Australian Marine Parks

Final Assessment Regulation Impact Statement (Second Pass)

Management plans for 44 Australian Marine Parks

Ref: 17196

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Australian Government
Director of National Parks

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1. PROBLEM DEFINITION

1.1 Background to the problem

According to Australia's 2016 State of the environment report, Australia's marine environment is generally in good condition, but is subject to a wide range of pressures.[1] Several pressures that, in the past, have had substantial impacts on the marine environment (e.g. commercial fishing, oil and gas exploration), are now decreasing because of economic pressures and effective management frameworks. Other pressures, such as those associated with climate change and marine debris, continue to increase.[1]

Implementing marine protected areas is one way governments manage pressures. Extensive scientific research demonstrates that well-managed marine protected areas can have a range of ecosystem benefits, including increased species diversity and biomass.[2][3][4] Managing pressures within marine protected areas may also support the resilience of marine environments within those areas to withstand and recover from other pressures into the future.[5]

In 1998, the Australian, state and Northern Territory governments committed to put in place a National Representative System of Marine Protected Areas (NRSMPA). The primary objective 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'.[6]

A well-managed NRSMPA has the potential to deliver a number of environmental outcomes for Australia. It also complements the social, economic and cultural outcomes

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1 Evans K, Bax N & Smith DC (2017). *Australia state of the environment 2016: marine environment*, independent report to the Australian Government Minister for the Environment and Energy, Australian Government Department of the Environment and Energy, Canberra.

2 Edgar, G.J., Stuart-Smith, R.D., Willis, T.J., Kininmonth, S., Baker, S.C., Banks, S., Barrett, N.S., Becerro, M.A., Bernard, A.T., Berkhout, J. and Buxton, C.D., 2014. *Global conservation outcomes depend on marine protected areas with five key features*. Nature, 506(7487), pp.216-220.

3 McCook, L.J., Ayling, T., Cappo, M., Choat, J.H., Evans, R.D., de Freitas, D.M., Heupel, M., Hughes, T.P., Jones, G.P., Mapstone, B., Marsh, H., Mills, M., Molloy, F.J., Pitcher, C.R., Pressey, R.L., Russ, G.R., Sutton, S., Sweatman, H., Tobin, R., Wachenfeld, D.R. and Williamson, D.H. 2010, *Adaptive management of the Great Barrier Reef: A globally significant demonstration of the benefits of networks of marine reserves*, Proceedings of the National Academy of Sciences 107(43): 18278-18285.

4 Evans, R.D., Russ, G.R. and Kritzer, J.P. 2008, *Batch fecundity of Lutjanus carponotatus (Lutjanidae) and implications of no-take marine reserves on the Great Barrier Reef, Australia,* Coral Reefs 27(1): 179-189.

5 Marine protected areas are only effective in managing pressures if zoning, rules and management arrangements are implemented. Managing pressures within marine protected areas cannot be assumed to improve resilience outside the areas.

6 ANZECC TFMPA 1998, *Guidelines for establishing the National Representative System of Marine Protected Areas*, Australian and New Zealand Environment and Conservation Council, Task Force on Marine Protected Areas, Environment Australia, Canberra.

delivered by a range of other government policies and programs, such as those aimed at ensuring the long-term sustainability of Australia's fisheries and growing the economies of coastal communities.

As part of an extensive marine bioregional planning process, in 2012 the Australian Government established 40 new marine protected areas in Commonwealth waters around Australia[7], adding to (or in some cases incorporating) the 25 that were already established.

In total, the Australian Government is responsible for 60 marine protected areas covering approximately 3.2 million km^2—59 of these areas were proclaimed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and are managed by the Director of National Parks. They include 58 Australian Marine Parks and the Heard Island and McDonald Islands Marine Reserve.[8] The Great Barrier Reef Marine Park was proclaimed under the *Great Barrier Reef Marine Park Act 1975* and is managed by the Great Barrier Reef Marine Park Authority.

Under section 366 of the EPBC Act, the Director of National Parks is required to prepare a management plan as soon as practicable after the proclamation of a reserve.[9] Currently, fourteen marine parks are managed under the *South-east Commonwealth Marine Reserves Network Management Plan 2013–2023*, which is the first management plan that came into effect (on 1 July 2013) after it was approved by the Minister for Sustainability, Environment, Water, Population and Communities and passed by the Parliament of Australia in 2013.

The five management plans for the remaining Australian Marine Parks were finalised in 2013 and were anticipated to come into effect in July 2014. However, as part of the Government's 2013 election platform, the *Coalition's Policy for a More Competitive and Sustainable Fisheries Sector* was released, which committed to a review of these five management plans. The new Government reproclaimed the parks, set aside the plans and commenced an independent review, to obtain advice on appropriate management arrangements for the 44 marine parks through consultation with regional communities and a review of the best available science.

The then Minister for the Environment and the Parliamentary Secretary to the Minister of Agriculture commissioned a Bioregional Advisory Panel and an Expert Scientific Panel, with independent chairs and panel members to undertake the Commonwealth Marine Reserves Review. The Bioregional Advisory Panel chairs and panel members held more than 260 meetings in 15 locations around Australia from February to August 2015. These meetings were designed to elicit local and national views on the adequacy, appropriateness, effectiveness and any adverse impacts of the zoning in the original management plans. The chairs also invited written submissions addressing the terms of

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[7] Establishment of the 40 new reserves was supported by a Regulation Impact Statement (RIS)—Department of Sustainability, Environment, Water, Population and Communities (2012)<http://ris.pmc.gov.au/2012/06/22/completing-commonwealth-marine-reserves-network-%E2%80%93-regulation-impact-statement-%E2%80%93> .

[8] The Director of the Australian Antarctic Division manages the Heard Island and MacDonald Islands Marine Reserve under the *Heard Island and McDonald Islands Marine Reserve Management Plan 2014-2024* on behalf of, and as delegate of, the Director of National Parks.

[9] Australian Marine Parks are Commonwealth reserves established under the EPBC Act.

reference of the review and 13,124 submissions were received. The Expert Scientific Panel examined the process used to select and design marine parks networks; the state of knowledge about marine parks and protection of marine biodiversity, with a focus on research undertaken since the parks were proclaimed in 2012; and requirements for future management of the marine parks.

The chairs of the two panels submitted their reports (the Report of the Bioregional Advisory Panel[10] and the Report of the Expert Scientific Panel[11]) to Government in December 2015, with the Government releasing the reports in September 2016. The reports contained a number of findings and recommendations that would be incorporated into marine park management planning. The report of the Bioregional Advisory Panel provided information on economic and social impacts and advice on how these could be minimised through alternative management arrangements, to achieve biodiversity conservation outcomes. The report of the Expert Scientific Panel provided advice on the science underpinning the existing marine parks and their future management.

In conjunction with the release of these reports, the Director of National Parks commenced the statutory process to develop five management plans for the North, North-west, South-west and Temperate East parks networks, and the Coral Sea Marine Park, as required under section 368 of the EPBC Act. These plans cover 44 marine parks—made up of the 40 parks established in 2012 and four parks previously established (the Cartier Island, Ashmore Reef, Mermaid Reef and Ningaloo Marine Parks).

The EPBC Act requires two public comment periods to develop a management plan. The first public consultation period occurred from 5 September to 31 October 2016. In this first consultation period, the Director of National Parks notified the public about her intention to prepare management plans, and sought information on what factors should be taken into account when preparing management plans. The public were also invited to provide their views on the zoning and recommendations contained in the independent review reports, for consideration in developing draft management plans, consistent with processes under the EPBC Act. The second round of public consultation occurred from 21 July to 20 September 2017. This consultation period sought public comments on five draft management plans.

Having regard to all issues raised and the comments in the submissions, the Director of National Parks prepared final management plans. These final plans differed from the draft plans in that the zoning arrangements were modified in seven of the 44 marine parks, prescriptions were amended to reduce the potential for regulatory duplication and clarify authorisation arrangements, and additional information was included about values and sea country within marine parks. Information on the process and outcomes of public consultation is provided in Section 5 and Appendix A.

The Director of National Parks recommended final plans to the Minister for the Environment and Energy in December 2017. In accordance with section 370 of the EPBC

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[10] Buxton, C. D. and Cochrane, P. (2015). Commonwealth Marine Reserves Review*: Report of the Bioregional Advisory Panel.* Department of the Environment, Canberra. 341pp.

[11] Beeton, R. J. S., Buxton, C. D., Cochrane, P., Dittmann, S. and Pepperell, J. G. (2015). *Commonwealth Marine Reserves Review: Report of the Expert Scientific Panel.* Department of the Environment, Canberra.

Act, the Minister will consider the plans, comments received on the plans and the Director of National Parks' views on the comments. Subject to the Minister's approval, the plans will be tabled in the Parliament of Australia and will come into effect on 1 July 2018.

1.2 The problem

Section 366 of the EPBC Act requires that marine parks must have management plans in place as soon as practicable after being proclaimed. Section 367 requires that management plans must provide for the protection and conservation of the parks.

Park users and local communities also require certainty to inform business planning and investment decisions (for example, commercial fishing, marine tourism businesses and the oil and petroleum industry). Implementation of management plans will provide park users and local communities with that certainty about how the parks will be managed into the future.

In the absence of statutory management plans, in 2013 the Director of National Parks implemented 'transitional management arrangements' for the 44 marine parks proclaimed in 2012. These arrangements resulted in no changes being applied to use of marine parks until management plans were prepared. These interim arrangements cannot continue indefinitely due to the requirements of the EPBC Act.

The problem to be addressed is how to implement management plans for 44 Australian Marine Parks, as required under the EPBC Act, that:

1. provide for protection and biodiversity conservation of marine habitats and features; and

2. enable sustainable use and enjoyment of marine parks to deliver social and economic benefits; and minimise negative social and economic impacts.

NOTE: This Regulation Impact Statement does not consider the benefits or costs of proclaiming marine parks, their boundaries or locations. That 'problem' was addressed by a separate Regulation Impact Statement prepared when marine parks were proclaimed in 2012[12]. Instead, this Regulation Impact Statement addresses the challenge of implementing suitable management arrangements for these pre-existing 44 marine parks and considers the benefits and costs associated with two different zoning and management options. This Statement assumes that the zoning and management under the selected option will be fully implemented and will be effective in achieving its stated objectives.

[12] Establishment of the 40 new marine parks was supported by a Regulation Impact Statement prepared by the then Department of Sustainability, Environment, Water, Population and Communities, which is available here: http://ris.pmc.gov.au/2012/06/22/completing-commonwealth-marine-reserves-network-%E2%80%93-regulation-impact-statement-%E2%80%93.

2 WHY GOVERNMENT ACTION IS NEEDED

Government action is needed because:

1. As a Commonwealth reserve under the EPBC Act, an Australian Marine Park is required to have a management plan in place as soon as practicable after it is established. Management plans are enabling instruments, as they can allow prohibited activities (e.g. commercial activities are prohibited in Commonwealth reserves unless provided for under a management plan or approved under section 359 of the Act).
2. Management arrangements need to be implemented in marine parks to achieve conservation and biodiversity outcomes, as well as protection of cultural and heritage values of the parks. Unmanaged marine parks are unlikely to achieve the objectives sought.
3. Marine park users, particularly from the commercial fishing and tourism sectors, and the oil and petroleum industry seek more certainty from Government about how Australian Marine Parks will be managed into the future, to give increased certainty with regard to business investment by defining how activities are to be regulated.

3. POLICY OPTIONS FOR MANAGING AUSTRALIAN MARINE PARKS

3.1 Policy options

Option 1 - to implement management plans with park zoning recommended by the Director of National Parks to the Minister for the Environment and Energy in 2017 following two statutory consultation periods (Figure 3.1). Implementation of this option is subject to approval of the plans by the Minister.

Option 2 - to implement park zoning as proclaimed in 2012 (and as articulated in the management plans set aside in 2013) (Figure 3.2) and commence a new statutory process to develop management plans.

An option not to pursue management plans is not viable as it does not address the problem explained in Section 1.2, nor does it address the requirements for action outlined in Section 2.

Management plans include rules (prescriptions) for whether an activity is allowed, allowable with an authorisation from the Director of National Parks, or prohibited in a particular area. Regulatory costs associated with the management of Australian Marine Parks derive predominantly from implementing the zoning arrangements (or areas within the parks with specific rules for activities) under the two options. Zoning of Australian Marine Parks is based on requirements set out in the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations). Different zone types have different rules, which when implemented, are expected to provide levels of protection for specific conservation features and/or restrict or regulate use of that area in response to specific environmental issues.

Table 3.1 lists the management approach (consistent with EPBC Regulations) and example activities that would be allowed in each zone type across the two options. As the outer boundaries of parks are the same across both options, different restrictions on marine park users' activities between the two options arise predominantly from their different zoning configurations.

Table 3.1 Australian Marine Park zone types, management approaches and examples of activities that are allowed across the two options

Zone type	Management approach	Examples of activities that are allowed/allowable
Multiple Use Zone (IUCN Category VI)[13]	Managed to allow ecologically sustainable use while conserving ecosystems, habitats and native species. The zone allows for a range of sustainable uses, including commercial fishing and mining where they are consistent with park values.	Allows for most forms of commercial fishing, recreation (including recreational fishing), tourism, mining, scientific research and monitoring activities.
Special Purpose Zone (IUCN Category VI)	Managed to allow specific activities through special purpose management arrangements while conserving ecosystems, habitats and native species. The zone allows for or prohibits specific activities.	Similar to Multiple Use Zone but may allow or exclude a particular activity for social or economic reasons.
Habitat Protection Zone (IUCN Category IV)	Managed to allow activities that do not harm or cause destruction to seafloor habitats, while conserving ecosystems, habitats and native species in as natural a state as possible. This zone allows for activities that do not harm the sea floor environment.	Allows for fishing, recreation, tourism, scientific research and monitoring activities that do not disturb the seafloor.
Recreational Use Zone (IUCN Category IV)	Managed to allow recreational use, while conserving ecosystems, habitats and native species in as natural a state as possible. This zone allows for recreational fishing, but not commercial fishing.	Allows for recreation (including recreational fishing), tourism, scientific research and monitoring activities.
National Park Zone (IUCN Category II)	Managed to protect and conserve ecosystems, habitats and native species in as natural a state as possible. The zone only allows non-extractive activities unless authorised for research and monitoring.	Allows for non-extractive activities including tourism and recreation.
Sanctuary Zone (IUCN Category Ia)	Managed to conserve ecosystems, habitats and native species in as natural a state as possible. This zone allows only authorised scientific research and monitoring.	Entry and use may be for the purposes of scientific research and monitoring activities only.

[13] Australian Marine Park zone types are assigned an IUCN Category under the EPBC Act.

