



Marlborough Marine Futures

Newsletter June 2017

Forum supports Marine Park concept for the Marlborough Sounds

Over 60 people endorsed a “Marine Park” concept for the Marlborough Sounds at a public forum on Sunday at Waikawa Boating Club.

Trust Chair Eric Jorgensen said “We were blown away by how many people turned up and the range of interests represented. What amazed me was, when we split them into six groups they all came back with the same line on the map for a marine park. They all wanted Croisilles, D’Urville, and Cloudy Bay included for consideration.

There were differing views about what it should be called, with Marlborough Marine Management Area being the second most popular after “Marine Park”. What really encouraged me though was that, when people had a clear picture of what it could do for our marine environment, they were 100% in support.

Forum participants really appreciated the presentation by our Coordinator Peter Lawless, who presented an overview of his research and findings undertaken through his Winston Churchill Fellowship scholarship. Peter outlined how different areas across the world had faced similar situations of competing needs and values coupled with degrading coastal environments and the approaches to managing those challenges. He presented summaries of case studies from Australia’s Great Barrier Reef, British Columbia along with Chesapeake and Monterey Bays in the United States. This helped everyone understand what constituted current best management practice for multiple use marine parks. The upshot was that different areas did different things well but overall the principles, governance structure and resourcing used on the Great Barrier Reef were strongest. However, their recognition and engagement of the indigenous peoples was not well handled, but we can learn on that score from British Columbia.

People accepted his recommendation that the Great Barrier Reef model was the best fit for Marlborough, with improvement around how obligations to Maori needs and values were incorporated. Participants also endorsed what the Trustees have already said about principles for managing the area and gave us ideas of their own to consider. Clearly people felt the need for change and supported the work of the Trust and Marine Park concept as it was evolving.”





What we mean by a Marine Park

When we talk about a Marine Park for the Marlborough Sounds we mean a multiple use management area with a primary conservation purpose and zoning for potentially conflicting uses. We envisage that a stand-alone management agency would integrate protection and use, and the roles of central and regional government. The main objective would be to provide for the long-term protection and conservation of the mauri, wairua, environment, biodiversity, and heritage values of the Marlborough Sounds. This would encompass the marine environment of Marlborough from Croisilles Harbour to Cloudy Bay, and include the marine environments around both D'Urville and Arapaoa Islands, but not the deep water of Cook Strait.

We propose a special Act of Parliament that would:

1. Provide for the establishment, control, care, and development of the Marlborough Sounds Marine Park; and
2. Establish the Marlborough Sounds Marine Park Authority; and
3. Provide for zoning plans and plans of management; and
4. Regulate, including by a system of permissions, use of the Marlborough Sounds Marine Park in ways consistent with ecosystem-based management and the principles of ecologically sustainable use; and
5. Facilitate partnership with tangata whenua in management of marine resources; and
6. Facilitate a collaborative approach to management.
7. The functions of the Marlborough Sounds Marine Park Authority would be to:
8. Make recommendations to Ministers about the care and development of the Marine Park including areas that should be declared to be parts of the Marine Park; and the regulations that should be made under the Act;
9. Carry out, by itself or in co-operation with other institutions research and investigations relevant to the Marine Park;
10. Prepare zoning plans for the Marine Park;
11. Make plans of management for the Marine Park;
12. Advise the Minister on financial requirements;
13. Receive and manage funds for the management of the Park;
14. Provide educational, advisory, and information services relating to the Marine Park;
15. Zoning would be used to regulate the use of the Marine Park to protect marine ecosystems, ensure use is ecologically sustainable, and manage competing usage demands

A Big Thank You...

Having just prised a profile out of him for our newsletter, regretfully in late May, due to the culmination of a variety of circumstances, Roy Grose (one of our original Trustees) advised that he needed to step away from his role as Trustee.

Having been part of the formative discussions and development of the Trust and its' kaupapa (and a thoroughly decent person to boot) we will greatly miss Roy's knowledge of the Sounds, its' history, its' inhabitants (including human) and his subtle guidance; assisting us all to work together for the betterment of the place and people.

We know you will all join us in thanking Roy for his efforts on all our behalf over the years and wishing him well into the future.





A muddy history of the Kenepuru

NIWA scientist Sean Handley presented 1,000 years of history unlocked from the muddy bottom of Kenepuru Sound to the Marlborough Marine Futures Forum on 14 May¹. Research conducted by a team of scientists has shown that European land use has caused run-off that has silted up the Sound while also boosting shellfish productivity.

Prior to European settlement, sediment accumulation rates in the Kenepuru were low. The mud came from natural slips, and from bracken, beech forest, and ponga/podocarp forest. Post-European settlement, sediment accumulation rates have increased by 10 times due to historic and contemporary pastoral and forestry catchment practices.

Ironically, the extensive land clearance from the 1860s appears to have led to significant productivity increases in shellfish communities, including the probable widespread establishment or expansion of the green-lipped mussel beds.

