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## **Submission: Hākaimangō - Matiatia (Northwest Waiheke Island) Marine Reserve Application, Section 5, Marine Reserves Act 1971.**

This submission is made on behalf of the Zealand Marine Sciences Society (NZMSS) - Te Hunga Mātai Moana ō Aotearoa. It is made in good faith in my role as President of the NZMSS and in accordance with the Code of Ethics and Rules of the Royal Society of New Zealand.

NZMSS is a professional society affiliated to the Royal Society of New Zealand - Te Apārangi. NZMSS has approximately 470 members. We are a non-profit organisation that provides access to, and within, the marine science community, and we identify emerging issues through annual conferences, annual reviews, a listserv and a website [www.nzmss.org.nz](http://www.nzmss.org.nz). NZMSS membership covers all aspects of scientific interest in the marine environment and extends to the uptake of science in marine policy, resource management, the environment and the marine business sector. We speak for members of the society, and we engage with other scientific societies as appropriate.

In general, NZMSS supports the establishment of the proposed Hākaimangō – Matiatia Marine Reserve. The proposed marine reserve only covers ~5% of the Waiheke coastline so in our view this provides a small first step in a more holistic and community-wide approach to marine conservation on Waiheke Island. In addition, NZMSS believes that more no-take marine protected areas are needed to enable the establishment of an effective MPA network for the Hauraki Gulf. Our detailed submission on this proposed marine reserve is attached.

Please contact me at the email address provided below for any further information regarding this submission.

Handwritten signature of Kathy Walls in purple ink.

Kathy Walls

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# Submission: Hākaimangō - Matiatia (Northwest Waiheke Island) Marine Reserve Application

NZMSS congratulates the applicant, Friends of the Hauraki Gulf Inc., on proposing a marine reserve to help increase the area of protection of marine biodiversity in the Hauraki Gulf. This is the first new site to be formally proposed as a marine reserve in over a decade<sup>1</sup>.

NZMSS generally supports the propose marine reserve “Hākaimangō – Matiatia”, located on the northwestern section of Waiheke Island. However, we point out that there is an urgent need to develop a network of MPAs (including a sufficient number of no take MPAs) in the Hauraki Gulf. The current process for establishing MPAs under the Marine reserves Act, 1971 is outdated and doesn’t provide a holistic approach to marine conservation and protection. Accordingly, we urge the Minister of Conservation to expedite the development of a new MPA framework and legislation, and the establishment of a comprehensive network of MPAs in the Gulf.

- ***General support for marine reserves and general comments***

NZMSS generally supports the establishment of marine reserves because they provide excellent opportunities for science and education, as well as enabling biodiversity to recover and thrive.

Historically, we have supported the establishment of marine reserves and presented scientific advice on numerous proposals and made submissions on a range of policy and marine protection initiatives. For example, the Society supported the first marine reserve proposed by the University of Auckland, at Leigh and later, the large Kermadec Islands Marine Reserve. Since then, the NZMSS has been active in writing submissions supporting specific marine reserve proposals (e.g., West Coast and South Island East Coast MPAs, the Kaikoura Marine Reserve and the Subantarctic Marine Reserves).

In 2016, the IUCN’s World Conservation Congress encouraged IUCN State and Government Agency Members to designate and implement at least 30% of each marine habitat in a network of highly protected MPAs, with the ultimate aim of creating a fully sustainable ocean at least 30% of which has no extractive activities (res. 050). However, current progress with establishing marine reserves in New Zealand is so slow that we are likely to fall well short of meeting the IUCN goal by 2030<sup>2</sup>.

When considering the Hauraki Gulf, the existing marine reserves comprise only 0.3% of its area (Haggitt, 2016) and do not meet the scientific criteria for a representative network of MPAs (which should include sufficient number of highly protected areas, i.e. marine reserves) (PISCO, 2007; SCBD, 2004).

NZMSS considers that the proposed Hākaimangō – Matiatia Marine Reserve is a good start towards developing a Hauraki Gulf MPA network, but this must be followed by concrete actions to establish more MPAs nationwide based on an updated framework and legislation for MPA establishment.

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<sup>1</sup> The Tawharanui Marine Reserve was designated in 2011 but was established in 1981 as a Marine Park with marine life fully protected under the Fisheries Act.

<sup>2</sup> [https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC\\_2016\\_RES\\_050\\_EN.pdf](https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2016_RES_050_EN.pdf)

- ***Specific comments on the proposed Hākaimangō – Matiatia Marine Reserve.***

### **1. Marine reserve boundaries, geographic location, habitats and size**

Due to the mobility of many exploited species (e.g., rock lobster, snapper, blue cod), the effective area of a marine reserve is considerably smaller than the actual size of the reserve. This is due to “edge-effects” associated with removal of fish through fishing at and near the boundaries. These edge-effects have been shown to extend from 200m to 2km inside marine reserve boundaries, depending on the mobility of the exploited species in question (Guidetti 2007, Kellner *et al.* 2009, Willis *et al.* 2003). Consequently, simple, straight-line boundaries minimise edge-effects, whereas complicated boundaries maximise edge effects and therefore reduce the effective size and conservation value of marine reserves.