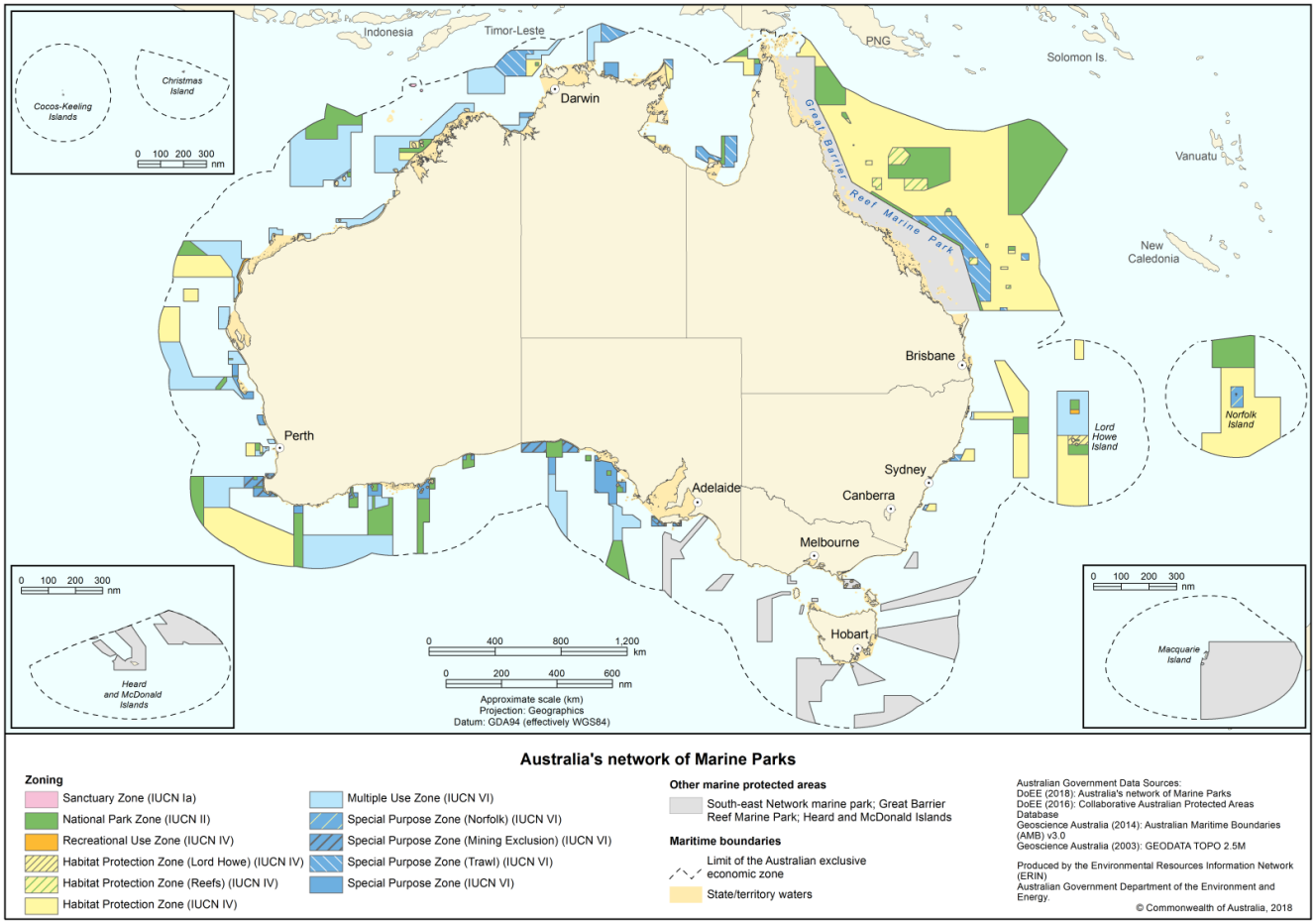

Figure 3.1 Option 1—Recommended management plans marine parks zoning.

*Note: Management plans are already in place for the South-east Network, Great Barrier Reef and Heard and McDonald Islands and these protected areas are not part of this process.

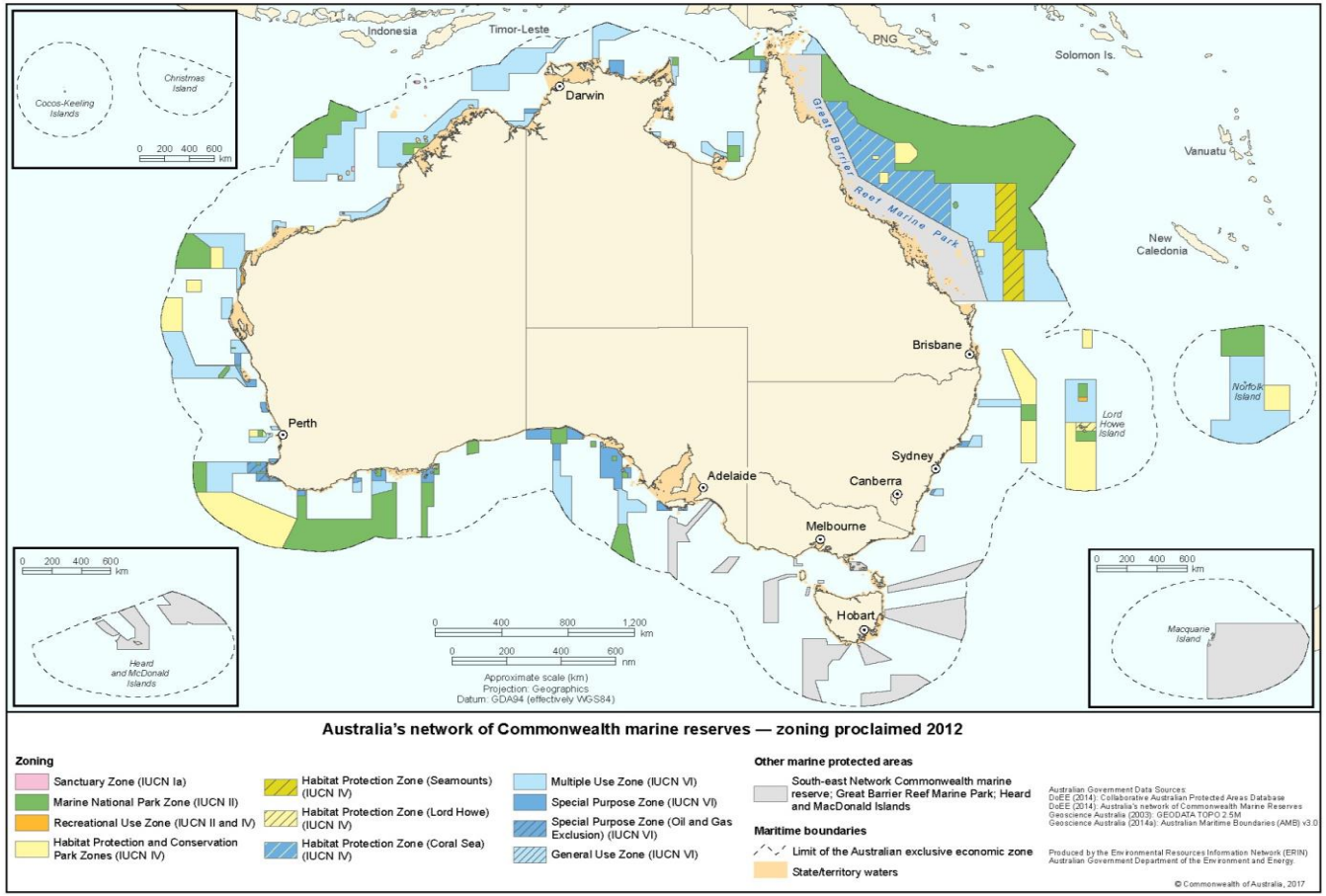

Figure 3.2 Option 2—2012 proclaimed marine parks zoning (zoning was similar in the set-aside 2013 management plans).

*Note: Management plans are already in place for the South-east Network, Great Barrier Reef and Heard and McDonald Islands and these protected areas are not part of this process.

3.2 Comparison of policy options

Based on the problem as defined in Section 1.2, the basis for comparison of the options is:

- Which option provides the best potential for biodiversity conservation in the marine parks—as measured by the total area of marine parks covered by zones that provide a high level of protection and restriction of activities[14], and the number of conservation features[15] covered by zones providing a high level of protection and restriction of activities[16] [17] AND
- Which option delivers the best possible social and economic outcomes—as measured by the impacts on businesses and individuals as a result of the zoning (particularly on commercial fishing), and consistency with Government policy for a more competitive and sustainable fisheries sector.

The preferred policy option has the best potential to deliver biodiversity conservation and protection of other natural, cultural and heritage values of the parks, while minimising negative social and economic impacts, as far as practicable.

Table 3.2 outlines the sequence of decisions made to identify the preferred option as a part of the RIS process, based on the *Australian Government's Guide to Regulation* (2014), including the standard of information required.

Table 3.2 Key decisions and RIS status for finalising management plans for Australian Marine Parks

Decision	Decision type	Date of decision	RIS status
Publication of notice of intent to develop management plans	Major	5 September 2016	Early Assessment
Publication of draft management plans	Major	21 July 2017	Early Assessment
Ministerial approval of recommended management plans	Major	TBD	Final Assessment

[14] A 'high level' of protection refers to: high level protection and restriction of activities affecting the seafloor and the water column in Marine National Parks Zones and Sanctuary Zones; or high level protection and restriction of activities affecting the seafloor in Habitat Protection Zones.

[15] Conservation features, such as sea mounts, are used as surrogates for certain types marine biodiversity. The Commonwealth Marine Reserves Review affirmed the use of surrogates to aid park design.

[16] This Regulation Impact Statement assumes that zoning and management arrangements will be implemented effectively and the stated zone objectives will be achieved. Assigning zones to areas without ensuring compliance with prescriptions and restrictions, or implementing management responses to pressures on the marine environment, will not lead to the anticipated biodiversity conservation outcomes.

[17] Scientific evidence suggests that where there are important habitats associated with the seafloor, the restriction of some activities (such as those that disturb or interact with the seafloor) will provide greater biodiversity conservation outcomes.

4. BENEFITS AND COSTS OF THE POLICY OPTIONS

This chapter outlines and compares the benefits and costs of the two options, as defined in section 3.2, for Australian Marine Parks zoning in recommended management plans (Option 1) and implementation of zoning as proclaimed in 2012, with commencement of a new process to develop management plans (Option 2).

4.1 Biodiversity conservation benefits

The four marine park networks and the Coral Sea Marine Park considered in this Regulation Impact Statement have been created to support the protection of park values (marine biodiversity and other natural, cultural and heritage values) in approximately 2.4 million km^2 of Australia's marine environment. As no parks have been removed or reduced in size, and as the outer boundaries of the parks remain the same under both options, comparison of the potential biodiversity conservation benefits of the options is based on their different zoning arrangements.

Two quantitative methods have been used to measure and compare the potential biodiversity conservation benefits of Australian Marine Park zoning under Options 1 and 2: the total area of marine parks in zones providing a high level of protection to marine park values; and the number of primary conservation features in zones that provide a high level of protection.

Total area in zones providing a high level of protection

As outlined in Section 3.1, different zones within parks offer different methods or models to protect conservation values.

Well-managed Sanctuary Zones and Marine National Park Zones do not allow the taking or harming of marine species (with the exception of during approved scientific research activities). These zones have the greatest potential to provide biodiversity conservation benefits.

Well-managed Habitat Protection Zones minimise disturbance and interactions with the seafloor from human activities. Implementation of these zones also has the potential to provide high biodiversity conservation benefits, particularly where the habitats of biodiversity value are associated with, or are on, the seafloor.

The Expert Scientific Panel of the independent Commonwealth Marine Reserves Review recognised the body of scientific evidence that demonstrates the effectiveness of Marine National Park Zones in achieving conservation outcomes, particularly in coastal waters or shallow reefs. In developing the management plans recommended to the Minister, the Director of National Parks has taken into account the expert panel's findings and the science that shows the potential for strong biodiversity and conservation protection to be delivered through well-designed and well-managed Marine National Park Zones, particularly for these key environmental features at risk of damage (for example, coral reefs).

While Marine National Park Zones and Sanctuary Zones are recognised as having the best potential for delivering biodiversity conservation outcomes in specific

circumstances, it is the Director of National Parks' view that it is not necessary to exclude all extractive activities from all large areas in marine parks to achieve biodiversity conservation and habitat protection outcomes. The Director has looked to identify specific areas where human interactions with the marine environment need to be minimised to protect specific features or values and therefore where more restrictive measures need to be in place.

In other instances where the ecosystems or habitats of value are associated with, or are on, the seafloor, Habitat Protection Zones have been placed to exclude specific activities that may damage or interfere with the seafloor, but maintain access for uses that occur in the water column, such as pelagic fishing, or uses that do not harm the seafloor or associated biodiversity values.

There is scientific evidence that areas with targeted protection, such as in Habitat Protection Zones, can be nearly as effective as areas that prohibit most activities, such as Marine National Park Zones, depending on the ecosystem, values and species type being protected. For example, research by Ban *et al*. 2014[18] found that a well-managed partially protected area could, on average, be 60 per cent, and up to 89 per cent, as effective in achieving conservation outcomes, compared to an area where all activities are restricted. A global systematic review and meta-analysis by Sciberras *et al*. 2015[19], of 40 studies of 63 marine protected area case-studies (primarily based in Europe and North America) suggested partially protected areas significantly enhance density and biomass of fish, compared to areas with no restrictions.

The Expert Scientific Panel of the independent Commonwealth Marine Reserves Review[20] also recognised the value of the Habitat Protection Zones to protect habitat, biological diversity and associated ecosystem services and structure; and considered that there is a high seafloor conservation benefit from zoning areas as Habitat Protection Zones to protect benthic and demersal habitats by excluding potentially damaging activities, while allowing activities such as regulated fishing in the water column, which do not compromise conservation values and management objectives for these areas.

Key to achieving biodiversity conservation outcomes will be the implementation of the zones, management arrangements and prescriptions. In Australia, we can be confident that an integrated and well-regulated approach will be implemented, because commercial fisheries are carefully managed and monitored by Commonwealth, state and territory governments, to ensure fish stocks are viable into the future. In many other countries, Marine National Park Zones are used to rest and replenish fish stocks (e.g. fish refugia). Given the strict fisheries management practices in Australia, and the findings of the expert panel on the effectiveness of Habitat Protection Zones (that can

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[18] Ban, N. C., McDougall, C., Beck, M., Salomon, A. K., and Cripps, K. (2014). Applying empirical estimates of marine protected area effectiveness to assess conservation plans in British Columbia, Canada. *Biological Conservation* **180**, 134–148.

[19] Sciberras, M., Jenkins, S. R., Mant, R., Kaiser, M. J., Hawkins, S. J., and Pullin, A. S. (2015). Evaluating the relative conservation value of fully and partially protected marine areas. *Fish and Fisheries* **16**, 58–77.

[20] Beeton, R. J. S., Buxton, C. D., Cochrane, P., Dittmann, S. and Pepperell, J. G. (2015). *Commonwealth Marine Reserves Review: Report of the Expert Scientific Panel.* Department of the Environment, Canberra.

allow for sustainable and regulated fishing), the Director of National Parks considers that Habitat Protection Zones are scientifically credible and can deliver a high level of protection for marine biodiversity, complementing that delivered by management of Marine National Park Zones and Sanctuary Zones. Implementation of Habitat Protection Zones under management plans will be monitored and reviewed over the life of the plans to provide more information about how these zones contribute to conservation of marine biodiversity.

The area of Australian Marine Parks under zone types providing a high level of protection for Options 1 and 2 is outlined in Table 4.1 and Appendix C.

While under the recommended zoning (Option 1), there is less total area zoned as Marine National Park Zones or Sanctuary Zone—465,088 km^2 compared to 863,753 km^2 under Option 2, the total area of marine park under a high level of protection (in Sanctuary Zones, Marine National Park Zones, and Habitat Protection Zones) will be 191,230 km^2 more under Option 1 (1.43 million km^2 under Option 2 compared to 1.62 million km^2 under Option 1).

Option 1 includes nearly 200,000 km^2 (13 per cent) more seafloor habitat in well-managed Sanctuary Zones, Marine National Park Zones and Habitat Protection Zones. In conjunction with Australia's effective fisheries management and other environmental management practices, Option 1 is expected to achieve a conservation outcome equal to, if not better than, Option 2.

It is important to understand that on its own, zoning achieves little. Effective and active management is essential to achieve conservation and sustainable use outcomes. Whatever the zoning, if unacceptable environmental impacts are occurring in marine parks, the proposed management plans enable the Director of National Parks to apply an adaptive management approach, in consultation with park users, to ensure park values are protected.

Table 4.1 Comparison of the area of marine park with zoning providing high levels of protection—Sanctuary Zones, Marine National Park Zones and Habitat Protection Zones for Options 1 and 2 across all Australian Marine Parks (not including the South-east Australian Marine Parks Network) and by Australian Marine Park Network

Network	Option 1 (management plans with recommended zoning)			Option 2 (2012 proclaimed zoning)		
	Area in Sanctuary Zones or Marine National Park Zones (km^2)	Area in Habitat Protection Zones (km^2)	Total area under high levels of protection (km^2)	Area in Sanctuary Zones or Marine National Park Zones (km^2)	Area in Habitat Protection Zones (km^2)	Total area under high levels of protection (km^2)
All 44 Australian Marine Parks*	465,088	1,153,303	**1,618,391**	863,753	563,408	**1,427,161**
North Network	7358	22,253	**29,612**	16,977	-	**16,977**
North-west Network	53,025	50,929	**103,954**	104,248	17,682	**121,930**
South-west Network	107,256	122,700	**229,955**	179,616	117,658	**297,274**
Temperate East Network	59,049	272,465	**331,514**	60,264	138,899	**199,163**
Coral Sea Marine Park	238,400	684,956	**923,356**	502,649	289,169	**791,818**

*Not including the South-east Australian Marine Parks Network
Note: these figures have been rounded to the nearest whole number.

