SZ to MNPZ to support consistency in management approach
 - Reconfiguration of the MNPZ in the Kimberley CMR that complements the adjacent Camden Sound Marine Park in state waters
- The expansion of the HPZs in two reserves, which provided an overall increased area for benthic protection including:
 - Kimberley CMR around Adele Island
 - Gascoyne CMR over important canyon habitat off Ningaloo.

Table 4.2.2 shows how the recommended zoning in the North-west Network affects the representation of primary conservation features in SZ, MNPZ and HPZ zone types, providing an indication of performance against the four primary goals. While the overall number of conservation features represented in SZs and MNPZs in the North-west CMR Network will not change, there will be one less Meso-scale Bioregion and one more Depth Range (by Provincial Bioregion) in this zone type in the North-west CMR Network resulting from the zoning changes in the Kimberley and Argo-Rowley Terrace CMRs.

The additional six conservation features represented in HPZ (IUCN IV) in the North-west CMR Network are the result of the expansion of the HPZs in the Kimberley and Gascoyne CMRs and the reconfiguration of the HPZ in Dampier CMR. Thirty one of the primary conservation features occur in more than one highly protected zone (SZ, MNPZ and HPZ),

which brings the overall number of conservation features represented in these zones to 90 (64% of the network’s features), an increase from 87 in the proclaimed zoning. There are still 50 features not represented in any of these three zones in the North-west CMR Network. The changes to the representation of specific conservation features are listed in Appendix H.

Table 4.2.2 Comparison of representation of conservation features between proclaimed and recommended zoning for North-west CMR Network

Goal	Primary conservation feature	Total no. in network	Proclaimed		Recommended zoning	
			SZ (IUCN Ia) and MNPZ (IUCN II)	HPZ (IUCN IV)	SZ (IUCN Ia) and MNPZ (IUCN II)	HPZ (IUCN IV)
1	Provincial Bioregions (PBs)	8	6	5	6	5
	Meso-scale Bioregions	9	5	3	4	6
2	Depth by PB	81	34	12	35	14
3	Key Ecological Features	8	4	1	4	1
	Biologically Informed Seascapes	19	14	9	14	9
4	Seafloor Types	15	14	8	14	9
	Total	140	77	38	77	44

Note: Some features are represented in SZ/MNPZ and HPZs and therefore the total number of features represented in these zones is not the simple sum of their occurrence in each zone.

Socio-economic impacts

Commercial fishing

The recommended zoning for the North-west CMR Network will reduce the overall impact on commercial fishing. The number of fisheries affected remains the same as for the proclamation; however, impact is reduced for the Western Australian Mackerel Fishery and the Pilbara Demersal Trap and Line Fishery. Improvements in overall socio-economic outcomes are expected to occur in the Kimberley and Dampier CMRs.

Recreational and charter fishing

Overall the recommended zoning for the North-west CMR Network is not expected to have a socio-economic impact on recreational and charter fishing sectors. Access for recreational and charter fishers to the Kimberley and Dampier CMRs has improved from the proclaimed zoning, while these sectors are unlikely to be affected by the new areas in MNPZs because they are either too far offshore or in areas that are not frequented by these users.

Mining and oil and gas development

The recommended zoning for the North-west CMR Network was developed with a view to the broader socio-economic interest in Australia’s energy security. The recommended

changes, including the use of HPZs, RUZs, MNPZs and SZs in the reserves, have been used where oil and gas prospectivity is rated as low in all reserves except Gascoyne, where part of the recommended HPZ area is rated as medium-low. The recommended zones that might affect mining activities are in the Gascoyne, Kimberley and Dampier CMRs.

Native title

Native title is not impacted by the proclamation of CMRs or the development and implementation of management plans for those reserves under the EPBC Act. However, the existence of IPAs and native title claims and determinations in the North-west CMR Network presents significant opportunities for co-management with traditional owners and local Indigenous groups and improvements in management outcomes.

Recommendations relating to involvement of Indigenous groups and traditional owners in the management of CMRs are outlined in Chapters 5 to 7 of this report.

Practicality of implementation

These zoning proposals for the North-west CMRs are not expected to increase the difficulty for users of complying with zoning requirements. The introduction of a new zone type (SPZ) in the Dampier and Argo-Rowley Terrace CMRs increases the total number of zones in the network from five to six, which adds some complexity. However, additional complexity has generally been minimised through the adoption of straight north-south or east-west running boundary lines wherever possible. Where this was not possible, such as the eastwards extension of the HPZ in Gascoyne CMR, which has a diagonal boundary line, impacts on existing uses have been largely avoided. Other changes, including modifications of the MNPZs in the Kimberley, Argo-Rowley Terrace and Dampier CMRs and HPZs in the Gascoyne, Dampier, and Kimberley CMRs, may in some instances increase the complexity of the zoning configuration, but in many cases these zones have been designed to accommodate user interests, so this impact is expected to be low.

Conclusion

The recommended zoning of the North-west CMR Network addresses the key areas of contention that arose during the consultation. Socio-economic impacts have been reduced in several areas, particularly by improved access to areas important to the recreational and charter fishers. This outcome has been achieved without a loss of area under high-level protection. SZ and MNPZ make up 32% of the network, and with HPZ this coverage increases to 40%. These areas of high-level protection better target important biodiversity features across the network and include 90 of the network's 140 primary conservation features (64%). Attempts to further improve the high-level protection in more of the nearshore coastal areas, such as Eighty Mile Beach and the Roebuck and Gascoyne CMRs, were not possible due to constraints imposed by oil and gas prospectivity, although a number of potential options were actively explored with relevant stakeholders.

Table 4.2.3 Overview of recommended zoning scheme for North-west CMR Network

Activity type ^a		Special Purpose Zone (IUCN VI)	Multiple Use Zone (IUCN VI)	Habitat Protection Zone (IUCN IV)	Recreational Use Zone (IUCN IV)	Marine National Park Zone (IUCN II)	Sanctuary Zone (IUCN Ia)
MINING^b	Mining (including exploration, development and other activities)	✓	✓	✗	✗	✗	✗
COMMERCIAL FISHING^c	Handline/rod and reel	✓	✓	✓	✗	✗	✗
	Hand collection (including drift diving)	✓	✓	✓	✗	✗	✗
	Dropline/trolling	✓	✓	✓	✗	✗	✗
	Pelagic longline	✓	✓	✓	✗	✗	✗
	Purse Seine	✓	✓	✓	✗	✗	✗
	Traps and pots (including lobster, crab and fish)	✓	✓	✗	✗	✗	✗
	Demersal gillnet	✗	✗	✗	✗	✗	✗
	Demersal longline	✗	✗	✗	✗	✗	✗
	Demersal trawl	✗ ^d	✗	✗	✗	✗	✗
AQUACULTURE		✓	✓	✗	✗	✗	✗
RECREATION	Boating	✓	✓	✓	✓	✓	✗ ^e
	Scuba diving and snorkelling	✓	✓	✓	✓	✓	✗
	Recreational fishing (including spear-fishing) ^f	✓	✓	✓	✓ ^g	✗	✗
COMMERCIAL TOURISM	Non-fishing related tourism (including nature watching, scuba/snorkel tours)	✓	✓	✓	✓	✓	✗
	Fishing related tourism (including charter fishing and fishing/spear diving tours)	✓	✓	✓	✗ ^g	✗	✗
INDIGENOUS ACTIVITIES	Non-commercial Indigenous harvesting and hunting (consistent with the <i>Native Title Act 1993</i>)	✓	✓	✓	✓	✓	✓
RESEARCH		✓	✓	✓	✓	✓	✓
GENERAL USE	Defence	✓	✓	✓	✓	✓	✓
	Shipping (general transit) ^h	✓	✓	✓	✓	✓	✗ ^e

a. All activities require approval to be undertaken in CMRs; approvals are provided in the management plan or through class approvals or individual permits.

