

Marine Guardians – A Novel Solution to Improving Our Marine Environment

INTRODUCTION

New Zealand's coastal and marine ecosystems are in ecological trouble.

In 2016 the Government reported on the state of our seas, as required by the Environmental Reporting Act 2015 (ERA).

"Our marine environment 2016" identified serious and widespread issues with seabed habitat damage and destruction, numerous threatened seabird and marine mammals, and massive loss of topsoil into our coastal waters causing deterioration in water quality and ecosystem services (Figure 1).

In addition, the Ministry for the Environment (MfE) and Statistics New Zealand report highlighted that the physical and chemical properties of our oceans are changing in response to rising CO₂ levels (MfE and Statistics NZ "Our marine environment 2016" (October 2016) <www.mfe.govt.nz>).

All these issues are present in the Marlborough Sounds (the Sounds), one of our most iconic coastal areas (Marlborough District Council "State of the Environment Report 2015" <www.marlborough.govt.nz>).

In this article, we outline our views on why the current institutional arrangements are not adequately protecting the ecological functioning of the Sounds.

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This analysis came from a collaboration between Marlborough District Council (MDC) and Marlborough Girls College (MGC). Led by the MGC "Marine Team" of Year 12 and 13 students, the project aimed to identify solutions to legislative and institutional barriers to marine protection.

We present a new Marine Guardians model that we consider would more effectively integrate management responsibilities. We focus on how marine protection can be urgently increased, as there is only one marine reserve in the Sounds, covering <0.001 per cent of Marlborough's coastal waters.

We make the case that a bespoke statutory solution is required to create Marine Guardians, and we discuss such a model to arrest and reverse the ecological decline of the Sounds.

A HISTORY OF ECOLOGICAL DECLINE IN THE SOUNDS

Environmental issues in the Sounds are not new. Concerns about the decline in fisheries were expressed by iwi as far back as the 1880s (Waitangi Tribunal *Te Tau Ihu o Te Waka a Maui: Report on Northern South Island Claims* (Wai 785, 2008)). Moreover, the Tribunal warned that unless the decline in fish and shellfish “is not arrested and serious steps taken to restore the fisheries, then the Crown will become in breach of its Treaty obligations” (Waitangi Tribunal vol 3 at 1213).

Concerns about environmental damage to the Sounds have been highlighted since the 1930s, caused by soil erosion from poor land-use practices (Figure 1), and physical damage by dredging and trawling (Sean Handley *History of benthic change in Queen Charlotte Sound/Tōtaranui, Marlborough* (NIWA Report NEL2015-018, March 2018)). These issues have yet to be effectively addressed.

Even in the lifetimes of the youngest of us, we have observed a decline in marine life and deterioration of water quality (MGC Marine Team “Prioritising the Marine Protected Areas Act” (2018), available on request).

These pressures have been compounded by decades of fragmented and piecemeal management (W Frank Ponder *A Labyrinth of Waterways* (Wenlock House, 1986). Since the early 2000s, there have been several unsuccessful community-led initiatives, including Soundsfish and Marlborough Marine Futures, which sought to improve environmental outcomes and better integrate management agencies.

THE NEED FOR A LEGISLATIVE SOLUTION

The question arises: why should an area with a relatively small population base, and a unitary authority, need its own legislative solution?

There are three key reasons:

- First, the Sounds is a biodiverse, unique, and highly-valued coastal area that is heavily contested and complex.