What has changed since European settlement has been the significant increase in annual or chronic sediment inputs, which have caused significant ecosystem effects and contributed to a decline in benthic biodiversity. This adds weight to the argument that an integrated range of improved land-use controls, particularly for forestry, in the Marlborough Sounds and the Pelorus and Kaituna River catchments, are required to mitigate chronic sediment inputs to benefit the health of the ecosystem and assist future restoration efforts.

No single land-use practice could be directly linked with the lack of mussel bed recovery following closure of the wild mussel fishery in the early 1970s. What has prevented recovery of mussel beds in Pelorus Sound involves complex interactions and feedback mechanisms. Negative drivers implicated include: ongoing effects from sedimentation, reduced nutrient availability, historic overfishing reducing mussel standing stocks, and lack of seabed plants, which in their absence potentially form a bottleneck to wild mussel recruitment. This will make restoration of mussel beds challenging without mitigation measures, such as better land management and control of dredging to reduce sedimentation and disturbance of soft sediment habitats.

¹ A 1,000 year history of seabed change in Pelorus Sound/Te Hoiere, Marlborough

Aquaculture Review Working Group

The Aquaculture Review Working Group (ARWG) has been established by the Marlborough District Council (MDC) to provide advice to Council in writing the draft aquaculture management provisions of the Marlborough Environment Plan. The ARWG is comprised of people from the aquaculture industry and Marlborough Sounds communities, includes staff from the Department of Conservation and The Ministry for Primary Industries and is supported by Council staff and contractors.

The draft aquaculture provisions will include Issue identification (existing/ potential aquaculture problems to resolve), objectives (set goals for the management of aquaculture in the Marlborough Sounds), policies (define course of action to achieve/implement objectives) and rules (define status of activity & whether resource consent is required).

The aquaculture management provisions are being developed using a values based approach. Different types of values are identified at different geographical scales within the Marlborough Sounds and then the impact on those values of aquaculture activities will be assessed. The anticipated result will see areas of the Marlborough Sounds deemed either appropriate or inappropriate for aquaculture based activities in the future. From that detailed Policies and Rules can be developed.

It is hoped that the draft aquaculture provisions can be notified before the hearings commence for the rest of the Marlborough Environment Plan but this is yet to be confirmed.

Marlborough District Council stands up for the bottom dwellers¹

“On a sea floor that looks like a sandy mud bottom, that at first glance might appear to be sand and mud, when you look closely and sit there as I do for a while and just wait, all sorts of creatures show themselves, with little heads popping out of the sand. It is a metropolis.” Sylvia Earle (1935).

The sea floor is our second largest ecosystem type by area, after the marine water column. The most vulnerable habitats are biogenic habitats. *Biogenic* habitats are formed by living organisms, such as kelp, “coral-like” bryozoans, tubeworms, rhodoliths (calcified algae), horse mussels, green-shell mussels, sponges and seagrass. These species are ecosystem engineers, and the habitats they create can be thought of as biodiversity oases within otherwise featureless sediments, as they provide three dimensional structures on the seabed. Biogenic habitats elevate biodiversity and provide nursery grounds for recreational and commercial fish species. The habitats stabilise the sediments, and are a source of marine productivity through photosynthesis of benthic micro- and macro-algae. Nutrient recycling, oxygenation of sediments, and carbon sequestration are other ecosystem services provided by intact seabed habitats.

Research into long-term change to seabed ecosystems in the Marlborough Sounds, and elsewhere, has shown that these habitats were once extensive in our marine waters. Many types of biogenic habitats are found on soft sediments, so they are vulnerable to seabed disturbance from anchors, recreational and commercial fishing gear, and/or sedimentation. They may never recover from the impacts, as has occurred with naturally occurring green lipped mussel beds in Pelorus Sound. Biogenic habitats are now rare in Marlborough’s coastal waters. These habitats used to be extensive, but have been regressively damaged and destroyed since the 1930s.

Marlborough’s coastal waters cover a relatively modest 7,250 km² or 0.002% of New Zealand’s marine waters. Long Island-Kokomohua Marine Reserve (6.2 km²) and the Cook Strait cable protection zone (146 km²) together comprise 0.02% of Marlborough’s waters that are not available for bottom trawling. Bottom trawling is also excluded from large areas of the inner Marlborough Sounds, but seabed disturbance occurs by recreational and commercial dredging for scallops over much of this area.

In 2016 the Marlborough District Council (MDC) notified rules to prohibit seabed disturbance of ecologically significant subtidal sites. These are assessed by the MDC’s own thorough analysis of sites that qualify as ecologically significant, and their values are identified in the Marlborough Environment Plan. The right of Councils to make such rules about controlling the effects of fishing to maintain marine biodiversity is now being tested in the High Court.



¹ Summarised from an article by Dr Steve Ulrich, Coastal Scientist, Marlborough District Council, steve.ulrich@marlborough.govt.nz in the RESOURCE MANAGEMENT JOURNAL <http://www.rmla.org.nz/product/rm-journal-april-2017/>