b. Proposed mining operations carried out under usage rights that existed immediately before the declaration of a reserve do not require approval from the DNP.

c. Commercial fishing methods not listed in the table may require assessment.

d. Demersal trawling is allowed in the North-west CMR Network SPZ A.

e. Does not affect the right of innocent passage, consistent with the United Nations Convention on the Law of the Sea (UNCLOS).

f. Recreational fishing is managed by the states. Western Australian rules and regulations (for example size and bag limits) will apply in the North-west CMR Network unless otherwise specified in the management plan.

g. Recreational fishing and fishing-related tourism is allowed in Ningaloo RUZ; recreational fishing for immediate consumption only, is allowed in the Ashmore Reef RUZ.

h. Ballast water exchange is managed under national arrangements. Restrictions may apply in some areas.

4.2.1 KIMBERLEY COMMONWEALTH MARINE RESERVE

Background

The Kimberley CMR extends from the Lacepede Islands to the Holothurian Banks offshore from Cape Bougainville. The reserve was established in 2012, covers approximately 74 469 km² and contains three zone types: Marine National Park (9%), Habitat Protection (2%) and Multiple Use (89%)(Figure 4.2.1.1).

The reserve includes ancient coastline, continental slope demersal fish communities (a KEF in this region) and examples of the communities and ecosystems of the Northwest Shelf Province, Northwest Shelf Transition and Timor Province Provincial Bioregions as well as the Kimberley, Canning, Northwest Shelf and Oceanic Shoals Meso-Scale Bioregions. Conservation values include important foraging areas for dugongs, dolphins, migratory seabirds and marine turtles, important migration pathways for humpback whales, proximity to important foraging and pupping areas for sawfish and important nesting sites for green turtles.

The area is important to traditional owners, and several native title claims overlap with parts of the marine reserve.

The WA managed Northern Shark Fishery, Northern Demersal Scalefish Fishery and Kimberley Prawn Fishery and the Commonwealth managed North West Slope Trawl Fishery operate within or near the marine reserve. The pearling industry has a significant presence in the Kimberley area, although the majority of its activities occur in state waters. Recreational and charter fishing occur in the area, particularly in state waters and around the many islands along the Kimberley coastline.

The reserve overlaps with moderately to highly prospective areas for oil and gas resources and with a number of exploration permits. Petroleum exploration, particularly in the Roebuck and Browse basins, is a major activity in the area.

Issues raised

In addition to the North-west CMR Network issues raised above in Section 4.2, the Kimberley CMR was canvassed in a number of submissions and in meetings with stakeholders. Issues raised included:

- Inadequate protection—specifically, that the level of protection (fully protected MNPZs and/or HPZs) be increased and extended to the Holothurian Banks
- Traditional owner interests and aspirations for economic development—specifically, concern that the MNPZ may restrict development in the Cape Leveque and other areas such as Cassini Island
- Complementarity between land and sea protection—particularly as it relates to cultural concepts of sea country and integration with Saltwater Country Plans
- Access to MNPZs (IUCN II) by recreational anglers—specifically, in the area around Cape Leveque
- Exclude high-impact activities (for example, mining, including oil and gas and mineral exploration)
- Loss of access for commercial fisheries—specifically, commercial trolling
- Remove destructive fishing practices from the network—specifically, pelagic gillnetting and longlining.

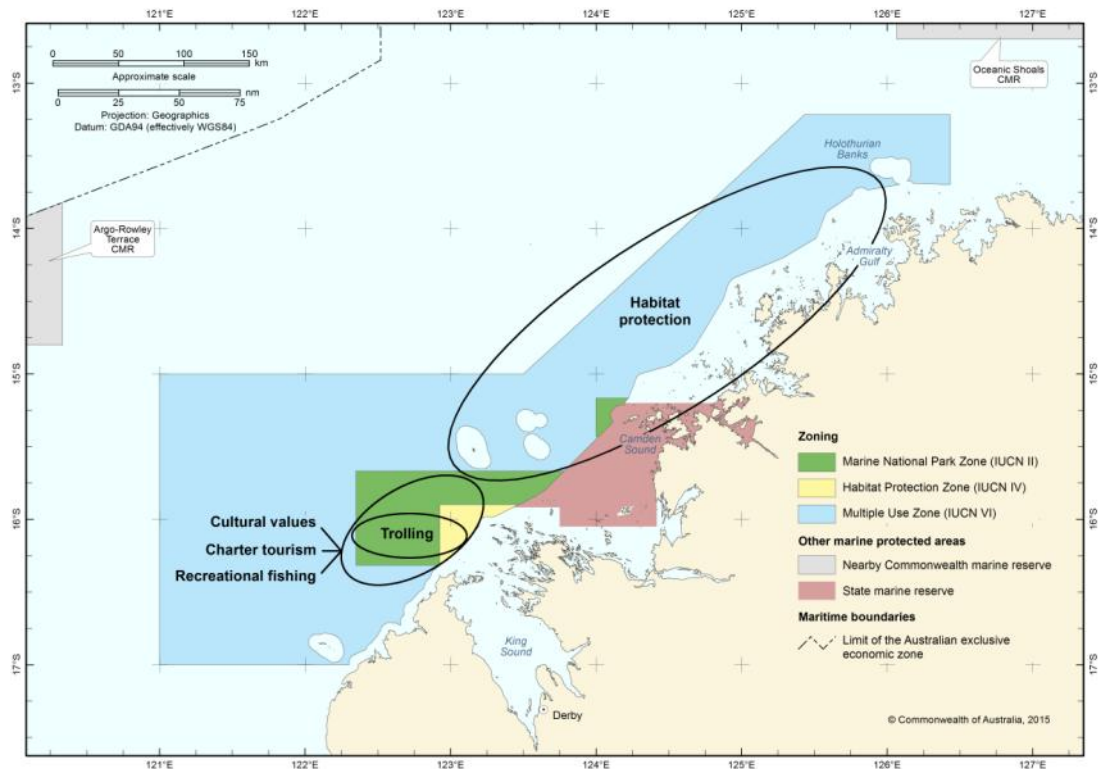


Figure 4.2.1.1 Kimberley CMR as proclaimed, showing key issues and drivers for change identified during the CMR Review

Areas of contention

The Regional Panel determined that loss of access by established commercial fisheries, local economic development and level of protection were areas of contention.