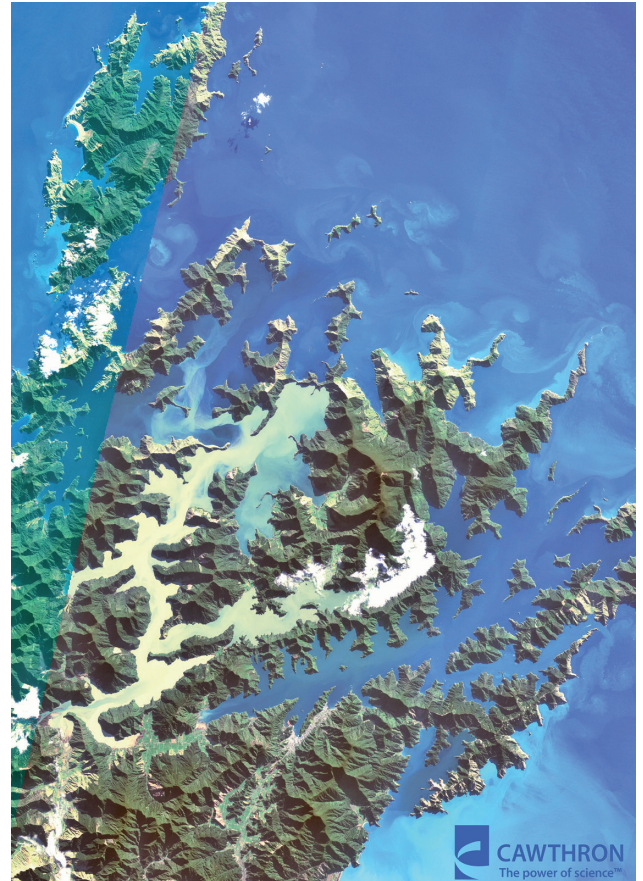


Figure 1: European Space Agency Satellite Sentinel-2 image of Pelorus Sound/Te Hoiere (discoloured yellow/brown) and Queen Charlotte Sound/Tōtaranui (blue) after an annual rainfall event, July 2018.

- Second, ecological health in the Sounds is deteriorating, with ecosystem tipping points reached: estuaries within the inner Pelorus Sound/Te Hoiere have become choked with mud within the last decade and biologically important seagrass beds have almost been eliminated; ecologically significant marine sites throughout the Sounds have been damaged or lost; and overfishing has resulted in loss of kelp forests and expansion of kina barrens.
- Third, central and local government have been unable to effectively integrate their statutory roles to maintain biodiversity, or to develop a shared vision for ecological recovery with iwi and the wider community.

Moreover, there may be no panacea arising from the current court processes clarifying the relationship between the Resource Management and Fisheries Acts for biodiversity management (Sally Gepp and Madeleine Wright "A new weapon in the battle for marine biodiversity: Environment Court approves first example of regional coastal plan controls on fishing" RMJ August 2018). Suffice to say that, whatever the judicial outcome, regional and central government will be compelled to pragmatically work much more closely together.

The need for improving the integration between management agencies, and meeting increasing community expectations, will place additional resource demands on Fisheries New Zealand. Their statutory responsibilities extend over the 4.1 million km² EEZ, whereas regional councils manage at a fraction of that scale, such as Marlborough where the coastal marine area is just <0.002 per cent of the EEZ.

In addition, regional authorities have not yet grasped the implications that maintaining biodiversity goes beyond the mere identification and scheduling of significant sites for marine indigenous flora and fauna, as has been proposed in the notified Marlborough Environment Plan (June 2016).

This is because of the statutory drivers to maintain ecological functioning (biogeochemical processes and connectivity), to avoid and remedy adverse effects and thereby safeguard the life-supporting capacity of our seas, as well as to fulfil our international obligations (Steve Urlich and others "What it means to "maintain" biodiversity in our coastal marine environment" RMJ April 2018).

It is our view that marine management not only needs a more complete understanding of biodiversity and ecological functioning, it also requires a new paradigm, with devolution of integrated marine management to regions with appropriate governance, oversight and partnering with the centre.

To formulate such a solution, we turned to the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, the Kaikōura (Te Tai o Marokura) Marine Management Act 2014, and the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017.

We also noted that the Government's marine protected legislative reform has been stalled since January 2016, when the previous government issued a consultation document. There is little sign that it will get underway again

as the current Minister of Conservation, the Hon Eugenie Sage wrote to the MGC Marine Team on 18 December 2018 to advise that the Government is still considering what its next environmental priorities should be.

A BESPOKE SOLUTION – MARINE GUARDIANS MODEL

Minister Sage's letter was in response to a MGC Marine Team proposal for bespoke legislation to address the environmental and institutional issues affecting the Sounds (MGC Marine Team "Special legislation; Marlborough Marine Guardians" (2018), available on request).

The MGC proposal adapts the Marine Guardians model in the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 and the Kaikōura (Te Tai o Marokura) Marine Management Act 2014 with a novel twist.

Instead of the Marine Guardians being established by statute at the *culmination* of a multi-year process, as was the case with the Kaikōura legislation, it is proposed that Marine Guardians be established to *commence* a marine protected areas process.

This aims to avoid a prolonged process (in the case of Kaikōura it was almost a decade), which could stall or fail given the contestability and complexity of our marine space, and thereby reduce uncertainty for participants and the wider community that an acceptable outcome can be reached.

It is proposed that the Marlborough Marine Guardians, once established, would be statutorily compelled to undertake and complete an inclusive consultation process within two years.

This is intended to speed up the process of achieving marine protection for the Sounds. By marine protection we mean a mix of marine reserves, mātaītai, taiāpure, benthic protected areas, species-specific sanctuaries and recreational fishing areas. Given the immediacy of the interacting biodiversity and climate change crises, we argue that urgent action is required.

We suggest that this concept offers a means of pragmatically bypassing the impasse on systemic marine protected reform and provides a template by which regions can co-design their own solutions to deep and urgent environmental issues in a collaborative and participative manner.

