



# Nature Conservation Council

The voice for nature in NSW

Commonwealth Marine Reserves Review Panel  
Department of the Environment  
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March 31, 2015

Dear Review Panel Members,

## **RE: Commonwealth Marine Reserves Review**

Thank you for the opportunity to provide input into the Commonwealth Marine Reserves Review (the Review). The Nature Conservation Council of NSW (NCC), as a member group of the Save our Marine Life Alliance and the peak body representing over 130 NSW environmental organisations, has had extensive involvement with development of marine reserves for many years.

This submission relates to the Temperate East Marine Reserve Network specifically, and is made in support of and in reference to the submission by the Centre for Conservation Geography, as commissioned by the Save our Marine Life Alliance.

Initially, we wish to note our concern that the Commonwealth Marine Reserves Network (the Network) was suspended just as the Network was at the point of being implemented on the water. The NCC believes that the initial six years of consultation, including the over 750,000 community submissions received during that process, was sufficient to establish widespread scientific and community support for the Network.

However the Review does provide an opportunity to ensure that the Temperate East Marine Reserve Network will provide comprehensive, adequate and representative protection of the bioregions marine environment, which the current Network has not achieved.

## ***Recommendations***

The NCC requests that the Commonwealth, at a minimum, retain the existing marine national park zones in all Commonwealth Marine Reserves.

Further, we and our member organisations, request that the Commonwealth take this opportunity to improve and expand the marine national park zones as suggested by the science community. We also request that all areas of the Temperate East Marine Reserve Network be closed to oil, gas and seabed mining and exploration.

We strongly recommend that the Commonwealth implement the Network immediately, with marine national park zones retained and improved.

## **Submission**

### ***Marine National Park Zones***

#### *Scientific basis of support*

Marine national park zones, where all extractive industries are prohibited, are critical to preserving life in our oceans. They are the only zones that scientific research consistently shows are capable of delivering broad ranging and significant benefits for marine biodiversity, and are invaluable to scientific research to understand Australia's oceans. They provide baselines against which the scientific community can understand and improve the management of current and future impacts on Australia's oceans.

The NCC refers the Review Panel to the Temperate East Marine Reserve Network submission by the Centre for Conservation Geography, as commissioned by the Save our Marine Life Alliance, for more details as to the scientific evidence basis of support for marine national park zones.

#### *Socio-economic benefits*

The economies and communities of NSW and south-east Queensland stand to reap substantial benefits from the Temperate East Reserve Network, with the positive impacts of marine national park zones on nature based tourism and recreational fishing well demonstrated by the NSW marine park system.

Nature based tourism is a major industry on the NSW and south Queensland coast. Over the first three years of the Jervis Bay Marine Park in state waters, tourism visits increased by 45%, with 34% of visitors reporting that the marine park was the primary reason for their visit (NSW Marine Parks Authority 2009 (I)). In the Solitary Islands Marine Park, the average turnover of local small businesses increased by 20% from 2002 to 2006, with increased visitation the primary cause of the increase. The user group that had grown the most was visiting recreational fishers, according to local businesses (NSW Marine Parks Authority 2009 (II)).

Dive tourism in NSW alone contributes over \$500 million per annum to the NSW economy. Likewise the NSW whale watching industry contributes over \$80 million per annum to the NSW economy. The long term future and growth of both industries is reliant on healthy and abundant marine life protected within a network of marine national park zones.

Australia's oceans also provide ecosystem services that are often not accounted for in the national economy. In 2011 the Centre for Policy Development estimated that unaccounted services to the Australian economy from our oceans exceeded \$25 billion per annum (Eadie & Hoisington 2011). Within this, the Temperate East Reserve Network alone is estimated to provide environmental services of greater than \$500 million per annum.

The Temperate East Reserve Network has little to no negative impacts on recreational fishers with Marine National Park Zones established largely outside of the areas utilised by recreational fishers. It has also been very effective at minimising the displacement of commercial fishing activities. The Temperate East Reserve Network extends over 26% of the region but displaces only 0.3% of the

commercial fisheries active in the region. The maximum potential displacement of commercial fishers is less than 1% for all commercial fisheries operating in the region (Australian Government 2012).

The zoning plan could be improved to enhance the positive social and economic impacts by establishing Marine National Park Zones on the shelf and upper slope and by extending the area protected from destructive fishing practices like trawling.

### *'Intangible' values*

The NCC acknowledges that it is difficult to put a value on the intangible benefits provided by marine reserves, including improvements in psychological and social outcomes provided by a sense of connection to and availability of healthy marine areas. However, one measure of these benefits is the broad community support that marine reserves enjoy.

Broad community support for marine reserves is very strong in the area covered by the Temperate East Marine Reserve Network. During the initial consultation process for the Network, over 95% of the more than 5,000 submissions to the public consultation process were supportive of increased protection for the Temperate East Marine Region.