Mackerel fishery (North Coast bioregion)(trolling)

The area of particular interest for this fishery was a series of reefs in the south-eastern portion of the existing MNPZ (Figure 4.2.1.1). This fishery targets Spanish mackerel (*Scomberomorus commerson*), a large mobile pelagic species that is only present in the area at certain times of the year.

In submissions received from the commercial sector, information was provided to show the location of several reefs in this reserve that were targeted by the fishery.

Tourism and local economic development

Representations were heard relating to the development of the area adjacent to Cape Leveque and the potential impact that the MNPZ in this area would have in preventing this development. They included both recreational and charter fishing and local Indigenous community interests.

The Regional Panel suggested that both of the above concerns could be addressed by rezoning the MNPZ area closest to Cape Leveque as HPZ, and establishing a new MNPZ further north.

Conservation

Concerns were expressed over the level of protection over most of the Kimberley CMR, particularly areas that were important habitat for seasonal migratory cetaceans. This area extended from the south-west and east of Adele Island. Areas further east, especially over

the Holothurian Banks, were considered to be significant from a conservation perspective and worthy of higher protection.

The Regional Panel suggested an extension of the MNPZ in the area adjacent to the Western Australian Lalang-garram/Camden Sound State Marine Park, as well as a complementary HPZ around Adele Island.

Recommendations

The recommendations for the Kimberley CMR are to:

- Rezone the area adjacent to Cape Leveque as HPZ
- Extend the MNPZ over the area adjacent to the Western Australian Lalang-garram/Camden Sound State Marine Park and create a new HPZ around Adele Island.

These changes are shown in Figure 4.2.1.2 and summarised in Table 4.2.1.1.

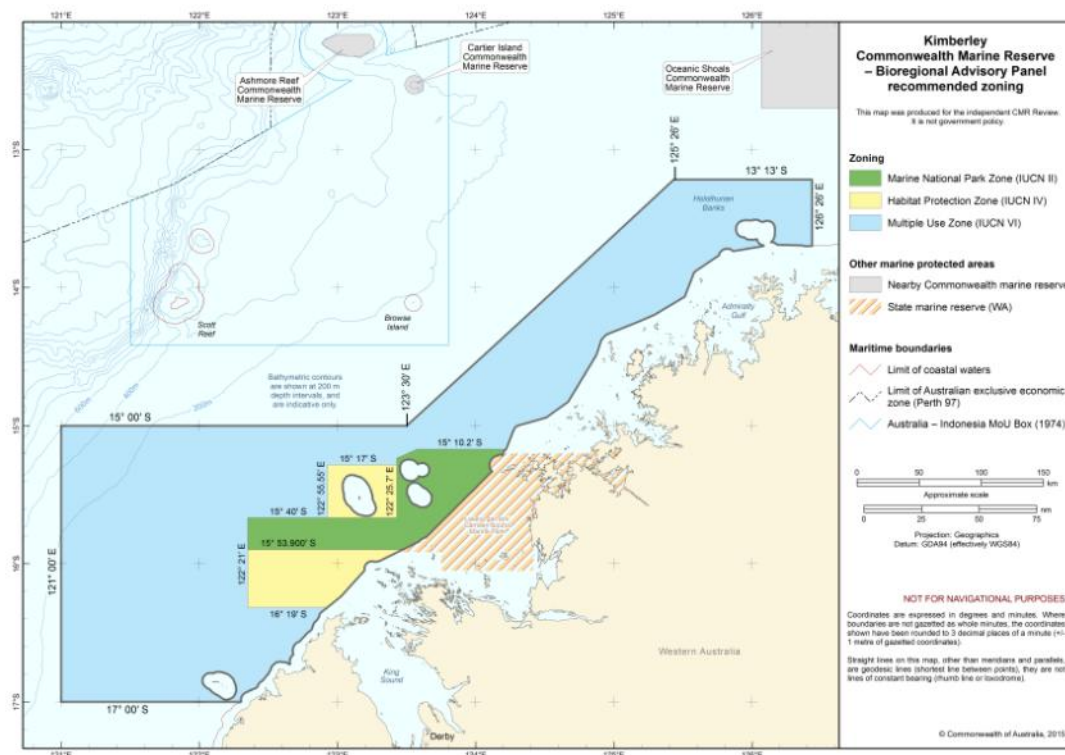


Figure 4.2.1.2 Recommended zoning for Kimberley CMR

Table 4.2.1.1 indicates how the areas of different zone types (within the limit of the outer boundaries of the reserve) will change between the proclaimed and recommended zoning. There is a small decrease in the area under MNPZ offset by an increase in the area under HPZ. Together these offer a high level of protection to 16% of the reserve. There is a small decrease in the area under MUZ.

Table 4.2.1.1 Comparison of areas of zone types between proclaimed and recommended zoning for Kimberley CMR

Zone	Proclaimed		Recommended		Difference	
	Area (km ²)	% of CMR	Area (km ²)	% of CMR	Area (km ²)	% of CMR
MNPZ (IUCN II)	6 775	9.10%	6 392	8.58%	-383	-0.51%
HPZ (IUCN IV)	1 131	1.52%	5 665	7.61%	+4 534	+6.09%
MUZ (IUCN VI)	66 563	89.38%	62 411	83.81%	-4 152	-5.58%
Total	74 469	100%	74 469	100%		

Note: All figures are rounded to the nearest km² (and therefore in some instances can appear to not add up to the totals supplied). No changes have been made to the outer boundaries and total area of the reserves. Percentages are calculated based on the rounded figures.

Outcomes

The recommended zoning for the Kimberley CMR will afford a high level of protection to the benthic habitat over the shoals and provide greater protection around Adele Island. The fivefold increase in area of HPZ, covering an additional 6% of the reserve, and the relocation of MNPZ will provide increased protection to two Meso-Scale Bioregions (one in MNPZ), one Depth Range (by Provincial Bioregion) (in MNPZ), three Biologically Informed Seascapes (one in MNPZ) and one Seafloor Type (in MNPZ) in the North-west CMR Network (see Appendix H). The relocation of the MNPZ means that the Canning Meso-scale Bioregion is no longer represented in this zone, although it is included in HPZ.

The recommended zoning for the Kimberley CMR reduces the overall impact on commercial fishing. This reduction is largely due to improved access for the WA managed Mackerel Fishery and Northern Demersal Scalefish Fishery.

Recreational and charter fishers will have improved access to the area around Cape Leveque, addressing concerns relating to both fishing and tourism prospectivity and economic development of the region.

The recommended zoning configuration for the reserve is slightly more complex than the proclaimed zoning of the reserve, retaining the same overall number of zone types but with one more discrete area of HPZ. However, the HPZ at Adele Island will complement the adjacent state marine reserve in this area, and the two separate proclaimed MNPZs have been merged into one zone, which will be simpler to implement and manage. The larger southern HPZ is expected to improve ease of compliance for local users.

The Kimberley CMR overlaps with the Mayala registered native title claim which covers the island and sea area north of Derby around the Buccaneer Archipelago. The Bardi and Jawi native title determination and Bardi Jawi IPA are adjacent to the CMR, extending over the Bardi and Jawi land and sea country on the Dampier Peninsula.