Number of conservation features in zones providing a high level of protection

Another basis for comparison of the options in terms of potential biodiversity conservation outcomes, is the number of primary conservation features within Sanctuary Zones, Marine National Park Zones and Habitat Protection Zones.

Marine park design and zoning has been predominantly informed by surrogates for marine biodiversity (primary conservation features). Surrogates are features, such as seamounts, that can be mapped, which indicate that certain types of biodiversity are likely to be present. Surrogates are applied and recognised as an appropriate framework for marine park planning purposes and are used when more detailed information about biodiversity is lacking.

The Commonwealth Marine Reserves Review into marine parks affirmed the use of surrogates (primary conservation features) to aid in park design:

> 'A key concept used in IMCRA [the Integrated Marine and Coastal Regionalisation of Australia], and widely applied in conservation planning where direct observations of biodiversity distribution are rarely available, is surrogacy. Surrogates of distribution of biodiversity in the marine environment are usually physical attributes, such as seabed geomorphology or depth, that provide a reasonable proxy for the distribution of biodiversity. Geological and oceanographic surrogates, combined with available data on the biota in some places, were used to underpin the development of IMCRA v4.0, which in turn underpins the design of the CMR [Commonwealth marine reserve] networks. Harris *et al.* (2008) provide an overview of the use of surrogates and IMCRA in the establishment of the CMR networks. Key surrogates for Commonwealth marine reserve design are identified in the Goals and Principles for the establishment of the National Representative System of Marine Protected Areas in Commonwealth waters'.[21]

The Australian Government released the *Goals and principles for the establishment of the National Representative System of Marine Protected Areas in Commonwealth waters*[22] in 2007 to assist in park selection and design.

Four goals for establishing the marine parks are outlined in Box 4.1. These describe which primary conservation features should be used as surrogates to inform park design.

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[21] Beeton, R.J.S, Buxton, C.D., Cochrane, P., Dittmann, S. and Pepperell, J.G. (2015). *Commonwealth Marine Reserves Review: Report of the Expert Scientific Panel*, Department of the Environment, Canberra, p. 13.

[22] Department of the Environment and Energy, *Goals and principles for the establishment of the National Representative System of Marine Protected Areas in Commonwealth waters*, Department of the Environment and Energy, Canberra, viewed 17 February 2017 <https://www.environment.gov.au/resource/goals-and-principles-establishment-national-representative-system-marine-protected-areas>

Note that the Goals refer to 'reserves', which are now called 'parks'.

Box 4.1 The four goals for establishing the marine parks

Goal 1 - Each provincial bioregion occurring in the marine region should be represented at least once in the marine reserve network. Priority will be given to provincial bioregions not already represented in the National Representative System. (Provincial bioregions are based on geomorphic features and biogeographic patterns in the distribution of bottom-dwelling fish with meso-scale bioregions defined using biophysical information and geographic distance along the coast.)

Goal 2 - The marine reserve network should cover all depth ranges occurring in the region or other gradients in light penetration in waters over the continental shelf.

Goal 3 - The marine reserve network should seek to include examples of benthic/demersal biological features (for example, habitats, communities, sub-regional ecosystems, particularly those with high biodiversity value, species richness and endemism) known to occur in the marine region at a broad sub-provincial (greater than hundreds of kilometres) scale.

Goal 4 - The marine reserve network should include all types of seafloor features.

The Australian Marine Park design process defined and identified 544 primary conservation features for use as surrogates in the 44 marine parks in the South-west, North-west, North, Temperate East and Coral Sea regions. Of the 544 primary conservation features, 94 per cent (509) are included in parks. In regards to the goals:

- ***Goal 1*** - 31 of 32 provincial bioregions and 33 of 35 meso-scale bioregions are represented within the parks.
- ***Goal 2*** - 325 of 347 water depths by provincial bioregion are represented within the parks.
- ***Goal 3*** - over 90 per cent of key ecological features and biologically informed seascapes are represented within the parks.
- ***Goal 4*** - all 21 seafloor types (e.g. canyons and reefs) are represented within the parks.

This outcome for Goals 1–4 is the same for both options as the outer boundaries for marine parks is the same under both options.

The potential biodiversity conservation benefits arising from each option is a function of the different zoning arrangements. The number of primary conservation features in zones that offer a high level of protection was the second method used to compare potential biodiversity conservation outcomes of the two options.

Table 4.2 compares the number of primary conservation features in areas with high levels of protection and restriction of activities —Sanctuary Zones, Marine National Park Zones and Habitat Protection Zones for Options 1 and 2 across all 44 Australian Marine Parks and by Australian Marine Park Network.

Across the 44 marine parks, for primary conservation features represented in Sanctuary Zones or Marine National Park Zones, Option 1 provides marginally better potential outcomes (344 primary conservation features are represented) to that achieved under Option 2 (331 primary conservation features are represented). However, when Habitat Protection Zones are included (given they can also provide high levels of biodiversity protection, particularly for seafloor conservation features), Option 1 provides significantly better coverage across all primary conservation features (280 conservation features are represented I Habitat Protection Zones under Option 1, as compared to 192 under Option 2).

Detailed information about the conservation features represented in parks networks under high levels of protection under Option 1 is provided in Appendix B.

In the long term, monitoring will aim to measure the condition of biodiversity inside marine parks compared to outside the marine parks to evaluate their biodiversity conservation benefits.

Applying the indicator measures outlined above—the area of marine park and number of conservation features in zones that offer a high level of protection—that Option 1 is likely to achieve very similar, if not better, biodiversity conservation outcomes than Option 2.

Table 4.2 Comparison of the number of primary conservation features in areas with high levels of protection—Sanctuary Zones, Marine National Park Zones and Habitat Protection Zones for Options 1 and 2 across all Australian Marine Parks (not including the South-east Australian Marine Parks Network) and by Australian Marine Park Network

Parks/Networks	Option 1 (management plans with recommended zoning)		Option 2 (2012 proclaimed zoning)	
	Number of primary conservation features in Sanctuary Zones or Marine National Park Zones	Number of primary conservation features in Habitat Protection Zones	Number of primary conservation features in Sanctuary Zones or Marine National Park Zones	Number of primary conservation features in Habitat Protection Zones
All Australian Marine Parks (not including the South-east Australian Marine Parks Network)	344	280	331	192
North Network	38	47	28	0
North-west Network	86	46	77	38
South-west Network	112	48	111	38
Temperate East Network	57	74	56	56
Coral Sea Marine Park	99	114	93	89

Note: Some features are represented in SZ/MNPZ and HPZs and therefore the total number of features represented in both zones is not the simple sum of their occurrence in each zone. For the purpose of this analysis, each conservation feature is regarded as equally contributing to environmental performance.

Additional measures to achieve biodiversity conservation outcomes

There are a number of other factors that should be taken into account when considering the biodiversity conservation outcomes likely to be achieved through marine park zoning. This includes implementation of active management across the 44 marine parks, integrated regulation, awareness and education programs to improve voluntary compliance, and outcome-based decision making and adaptive management.

Implementation of active management of 44 Australian Marine Parks

Currently, only 12 of the 44 marine parks in the North, North-west, South-west, Temperate East and the Coral Sea are operating under management plans (for former marine reserves). For the remaining parks, until management plans are implemented, transitional management arrangements apply (i.e. there are no activity restrictions).

Implementation of management plans under either Option 1 or 2 will mean that activities in the parks will be subject to zoning and rules (prescriptions) to manage activities and ensure the values of the parks are protected. Under Option 1, management plans (including rules and zoning) are expected to come into effect on 1 July 2018. However, under Option 2, zoning and rules will not come into effect until new management plans are developed. This would entail further delay and costs as new plans are developed and subject to statutory consultation, as required under the EPBC Act.

Integrated government management and regulation

Zoning alone will not achieve biodiversity conservation outcomes—effective, integrated management and regulation are required. Draft management plans for Option 1 include an emphasis on programs to encourage partnership and coordination between users, agencies and government.

Australia is a world leader in marine regulation, with a number of Commonwealth, state and territory government agencies having statutory roles in regulating fisheries, tourism, shipping, oil and gas, maritime pollution and biosecurity threats. A rigorous compliance program will be implemented by Parks Australia in Australian Marine Parks in partnership with these other agencies, to ensure users understand and comply with regulatory arrangements.

However, achieving biodiversity conservation outcomes from marine parks requires more than regulation. Managing pressures within marine parks requires multiple, integrated management approaches on both land and sea—including fisheries management, biosecurity, land-use management, waste management and pollution control. An integrated approach across Commonwealth, state and territory agencies is required to ensure the best outcomes are realised from marine parks.

Under either Option 1 or 2, Parks Australia will work in close partnership with relevant Commonwealth and state/territory agencies to effectively manage Australian Marine Parks, and achieve biodiversity conservation outcomes.

Outcomes-based decision making and adaptive management

The management plans recommended by the Director of National Parks under Option 1 include provisions for outcomes-based decision making—considering natural, social-economic, and cultural and heritage values of marine parks when making decisions about activities. This places the achievement of biodiversity conservation outcomes at the forefront of assessment and approvals for activities in marine parks.

Adaptive management, also a key part of Option 1, involves using the knowledge and experience gained during the implementation and review of management plans, and accommodating new information about values, pressures and technologies, to adapt and improve the effectiveness of management of marine parks during the life of the management plans.

Regular monitoring, evaluation, reporting and review processes are also included in the management plans recommended under Option 1. The Director of National Parks will undertake monitoring, evaluation, review and reporting on the implementation of the plans to:

- evaluate the effectiveness of the plans in achieving their objectives;
- track progress in meeting performance indicators identified in implementation plans;
- review the effectiveness of zoning and other management arrangements to protect and conserve marine park values;
- identify changes in management context and priorities;
- consider the adequacy of knowledge of marine park values, uses, pressures, social and economic benefits and impacts;
- consider the effectiveness of monitoring and evaluation, and the appropriateness of key indicators and performance measures;
- identify and prioritise future management actions;
- provide information to enable adaptive management; and
- inform the development of new management plans.

Under Option 2, the framework for decision making and adaptive management has not yet been articulated, as management plans would need to be developed, consulted on and finalised.

Education and voluntary compliance programs

The management plans recommended under Option 1 outline a number of management programs and actions aimed at educating marine parks users about zoning and rules, to assist voluntary compliance.

Under Option 2, the implementation of any education and compliance programs would not commence in the short- to medium-term, as management plans would need to be developed.

4.2 Social and economic outcomes (costs)

Recent estimates are that by 2025, Australia's marine industries will contribute around $100 billion annually to the economy.[23] Australian Marine Parks have been designed to support economic opportunities and benefits, while also protecting and conserving the biodiversity within marine parks. Appendix B provides examples of social and economic values in marine parks, as well as conservation features.

4.2.1 Commercial fishing

Option 1 allows greater access for commercial fishing across all networks (80% of the parks) compared to Option 2 (63%) as measured by the total area of zones allowing for some form of commercial fishing (see Figures 3.1 and 3.2).

Basis for calculating impacts on the commercial fishing sector

Consideration of impacts on the commercial fishing sector is based on the estimated average annual decrease in the gross value of seafood production (GVP) from the areas where commercial fishers will no longer be able to fish (due to park zoning) if there is no

[23] National Marine Science Committee 2015, *National Marine Science Plan 2015-2025: Driving the development of Australia's blue economy*, National Marine Science Committee.

replacement (i.e. that the product cannot be caught elsewhere). Table 4.3 sets out where commercial fisheries activities may occur across the different zone types.

Table 4.3 Australian Marine Park zone types and management of commercial fishing activities

Zone type	Management of commercial fishing
Multiple Use Zone	Allows for most forms of commercial fishing
Special Purpose Zone	Allows for most forms of commercial fishing
Habitat Protection Zone	Allows for commercial fishing that does not disturb the seafloor
Recreational Use Zone	Commercial fishing not allowed
National Park Zone	Commercial fishing not allowed
Sanctuary Zone	Commercial fishing not allowed

Displacement of GVP experienced may be lower than that calculated in this RIS because:

- those fisheries that will experience some displacement are not currently assessed as being overfished;
- fishers may have access to alternative fishing grounds outside of the marine parks; and/or
- fishers may have opportunities to continue to fish within the parks if they change fishing methods.

It is recognised that the displaced GVP is an indicator of impact and not a measure of absolute cost in terms of economic loss. It represents the potential annual decrease in the value of seafood before it enters the supply chain for either export or domestic consumption. This approach is undertaken due to the difficulty in calculating, across the wild capture fishing fleet, the proportion of income retained as profit due to the widely divergent economic performance both across and within fisheries.

The analysis here is based on the use of recent fisheries catch data[24] and averaging that value for each proposed park and zone. Use of this methodology provides a means of comparison of the relative impacts of the two options.[25] Using this method, the analysis

[24] 2007/08 to 2013/14 data for Commonwealth, South Australia, Northern Territory, Queensland and New South Wales fisheries and 2007–13 for Western Australia fisheries.

[25] Due to confidentiality requirements, some figures for displacement are not included where such information would allow identification at the individual operator level.

below is informed by a report published by the Australian Bureau of Agricultural and Resource Economics and Science (ABARES).[26]

Displacement of income

Options 1 and 2 are estimated to create the following displacement of average annual income:

Option 1 - $4.12 million (0.3 per cent of total wild capture fishery income or 5.4 per cent of income generated from within parks).

Option 2 - $8.20 million (around 0.6 per cent of total wild capture fishery income and 10.7 per cent of income generated from within parks).

For both options, the average annual impact or displacement figures fall within the annual variability of fishing income experienced from year to year. Option 1 provides the lowest displacement of income, representing displacement of wild capture fishing income of approximately 49.7 per cent less than Option 2.

Estimated income displacement by jurisdiction

Displacement is a relatively minor component across jurisdictions, being below one per cent of total wild capture fishery income. For most jurisdictions, Option 1 results in reduced impacts on GVP as shown in Table 4.4.

Table 4.4 Commercial fisheries' GVP displacement by jurisdiction for Options 1 and 2 park zoning (ranked by GVP displacement under Option 1)

Jurisdiction	GVP ($,000)		Difference between Option 1 and Option 2 (%)
	Option 1	Option 2	
Western Australia	1887.2	2031.3	-7.1
Commonwealth	1428.1	5096.3	-72.0
Queensland	282.9	564.3	-49.9
New South Wales	203.9	181.5	+12.3
Northern Territory	184.2	192.0	-4.1
South Australia	135.9	135.9	0.0
Total	**4122.2**	**8201.4**	**-49.7**

Impacts are significantly less under Option 1 compared to Option 2, e.g. for Commonwealth managed fisheries, by around 72 per cent. Option 1 results in a 12.3 per

[26] Larcombe, J & Marton, N 2018, *Potential displacement of commercial fisheries by an Australian Marine Parks zoning scheme: Report on recommended management plan zoning*, ABARES technical report, Canberra, January.

cent greater GVP displacement for New South Wales fisheries, however the impact is small in terms of the total cost (about $22,400 a year).

Estimated displacement by fishery

Table 4.5 shows GVP displacement for the ten fisheries calculated to experience the most displacement under Option 1, and how this displacement compares under Option 2. Across the two policy options, these ten fisheries represent a significant proportion of the total displacement, at around 72 per cent (under Option 1) and 82 per cent (under Option 2) of total displacement. Option 1 would result in about 49.7 per cent less displacement across these ten fisheries in aggregate.