For example, research by Willis *et al.* (2003) in the Cape Rodney – Okakari Point Marine Reserve (Leigh) showed that edge effects on snapper extend approximately 1 km into the reserve due to high fishing pressure on the reserve boundaries. Based on this research and subsequent tagging work, Babcock *et al.* (2012) have recommended that reserves should span at least 5 km<sup>2</sup> of coastline in order to protect resident reserve snapper populations. Similarly, Freeman *et al.* (2009) studied rock lobsters in the Te Tapuwae O Rongokako Marine Reserve and concluded that, if reserves are intended to conserve 'natural' biological communities, then decisions on reserve boundaries should take into consideration the movement of the species intended for protection. In California, a minimum size for marine reserves of 5 km of coastline was also recommended during the Marine Life Protection Act process in order to protect a wide variety of exploited species (CDFG, 2008).

NZMSS generally agrees with the boundaries, location and size/area of the proposed marine reserve. These straight-line boundaries of the reserve will help to reduce the edge effects detailed above.

The location of the proposed reserve incorporates a range of intertidal and subtidal habitats representative of the inner/mid-Hauraki Gulf, including habitat suitable for rock lobster and snapper (Haggitt, 2016<sup>3</sup>).

The area of the proposed reserve is 2350 ha, considerably larger than the other marine reserves in the Hauraki Gulf. The coastline of the proposal is approximately 7.2 km in length, slightly longer than the recommended minimum coastline length of 5 km for marine reserves, described above.

While we would support a marine reserve with a longer coastline and a larger area, we accept the rationale put forward by the applicant to remove the Matiatia Harbour area from the proposal as this area is frequented by vessel traffic, including the commercial ferries operating between Auckland and Waiheke Island. However, we are of the view that serious consideration should be given to including the two sites to the east of the proposal (sites 4 and 4a) identified by Haggitt, 2016.

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<sup>3</sup> We point out that Haggitt recommended two additional sites to the east of the proposed area should be combined with a northwestern site to provide improved opportunities for the recovery of snapper and rocklobster. It is also noted that the northwestern site was modified by the applicant to remove Matiatia Bay, thus reducing a portion of the site's southern section.

## **2. Access**

Section 2 of the Marine Reserves Act, 1971 refers to the public having freedom of access and entry to marine reserves “*so that they may enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat.*”

NZMSS considers that the ability for the public to access marine reserves is important for raising awareness and understanding about the marine environment and its biodiversity. The location of the proposed Hākaimangō – Matiatia Marine Reserve on the northwestern section of Waiheke Island will enable visitors from Auckland to visit the reserve relatively easily (i.e., via ferries to Waiheke Island and recreational vessels).

## **3. Management of the Marine Reserve**

NZMSS supports co-management between iwi and the Crown for the proposed marine reserve. We suggest that a local community committee is established that includes mana whenua representatives specifically to enable management oversight of the marine reserve.

## **4. Research and monitoring**

NZMSS would like to see research and monitoring highlighted as critical activities in the marine reserve. The marine reserve will provide new research opportunities and it is likely that some of our members will be interested. Monitoring the marine reserve should be undertaken as a priority, with a focus on biodiversity, recovery of harvested species, physical parameters such as sea temperature changes and social and cultural changes.

The Society considers it important that opportunities are provided by the Department of Conservation to include matauranga Māori.

- **Other matters**

### **1. Network of MPAs for the Hauraki Gulf**

We have previously highlighted the need to urgently progress a network of MPAs for the Hauraki Gulf, including a sufficient number of marine reserves.

### **2. Marine Reserves Act review and updated MPA Policy**

NZMSS is aware of a number of shortcomings with the Marine Reserves Act, 1971. A significant shortcoming is the absence of a specific reference to Te Tiriti o Waitangi. Various reviews of the Marine Reserves Act have been undertaken over past decades but have never resulted in new legislation that properly reflects partnership with Maori and recognition of their relationship with and aspirations for the moana. NZMSS is itself on a journey towards better understanding how we can be more inclusive of matauranga Māori. The NZMSS would like to see the conclusion of the review of the Marine Reserves Act with appropriate recognition of Maori incorporated.

Further, NZMSS would urgently like to see development of an updated MPA Policy framework and legislation in order to advance networks of MPAs nationally.

### 3. NZMSS expert advice

Our membership includes a wide range of marine expertise and we would be interested in contributing further to discussions on the proposed marine reserve and designing/implementing a network of no-take MPAs for the Hauraki Gulf.

#### • **References cited**

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