The recommended reconfigured MNPZ and HPZ and the new HPZ will restrict mining activities in a further 6% of this reserve. The area covered by these recommended zones was rated as having medium-low and low petroleum prospectivity.

4.2.2 ARGO-ROWLEY TERRACE COMMONWEALTH MARINE RESERVE

Background

The Argo-Rowley Terrace CMR is located offshore north-west of Broome and spans a large area to the limit of Australia's EEZ. The reserve, established in 2012, covers approximately 146 099 km² and contains two zone types: Marine National Park (43%) and Multiple Use (57%) (Figure 4.2.2.1).

Conservation values represented within the reserve include the Mermaid Reef and Commonwealth waters surrounding the Rowley Shoals, canyons linking the Argo Abyssal Plain with the Scott Plateau, and seafloor and pelagic environments associated with the Northwest Transition and the Timor Province Provincial Bioregions. The reserve is an important foraging area for migratory seabirds and loggerhead turtles and is and important for sharks.

The WA managed Northern Shark Fishery and the Commonwealth managed North West Slope Trawl Fishery operate within or near the marine reserve. Recreational and charter fishing occur in area, particularly around the Rowley Shoals, known as a premium fishing and diving location.

Petroleum prospectivity in the area ranges from low to high, with a number of exploration permits overlapping the reserve's MUZ.

Issues raised

In addition to the North-west CMR Network issues raised above in Section 4.2, the Argo-Rowley Terrace CMR was discussed in a large number of submissions and in meetings with stakeholders. Issues raised included:

- Threats from nearby oil and gas and mineral exploration and production facilities
- Potential impact on the ability to install and service oil and gas infrastructure
- Inadequate protection—specifically, to extend the MNPZs to include canyon systems to the north-east
- Constraints for recreational fishing around the Rowley Shoals
- Loss of access for commercial fisheries.

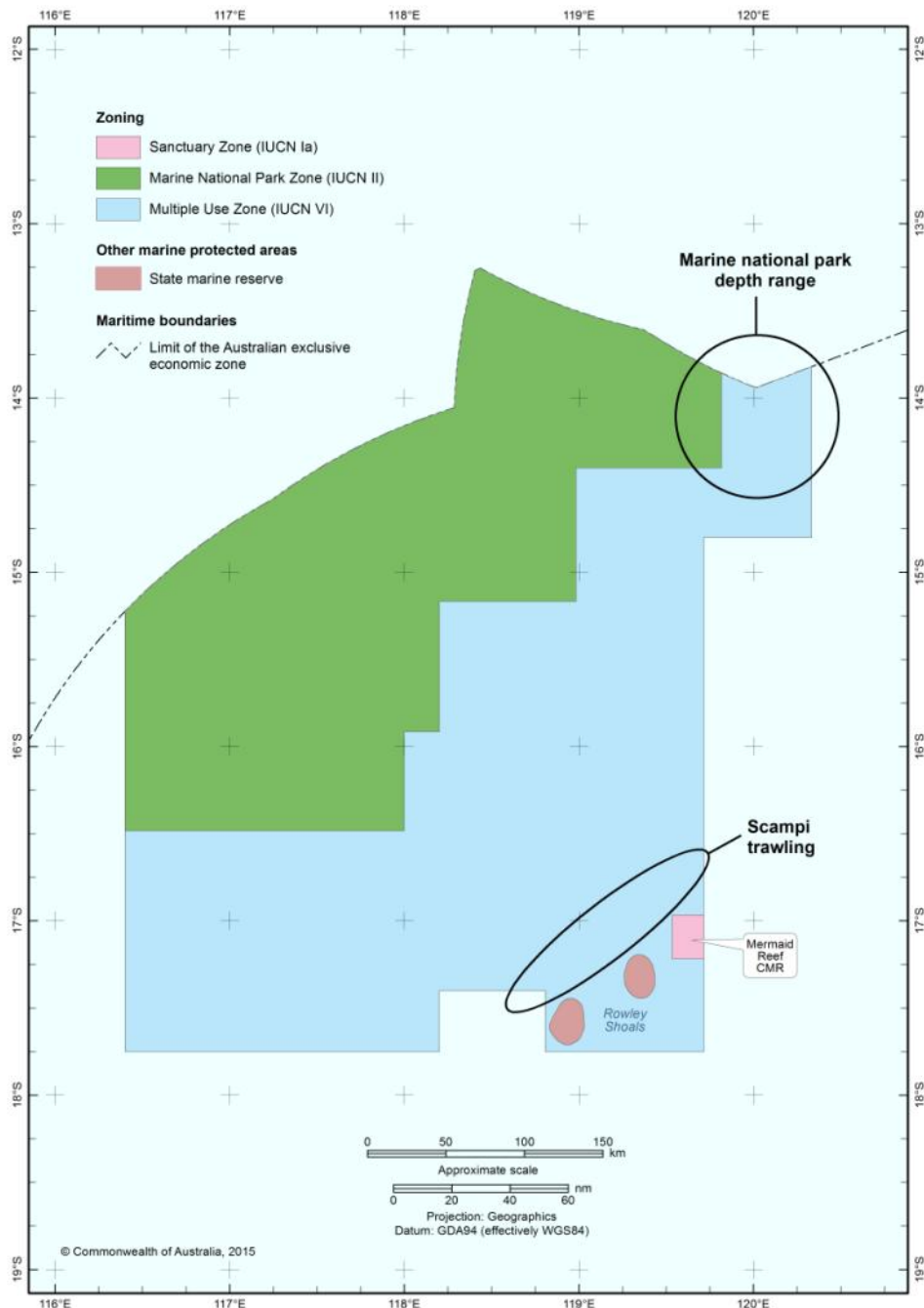


Figure 4.2.2.1 Argo-Rowley Terrace CMR as proclaimed, showing key issues and drivers for change identified during the CMR Review

Areas of contention

The Regional Panel determined that loss of access by established commercial fisheries and the protection of the canyon systems in the north-east were areas of contention.

Conservation

The continental shelf slope and canyons west of Scott Plateau are important ecosystems that support aggregations of cetaceans (sperm and beaked whales) and seabirds not recorded elsewhere in Australia (such as Bulwer’s petrel, Matsudaira’s storm-petrel and Swinhoe’s storm-petrel).

Commercial fishing (scampi trawl)

The North West Slope Trawl Fishery operates on the soft sediment shelf habitat north of the Rowley Shoals. This is a demersal trawl fishery targeting scampi (*Metanephrops*

australiensis), operating between 350 m and 600 m on soft sediment well away from the shoals.

Recommendations

The recommendations for the Argo-Rowley Terrace CMR are to:

- Extend the MNPZ in the north-east to include the canyon systems and additional Depth Ranges
- Create a narrow SPZ to allow scampi trawling to continue north of the Rowley Shoals (following the 400–600 m water depth contours).

These changes are shown in Figure 4.2.2.2 and summarised in Table 4.2.2.1.