Table 4.5 Commercial fisheries' GVP displacement under Options 1 and 2

Fishery	Jurisdiction	Option 1 GVP ($,000)	Option 2 GVP ($,000)	Difference between Option 1 and Option 2 (%)
West Coast Rock Lobster Managed Fishery	Western Australia	823.0	805.6	+2.2
Eastern Tuna and Billfish Fishery	Commonwealth	480.9	3,012.4	-84.0
Joint Authority Southern Demersal Gillnet and Demersal Longline Managed Fishery	Western Australia	361.9	429.9	-15.8
Northern Prawn Fishery	Commonwealth	333.5	1408.3	-76.3
Southern and Eastern Scalefish and Shark Fishery—Gillnet, Hook and Trap Sector	Commonwealth	326.6	357.0	-8.5
Ocean Trawl	New South Wales	176.1	176.1	0.0
Coral Sea Fishery	Commonwealth	154.4	150.3	+2.7
West Coast Demersal Scalefish Managed Fishery	Western Australia	132.8	133.5	-0.5
Southern Rock Lobster Fishery	Western Australia	105.0	122.1	-14.0
Joint Authority Northern Shark Fishery	Western Australia	83.5	91.7	-8.9

Of these fisheries, two will experience slightly greater GVP displacement under Option 1. The Western Australian West Coast Rock Lobster Fishery is calculated to experience the

greatest GVP displacement under Option 1 (approximately $823,000 annually). However, this represents only a small proportion of the overall annual average income within the fishery. The Commonwealth managed Coral Sea Fishery extends from Cape York to Sandy Cape in Queensland and currently has 16 limited entry permits allowing for trawl and trap, lobster and trochus, line and trap, aquarium and sea cucumber fishing. It is expected to experience a small increase in GVP displacement each year ($4100).

Estimated displacement by Australian Marine Park networks

Table 4.6 and Appendix C compare the GVP displacement impacts by network and marine park for Options 1 and 2. For all networks, Option 1 has lower impacts on GVP.

Table 4.6 Network level GVP displacement under Options 1 and 2

Network	Option 1 GVP ($,000)	Option 2 GVP ($,000)	Difference between Option 1 and Option 2 (%)
South-west	2033.7	2119.2	-4.0
North-west	208.6	287.0	-27.3
North	749.8	2,097.4	-64.3
Coral Sea	604.2	3,143.8	-80.8
Temperate East	525.8	554.1	-5.1
Total	4122.2	8201.4	-49.7

Potential impacts at the entitlement level

Different entitlements are generally required for entry into each fishery and it is against entitlements that the catch and the displacement of that catch is recorded and analysed. Based on this, ABARES has been able to calculate the number of entitlements expected to experience some level of displacement and the relative distribution of that displacement across the entitlements. Understanding this is important in considering whether impacts are spread evenly across fishers or are concentrated on a few.

ABARES estimates that over 900 entitlements across jurisdictions would experience some level of displacement. Of these, the majority (705 entitlements) would experience minimal income displacement, with displacement of less than $2,500 a year, with most of these entitlements having displacement of less than $500.

A small number of entitlements would incur higher levels of displacement. Based on catch records, 25 entitlements have potential displacement of GVP of between $25,000 and $50,000 a year and 15 have potential displacement over $50,000 a year, with the largest displacement calculated at $163,500 a year. Given confidentiality provisions surrounding fishery data, the entitlement owner and the fisheries they operate in are not known by Parks Australia at present, but will be identified as part of any fisheries adjustment assistance program, should it be required.

Potential land-based impacts

Consideration has been given to how impacts on fisheries and individual fishers flow into regional centres, with resultant flow-on implications for related sectors. This involves analysis of reduction in income flowing through fishing ports and how reductions in income may impact economic activity and employment.

Table 4.7 shows that 17 ports are estimated to have the greatest reduction in fish landings under Option 1. These ports represent 79 per cent of total displacement under Option 1.

Based on economic modelling undertaken by ABARES, the estimated net economic impact of the recommended zoning under Option 1 would be a reduction in regional economic activity of $7.2 million in the short term and displacement of around 17 jobs in directly affected regions. Other regions would be likely to experience flow-on effects, but changes in economic activity at the state and national levels are expected to be negligible in terms of the size of those economies.

A separate estimate of potential job losses was extrapolated from a 2012 survey of impacted fishing businesses in the catching sector and processing sectors. Using this method, potential job losses from the commercial fisheries' catching and processing sectors was estimated at approximately 45 full-time jobs in the short term.

Greater GVP displacement under Option 2 compared to Option 1 suggests that the negative economic and employment impacts would be higher under Option 2.

Table 4.7 Potential future landings foregone by port under Options 1 and 2

Town (state)	Option 1 GVP ($'000)	Option 2 GVP ($'000)	Difference between Option 1 and Option 2 (%)
Mooloolaba (QLD)	476.2	697.8	-31.8
Geraldton (WA)	449.2	521.3	-13.8
Esperance (WA)	350.8	372.5	-5.8
Fremantle (WA)	300.3	776.8	-61.3
Kalbarri (WA)	296.0	296.0	0.0
Darwin (NT)	275.9	318.2	-13.3
Karumba (QLD)	222.0	446.8	-50.3
Cairns (QLD)	213.7	2771.1	-92.3
Coffs Harbour (NSW)	138.1	130.6	+5.7
Tuncurry (NSW)	123.5	79.5	+55.3
Eucla (WA)	113.9	158.7	-28.2
Brisbane (QLD)	64.9	306.1	-78.8

Broome (WA)	57.9	72.3	-19.9
Streaky Bay (SA)	57.6	71.2	-19.1
Albany (WA)	52.1	86.4	-39.7
Cowaramup (WA)	41.0	41.0	0.0
Port Lincoln (SA)	40.3	90.5	-55.5

4.2.2 Recreational fishing

Under Option 1, recreational fishers will have access to 97 per cent of Commonwealth waters within 100 km of the Australian coast. This includes 80 per cent of waters across all Australian Marine Parks (which are located more than three nautical miles / 5.5 kilometres offshore), and increased access to the Coral Sea Marine Park (85 per cent of the park under Option 1 compared to 49 per cent of the park under Option 2), including access to parts of popular reef environments including Bougainville, Shark, Vema, Kenn, Wreck, Flinders, Holmes, Frederick, Suamarez, Marion and Cato reefs.

Where recreational fishing is not allowed, these areas are generally beyond those used by the vast majority of recreational fishers (e.g. the outer reaches of the Coral Sea which requires days of travel from the mainland). Submissions from the recreational fishing sector have enabled the Director of National Parks to test where conservation and recreational fishing may be compatible, e.g. for certain Coral Sea reefs, Geographe Bay and the Perth Canyon.

Table 4.8 sets out, consistent with the EPBC Regulations, where recreational fishing may occur across the different zone types.

Table 4.8 Australian Marine Park zone types and management of recreational fishing activities

Zone type	Management of recreational fishing
Multiple Use Zone	Recreational fishing allowed
Special Purpose Zone	Recreational fishing allowed
Habitat Protection Zone	Recreational fishing allowed
Recreational Use Zone	Recreational fishing allowed
National Park Zone	Recreational fishing not allowed
Sanctuary Zone	Recreational fishing not allowed

From the information gained though public consultation and the extent of access of recreational fishers to the parks, it is considered that Option 1 would result in minimal adverse economic impacts on the sector. Option 2 would provide less access to parks recreational fishers and thus would incur a greater cost for the sector.

Under Option 1, potential negative impacts on business related to the recreational fishing sector are expected to be negligible, given impacts on the recreational fishing are likely to be minimal.

4.2.3 Charter fishing

Charter fishing operations operate in all areas that allow for recreational fishing activities. This results in access to the vast majority of areas currently targeted by the sector within parks. Consultation with the sector has allowed the Director of National Parks to identify areas where conservation and charter fishing may be compatible, e.g. Coral Sea reefs and areas off the Kimberley coast.

Table 4.9 shows where charter fishing may occur across the different zone types.

Table 4.9 Australian Marine Park zone types and management of charter fishing activities

Zone type	Management of charter fishing
Multiple Use Zone	Charter fishing allowed
Special Purpose Zone	Charter fishing allowed
Habitat Protection Zone	Charter fishing allowed
Recreational Use Zone	Charter fishing allowed
National Park Zone	Charter fishing not allowed
Sanctuary Zone	Charter fishing not allowed

Under Option 1, charter fishers will have access to 97 per cent of Commonwealth waters within 100 km of the Australian coast. This includes 80 per cent of waters across all Australian Marine Parks (which are located more than three nautical miles offshore), and increased access to the Coral Sea Marine Park (85 per cent of the park under Option 1 compared to 49 per cent of the park under Option 2), including access to reefs including Bougainville, Shark, Vema, Kenn, Wreck, Flinders, Holmes, Frederick, Suamarez, Marion and Cato reefs.

Overall, impacts on the sector are considered to be minimal, but there may be certain operators who will experience displacement of part of their operations. It is expected that impacts on businesses related to the charter fishing sector will be small, given the minimal impacts on the charter fishing sector overall.

4.2.4 Other activities

Other sectors, as outlined below, conducting activities in marine parks and their associated onshore/dependent businesses are expected to experience minimal negative impacts due to the placement of parks and zoning.

Commercial shipping

Commercial ships are allowed to transit through all zones except Sanctuary Zones, which are in all circumstances outside of commercial shipping routes. Anchoring by commercial

ships is allowed in Multiple Use Zones, but prohibited in Sanctuary Zones and all other zone types except in anchoring areas determined under regulation 12.56 of the EPBC Regulations or in an emergency. No or minimal costs are expected to be borne by the commercial shipping sector under either Option 1 or Option 2.

Pearling (including pearling related activities)

Pearling (including pearling-related activities) may be conducted in Special Purpose Zones, Multiple Use Zones and Habitat Protection Zones, but not in other zones. Based on the current location of pearling activity, which is generally confined to coastal waters adjacent to the North-west and North networks, no identified impacts on this sector are likely under either Option 1 or Option 2.

Commercial aquaculture

Commercial aquaculture is allowable (with appropriate authorisation and in accordance with specified rules/conditions) in Special Purpose Zones, Multiple Use Zones and Habitat Protection Zones, but not in other zones. Based on the current location of operations, which are generally confined within state waters (generally within three nautical miles of the coast), no impacts on this sector are likely under either Option 1 or Option 2.

Non-extractive nature-based commercial tourism (including scuba diving and nature watching tours) and commercial media

Non-extractive nature-based commercial tourism may be conducted in all zones except a Sanctuary Zone. Given the location of such zones and current operation of the sector, no displacement impact is expected on this sector under either Option 1 or Option 2.

Commercial aviation tours may be conducted in the airspace up to 3000 metres above sea level, and tour operators may land aircraft, except in Sanctuary Zones.

The implementation of marine park management plans is expected to have a positive effect on non-extractive commercial tourism as the parks support protection of natural features and biodiversity that attract nature-based tourists (e.g. coral reefs). Businesses operating in the parks may also be able to promote the parks in their marketing products.

As commercial media is allowable in all zone types; and commercial media activities for the purposes of reporting news and events of the day may be conducted without separate authorisation, no impact on these activities is expected under either Option 1 or Option 2.

Mining operations (including exploration)

Non-petroleum mining is not a significant activity in parks.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) is the decision maker in relation to oil and gas activities, including within Australian Marine Parks. This arrangement will remain in place under either Option 1 or Option 2.

Under either option, proposed oil and gas activities will continue to be subject to rigorous case by case assessments of the potential impacts on marine park values and will be assessed, approved and regulated in accordance with national environmental law, strict processes and conditions.

Mining activities can only be authorised by NOPSEMA within some Special Purpose Zones and Multiple Use Zones in Australian Marine Parks, but not in other zones.

Under Option 1, the total area of the 44 Australian Marine Parks closed to mining activities as a result of zoning would be 73 per cent, compared to 69 per cent under Option 2.

However, this level of closure is expected to have minimal impact on the mining sector, as the areas closed to mining are generally not those areas with moderate, high and very high prospectivity (with exceptions in the South-west Network for the Perth Canyon, Geographe, Bremer and South-west Corner parks).

Impacts on businesses related to 'Other activities'

Given the low/negligible impacts expected on other activities, no or minimal impacts are expected on related businesses, including land-based businesses and commercial research in Australian Marine Parks.

4.3 Compliance/regulatory costs

In managing Australian Marine Parks, the Director of National Parks will seek to minimise the regulatory burden and costs on businesses and individuals, including by maximising the use of existing assessment and approval mechanisms of other government agencies, while enforcing the rules established in this plan. This objective will be supported by a key national 'assessments and authorisations program' that will:

- Develop and apply best-practice approaches to regulation and decision-making in the authorisation of activities within marine parks. This includes developing policy to ensure assessment and authorisation requirements are clearly articulated and that decision making is robust, consistently applied, and transparent to marine park users.
- Develop a guarantee of service for the regulated community that includes a commitment to work with key marine park users and interest groups whose interests are likely to be affected by regulatory decisions.
- Develop a customer-focused online authorisation system for marine park users, which includes publishing authorisations issued by Parks Australia on its website.

Small regulatory costs will arise due to marine park users needing to educate themselves about marine park management requirements and when they engage with administrative or permitting processes (administrative costs).

Table 4.10 outlines the regulatory costs by sector for Option 1, when compared to Option 2.

Table 4.10 Regulatory costs for Option 1 compared to Option 2 as the base case

Average annual regulatory costs (for Option 1 compared to Option 2 as the base case)				
Difference in costs ($ million)	**Businesses**	**Community organisations**	**Individuals**	**Total difference in costs between Option 1 and 2**
Total, by sector	-0.164	0.004	0.023	-0.137

Regulatory costs under Option 1 are expected to be approximately $136,000 less per year, than the regulatory costs under Option 2.

5. PROCESS USED TO DEVELOP MARINE PARKS POLICY OPTIONS

The processes used to develop the recommended management plans (Option 1) and 2012 proclaimed zoning (Option 2) involved extensive consultation and accumulation of scientific, socio-economic and public input. This has also involved the engagement and collaboration of key stakeholder groups in developing policy options and responses to issues as they arose.

A summary of these processes for both options is provided below. Further details are provided in Appendix A.

5.1 Option 1

The development of Option 1 (the preferred option) was informed by:

- The outcomes of statutory consultation on five draft management plans for the North, North-west, South-west and Temperate East parks networks, and for the Coral Sea Marine Park (2017).
- The outcomes of statutory consultation on the notice of intent to prepare five draft management plans and the findings of the independent Commonwealth Marine Reserves Review (2016).
- Non-statutory consultation processes undertaken by the Director of National Parks and Parks Australia (2016–17).
- Analyses of impacts on commercial fishing from marine park design options undertaken by the Australian Bureau of Agricultural and Resource Economics and Sciences (2015–2018).
- The findings and recommendations of the independent Commonwealth Marine Reserves Review (2015).
- Relevant aspects of the processes that informed Option 2 (see below).

In response to comments received during public consultation in 2017 on the draft plans, the Director of National Parks made a number of adjustments, including:

- amendments to reduce the potential for regulatory duplication;
- inclusion of further information about natural, cultural, heritage and socio-economic values of marine parks;
- zoning amendments including to increase protection in the Geographe, Bremer, Norfolk Island, Western Kangaroo Island, Southern Kangaroo Island and Ningaloo marine parks, and to balance environmental protection and user needs in the Coral Sea Marine Park.

A summary of the comments received during consultation on the draft plans and the amendments made to plans in response, is provided below.
More information about this consultation process is provided in the five Director of National Parks Reports attached to this Regulation Impact Statement and to be released publically through the Parks Australia website following approval of the plans.

More information about other processes informing the development of Option 1 is available in Appendix A, including links to previously published documents.

Summary of issues raised during consultation on draft management plans and the Director of National Parks' responses

More than 82,000 submissions were received by the Director of National Parks during statutory consultation on the draft management plans in 2017. In preparing recommended management plans, the Director of National Parks gave full consideration to the many comments received during consultation from marine park stakeholders, Indigenous people and traditional owners of sea country in the parks.

The key concerns raised were:

- concern about the future of Australia's marine environment and perceived reduction in protection of marine environments under the arrangements proposed;
- concern about limiting access to marine resources; and
- concern about proposed zoning arrangements or rules in the draft plans.