A 2012 Galaxy poll of over 1000 people in NSW showed that 94% of people support marine national park zones, with 91% of people identifying as recreational fishers supporting marine reserves (ABC 2014).

There is a similar level of support for marine national park zones. In a recent NSW government community survey of attitudes towards marine reserves, 67% of the general NSW population stated their support for marine national park zones (NSW Government 2014). This rose to 80% in coastal areas where the population could see and had experienced the benefits of having these zones locally.

### ***Retain existing Marine National Park Zones***

The Temperate East Commonwealth Marine Reserves Network encompasses probably the largest diversity of habitats of all Commonwealth Marine Reserves Networks, from the southernmost oceanic and coastal coral reefs in the world (the World Heritage listed Lord Howe and the Solitary Islands) to the extensive deep water canyons of the south.

To maintain this diversity of habitats and species, the Marine National Park Zones within the Temperate East Marine Reserve Network must, at a minimum, be retained. These zones help protect marine life by:

- **Establishing the first protection for the Eastern Seamounts:** the Marine National Park Zone established over the Derwent Hunter Guyot in the Tasmantid Seamount Chain establishes the first ever protection within Marine National Park Zones for these underwater mountains which are a key ecological feature for the marine life of Australia's Temperate East.
- **Expanding protection for Lord Howe Island and Elizabeth and Middleton Reefs:** Established in 1987, Elizabeth and Middleton Reefs are long standing Commonwealth Marine National Park Zones which protect these unique coral reef systems. Lord Howe Island is a world heritage area with the world's southernmost coral reef ecosystems and supporting biologically important areas for numerous seabirds.

- **Establishing the first protection for the ecosystems of the Norfolk Island Province:** The Marine National Park established in the Norfolk Marine Reserve provides the first ever protection within Marine National Park Zones for the ecosystems of the Norfolk Island Province. The location chosen includes unique seafloor habitats and is adjacent to a high conservation seamount system within the New Caledonian Exclusive Economic Zone.
- **Protecting a diversity of marine habitats:** the Temperate East Reserve Network increases the level of Marine National Park Zones within the Commonwealth waters of the south-east region from less than 1% up to 4%. These Marine National Park Zones include 83 of the 383 unique seafloor environments mapped by the Centre for Conservation Geography within the Temperate East Marine Region. For 35 of these unique seafloor environments the Temperate East Reserve Network meets the minimum Australian science community benchmarks for protection.
- **Some protection from destructive fishing practices:** The Temperate East Reserve Network protects 26% of the Temperate East Marine Region from gillnetting and Danish seining. A smaller 4% of the Temperate East Marine Region is protected from the fishing practices determined to be incompatible with marine reserves by the Government's fishing gear risk assessment (Morison and McLoughlin 2010).

### ***Expanding the number and size of Marine National Park Zones***

Submissions from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Australian Marine Science Association (AMSA) to the previous public consultation process for the Temperate East Marine Reserves each focussed on the need for the Temperate East Marine Reserves to contain more Marine National Park Zones.

The NCC believes that there are six key ways in which marine park zones within the Temperate East Marine Reserves Network could be improved to give a significant improvement in biodiversity outcomes:

1. **Solitary Islands:** The two Marine National Park Zones that do exist at the Cod Grounds and Pimpernel Rock in the Solitary Islands Marine Reserve urgently need to be increased in size to at least 100km<sup>2</sup> and to be extended over whole reef systems, including a buffer zone of deep water or sand. This would ensure that the current zones more fully satisfy the IUCN criterion that Category II protected areas should be "large natural or near natural areas set aside to protect large-scale ecological processes" (IUCN), and bring them in line with current research on how to establish effective marine protected areas (Edgar et al 2014).
2. **Continental Shelf and Slope:** Currently the Temperate East Marine Reserve protects 0% of the Australian continental slope and 0.01% of the Temperate East shelf ecosystems within Marine National Park Zones. Recent studies have highlighted the geological complexity of this area (Heap & Harrison 2008, Zhi Huang et al. 2014), which plays a great role in influencing the distribution and abundance of biodiversity. The deep water canyons of the shelf and slope play an important role in channelling nutrient-rich waters and thereby promoting productivity in the waters of the Temperate East. Some of these extensive deep water canyons have not been trawled, giving us a chance to preserve and study pristine benthic communities.

This lack of protection for high conservation value shelf and slope ecosystems urgently needs to be addressed. The current level of protection contradicts the *Goals and Principles for the Establishment of the National Representative System of Marine Protected Areas in*

*Commonwealth Waters* relating to coverage of depth ranges and floor types (Australian Government). The closure of this gap and upgrading of zonation would achieve a more genuine comprehensive and representative protection of the continental shelf and slope. Marine National Park Zones should be established within the Jervis, Hunter East Gippsland and Central Eastern Marine Reserves.