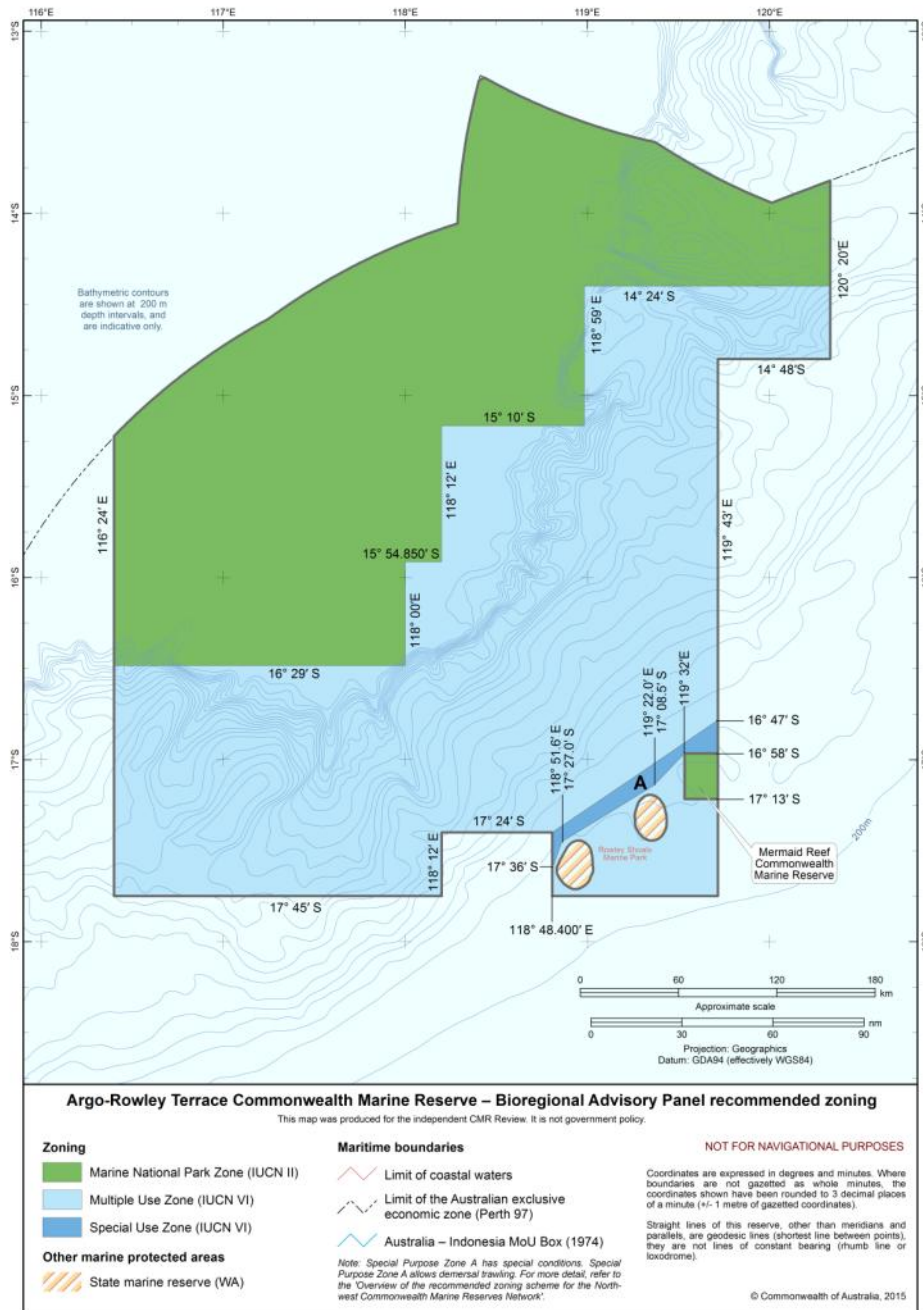


Figure 4.2.2.2 Recommended zoning for Argo-Rowley Terrace CMR

Table 4.2.2.1 indicates how the areas of different zone types (within the outer boundaries of the reserve) will change with the recommended zoning. There is a small increase in the area under MNPZ (now 45% of the reserve), and the introduction of a new SPZ, with a corresponding decrease in the MUZ.

Table 4.2.2.1 Comparison of areas of zone types between proclaimed and recommended zoning for Argo-Rowley Terrace CMR

Zone	Proclaimed		Recommended		Difference	
	Area (km ²)	% of CMR	Area (km ²)	% of CMR	Area (km ²)	% of CMR
MNPZ (IUCN II)	62 721	42.93%	65 876	45.09%	+3 155	+2.16%
MUZ (IUCN VI)	83 378	57.07%	79 078	54.13%	-4 300	-2.94%
SPZ A (IUCN VI)	Nil	Nil	1 145	0.78%	+ 1 145	+0.78%
Total	146 099	100%	146 099	100%		

Note: All figures are rounded to the nearest km² (and therefore in some instances can appear to not add up to the totals supplied). No changes have been made to the outer boundaries and total area of the reserves. Percentages are calculated based on the rounded figures.

Outcomes

The recommended zoning for Argo-Rowley Terrace CMR will improve conservation outcomes by increasing the area in MNPZ in the northern part of the reserve. This change will provide increased protection to the Timor Province Deep Continental Slope Depth Range (by Provincial Bioregion) in the North-west CMR Network.

A reduction in impacts on the North West Slope Trawl Fishery will occur from the access for trawling permitted by the introduction of the new SPZ. The extension of the MNPZ in the reserve has the potential to increase impacts on the Western Tuna and Billfish Fishery; however, due to the confidential nature of the fisheries catch data for this area, the scale of the impact is unknown.

The extension of the MNPZ is not expected to impact on recreational or charter fishers as the location is only accessible to larger vessels and the size of the extension is minor in comparison to the area otherwise available for these activities.

Although the introduction of an SPZ that permits demersal trawling north of the Rowley Shoals will add an additional zone type to the reserve, the limited number of operators using this fishing gear minimises the potential for compliance issues, as the trawl zone is well established and operators in this Commonwealth managed fishery have VMS. The extension of the MNPZ in the north-eastern part of the reserve is not expected to increase the difficulty of compliance.

Argo-Rowley Terrace CMR does not overlap with any native title determinations, applications or IPAs.

4.2.3 DAMPIER COMMONWEALTH MARINE RESERVE

Background

The Dampier CMR is located adjacent to the Dampier Archipelago extending east approximately 35 km beyond Cape Lambert and offshore from the port of Dampier. The reserve, established in 2012, covers approximately 1 252 km² and contains two zone types: Marine National Park (12%) and Habitat Protection (88%) (Figure 4.2.3.1).

The area is important to traditional owners, although no native title claims overlap with the marine reserve.

Conservation values represented within the reserve include foraging areas adjacent to important breeding areas for migratory seabirds, foraging areas adjacent to important nesting sites for marine turtles, and part of the migratory pathway of humpback whales. The reserve incorporates shelf habitats adjacent to the Dampier Archipelago, with depths ranging from 15 m to 70 m, and examples of the communities and seafloor habitats of the Northwest Province Provincial Bioregion as well as the Pilbara (nearshore) Meso-scale Bioregion.