Comments about Part 1 of draft plans

Comments received in relation to Part 1 of the plans (the Introduction) remarked about the vision or the framework proposed for managing marine parks, with the majority expressing support for the partnership approach outlined. People commented on the intention to establish advisory committees or forums, expressed their interest in these and generally supported the principles outlined for engaging Indigenous people in managing marine parks.

Minor amendments were made in response to comments about this part, including recognising the United Nations Declaration on the Rights of Indigenous People and that Indigenous people have been managing their sea country since time immemorial.

Comments about Part 2 of draft plans

Comments in relation to Part 2 of the plans sought or provided further information about the natural, cultural, heritage, social and economic values of marine parks, or suggested actions under the seven management programs. Additional information provided through the submissions was included in the plans wherever possible, with a number of amendments made to recognise cultural values and traditional owners, and some new actions included, particularly to reinforce our intention to work closely with traditional owners, Indigenous people and rangers.

Changes were made to Part 2 in every plan in recognition of the new information provided.

Comments about Part 3 of draft plans—zoning

The majority of submissions received commented on Part 3—the zoning proposed for 44 Australian Marine Parks, or the zoning proposed specifically for a Network. While many submissions supported the zoning proposed for specific marine parks, other submissions made a general comment that there was not enough no-take areas, or areas where activities were restricted. Others commented that the plans did not provide adequate

protection for specific marine habitats and features. A summary of comments received is set out below:

Zone objectives:

- Supported the application of the International Union for the Conservation of Nature (IUCN) categories and the zone objectives.
- Concerned about the application of the IUCN categories and the zone objectives.
- Unclear about the use of sub zones.
- Requested that zoning be unchanged from that proposed previously in 2012 plans or as proclaimed.
- Concerned about the economic impacts and benefits of the zoning, for example the benefits to fishing against the cost to tourism or in terms of ecosystem services.
- Raised the need for greater consistency in zoning and rules between the Australia Marine Parks and state and territory marine parks.

Protection for marine habitats and species:

- The level of restrictions on activities offered by zoning and other arrangements is not sufficient, and won't allow conservation objectives to be achieved.
- Reduction in National Park Zones or relocation of National Park Zones is not appropriate / acceptable.
- Need to increase National Park Zones.
- Habitat Protection Zones do not offer the same level of protection as National Park Zones.
- Replacing National Park Zones with Habitat Protection Zones is not appropriate / acceptable.
- There should be a National Park zone in every marine park, bioregion, or over every primary conservation feature.
- The network does not provide a comprehensive, adequate and representative system of marine protected areas.
- Need National Park Zones to increase fish stocks.
- Need to protect reefs and habitats due to their tourism value.

Access for commercial fishing, pearling and aquaculture:

- Supported access or increased access for commercial fishing, pearling and aquaculture, given economic importance and sustainability.
- Zoning that limits fishing effort will adversely affect food security and create greater reliance on imported seafood.
- Concerned that commercial fishing will be allowed in Australian Marine Parks, in light of the potential impacts of this activity.

Access for tourism:

- Concerned that tourism, including charter fishing, will be allowed across the large majority of the estate, in light of the potential impacts of this activity.
- Supported access or increased access for tourism, given its economic importance.
- Requested increased access for dive/non-extractive tourism, and reduced access for extractive uses.

Access for recreational fishing:

- Supported increased access for recreational fishing, a reduction in National Park Zones and sought no further reduction in access, given importance of recreational fishing to Australians.
- Commented that recreational fishing should be allowed in National Park Zones.
- Commented that there should not be restrictions on recreational fishing, in particular surface trolling and catch and release, which are low impact.
- Concerned that recreational fishing, including charter fishing, will be allowed across the large majority of the estate, in light of the potential impacts of this activity.
- Recreational fishing should be managed and regulated by states and territories to reduce duplication / confusion.

Access for mining:

- Concerned that mining will allowable across large parts of the estate, in light of the potential impacts of this activity.
- Commented about the need to consult about zoning with industry stakeholders, particularly in areas where petroleum operations are occurring or in areas of good petroleum prospectivity.

In response to these comments, the Director of National Parks made a number of adjustments the zoning arrangements exhibited in the draft plans.

The Director of National Parks' views on these issues are set out in reports produced for each marine park network and the Coral Sea Marine Park, relevant extracts of which follow:

I note the very large number of submissions that commented on Part 3 of the plans —zoning. These submissions reflected the broad and often conflicting views held by Australians on marine park zoning.

<u>Zone objectives:</u>

I note the comments on the zone objectives and the application of IUCN categories. The IUCN sets out guidelines for categorising protected areas, which Australia and many other countries have adopted as a national standard. The EPBC Act requires that our marine parks, and any zones into which a park is divided, be assigned to one of the seven categories prescribed by the EPBC Regulations, which correspond to the categories identified by the IUCN. Park management must be consistent with the relevant Australian IUCN management principles prescribed for each category by Schedule 8 to the EPBC Regulations. The zone objectives and provisions set out for our marine parks are consistent with the established interpretation of the Australian IUCN Park management principles.

I acknowledge the comments seeking a return to previously proposed zoning. However, consultation on the independent review and on the development of plans demonstrated quite clearly that the previous zoning proposals created impacts on users, such as fishers, that were too great, and are inconsistent with the Government's policies on sustainable fishing and supporting economic development.

I also note the concerns raised about the balance between activities like fishing and tourism, and the economic implications associated with allowing or not allowing these activities. I believe the plans do effectively balance the economic benefits associated with allowing activities like dive tourism, charter fishing and commercial fishing in different parts of parks.

I agree with comments seeking greater consistency in zoning and rules between Australian Marine Parks and state and territory marine parks. Wherever possible, zoning and rules have been made consistent. While this has not always been possible, Parks Australia will work with state and territory government colleagues to improve consistency and minimise confusion through the life of this plan.

Protection for marine habitats and features:

While I acknowledge the submissions calling for higher levels of protection for marine habitats and species through more National Park Zones, I consider that the levels of protection achieved through these plans is significant and will deliver positive conservation outcomes.

Australian Marine Parks have been located to cover representative examples of Australia's marine habitats and features, including key ecological features, seafloor types, biologically important areas for some protected species, bioregions, and habitats at different depth ranges.

Zoning has been carefully undertaken in marine parks to help protect these key features and habitats. Sanctuary and National Park Zones have been placed where I consider the strongest biodiversity and conservation benefits are achievable. Habitat Protection Zones have been placed in locations to protect the sea floor habitat and allow activities to occur in the water column.

This targeted approach to zoning protects conservation features (like canyons, seamounts and reefs), but reduces impacts on industries like fishing and tourism. It is based on the best available science and sees a significant increase in the area of Habitat Protection Zones (yellow) and a decrease in the area of National Park Zones (green), but not the level of protection.

I acknowledge the comments that National Park Zones and Habitat Protection Zones are not equivalent in terms of the protection they provide. This is true. However, Habitat Protection Zones, which exclude activities that impact and damage seafloor habitats, combined with effective management, can provide significant protection and conservation benefits, while reducing impacts on users. This was recognised in the 2015 Commonwealth Marine Reserves Report of the Expert Scientific Panel which states that: "The Expert Scientific Panel considers there is high conservation benefit from zoning areas as Habitat Protection Zones to protect benthic and demersal habitats by excluding damaging activities while allowing activities such as regulated fishing in the water column, including take of pelagic species that do not compromise conservation values and management objectives for those areas."

Access for commercial fishing, pearling and aquaculture:

I acknowledge the submissions that commented on the importance of allowing commercial fishing, and those that commented on potential impacts.

The Australian Government is committed to supporting the fishing industry, including through the Policy for a more competitive and sustainable fisheries sector and policies on economic development more broadly. Commercial fishing supports jobs in the fishing industry, boosts the economy of regional communities, and puts seafood on the plates of Australians.

However, commercial fishing, pearling and aquaculture may create impacts on marine environments. Marine parks are intended to work alongside a range of other measures, for example, effective fisheries management, to minimise these impacts. Rigorous compliance and enforcement

programs will be implemented in Australian Marine Parks to ensure users understand and comply with management arrangements.

Access for tourism:

I note the comments on the benefits and potential impacts associated with allowing tourism operations in marine parks.

Marine parks provide outstanding experiences for visitors, including charter fishing, scuba diving, snorkelling and nature watching. Tourism is also critical to the economies of many coastal communities around the country. Marine parks have been carefully zoned to provide for different types of tourism activities - for example, 'no-take' zones to enjoy diving, snorkelling and nature watching and other zones where charter fishing is allowed.

Notwithstanding, tourism activities can create impacts on marine environments. Parks Australia, together with other marine regulators and the tourism industry, will continue to work to minimise these impacts.

Access for recreational fishing:

I acknowledge the submissions that commented on the importance of allowing people to access and enjoy marine parks, to watch wildlife, dive and go boating, snorkelling and fishing. The zoning in the plans allows recreational fishing in 97 per cent of Commonwealth waters within 100 km of the coast.

A number of people suggested that recreational fishers should be able to access all areas of marine parks. I have not accommodated these requests because extensive scientific research demonstrates the benefits of no-take zones, including more and bigger fish. Allowing fishing in no-take IUCN II parks is also inconsistent with international standards and existing practice in other Australian Marine Parks, such as the Great Barrier Reef.

Access for mining:

I note concerns raised about mining in marine parks.

While marine park management is about protecting marine habitats and species, it is also about managing a shared resource. This means balancing protection, against the different uses and needs for that resource, to support people's livelihoods and way of life.

In developing these plans, I considered Australia's energy needs, now and in the future and the significant contribution that the oil and gas sector makes to some regional communities and the Australian economy.

Any proposed oil and gas activities will be subject to the world-leading environmental assessments and approvals process of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), the sole assessor for offshore petroleum and greenhouse gas activities in Commonwealth waters. NOPSEMA will carefully assess any application to explore or mine in a marine park and the potential impact on marine park values. NOPSEMA will also regulate mining if it is approved, to avoid or minimise any impacts.

I agree with comments raised about the need for ongoing consultation with the mining industry. Parks Australia will continue to engage with the industry in relation to marine parks.

In recognition of the comments received about zoning of specific marine parks, the Director of National Parks has adjusted the zoning in the final management plans for seven of the 44 marine parks to increase protection or allow additional access for recreational fishers and tourism operators (in the Coral Sea, Ningaloo, Geographe, Western and Southern Kangaroo Islands Bremer and Norfolk Island marine parks).

Comments about Part 4 and schedules of draft plans

Comments were received about Part 4 of the plans and the schedules. Some of these comments expressed a need for greater clarity about the rules for certain activities, e.g. ballast water discharge, disposal of waste from vessels, anchoring and commercial pearling. As a result, relatively minor, clarifying amendments were made to Part 4 and the glossary of all plans.

In addition, some submissions expressed concern about duplicating assessment processes and approvals with other government agencies or under other legislation. In line with Parks Australia's commitment to reducing regulation and red tape, amendments were made to set out how Parks Australia will streamline assessment and approval processes.

5.2 Option 2

The development of Option 2 was informed by:

- Consultation on the proposal to proclaim final Commonwealth marine reserves network proposals (2012).
- Consultation on draft Commonwealth marine reserve network proposals (2011).
- Consultation on 'Areas for Further Assessment' (large areas encompassing examples of the range of biodiversity and ecosystems within which the placement of a reserve was desirable) (2009–10).
- The Marine Bioregional Planning process (commencing in 2006).

Note: this option would involve the commencement of a new process to develop management plans.

More information about other processes informing the development of Option 2 is available in Appendix A, including links to previously published documents.

6 PREFERRED POLICY OPTION

Based on the problem as defined in section 1.2, the basis for comparison of policy options as outlined in section 3.2, and the analysis in this Regulation Impact Statement, implementation of Option 1 (the recommended management plans) is the preferred policy option because it would:

- deliver very similar, if not better biodiversity conservation and protection outcome to Option 2, but with about 13 per cent more seafloor habitat in park zones that provide a high level of protection (Sanctuary Zones, Marine National Park Zones and Habitat Protection Zones), and small increase in conservation features included in zones that provide a high level of protection,
- close 73 per cent of the marine parks to oil and gas activities (noting that the majority of this increase is in areas of low oil and gas prospectivity),
- have less negative impact on the commercial fishing sector ($4.12 million per year compared to $8.2 million per year) and provide opportunities for development of commercial fishing into the future (for instance, through zoning and management arrangements that better allow for prospective fishing opportunities),
- provide more access for recreational fishers and charter fishers, e.g. in the Perth Canyon Marine Park, the Marine National Park Zone would be relocated from an important recreational fishing area to another area with similar conservation values. Similarly, access to the Coral Sea Marine Park would be greater in areas identified as important to recreational fishers, including access to some areas within Bougainville, Shark, Vema, Wreck, Marion, Kenn and Cato reefs,
- simplify zoning boundaries and rules with reductions in management complexity that will assist park users to comply with park management arrangements,
- take into account recent consultation since the independent review concluded. This includes information obtained during further consultation undertaken by the Director of National Parks with stakeholders in 2016 and 2017, including views expressed during the statutory notice of intent and draft management plans consultation processes.

7 IMPLEMENTATION AND REVIEW

Option 1 will be implemented by enacting statutory management plans for the four regional marine parks networks and the Coral Sea Marine Park, implementation of management programs and actions under these plans, and forming partnerships with marine park users and stakeholders.

7.1 Reviewing management arrangements

Under the provisions of the EPBC Act, management plans are in force for up to 10 years unless revoked or amended sooner by another management plan. The Director of National Parks will carry out performance assessment during the life of the management plans. Results from the performance assessment will be used to undertake a review of a management plan in the final two years before its expiry. A review of a management plan will take account of all aspects of management, including zoning and rules, management actions, and indicators. As part of a review, consideration will be given to how well the objectives set in the management plans have been met.

A monitoring, evaluation reporting and improvement framework will allow the Director of National Parks to evaluate and report on how management of marine parks are performing. This includes setting:

- 10 year goals across the seven programs (see section 7.3) implemented under management plans for conservation of biodiversity and other natural, cultural and heritage values of marine parks; and ecologically sustainable use of natural resources within marine parks, including social and economic benefits; and
- long term (20+ year) goals for biodiversity and other natural, cultural and heritage values; and the social and economic value of marine parks.

7.2 Involvement of stakeholders and partner agencies in the implementation and review of management plans

A collaborative approach is critical to implementing and reviewing Australian Marine Park management arrangements. Collaboration with advisory committees (which will be set up under each plan and draw upon the experience and expertise of marine users) will provide new ideas and the participation necessary to deliver management arrangements. Importantly, the advisory committees will also support better understanding of stakeholder interests and concerns.

In addition to working with Australian Marine Park advisory committees, partnering with other departments and organisations that have management and planning responsibilities for waters in and around the parks, will also be critical to the success of the management plans. Sharing resources to deliver on comparable or complementary objectives will ensure that actions are delivered efficiently and effectively.

7.3 Next steps

It is anticipated that the five Australian Marine Parks management plans will come into effect on 1 July 2018. Effective management of marine parks under these plans will be achieved by implementing management programs and actions in these plans in consultation with advisory committees—to prioritise their delivery across the networks, and with traditional owners, marine park stakeholders, and other government agencies.

Implement management programs and actions

The Director of National Parks will implement management programs and actions to protect marine parks from threats and pressures, to minimise damage, and to rehabilitate and improve the resilience of marine parks. Management programs and actions may be adapted over the life of the plans, and include:

- Communication, education and awareness—actions that improve awareness, understanding and support for marine parks and park management.
- Tourism and visitor experience—actions that provide for and promote a range of environmentally appropriate, high-quality recreation and tourism experiences and contribute to Australia's visitor economy.
- Indigenous engagement—actions that recognise and respect the ongoing cultural responsibilities of Indigenous people to care for sea country and support multiple benefits for traditional owners.
- Marine science—actions to provide necessary scientific knowledge and understanding of marine park values, pressures, and adequacy of responses for effective management.
- Assessments and authorisations—actions that provide for efficient, effective, transparent and accountable assessment, authorisation and monitoring processes to support sustainable use and protection of marine park values.
- Park protection and management—timely and appropriate preventative and restorative actions to protect natural, cultural and heritage values from impacts.
- Compliance—actions that ensure appropriate and high levels of compliance by marine parks users with the rules set out in this plan.