PROPOSAL FOR MARLBOROUGH MARINE GUARDIANS

We now outline the key points from the MGC proposal for bespoke legislation. We offer these for discussion purposes in the knowledge that there will be refinements and changes following consultation with Te Tau Ihu iwi in drafting a bill. The Select Committee process would then shape and modify the special legislation in response to wider public input.

We acknowledge that this proposal will not solve all the issues in the Sounds; but, broadly done as we envisage, ecosystem resilience should be significantly strengthened, and a sustained increase in the abundance and diversity of marine life should result. The key points are:

- Guardians will work in an inclusive and collaborative manner to ensure that marine life recovers and flourishes for future generations to enjoy.
- Guardians have the authority to implement measures to assist in the preservation, protection, and sustainable management of the marine environment and biological diversity.
- Guardians can make regulations to administer marine protection. For example, one part of the Sounds may have different regulations depending on issues and values at the time. This makes it more nimble to changing ecological conditions than current statutory tools.
- Long-term scientific monitoring and research is undertaken to inform regulations and ecological understanding.
- To facilitate and promote co-operation between the Guardians and management agencies, to assist in achieving the integrated management of the Sounds.

To achieve these, the Guardians will need to implement Ecosystem-Based Management principles (Judi Hewitt and others "Proposed ecosystem-based management principles for New Zealand" RMJ November 2018). These principles are integral to wise management for the health and connectivity of the ecosystems within the Sounds, and the communities dependent on these for their wellbeing.

We suggest there is a case for the Guardians to become a statutory management agency in its own right, given the multi-decadal failure of existing management agencies to

maintain biodiversity and achieve integrated management as evidenced by ongoing ecological stress and declining environmental quality, loss of abundance of important species and inadequate marine protection.

In this sense, it could adopt the guardian model of the Whanganui River (Te Pou Tupua). Our view is that the Sounds are also so nationally special that they may also deserve statutory consideration as a legal person. The Te Awa Tupua (Whanganui River Claims Settlement) Act provides guidance about how this could be achieved.

The composition and appointment of Guardians is therefore of crucial importance. They must be representative and subject to a rigorous and fair appointment process. The MGC Proposal suggested the following compositional structure:

- three representatives appointed by Te Tau Ihu iwi;
- three representatives (government agency officials) appointed jointly by the Ministers of Fisheries and Conservation;
- three representatives elected by the community; and
- one representative appointed by the Marlborough District Council

No doubt this would generate debate, although the key point is that whatever the composition there is appropriate governance, oversight and inclusiveness, and that a democratic process is involved.

Governance would be achieved by having Ministers appoint government agency officials to the Guardians, and having oversight by the Ministers of decision-making on Guardians' recommendations.

That said, we suggest that the responsible Ministers must have compelling and transparent reasons why they would seek to depart from the Guardians' recommendations, given these would reflect community will and aspirations for better marine protection.

The MGC proposal also posits that an advisory group be created, which would be appointed by the Guardians. This group would provide advice and feedback to the Guardians through the two year statutory process to determine marine protected areas, and in the implementation phase beyond.

The suggested make-up of the group includes:

- tangata whenua;

- Marlborough Sounds residents;
- youth (15–24);
- scientists (for example, from Cawthron, Universities, Crown Research Institutes);
- primary sector representatives (for example, farming, forestry, fishing);
- other commercial enterprises (for example, tourism); and
- recreational groups (for example, diving, sailing, recreational fishing)

The Guardians would be enabled to collect revenue to undertake management, planning and compliance functions for marine protection activities. For example, the legislation could assign and apportion coastal occupancy charges by modifying the regional coastal plan.

The MGC Marine Team have also given thought to the success measures of the Guardians. This will be demonstrated when measures of ecosystem health show improvement over time. Specific indicators will be selected on the basis of scientific advice, which may

include: increases in endangered species, fish and shellfish abundance, and improvements in biodiversity indicators.

The intended outcome is a well-balanced marine environment where biodiversity is protected and the Sounds are used efficiently and benignly for multiple purposes.

CONCLUSIONS

We aim to provoke discussion as clearly the current arrangements are not working, given the Government's "Our marine environment" report, and the Waitangi Tribunal *Te Tau Ihu* claim findings.

The Guardians model represents a mechanism by which government agencies can achieve their statutory mandates through devolution to the regions with appropriate governance and oversight.

Finally, we see the Guardians model as a significant and positive step to help New Zealand achieve its international obligations under the Convention on Biological Diversity and the United Nations Sustainable Development Goals.



Members of the MGC Marine Team with Hon David Parker, Minister for the Environment, 1 November 2018. From left: Siobhan Hemingway, Hannah Dickson, Holly Wills, Melynda Bentley (Teacher), Baylee McConaghey, Demi Fearn, David Parker.