The WA managed Pilbara Demersal Trap and Line, Mackerel and Nickol Bay Prawn fisheries operate in the area. The reserve covers an area important for recreational fishing adjacent to the Dampier Peninsula. Port development supporting the mining industry also occurs in this area. Petroleum prospectivity in the area is rated as low.

Issues raised

In addition to the North-west CMR Network issues raised above in Section 4.2, the Dampier CMR was canvassed in detail in several submissions as well as in meetings with stakeholders. Issues raised included:

- Improve access for recreational fishing—specifically, in the MNPZ north of Legendre Island
- Impact of HPZ on existing and future port and shipping activities.

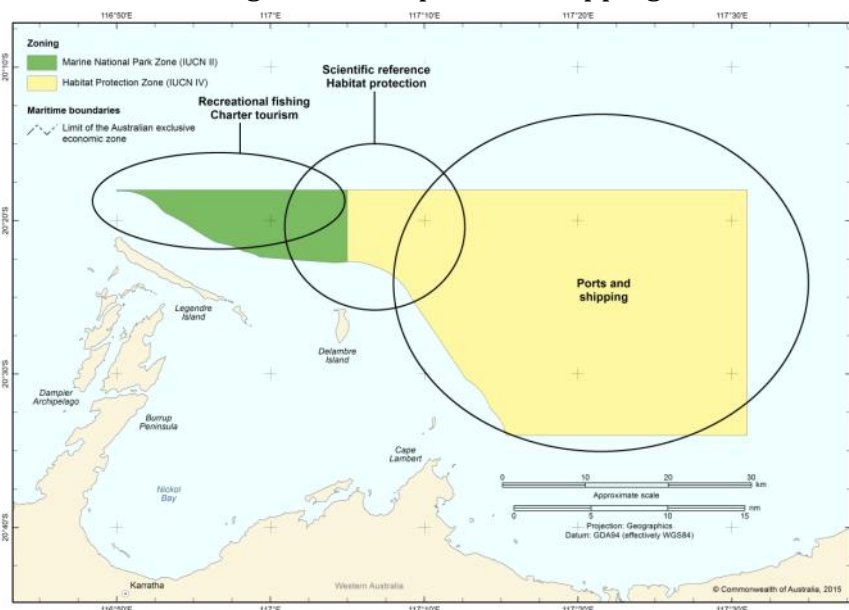


Figure 4.2.3.1 Dampier CMR as proclaimed, showing key issues and drivers for change identified during the CMR Review

Areas of contention

The Regional Panel determined that loss of access by recreational fisheries, habitat protection and the impact on ports and shipping were areas of contention.

The Dampier CMR is situated in an area where essential infrastructure and associated operations support existing and potential mining operations in the region. The existing HPZ was seen to have been a 'last minute' inclusion into the network without adequate consultation with stakeholders. The set-aside North-west CMR Network Management Plan rezoned the HPZ as SPZ (Ports).

The existing MNPZ also overlaps with an area that is important to the recreational and charter fishing sectors in a region with high boat ownership. These sectors are seen as key tourism opportunities.

Recommendations

The recommendations for the Dampier CMR are to:

- Establish a new HPZ on the western arm of the reserve north of Legendre Island
- Reduce and relocate the MNPZ westwards to an eastern boundary at 117°08'E
- Rezone the proclaimed HPZ as an SPZ to provide for continuation of port and shipping activities.

These changes are shown in Figure 4.2.3.2 and summarised in Table 4.2.3.1.

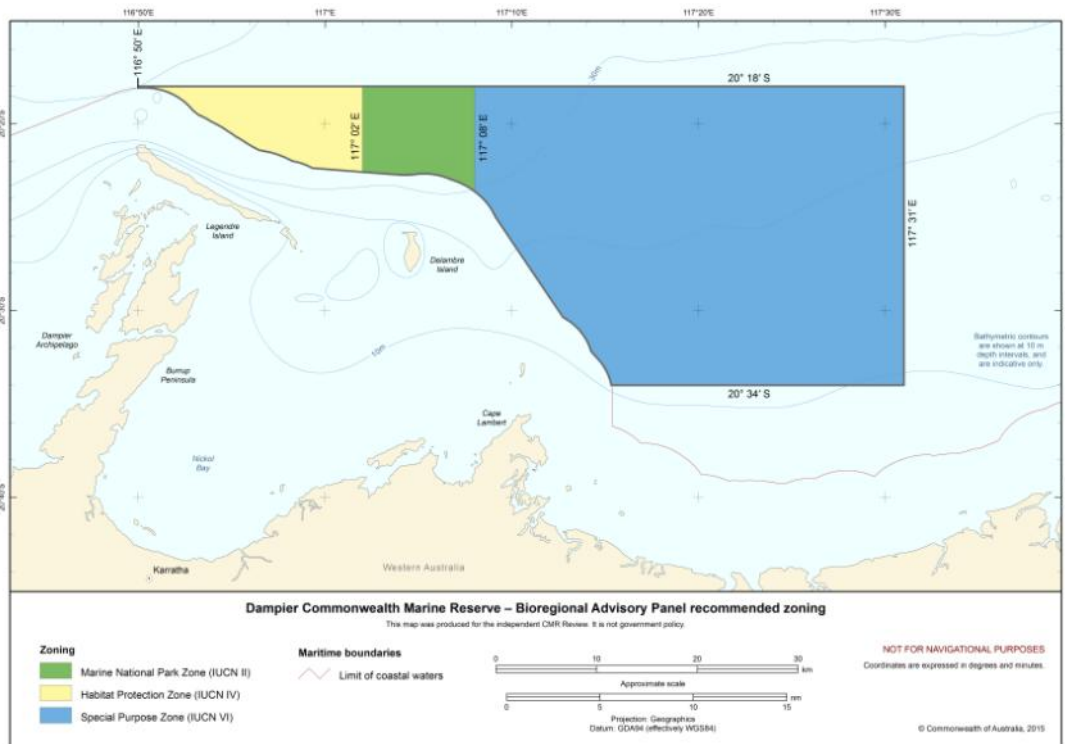


Figure 4.2.3.2 Recommended zoning for Dampier CMR

Table 4.2.3.1 indicates how the areas of different zone types (within the outer boundaries of the reserve) will change between the proclaimed and recommended zoning. There is a 5% reduction in the area under MNPZ, to accommodate recreational and charter fishing. The proclaimed HPZ is replaced by SPZ to accommodate port and shipping activities.

Table 4.2.3.1 Comparison of areas of zone types between proclaimed and recommended zoning for Dampier CMR

Zone	Proclaimed		Recommended		Difference	
	Area (km ²)	% of CMR	Area (km ²)	% of CMR	Area (km ²)	% of CMR
MNPZ (IUCN II)	150	11.98%	93	7.43%	-57	-4.55%
HPZ (IUCN IV)	1 102	88.02%	104	8.31%	-998	-79.71%
SPZ (IUCN VI)	Nil	Nil	1 054	84.19%	+1 054	+84.19%
Total	1 252	100%	1 252	100%		

Note: All figures are rounded to the nearest km² (and therefore in some instances can appear to not add up to the totals supplied). No changes have been made to the outer boundaries and total area of the reserves. Percentages are calculated based on the rounded figures.