Specific actions that will be undertaken in each marine park will be determined in collaboration with advisory committees and set out in implementation plans.

Establish advisory arrangements

To support collaborative management and achieve the vision for marine parks, the Director of National Parks will establish Australian Marine Park advisory committees. The Director of National Parks will work closely with stakeholders to develop an appropriate format for the advisory committees and implement management programs and actions for marine parks.

The role of the advisory committees will be to support and collaborate with the Director of National Parks to manage marine parks by:

- helping to develop and deliver implementation plans, including assisting to prioritise management actions and develop performance measures;
- providing information about stakeholder and park user views, knowledge and needs; and
- contributing to the periodic evaluation and review of implementation plans.

Members may include a broad range of specialists and users with interests and knowledge about marine parks, e.g. about commercial fishing, energy, Indigenous interests and cultural values, infrastructure, recreational fishing, science, tourism, transport and broader community interests.

Implement partnerships with traditional owners and Indigenous people

The Director of National Parks is committed to working with Indigenous people to manage sea country within marine parks and will achieve this through the Indigenous engagement program. This includes building partnerships with traditional owners and Indigenous people with responsibilities for sea country.

The Director of National Parks also acknowledges that traditional owners are the primary source of information on the value of their heritage. For this reason, the Director of National Parks will seek the active participation of Indigenous people in the identification and management of cultural values in marine parks.

To inform our approach to managing marine parks, the Director of National Parks has worked with representatives from land councils, native title representative bodies and Indigenous ranger groups to develop a set of collaborative management principles to support Indigenous involvement in the management of Australian Marine Parks. These principles will inform the approach to implementing the plans, as well as the development and implementation of actions in each marine park.

Implement partnerships with government agencies

The Director of National Parks will build on existing partnerships with Commonwealth government agencies with critical roles in managing and understanding Australia's marine environment, including the Australian Fisheries Management Authority, Australian Maritime Safety Authority, Defence, Geoscience Australia, Great Barrier Reef Marine Park Authority, Australian Border Force and the National Offshore Petroleum Safety and Environmental Management Authority. The Director of National Parks will also build on partnerships with state and territory fisheries and marine park agencies, and research institutions that provide support to the day-to-day and long-term management of the Australian Marine Parks.

Deliver fisheries adjustment assistance

Notwithstanding the efforts to minimise impacts on fishers, some fishing operations might be affected by the final location and zoning of marine parks. The Government has indicated that fair and reasonable assistance will be made available to those commercial fishers directly affected by marine parks management arrangements. Any adjustment assistance

program will be developed in consultation with the fishing industry and guided by the Government's Fisheries Adjustment Policy and delivered by Parks Australia in close consultation with the Department of Agriculture and Water Resources.

Consideration of application fees and use charges

Commercial activities conducted in Australian Marine Parks require authorisation by the Director of National Parks. Application fees and use charges may apply in the future to licences for conducting commercial activities in Australian Marine Parks. Fees and charges would be consistent with the *Australian Government Cost Recovery Guidelines*.

Implementation of fees and charges is consistent with cost recovery measures already implemented in the Commonwealth's terrestrial national parks and the Great Barrier Reef Marine Park.

A decision on the implementation of use charges will be made by the Director of National Parks at a future date. The impacts of charges would be considered in consultation with affected commercial licence holders.

Implementing vessel monitoring systems

Following consultation with the relevant fisheries management agencies and the commercial fishing industry, the Director of National Parks may require all commercial fishing vessels transiting or conducting fishing activities in Australian Marine Parks to carry an operating vessel identification and monitoring system. The impacts of such a requirement would be carefully considered before any decision is made on their implementation.

APPENDIX A: Detailed Information about the processes used to develop the Policy Options

The processes that have informed Option 1 and Option 2 are described below. Box A.1 explains the process to develop new management plans, which is integral to both options.

Box A.1 The process to develop a management plan under the EPBC Act

1. The Director of National Parks publishes a notice inviting the public to comment on the proposal to prepare the draft management plan within a minimum period of 30 days.
2. The Director of National Parks considers the comments received and prepares the draft management plan.
3. The Director of National Parks publishes a notice inviting the public to comment on the draft management plan within a minimum period of 30 days. Any native title holders, registered native title claimants and native title representative bodies for the area are also notified and given an opportunity to comment, in accordance with the requirements of the *Native Title Act 1993*. The Director considers any comments and may alter the plan accordingly.
4. The Director of National Parks gives the final management plan to the Minister with the comments on the draft plan and the views of the Director on those comments.
5. The Minister considers the management plan, the public comments raised and the Director of National Parks' views on the comments and when satisfied approves the management plan.
6. The management plan comes into effect the day after registration or at the date specified in the plan.
7. The management plan must be tabled in the Commonwealth Parliament and may be disallowed by either the House of Representatives or the Senate. A notice of motion to disallow the management plan must be introduced within 15 sitting days.

Processes informing Option 1

Draft Australian Marine Park management plans consultation

In accordance with section 368 of the EPBC Act, public comment was invited on the five draft management plans between 21 July and 20 September 2017. A total of 82,877 submissions were received in response to the invitation to comment on all five draft plans.

Unique submissions

A total of 2027 unique submissions were received from individuals, businesses, associations, organisations or representative bodies about all draft management plans.

Submissions using standardised words

A total of 80,850 submissions (equivalent to 97.6% of all submissions received) were received from members of the general public using standardised words or a template prepared by organisations in the conservation, recreational fishing and boating sectors. For some of these submissions, wording was amended slightly, or additional text added. All issues raised in these submissions were considered by the Director of National Parks.

These submissions were made by selecting a button that automatically made a submission in response to information provided online, or on social media platforms. There is no evidence that the people who responded to the call for action and made submissions had viewed any documents that explained the more integrated approach to managing marine parks and protecting park values proposed by the Director, or that people making a submission had viewed the draft plans.

Website access

By the end of consultation, the Australian Marine Parks website received 7088 visits with a total of 36,111 page views. While it was not possible to measure the number of times draft management plans were downloaded, the landing page for the Coral Sea plan was viewed 628 times, and for other plans, the landing pages were viewed less than 500 times.

Summary of comments received

Notice of intent consultation

In accordance with section 368 of the EPBC Act, public comment was invited on the notice of intent to prepare five draft management plans between 5 September and 31 October 2016. A total of 54,322 submissions were received.

The Director of National Parks commenced this statutory consultation period following the conclusion of the independent review and its public release on 5 September 2016. The notice of intent also invited public comments on the findings and recommendations of the independent review.

The submissions received canvassed a wide range of complex issues. Many submissions commented on the importance of achieving conservation outcomes in marine reserves, others outlined economic uses of the reserves, and others identified issues in relation to future management.

Key comments raised through the submissions included:

- the need for higher protection of environmental and cultural values
- requests for greater access to both recreational and commercial fishing areas
- calls for more restrictions on extractive activities, including oil and gas exploration in marine parks

- the importance of consistency in management arrangements between adjacent Commonwealth and state and territory parks
- the importance of appropriate resourcing for comprehensive, intelligent compliance arrangements, particularly where Marine National Park Zones have been proposed
- the need for targeted communication around park management, including for different sectoral users
- concerns over restrictions on extractive activities such as oil and gas, commercial and charter fishing in marine parks
- the importance of flexible/adaptive management approaches
- the need for fisheries adjustment support for commercial fishing businesses affected by marine parks.

Further details about the feedback received during the consultation period and the consideration of this feedback by the Director of National Parks has been published on Parks Australia's website here: https://parksaustralia.gov.au/marine/pub/summary-of-submissions-australian-marine-parks.pdf

Commonwealth Marine Reserves Review consultation

As outlined in Section 1.1, as part of its 2013 election platform, the Government committed to an independent review of the zoning and management arrangements for the Commonwealth marine reserves (now 'Australian Marine Parks') established in 2012. The independent Commonwealth Marine Reserves Review commenced in August 2014 and was completed in December 2015.

The Bioregional Advisory Panel held more than 260 meetings in 15 locations around Australia from February to August 2015 and elicited a diversity of views on the adequacy, appropriateness and effectiveness of the original zoning for the reserves. In addition to the face-to-face meetings, the panel considered 13,124 submissions and 1,859 survey responses. The panel also considered submissions and comments provided through previous consultation processes. The Expert Scientific Panel consulted national marine science experts about key management challenges related to the parks.

The feedback received during the Commonwealth marine reserves review and the reports of the review are available at:
https://environment.gov.au/marinereservesreview/home

Other processes

The processes that informed Option 2 have also informed Option 1, with subsequent differences between the zoning options arising from the Director of National Parks' consideration of the findings and recommendations of the independent review and two subsequent statutory consultation processes.

Processes informing Option 2

2012 proclamation consultation

In 2012, following the release of the final Commonwealth marine reserve network proposal for each region, members of the public were invited to comment on the proposal to proclaim the final Commonwealth marine reserves network under the EPBC Act. Approximately 80,000 submissions on the proposal were received and in accordance with requirements of the EPBC Act, the Director of National Parks prepared a report on the comments received, along with the Director of National Parks' views on them.[27] The Minister was required to consider this report in deciding whether to recommend that the Governor-General proclaim the reserves. Reserve network Option 2 (at Figure 3.2) is the zoning solution to issues raised during the 2012 consultation.

The majority of submissions received (79,467 or 99.5 per cent) were coordinated by organisations in the conservation, recreational fishing and boating sectors and contained standard text, although some contained additional comments. Standard text and additional comments included in these submissions were considered in the analysis of submissions. In addition to these submissions, 378 unique submissions not using standard text were received from sectoral representative bodies, businesses, organisations and individuals.

Comments were received on a wide range of issues of interest to the public. The issues most frequently commented on related to commercial and recreational fishing and the conservation outcome achieved by the final marine reserves network proposal.

Submissions containing standard text

A range of submissions were received. Some were coordinated through conservation non-government organisations, and were broadly supportive of proclaiming the final Commonwealth marine reserves network proposal. Other campaigns highlighted concerns about adverse impacts on recreational fishing and coastal communities, the lack of evidence about threats to the marine environment necessitating reserves, and inadequate consultation.

Unique submissions

A total of 378 unique submissions were received.

[27] Director of National Parks 2012. *Report of the Director of National Parks under Environment Protection and Biodiversity Conservation Act 1999 Section 351 concerning the proposed proclamation of 40 Commonwealth marine reserves; (The related revocation of seven existing Commonwealth reserves and the revocation of the Coral Sea Conservation Zone); and the amendment of the name of four existing Commonwealth marine reserves*, Director of National Parks, Canberra.

Outcomes

The 2012 Regulation Impact Statement, *Completing the Commonwealth marine reserves network* covers the full consultation process and is available at: http://ris.pmc.gov.au/sites/default/files/posts/2012/06/03-Completing-the-Commonwealth-Marine-Reserves-Network-RIS1.pdf

Overview—Consultation from 2006 to the 2012 proclamation

As a summary:

- In 2006, the Marine Bioregional Planning process commenced with the release of publication *The way ahead for Australia's South-west Oceans.*[28]
- In 2009 and 2010, consultation was undertaken on Areas for Further Assessment (AFAs). AFAs were large areas that encompassed examples of the range of biodiversity and ecosystems within which the placement of a reserve was desirable.
- In 2011, the Government sequentially released the draft marine bioregional plans and the Commonwealth marine reserve network proposals for each marine region. This marked the start of the 90 day consultation period for each draft plan and marine reserves network proposal and a range of supporting information was made publically available.
- In addition to the supporting publications, the department undertook an extensive range of meetings with stakeholder groups and public events throughout coastal areas of Australia. Meetings included multi-sector information sessions, 'open house' public information sessions and targeted meetings for specific stakeholder groups.
- 566,377 submissions were received on the draft marine reserves networks.

[28] Department of the Environment and Heritage 2006. *The way ahead for Australia's South-west Oceans: Marine Bioregional Planning in Commonwealth Waters*, Department of the Environment and Heritage, Canberra.

APPENDIX B: Examples of Conservation Features and Socio-Economic Values in Australian Marine Parks

Marine Park	Examples of conservation features contained in park	Examples of conservation features within zones that provide high level protection	Examples of socio-economic values and uses of park
North-west Network			
Ashmore Reef	• **Biologically important areas for 13 species** – breeding area for eight species of seabird, dugongs and green turtles, inter-nesting are for green and hawksbill turtles, foraging area for dugongs and green and hawksbill turtles, migration area for pygmy blue whales and resting area for the little tern. • **2 seafloor habitats** including reef and apron. • **2 key ecological features** – Ashmore Reef and Cartier Island and surrounding waters and continental slope demersal fish communities.	• In combination with Cartier Island Marine Park, the Ashmore Reef and Cartier Island and surrounding waters and continental slope demersal fish communities key ecological features, and marine biodiversity across nine depth ranges in the Timor Province bioregion.	• **Recreational subsistence fishing.**
Cartier Island	• **Biologically important areas for 8 species** – breeding area for five species of seabird, foraging area for whale sharks and hawksbill turtles, and inter-nesting area for green turtles. • **2 seafloor habitats** including reef and slope. • **2 key ecological features –** Ashmore Reef and Cartier Island and surrounding waters and continental slope demersal fish communities.	• In combination with Ashmore Reef Marine Park, the Ashmore Reef and Cartier Island and surrounding waters and continental slope demersal fish communities key ecological features, and marine biodiversity across nine depth ranges in the Timor Province bioregion.	

Kimberley	• **Biologically important areas for 16 species** – breeding, calving and foraging area for Australian snubfin, Indo-Pacific humpback and Indo-Pacific/spotted bottlenose dolphins, breeding area for seven species of seabird, calving area for humpback whales, nesting and inter-nesting area for flatback and green turtles, migration area for humpback and pygmy blue whales, foraging area for dugong and whale sharks. • **7 seafloor habitats** including pinnacle, plateau, slope, terrace, deep valley, shoals and shelf. • **2 key ecological features** – ancient coastline at 125m depth contour and continental slope demersal fish communities.	• Shoals and pinnacle seafloor habitat, and marine biodiversity in the Kimberley and Northwest Shelf bioregions.	• **Recreational and charter fishing.** • **Mayala native title claim.** • **Bardi and Jawi native title determination.**
Argo-Rowley Terrace	• **Biologically important area for 3 species** – migration area for pygmy blue whales, breeding area for the white-tailed tropicbird and resting area for the little tern. • **9 seafloor habitats** including abyssal plain, apron, canyon, deep valley, plateau, terrace, slope, continental rise and knoll. • **2 key ecological features** – Canyons linking the Argo Abyssal Plain with the Scott Plateau and Mermaid Reef and Commonwealth waters surrounding the Rowley Shoals.	• Plateau seafloor habitat, the canyons linking the Argo Abyssal Plain with the Scott Plateau key ecological feature, and marine biodiversity across five depth ranges in the Northwest Transition and Timor Province bioregions.	• **Commercial fishing,** including the Western Tuna and Billfish Fishery.
Mermaid Reef	• **Biologically important areas for 2 species –** breeding area for the white tailed tropicbird and migration area for pygmy blue whales. • **3 seafloor habitats** including reef, slope and apron.	• The Mermaid Reef and Commonwealth waters surrounding the Rowley Shoals key ecological feature, and marine biodiversity across nine depth ranges in the Northwest Transition bioregion.	• **Commercial nature based tourism.**