- 3. Connectivity with state marine reserves:** Currently, the marine national park zones within the Temperate East Marine Reserves Network are not connected or managed in conjunction with those of the NSW state marine parks. It is unlikely that the isolated marine park zones of the Temperate East Marine Reserves Network alone will be able to maintain connectivity and fulfil the goal of protecting Australia's marine biodiversity. Scientific evidence suggests that, in a network, highly protected areas function best when under 100km apart to ensure that connectivity among them facilitates replenishment (Shanks et al. 2003; Halpern et al. 2006; McCook et al. 2009, 2010)

This upgrade in zonation would provide connectivity between the reserve and the existing NSW state Jervis Bay Marine Park. This is in keeping with the goals of the Review to "consider what management arrangements will best protect our marine environment". In the current zonation, there is a lost opportunity to adopt formal connectivity that would maximise the chances of movement of species such as snapper between onshore and offshore reefs.

- 4. Tasmantid Seamount Chains:** Marine National Park Zones currently extend over three of the fifteen Tasmantid seamounts in the Temperate East Marine Region. This is well below the minimum level of protection recommended by the Australian scientific community and committed to by the Australian Government at the World Parks Congress. Additional Marine National Park Zones should focus on the Britannia, Queensland, Barcoo and Taupo Seamounts. These seamounts are already closed to commercial fishing under fisheries legislation to protect Harrison's Dogfish, so upgrading to more protective zonation should have minimal impact on usage, and help guarantee fully the recovery of this species.
- 5. Norfolk Seamount Chain:** Marine National Park Zones currently extend over none of the Norfolk Island Seamounts. The Norfolk Island Seamounts were identified by the Howard Government as one of Australia's eleven most unique habitats for marine life. The seamounts have also been identified as part of one of the ecologically and biologically significant marine areas of the western South Pacific. These seamounts are unique habitats which are biologically important areas for humpbacks, green and Hawkesbill turtles, and a number of migratory seabirds, and increasing connectivity in these zones will help increase the resilience of local marine life.
- 6. Lord Howe Seamount Chain:** Within the Lord Howe Seamount Chain, Marine National Park Zones currently extend over Middleton Reef and parts of Elizabeth Reef, Lord Howe Island and Balls Pyramid. Protection of the Lord Howe Seamount Chain could be increased to world class levels of protection by establishing Marine National Park Zones over Gifford Guyot and the seamounts to the east of Lord Howe Island.

Both the area around Lord Howe Island and the Gifford Guyot are expected to come under greater influence of the East Australian Current as the effects of climate change hit our oceans. They may provide protection for endemic species affected by warming, future proofing species that may disperse from more north-western waters. A greater degree of protection will also add resilience to the major Guyot congregation in this part of the Pacific Ocean.

## ***Oil, Gas and Seabed Mining***

The Temperate East Reserve Network protects only 14% of the Temperate East Marine Region from oil, gas and other mining activities. This leaves 86% of the region open to future mining.

The Temperate East Marine Region contains areas of global, national and regional significance for marine life that need to be set aside as 'no go' areas for seabed mining.

Extending protection from oil, gas and seabed mining over the Temperate East Reserve Network will have little to no impact on the oil and gas industry. This has been achieved by having 0% overlap between marine reserves and oil and gas production, or retention leases and no overlap between Marine National Park Zones and any current oil and gas lease of any kind.

The zoning plan for the Temperate East Reserve Network would be substantially improved by prohibiting mining from operating in those parts of the Marine Reserves that are currently outside exploration leases. This would increase the area protected from mining and exploration from 14% to 26% of the Temperate East Marine Region.

## ***Conclusion***

At the World Parks Congress in 2014, the IUCN adopted the resolution that a 30% of the world's oceans should be protected by IUCN Category II (marine national park zones) by 2030 (IUCN 2014). Currently the Temperate East Marine Reserve protects only 4% of the bioregion through marine national park zones, and those zones are largely isolated and disconnected both from each other and from state marine parks.

Given the extraordinary biodiversity of the Temperate East bioregion, and the pressures exerted on this area by climate change, fishing and being the most populated coast line in Australia, the NCC strongly recommends that the Commonwealth should not only retain the existing marine national park zones but improve and expand the marine national park zones as detailed above. We also recommend that all areas of the Network be closed to oil, gas and seabed mining and exploration.

We strongly recommend that the Commonwealth implement the Network immediately, with marine national park zones retained and improved.

Thank you for the opportunity to provide comment on this review. If you would like to discuss this submission further, please contact Sue Milthorpe on 02 9516 1488.

Yours sincerely,



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Campaigns Director

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