Outcomes

The recommended zoning of the Dampier CMR assigns the majority of the reserve as SPZ (IUCN VI) to accommodate port and shipping activities. It retains a small MNPZ and establishes an HPZ on the western arm of the reserve. The retention of the MNPZ not only provides high-level protection to the area but also provides the opportunity to establish a long-term scientific reference site in the area. The reconfiguration of the HPZ will retain protection for the benthic habitat in the north-west of the reserve including over the Pilbara (nearshore) Meso-scale Bioregion. In comparison to the proclaimed zoning, the zoning changes will result in one fewer Depth Range (by Provincial Bioregion) and three Biologically Informed Seascapes in HPZ in the North-west CMR Network (see Appendix H).

The recommended zoning of Dampier CMR will decrease the overall impact on commercial fishing. The WA managed Mackerel Fishery and the line sector of the Pilbara Demersal Trap and Line Fishery were displaced by the proclaimed zoning; however, due to recommended changes in the configuration of the MNPZ, no impacts on these fisheries are expected. Impacts on the trap sector of the WA managed Pilbara Demersal Trap and Line Fishery will also be reduced by the recommended changes to the MNPZ and HPZ.

The recommended zoning for the Dampier CMR will result in improved access for recreational and charter fishers within the reserve.

Importantly, the recommended zoning for Dampier CMR will allow activities (operating with EPBC Act approval) that are necessary to maintain existing export facilities, including installation of structures, shipping channel dredging and disposal of dredge spoil.

The recommended zoning will be more complex than the proclaimed zoning, introducing the additional SPZ type; however, this change is specifically designed to improve the practicality of implementation of the reserve, and was proposed in the set-aside network management plan. The reconfiguration of the MNPZ is also likely to improve ease of compliance for some users.

The recommended change from the proclaimed HPZ to an SPZ in this reserve removes the prohibition on mining activities above the level of restriction set out in the proclaimed

zoning. The area covered by these recommended zones was rated as having low petroleum prospectivity.

The Dampier CMR overlaps with the Ngarluma/Yindjibarndi native title determination and the Yaburara and Mardudhunera People registered native title claim, as well as the Anketell Port, Infrastructure Corridor and Industrial Estates Agreement Indigenous Land Use Agreement (ILUA) and the Kuruma Marthudenera and Yaburara and Coastal Mardudhunera People ILUA.

4.2.4 GASCOYNE COMMONWEALTH MARINE RESERVE

Background

The Gascoyne CMR is located in Commonwealth waters ranging from just north of Cape Cuvier to the waters offshore of Exmouth and into deep waters of the region out to the limit of the EEZ. The reserve, established in 2012, covers approximately 81 766 km² and contains three zone types: Marine National Park (41%), Habitat Protection (11%) and Multiple Use (48%) (Figure 4.2.4.1). Its eastern boundary abuts the Ningaloo CMR and the Ningaloo Coast World Heritage Area.

Geomorphological features and bioregions represented within the reserve include ancient coastline, canyons linking the Cuvier Abyssal Plain with the Cape Range Peninsula, Exmouth Plateau, seafloor habitats and communities of the Central Western Shelf Province, Central Western Shelf Transition, Central Western Transition, Northwest Province, Northwest Shelf Province and the Ningaloo, Zuytdorp and Pilbara (offshore) Meso-Scale Bioregions. Conservation features include the continental slope demersal fish communities in Commonwealth waters adjacent to the Ningaloo CMR, an important foraging area for migratory seabirds, proximity to high-intensity foraging areas for dugongs and whale sharks, an important foraging area for hawksbill and flatback turtles, and proximity to resting areas for migrating humpback whales.

The area is important to traditional owners, and a native title claim overlaps with parts of the marine reserve.

The WA managed Northern Shark, Deep Sea Crab, Shark Bay Snapper, and Pilbara Demersal Trap and Line fisheries operate within or near the marine reserve. The Commonwealth managed Western Tuna and Billfish, North West Slope Trawl and Western Deepwater Trawl fisheries also operate in the area. Recreational fishing and tourism occur in the reserve, particularly around Ningaloo Reef.

The marine reserve overlaps with the Northern Carnarvon Basin, an area of extensive petroleum exploration and production activity. Petroleum prospectivity is considered high in the northern part of the reserve.

Issues raised

In addition to the North-west CMR Network issues raised above in Section 4.2, the Gascoyne CMR was discussed in a large number of submissions, as well as in meetings with stakeholders. Issues raised included:

- Inadequate protection—specifically, that the level of protection (MNPZs and/or HPZs) be increased eastwards across the marine canyons and join the Ningaloo CMR
- Access to MNPZs (IUCN II) by recreational anglers
- Loss of access for commercial fisheries—particularly pelagic longlining.

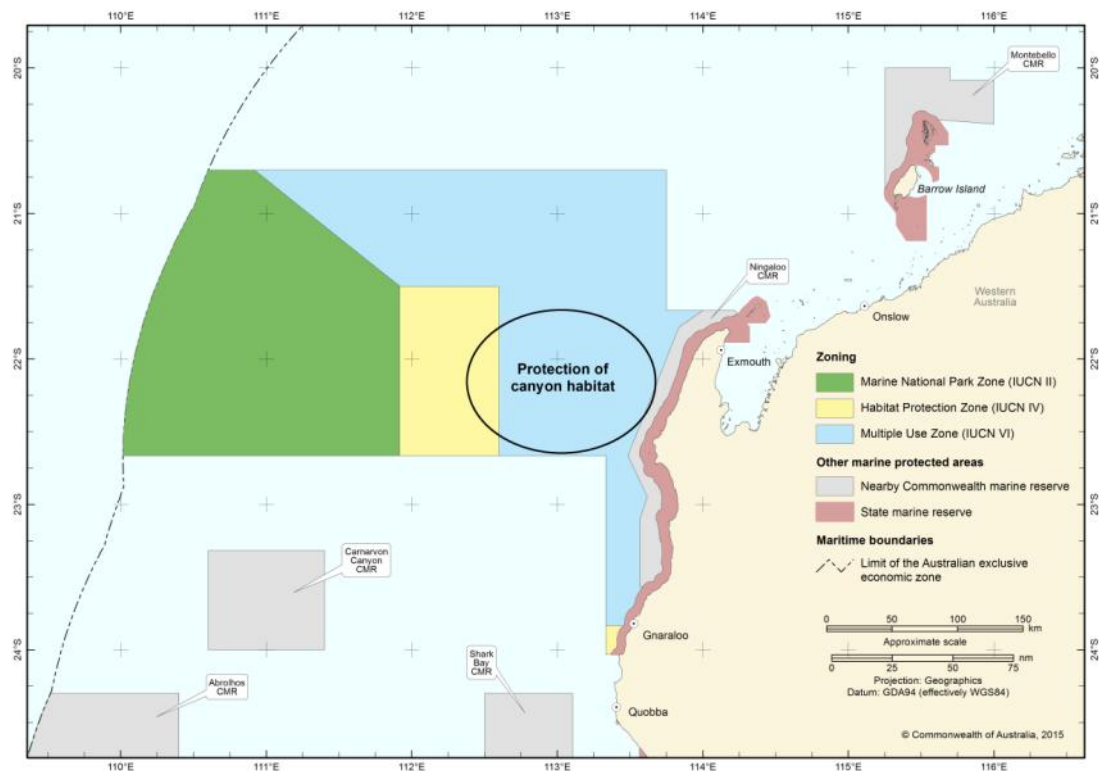


Figure 4.2.4.1 Gascoyne CMR as proclaimed, showing key issues and drivers for change identified during the CMR Review

Areas of contention

The Regional Panel determined that the level of protection on the shelf and canyons was an area of contention.