	• **1 key ecological feature** – the Mermaid Reef and Commonwealth waters surrounding the Rowley Shoals.		
Roebuck	• **Biologically important area for 6 species** – foraging area for dugongs and flatback, green and loggerhead turtles, migration area for humpback whales and dugongs, inter-nesting area for flatback turtles and breeding area for the little tern. • **1 seafloor habitat** – shelf.		• **Commercial shipping and port operations.** • **Commercial pearling operations.** • **Recreational and charter fishing.**
Eighty Mile Beach	• **Biologically important area for 10 species –** breeding area for five species of seabird, pupping area for dwarf, freshwater and green sawfish, nesting area for flatback turtles and migration area for humpback whales. • **3 seafloor habitats** including shoals, shelf and terrace.	• Marine biodiversity in the Eighty Mile Beach bioregion.	• **Commercial pearl operations.** • **Recreational and charter fishing.**
Dampier	• **Biologically important areas for 8 species** – inter-nesting area for flatback, green, hawksbill and loggerhead turtles, migration area for humpback whales, and breeding area for the wedge-tailed shearwater and fairy and roseate terns. • **1 seafloor habitat** – shelf.	• Marine biodiversity in the Pilbara nearshore and offshore bioregions.	• **Ports and shipping operations in the region.** • **Recreational fishing.**
Montebello	• **Biologically important areas for 10 species** – inter-nesting area for flatback, green, hawksbill and loggerhead turtles, migration area for humpback whales, and breeding area for four species of seabird and foraging area for whale sharks. • **4 seafloor habitats** – pinnacle, shelf, slope and terrace.		• **Oil and gas operations** • **Commercial fishing.** • **Recreational and charter fishing.**

	• **1 key ecological feature** – ancient coastline at 125m depth contour.		
Gascoyne	• Biologically important areas for 8 species – inter-nesting area for flatback, hawksbill and loggerhead turtles, migration area for humpback and pygmy blue whales, and breeding area for the roseate tern and wedge-tailed shearwater. • **11 seafloor habitats** including canyon, abyssal plain, continental rise, plateau, slope, terrace, ridge, deep valley, knoll, shelf and trench. • **3 key ecological features** – canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula, continental slope demersal fish communities, and the Exmouth Plateau.	• Ridge seafloor habitat and marine biodiversity in the Central Western Transition and Northwest Province bioregions.	• **Commercial fishing,** including the Western Tuna and Billfish Fishery. • **Recreational and charter fishing and commercial tourism.**
Ningaloo	• **Biologically important areas for 11 species** – breeding area for dugong and three species of seabird, inter-nesting area for flatback, green, hawksbill and loggerhead turtles, foraging area for dugong and whale sharks and migration area for humpback and pygmy blue whales. • **4 seafloor habitats** including canyon, slope, terrace and shelf. • **3 key ecological features –** canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula, continental slope demersal fish communities, and Commonwealth waters adjacent to Ningaloo Reef.	• The Commonwealth waters adjacent to Ningaloo Reef key ecological feature and marine biodiversity in the Ningaloo and Central Western Shelf Transition bioregions, including across seven depth ranges in this latter bioregion.	• **Recreational fishing and commercial tourism.**
Carnavon Canyon	• **5 seafloor habitats** including abyssal plain, canyon, continental rise, deep valley and slope.		• **Commercial fishing,** including the Western Tuna and Billfish Fishery.

Shark Bay	• **Biologically important areas for 6 species –** breeding area for fairy and roseate terns and the wedge-tailed shearwater, inter-nesting area for loggerhead turtles and migration area for humpback and pygmy blue whales. • **3 seafloor habitats** including slope, terrace and shelf.		• **Commercial fishing.** • **Recreational and charter fishing.**
South-west Network			
Abrolhos	• **Biologically important areas for 16 species** – foraging areas for 12 species of seabird, Australian sea lions and white sharks, migration area for humpback and pygmy blue whales. • **13 seafloor habitats** – abyssal plain, shoals, canyon, continental rise, deep valley, escarpment, pinnacle, plateau, reef, saddle, slope, terrace and shelf. • **6 key ecological features** – ancient coastline at 90-120m depth, the marine environment surrounding the Houtman Abrolhos Islands, Perth Canyon and adjacent shelf break and other west coast canyons, the Wallaby Saddle, Western demersal slope and associated fish communities and Western rock lobster.	• Deep valley seafloor habitat and the marine environment surrounding the Houtman Abrolhos Islands key ecological feature, and marine biodiversity in the Zuytdorp and Abrolhos Islands bioregions.	• **Commercial fishing**, including the Western Australia Rock Lobster Fishery. • **Recreational fishing and charter fishing.**
Jurien	• **Biologically important areas for 15 species** – foraging area for 11 species of seabird, Australian sea lions and white sharks, and migration area for humpback and pygmy blue whales. • **2 seafloor habitats** – shelf and slope.		• **Commercial fishing.** • **Recreational fishing.** • **Charter fishing tourism.**

	• **2 key ecological features** – ancient coastline at 90-120m depth and Western rock lobster.		
Two Rocks	• **Biologically important areas for 15 species –** foraging areas for 11 species of seabird and Australian sea lions, migration area for humpback and pygmy blue whales and calving area for southern right whales. • **2 seafloor habitats** – shelf and slope. • **3 key ecological features** – ancient coastline at 90-120m depth, Western rock lobster and the marine environment within and adjacent to the west coast inshore lagoons.	• Marine environment within and adjacent to the west coast inshore lagoons key ecological feature.	• **Recreational fishing.** • **Dive tourism.** • **Commercial fishing.**
Perth Canyon	• **Biologically important areas for 13 species** – foraging area for 8 species of seabird and blue, pygmy blue and sperm whales, aggregation area for the flesh-footed shearwater and migration area for humpback and pygmy blue whales. • **5 seafloor habitats** – canyon, continental rise, pinnacle, slope and terrace. • **2 key ecological features** – the Perth Canyon and adjacent shelf break and other west coast canyons and the Western demersal slope and associated fish communities.	• Marine biodiversity across three depth ranges in the Southwest Transition bioregion.	• **Recreational game fishing,** at the head of the Perth Canyon.
Geographe	• **Biologically important areas for 10 species** – foraging areas for six species of seabird, aggregation area for the flesh-footed shearwater, migration area for humpback and pygmy blue whales, and calving area for southern right whales. • **1 seafloor habitat** – shelf.	• Marine environment within and adjacent to Geographe Bay key ecological feature, a biological seascape in the Leeuwin-Naturaliste bioregion and marine biodiversity across a depth range in the Southwest Shelf Province bioregion.	• **Recreational fishing.** • **Commercial fishing.**

	• **2 key ecological features** – marine environment within and adjacent to Geographe Bay and Western rock lobster.		
South-west Corner	• **Biologically important areas for 22 species –** foraging areas for 15 species of seabird, Australian sea lions, white sharks and blue, pygmy blue and sperm whales, migration areas for humpback and pygmy blue whales and calving area for southern right whales. • **13 seafloor habitats** including abyssal plain, shoals, canyon, deep valley, plateau, pinnacle, knoll, reef, ridge, shelf, slope, terrace and trench. • **7 key ecological features –** the Albany Canyons group and adjacent shelf break, ancient coastline at 90-120m depth, Cape Mentelle upwelling, marine environment surrounding the Recherche Archipelago, Diamantina Fracture Zone, Naturaliste Plateau and Western rock lobster.	• **Three key ecological features** – the Cape Mentelle upwelling, Diamantina Fracture Zone and Naturaliste Plateau – and knoll, plateau and ridge seafloor habitats and marine biodiversity across eight depth ranges in bioregions.	• **Commercial fishing**. • **Recreational fishing.**
Bremer	• **Biologically important areas for 16 species** – foraging areas for 12 species of seabird, Australian sea lions and white sharks, migration area for humpback whales and calving area for southern right whales. • **3 seafloor habitats** including canyon, shelf and slope. • **2 key ecological features** – Albany Canyons group and adjacent shelf break and ancient coastline at 90-120m depth.	• Marine biodiversity across two depth ranges in the Southern Province bioregion.	• **Recreational and charter fishing.** • Emerging **eco-tourism.**

Eastern Recherche	• **Biologically important areas for 13 species** – foraging area for 10 species of seabird, Australian sea lions and white sharks and a calving area for southern right whales. • **3 seafloor habitats** including shelf, slope and abyssal plain. • **2 key ecological features** – the marine environment surrounding the Recherche Archipelago and ancient coastline at 90-120m depth.	• Marine environment surrounding the Recherche Archipelago key ecological feature.	• **Commercial fishing**, including the Western Australia South Coast Trawl Fishery and Southern and West Coast Demersal Gillnet and Longline Fishery. • **Recreational fishing.**
Twilight	• **Biologically important areas for 7 species** – foraging area for 5 species of seabird and white sharks, and a calving area for southern right whales. • **2 seafloor habitats** – shelf and terrace.	• A biological seascape in the Eucla bioregion.	• **Commercial fishing,** including gillnetting and trapping. • **Recreational and charter fishing.**
Great Australian Bight	• **Biologically important areas for 14 species** – foraging area for 9 species of seabird, Australia sea lions, white sharks and pygmy blue and sperm whales, and a calving area for southern right whales. • **6 seafloor habitats –** abyssal plain, canyon, reef, shelf, slope and terrace. • **1 key ecological feature** – the ancient coastline at 90-120m depth.	• Marine biodiversity across three depth ranges in the Great Australian Bight Shelf Transition bioregion.	• **Commercial fishing**, including sectors of the Southern and Eastern Scalefish and Shark Fishery. • **Recreational fishing.**
Murat	• **Biologically important areas for 6 species** – foraging area for Australian sea lions and four species of seabird including the caspian tern, pacific gull, short-tailed shearwater and white-faced storm petrel, and a known distribution area for white sharks.	• Marine biodiversity in the Murat bioregion.	• **Commercial fishing,** including purse seine and trap fishing. • **Recreational and charter fishing.**

	• **2 seafloor habitats** – reef and shelf.		
Western Eyre	• **Biologically important areas for 18 species** – foraging area for 13 species of seabird, Australian sea lions, pygmy blue and sperm whales and white sharks and a calving area for southern right whales. • **5 seafloor habitats** including shelf, abyssal plain, canyon, slope and terrace. • **2 key ecological features –** ancient coastline at 90-120m depth and the Kangaroo Island pool, canyons and adjacent shelf break and Eyre Peninsula upwellings.	• Marine biodiversity across two depth ranges in the Spencer Gulf Shelf Province bioregion.	• **Commercial fishing,** including demersal trawl and lobster trapping. • **Recreational fishing.** • **Tourism operations,** including dive tourism.
Western Kangaroo Island	• **Biologically important areas for 11 species –** foraging area for 6 species of seabird, Australian sea lions, white sharks, pygmy blue and sperm whales, and a calving area for southern right whales. • **1 seafloor habitat** – shelf. • **2 key ecological features –** ancient coastline at 90-120m depth and the Kangaroo Island pool, canyons and adjacent shelf break and Eyre Peninsula upwellings.	• Marine biodiversity across two depth ranges in the Spencer Gulf Shelf Province bioregion.	• **Recreational and charter fishing.** • **Tourism**. • **Commercial fishing,** including for sardine, rock lobster and tuna.
Southern Kangaroo Island	• **Biologically important areas for 14 species** – foraging areas for 11 species of seabird, Australian sea lions and white sharks, and a calving area for southern right whales. • **1 seafloor habitat** – shelf. • **1 key ecological features** – the Kangaroo Island pool, canyons and adjacent shelf break and Eyre Peninsula upwellings		• **Recreational and charter fishing.** • **Tourism.** • **Commercial fishing,** including for sardine and rock lobster.

Temperate East Network			
Jervis	• **Biologically important areas for 18 species –** breeding area for the white-faced storm-petrel, foraging areas for 13 species of seabird and the humpback whale, migration areas for the grey nurse shark and Wilsons storm petrel, and distribution area for the white shark. • **4 seafloor habitats** including abyssal plain, canyon, shelf and slope. • **2 key ecological features** – canyons on the eastern continental slope, and shelf rocky reefs.	• Marine biodiversity in the Batemans Shelf bioregion.	• **Commercial fishing,** including the Southern and Eastern Scalefish and Shark Fishery. • **Recreational and charter fishing.**
Hunter	• **Biologically important areas for 17 species –** foraging areas for 13 species of seabird, grey nurse shark and the humpback whale, migration area for Wilsons storm petrel and grey nurse shark, and aggregation area for the white shark. • **5 seafloor habitats** including abyssal plain, canyon, shelf, slope and terrace. • **3 key ecological features** – canyons on the eastern continental slope, shelf rocky reefs, and the Tasman Front and eddy field.	• Terrace seafloor habitat and marine biodiversity across depths within the Central Eastern Province and Central Eastern Shelf Province bioregions.	• **Commercial fishing,** including the Southern and eastern scalefish and shark fishery trawl sector. • **Recreational and charter fishing.**
Cod Grounds	• **Biologically important areas for 6 species –** foraging areas for four species of seabird (black petrel, flesh-footed shearwater, short-tailed shearwater and wedge-tailed shearwater), grey nurse shark, and the humpback whale. • **1 seafloor habitat** – shelf.	• Shelf seafloor habitats and marine biodiversity in the Central Eastern and Manning Shelf bioregions.	• **Commercial dive tourism.**

Central Eastern	• **Biologically important areas for 15 species** – foraging areas 12 species of seabird, migration areas for the Wilsons storm petrel, grey nurse shark and humpback whale and distribution area for the white shark. • **6 seafloor habitats** including seamount, pinnacle, knoll, abyssal plain, canyon and slope. • **3 key ecological features –** canyons on the eastern continental slope, Tasman Front and eddy field and Tasmantid seamount chain.	• Abyssal plain and pinnacle seafloor habitats, and marine biodiversity across 10 depth ranges in the Tasman Basin Province bioregion.	• **Commercial fishing,** including the Eastern tuna and billfish fishery and Ocean trap and line fishery
Lord Howe	• **Biologically important areas for 18 species –** foraging areas for 17 species of seabird and breeding area for the common noddy, and migration area for the humpback whale. • **7 seafloor habitats** including abyssal plain, basin, valley, knoll, plateau, saddle and seamount. • **3 key ecological features** – Elizabeth and Middleton reefs, Lord Howe seamount chain and the Tasman Front and eddy field.	• Deep valley seafloor habitat, the Elizabeth and Middleton reefs and Lord Howe seamount chain key ecological features, and marine biodiversity across 16 depth ranges in the Lord Howe Province bioregion.	• **Commercial fishing,** including the Eastern tuna and billfish fishery; Southern and eastern scalefish and shark fishery. • **Recreational fishing and spear fishing.** • **Commercial dive and ecotourism.**
Norfolk	• **Biologically important areas for 15 species –** foraging areas for 14 species of seabird; breeding areas for nine species of seabird and migration area for the humpback whale. • **13 seafloor habitats** including bank/shoals, basin, canyon, deep valley, knoll, pinnacle, plateau, ridge, saddle, seamount, shelf, slope and trench. • **2 key ecological features –** Norfolk Ridge and the Tasman Front and eddy field.	• Canyon and slope seafloor habitat, the Norfolk Ridge key ecological feature and marine biodiversity across eight depth ranges in the Norfolk Island Province bioregion.	• **Commercial, recreational and charter fishing**, including the Norfolk Island inshore fishery. • **Tourism.**

Gifford	• **Biologically important areas for 4 species –** foraging areas for three species of seabird (black petrel, flesh-footed shearwater, great-winged petrel) and a migration area for the humpback whale. • **3 seafloor habitats** including basin, plateau and seamount. • **1 key ecological feature** – the Lord Howe seamount chain.		• **Commercial fishing**, including the Eastern tuna and billfish fishery.
Solitary Islands	• **Biologically important areas for 5 species –** foraging areas for the black petrel, crested tern, flesh-footed shearwater; grey nurse shark and humpback whale. • **1 seafloor habitat –** shelf.	• Marine biodiversity in shallow depths of the Central Eastern Shelf Transition bioregion.	• **Dive tourism.**
Coral Sea			
Coral Sea	• **Biologically important areas for 22 species**— breeding and/or foraging areas for 14 species of seabird; inter-nesting areas for green and loggerhead turtles, and nesting areas for green turtles; breeding and calving area for humpback whales; breeding area for Indo-Pacific/spotted bottlenose dolphins; distribution area for white sharks; aggregation area for whale sharks and a migration area for grey nurse sharks and the Wilsons storm petrel. • **16 seafloor habitats—**including reef, abyssal plain, apron, seamount, slope, saddle, plateau, pinnacle, ridge, canyon, basin, continental rise, deep valley, knoll, terrace and trench.	• Reefs, cays and herbivorous fish of the Marion plateau or Queensland Plateau key ecological features, marine biodiversity in six bioregions and across 75 depth ranges within these bioregions, and 15 seafloor habitats.	• **Commercial fishing**, including the Eastern Tuna and Billfish Fishery • **Recreational fishing and game fishing.** • **Nature watching, dive and snorkel tourism.**