Conservation

The Cape Range and Cloates canyons on the shelf adjacent to the Ningaloo Reef are considered to be important for their role in sustaining the nutrient conditions that support the high diversity of the Ningaloo Reef and diversity of megafauna such as whale sharks. Recent research¹³ has also highlighted the significance of the shelf fauna in this area including sponges, benthic infauna, soft corals and fish.

Recommendation

The recommendation for the Gascoyne CMR is to extend the existing HPZ eastwards as far as the 1000 m depth contour.

The change is shown in Figure 4.2.4.2 and summarised in Table 4.2.4.1.

¹³ P. K. Dunstan, N. J. Bax, S. D. Foster, A. Williams and F. Althaus. (2012). Identifying hotspots for biodiversity management using rank abundance distributions. *Diversity and Distributions* 18, 22–32; Przeslawski *et al.* (2013). Infaunal biodiversity patterns from Carnarvon Shelf (Ningaloo Reef), Western Australia. *Marine and Freshwater Research* 64(6), 573–583; G. C. B. Poore, L. Avery, M. Blazewicz-Paszkowycz, J. Browne, N. L. Bruce, S. Gerken, C. Glasby, E. Greaves, A. W. McCallum, D. Staples, A. Syme, J. Taylor, G. Walker-Smith, M. Warne, C. Watson, A. Williams, R. S. Wilson, and S. Woolley. (2015). Invertebrate diversity of the unexplored marine western margin of Australia: taxonomy and implications for global biodiversity. *Marine Biodiversity* 45, 271–286.

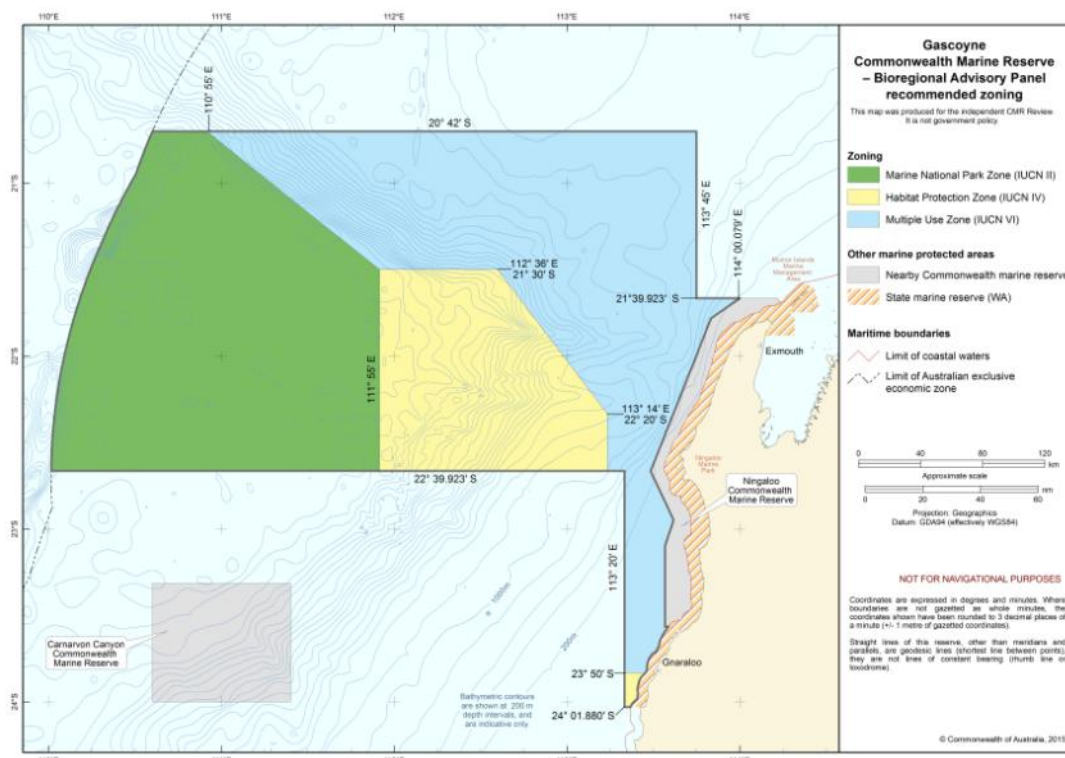


Figure 4.2.4.2 Recommended zoning for Gascoyne CMR

Table 4.2.4.1 indicates how the areas of different zone types (within the outer boundaries of the reserve) will change between the proclaimed and recommended zoning. There are no changes to the MNPZ but the area under HPZ increases with a corresponding decrease in MUZ. Overall nearly 60% of the reserve falls within highly protected MNPZ or HPZ.

Table 4.2.4.1 Comparison of areas of zone types between proclaimed and recommended zoning for Gascoyne CMR

Zone	Proclaimed		Recommended		Difference	
	Area (km ²)	% of CMR	Area (km ²)	% of CMR	Area (km ²)	% of CMR
MNPZ (IUCN II)	33 437	40.89%	33 437	40.89%	Nil	Nil
HPZ (IUCN IV)	9 272	11.34%	14 685	17.96%	+5 413	+6.62%
MUZ (IUCN VI)	39 057	47.77%	33 645	41.15%	-5 412	-6.62%
Total	81 766	100%	81 766	100%		

Note: All figures are rounded to the nearest km² (and therefore in some instances can appear to not add up to the totals supplied). No changes have been made to the outer boundaries and total area of the reserves. Percentages are calculated based on the rounded figures.

Outcomes

The recommended zoning of Gascoyne CMR will significantly improve the conservation outcome for the area, reflecting connectivity with the Ningaloo CMR, protecting important benthic habitats and recognising the significance of benthic-pelagic upwelling processes and associated megafauna in the region. The recommended zoning will result in an

additional two Depth Ranges (by Provincial Bioregion) in HPZ in the North-west Network (see Appendix H).

The recommended zoning of Gascoyne CMR will not change the impact on commercial fishing arising from the proclaimed zoning boundaries. The recommended zoning extends the existing HPZ eastwards and introduces a new diagonal eastern boundary line. These changes do not increase the complexity of the zoning and should not present problems for users.

The recommended expansion of the HPZ in this reserve will restrict mining activities above the level of restriction set out in the proclaimed zoning. The area covered by the recommended HPZ was rated as having medium-low to low petroleum prospectivity.

The Gascoyne CMR overlaps with the Gnulli registered native title claim.