	• **3 key ecological features**—the reefs, cays and herbivorous fish of the Marion Plateau, the reefs, cays and herbivorous fish of the Queensland Plateau, and the Tasmantid seamount chain.		
North Network			
West Cape York	• **Biologically important areas for 5 species**—inter-nesting area for flatback, hawksbill and olive ridley turtles, foraging area for Indo-Pacific humpback dolphins, and breeding and foraging area for the lesser frigate bird. • **6 seafloor habitats** including basin, pinnacle, reef, shelf, terrace and tidal sand-bank. • **2 key ecological features**—the Gulf of Carpentaria Basin and Gulf of Carpentaria coastal zone.	• Tidal sand-bank and reef seafloor habitat and marine biodiversity in the Northeast Shelf Transition bioregion.	• **Commercial fishing**, including the Gulf of Carpentaria Finfish Fishery around the Carpentaria shoals and the Offshore Net and Line Fishery in the nearshore waters south of Crab Island. • **Recreational and charter fishing,** over the Carpentaria shoals.
Gulf of Carpentaria	• **Biologically important areas for 6 species—** inter-nesting area for flatback and green turtles which nest on the nearby Wellesley Islands, breeding area for seabirds including the brown booby, crested tern, lesser frigatebird and roseate tern. • **7 seafloor habitats** including basin, canyon, plateau, deep valley, reef, saddle and shelf. • **4 key ecological features** – the Gulf of Carpentaria Basin; Gulf of Carpentaria coastal zone; plateaux and saddle north-west of the Wellesley Islands; and submerged coral reefs of the Gulf of Carpentaria.	• Plateau seafloor habitat in the Gulf, key ecological features such as the submerged coral reefs of the Gulf of Carpentaria and plateaux and saddle north-west of the Wellesley Islands, and marine biodiversity in the Karumba-Nassau and Wellesley bioregions.	• **Commercial fishing**, including the Northern Prawn Fishery, the Queensland Gulf of Carpentaria Finfish Fishery and Northern Territory Spanish Mackerel Fishery. • **Wellesley Islands Sea Claim and the Thuwatha/Bujimulla Indigenous Protected Area.** • Ongoing **research** at established long-term monitoring sites.

Limmen	• **Biologically important area for 1 species –** inter-nesting areas for flatback turtles. • **1 seafloor habitat** – shelf. • **1 key ecological feature** – the Gulf of Carpentaria coastal zone.	• The Pellew bioregion and biological seascapes in the southern gulf.	• **Yanyuwa (barni-Wardimantha Awara) Indigenous Protected Area.**
Wessel	• **Biologically important area for 8 species**—inter-nesting area for flatback, green, hawksbill and olive ridley turtles and breeding area for seabirds including the bridled tern, common noddy, crested tern and roseate tern. • **5 seafloor habitats** including shoals, basin, pinnacle, sill and terrace. • **1 key ecological feature**—the Gulf of Carpentaria Basin.	• Sill seafloor habitat, a biological seascape in the northern gulf and marine biodiversity in the Arafura and Arnhem Wessel bioregions.	• **Commercial gillnetting and trawling** in the north of the park. • **Recreational and charter fishing** in the south of the park popular from Nhulunbuy. • **Dhimurru Indigenous Protected Area.**
Arnhem	• **Biologically important areas for 5 species** – breeding area for bridled, crested and roseate terns and inter-nesting area for flatback turtles. • **3 seafloor habitats** including pinnacle, shelf and terrace.		• **Commercial fishing**, including gillnetting. • **Recreational and charter fishing.** • **Future oil and gas exploration.**
Arafura	• **Biologically important areas for 4 species** – inter-nesting area for flatback, green, hawksbill and olive ridley turtles. • **8 seafloor habitats** including apron, shoals, canyon, deep valley, ridge, shelf, slope and terrace.	• Apron and ridge seafloor habitat and the tributary canyons of the Arafura Depression key ecological feature.	• **Commercial fishing,** including trawling in the north-eastern area of the park. • **Recreational and charter fishing.**

	• **1 key ecological feature** – the tributary canyons of the Arafura Depression.		
Oceanic Shoals	• **Biologically important area for 4 species** – inter-nesting area for flatback, green, hawksbill and olive ridley turtles. • **10 seafloor habitats** including shoals, basin, reef, sill, slope, tidal sand-bank, pinnacle, terrace, deep valley and shelf. • **4 key ecological features** – the carbonate bank and terrace system of the Van Diemen Rise and of the Sahul shelf, pinnacles of the Bonaparte basin, and the shelf break and slope of the Arafura shelf.	• Pinnacle seafloor habitats and the carbonate bank and terrace system of the Van Diemen Rise key ecological feature, marine biodiversity in the Oceanic Shoals bioregion and across a depth range in the Northwest Shelf Transition bioregion.	• **Commercial fishing.** • **Recreational fishing, charter fishing and tourism.** • **Research.**
Joseph Bonaparte Gulf	• **Biologically important areas for 5 species** – breeding area for bridled and lesser crested terns, foraging area for green and olive ridley turtles, inter-nesting area for flatback turtles and a breeding, calving and foraging area for the Australian snubfin dolphin. • **5 seafloor habitats** including shoals, deep valley, reef, shelf and tidal sand-bank. • **1 key ecological feature** – the carbonate bank and terrace system of the Sahul shelf.	• Several biological seascapes and marine biodiversity in the Anson Beagle and Cambridge-Bonaparte bioregions.	• **Commercial fishing.** • **Recreational and charter fishing.**

APPENDIX C: Statistics for Australian Marine parks and networks under options 1 and 2—area and number of conservation features included in zones that offer a high level of protection, commercial fishery displacement and access for recreational fishers

Coral Sea Marine Park summary (989,836 km2)	Option 1	Option 2
Area of marine park in Sanctuary and National Park zones (km^2)	238,400	502,649
Area of marine park in Habitat Protection zones (km^2)	684,956	289,169
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zone (km^2)	923,356	791,818
Number of conservation features in Sanctuary or National Park zones	99	93
Number of conservation features in Habitat Protection zones	114	89
Commercial fishery displacement (GVP $,000)	604.2	3143.8
% open for access for recreational fishers	76	49
North Network summary (157,480 km2)	**Option 1**	**Option 2**
Area of marine park in Sanctuary or National Park zones (km^2)	7,358	16,977
Area of marine park in Habitat Protection zone (km^2)	22,253	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	29,612	16,977
Number of conservation features in Sanctuary or National Park zones	38	28
Number of conservation features in Habitat Protection zones	47	0
Commercial fishery displacement (GVP $,000)	749.8	2097.4
% open for access for recreational fishers	95	89
Arafura Marine Park (22,924 km^2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	108.1	112.8
Arnhem Marine Park (7,125 km2)		
Area of marine park in Sanctuary and National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-

Commercial fishery displacement (GVP $,000)	33.1	32.4
Gulf of Carpentaria Marine Park (23,771 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	3,623	7,388
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	3,623	7,388
Commercial fishery displacement (GVP $,000)	137.4	1,318.2
Joseph Bonaparte Gulf Marine Park (8,597 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	50.1	49.8
Limmen Marine Park (1,399 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	1,399	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	1,399	-
Commercial fishery displacement (GVP $,000)	18.1	18.1
Oceanic Shoals Marine Park (71,743 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	406	-
Area of marine park in Habitat Protection zone (km^2)	6,929	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	7,335	-
Commercial fishery displacement (GVP $,000)	166.9	156.3
Wessel Marine Park (5,908 km2)	2018	2012
Area of marine park in Sanctuary or National Park zones (km^2)	-	1,632
Area of marine park in Habitat Protection zone (km^2)	3,811	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	3,811	1,632
Commercial fishery displacement (GVP $,000)	39.1	71.6
West Cape York Marine Park (16,012 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	3,329	7,957
Area of marine park in Habitat Protection zone (km^2)	10,114	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	13,444	7,957
Commercial fishery displacement (GVP $,000)	197.1	338.3

North-west Network summary (335,341 km2)	Option 1	Option 2
Area of marine park in Sanctuary or National Park zones (km^2)	53,025	104,248
Area of marine park in Habitat Protection zone (km^2)	50,929	17,682
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	103,954	121,929
Number of conservation features in Sanctuary or National Park zones	86	77
Number of conservation features in Habitat Protection zones	46	38
Commercial fishery displacement (GVP $,000)	208.6	287.0
% open for access for recreational fishers	84	69
Argo-Rowley Marine Park (146,003 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	36,050	62,625
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	36,050	62,625
Commercial fishery displacement (GVP $,000)	19.9	56.5
Ashmore Reef Marine Park (583 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	550	550
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	550	550
Commercial fishery displacement (GVP $,000)	-	-
Carnarvon Canyon Marine Park (6,177 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	6,177	6,177
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	6,177	6,177
Commercial fishery displacement (GVP $,000)	-	-
Cartier Island Marine Park (172 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	172	172
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	172	172
Commercial fishery displacement (GVP $,000)	2.3	2.3
Dampier Marine Park (1,252 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	73	150
Area of marine park in Habitat Protection zone (km^2)	104	1,102

Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	177	1,252
Commercial fishery displacement (GVP $,000)	5.6	26.9
Eighty Mile Beach Marine Park (10,785 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	23.8	23.8
Gascoyne Marine Park (81,766 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	9,132	33,437
Area of marine park in Habitat Protection zone (km^2)	38,982	9,272
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	48,114	42,709
Commercial fishery displacement (GVP $,000)	2.7	2.7
Kimberley Marine Park (74,469 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	6,392	6,775
Area of marine park in Habitat Protection zone (km^2)	5,665	1,131
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	12,057	7,905
Commercial fishery displacement (GVP $,000)	109.2	129.6
Mermaid Reef Marine Park (540 km2)		
Area of marine park in Sanctuary and National Park zones (km^2)	540	540
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park and Habitat Protection zones (km^2)	540	540
Commercial fishery displacement (GVP $,000)	1.3	1.3
Montebello Marine Park (3,413 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	0.2	0.2
Ningaloo Marine Park (2,435 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	116	-
Area of marine park in Habitat Protection zone (km^2)	-	-

Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	116	-
Commercial fishery displacement (GVP $,000)	32.1	32.1
Roebuck Marine Park (304 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	0.2	0.1
Shark Bay Marine Park (7,443 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	11.5	11.5
South-west Network summary (508,371 km2)	**Option 1**	**Option 2**
Area of marine park in Sanctuary or National Park zones (km^2)	107,256	179,616
Area of marine park in Habitat Protection zone (km^2)	122,700	117,658
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	229,955	297,274
Number of conservation features in Sanctuary or National Park zones	112	111
Number of conservation features in Habitat Protection zones	48	38
Commercial fishery displacement (GVP $,000)	2033.7	2,119.2
% open for access for recreational fishers	79	65
Abrolhos Marine Park (88,060 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	2,548	2,548
Area of marine park in Habitat Protection zone (km^2)	23,239	23,239
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	25,786	25,786
Commercial fishery displacement (GVP $,000)	879.3	879.3
Bremer Marine Park (4,472 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	3,172	284
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	3,172	284
Commercial fishery displacement (GVP $,000)	95.7	62.9

Eastern Recherche Marine Park (20,575km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	15,565	16,073
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	15,565	16,073
Commercial fishery displacement (GVP $,000)	132.0	134.1
Geographe Marine Park (977 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	15	36
Area of marine park in Habitat Protection zone (km^2)	21	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	36	36
Commercial fishery displacement (GVP $,000)	25.2	23.8
Great Australian Bight Marine Park (45,822 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	7,728	7,728
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	7,728	7,728
Commercial fishery displacement (GVP $,000)	64.7	64.7
Jurien Marine Park (1,851 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	31	31
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	31	31
Commercial fishery displacement (GVP $,000)	17.8	17.8
Murat Marine Park (938 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	938	938
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	938	938
Commercial fishery displacement (GVP $,000)	30.3	27.3
Perth Canyon Marine Park (7,409 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	1,241	1,107
Area of marine park in Habitat Protection zone (km^2)	4,352	2,569
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	5,593	3,677
Commercial fishery displacement (GVP $,000)	44.2	38.5
Southern Kangaroo Island Marine Park (630 km2)		

Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	-	-
South-west Corner Marine Park (271,833 km2)		
Area of marine park in Sanctuary and National Park zones (km^2)	54,841	128,666
Area of marine park in Habitat Protection zone (km^2)	95,088	91,850
Total area under high levels of protection - Sanctuary, National Park and Habitat Protection zones (km^2)	149,929	220,516
Commercial fishery displacement (GVP $,000)	278.0	340.7
Twilight Marine Park (4,641 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	3,605	4,641
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	3,605	4,641
Commercial fishery displacement (GVP $,000)	174.0	256.5
Two Rocks Marine Park (882 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	15	7
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	15	7
Commercial fishery displacement (GVP $,000)	114.2	95.2
Western Eyre Marine Park (57,944 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	17,437	17,437
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	-	-
Commercial fishery displacement (GVP $,000)	168.0	167.9
Western Kangaroo Island Marine Park (2,335 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	120	120
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	120	120
Commercial fishery displacement (GVP $,000)	10.4	10.4
Temperate East Network summary (383,339 km^2)	**Option 1**	**Option 2**
Area of marine park in Sanctuary or National Park zones (km^2)	59,049	60,264

Area of marine park in Habitat Protection zone (km^2)	272,465	138,899
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	331,514	199,163
Number of conservation features in Sanctuary or National Park zones	57	56
Number of conservation features in Habitat Protection zones	74	56
Commercial fishery displacement (GVP $,000)	525.8	554.1
% open for access for recreational fishers	85	84
Central Eastern Marine Park (70,054 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	8,110	8,110
Area of marine park in Habitat Protection zone (km^2)	61,336	52,066
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	69,446	60,176
Commercial fishery displacement (GVP $,000)	358.7	352.7
Cod Grounds Marine Park (4 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	4	4
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	4	4
Commercial fishery displacement (GVP $,000)	0.4	0.4
Gifford Marine Park (5,828 km2)		
Area of marine park in Sanctuary and National Park zones (km^2)		
Area of marine park in Habitat Protection zone (km^2)	5,828	5,828
Total area under high levels of protection - Sanctuary, National Park and Habitat Protection zones (km^2)	5,828	5,828
Commercial fishery displacement (GVP $,000)	1.0	1.0
Hunter Marine Park (6,257 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	4,519	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	4,519	-
Commercial fishery displacement (GVP $,000)	70.7	54.7
Jervis Marine Park (2,473 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	-	-
Area of marine park in Habitat Protection zone (km^2)	1,965	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	1,965	-

Commercial fishery displacement (GVP $,000)	4.8	4.3
Lord Howe Marine Park (110,126 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	9,273	10,488
Area of marine park in Habitat Protection zone (km^2)	60,021	60,021
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	69,294	70,509
Commercial fishery displacement (GVP $,000)	48.6	79.4
Norfolk Marine Park (188,444 km2)		
Area of marine park in Sanctuary or National Park zones (km^2)	41,661	41,661
Area of marine park in Habitat Protection zone (km^2)	138,796	20,984
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	180,457	62,644
Commercial fishery displacement (GVP $,000)	34.1	54.5
Solitary Islands Marine Park (152 km^2)		
Area of marine park in Sanctuary or National Park zones (km^2)	2	1
Area of marine park in Habitat Protection zone (km^2)	-	-
Total area under high levels of protection - Sanctuary, National Park or Habitat Protection zones (km^2)	2	1
Commercial fishery displacement (GVP $,000)	7.6	7.2

* Green font indicates a better outcome under Option 1; red font indicates a poorer outcome under Option 1; black font indicates no difference between Option 1 and 2.