



Te Ngaru Roa ā Maui
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RE: CONSULTATION: HECTOR'S AND MĀUI DOLPHIN THREAT MANAGEMENT PLAN

SUBMISSION BY TE NGARU ROA AA MAUI

OUTLINE

Te Ngaru Roa aa Maui (TNRM) is a surfing organisation situated in Whaingaroa Raglan based on Tangata Whenua values. Our environmental unit was established to address issues pertaining to adverse effects in coastal waters and potential hydrological effects on coastal processes which affect surf breaks. Part of our values is the natural character of the coastlines, amenity values and the wellbeing of Maori and coastal communities. TNRM maintain that point source and non-point source impacts to waterways and the marine environment from land-based activities is creating adverse effects impacts to Tangaroa that need urgent attention. TNRM networks with Lost Waves and is affiliated to our National organisation Surfbreak Protection Society.

Lost Waves is a similar organisation in that its core values are to protect surf breaks from adverse effects of inappropriate subdivision and development plus adverse effects of discharges to the ocean environments.

Surfbreak Protection Society is a dedicated to the conservation of the "treasures" of the New Zealand Surfing Community - our surfbreaks – through the preservation of their natural characteristics, water quality, marine eco systems and low impact access for all.

All the groups campaign for clean, safe recreational waters, free from adverse effects of sewage effluents, toxic chemicals and promote a solution-based argument of viable and sustainable alternatives.

TANGATA WHENUA

The TMP presents an overview of the responsibilities of DoC & Fisheries NZ in relation to Tangata Whenua interests and obligations as a result of Treaty Claims and various Acts of Law. Tangata Whenua have established Maiatai or Taipure fishery reserves set on the North Island West Coast Region. Nine rohe moana areas have been gazetted, one mataitai reserve in Aotea Harbour and one Taipure in Kawhia Harbour.¹ Tangata Whenua undertake customary fishing throughout the region. Customary fishing rights are guaranteed to tangata whenua under Te Tiriti o Waitangi. It is our submission that the areas set out for Tangata Whenua are excluded from any regulation that may be put in place as a result of the TMP.

INTRODUCTION-

The marine environment is under increasing pressure due to the exploitation of its resources from a range of activities such as seabed mining, oil and gas, potential renewable energy projects, bio- prospecting plus traditional practices of commercial and recreational fishing practices. The human activities are cumulatively impacting on a range of species and on the health of the marine environment and aquatic lifeforms.

The Threat Management Plan identifies that New Zealand's native dolphins are among the rarest in the world and that Hector's dolphins are found in the waters around the South Island with only some 15,000 left and are classified as Nationally Vulnerable. Additionally, the Maui dolphins are found on the West Coast of the North Island with only 57 to 63 of them surviving. They are classified as Nationally Critical and face a real threat of extinction.

The Foreword by the Hon Eugenie Sage and Hon Stuart Nash state that these mammals are precious taonga and we need to act now to ensure they have the best chance for long-term survival. On that basis, we urge the Ministers to take a firm stance and take a major leap forward to eradicate the risks to Maui & Hector dolphins to achieve zero deaths from gill, set nets and trawl nets out to 100m depth throughout their habitat range.

BACKGROUND

Imbedded in the 2007 Threat Management Plan (TMP), it identifies that North Island Maui's dolphin is estimated to have a population of around 111 and the South Island Hector's dolphin is estimated to consist of around 7, 270 individual dolphins. More worrying, it was stated that:

*Government has a general policy position that threatened species numbers should be increased to reach non-threatened status. **However, in the absence of a Population Management Plan issued under the Marine Mammal Protection Act there is no obligation to require such a rebuild to occur (page 10-11 TMP 2007)***² bold emphasis added

¹ <https://fs.fish.govt.nz/Page.aspx?pk=5&fpid=14>

² <https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/hectors-and-maui-dolphin-threat-management-plan-2007.pdf>

From 1970 -1988 the Hector's dolphins' populations declined rapidly from almost 30,000 to just over 7,000 individuals as a result of gill, set nets and trawl netting. Because of wide spread community & scientific concern, the Banks Peninsula sanctuary was set up in 1988. As result, the rapidly declining numbers bounced back to 15,000 currently. The Fisheries Ministers move to allow commercial and recreational gillnets back into protected areas in Marlborough in 2011, was a retrograde step and will remain as a black mark against conservation and our international obligations.

Despite community desires, it was not until 2003 that the Minister of Fisheries created a protected area for North Island Maui dolphins. In 2008 an expanded set of protection measures were established for both the Hector's and Maui dolphins. In 2013, both the Conservation & Fisheries Ministries set out further protection measures around the Taranaki coast until a full review was undertaken.

For many members of the community, it was not surprising to see the statement above in 2007 that there was no obligation to require measures that will rebuild the iconic species numbers up as it has been clear that successive governments have failed to halt the rapid decline of Maui dolphin. Despite knowing the benefits of the Banks Peninsula sanctuary.

There has been a direct and deliberate decision to protect the fishing interests. Profits have been privatised while costs have been socialised. Our taonga iconic species still sit on the IUCN critically endangered list and they are still remaining on our Nationally Critical list.

INTERNATIONAL AND NATIONAL NON-GOVERNMENT ORGANISATIONS

For many years the plight of the at-risk Maui & Hector's dolphin has been a concern Internationally. The IWC and IUCN have recommended banning gill nets & trawl nets throughout the Maui & Hector's habitats for a number of years. Aotearoa has been declared a Marine Hope Spot by the international Mission Blue Sylvia Earle Alliance.³ Mission Blue Hope Spot and the other International organisations have been advocating for methods that reverse the impacts of the impending extinction of the Maui & Hector's dolphin.

All seek to prohibit the use of gill net and trawl netting out to the 100m depth of the Hector's and Maui dolphin habitat. Each of the groups recognise that the Maui dolphin is now the rarest marine dolphins on Papatūānuku and consider that right now is our chance to stop the rapid decline.

There are a wide range of NGO's in Aotearoa along with many other scientists advocating for robust mechanisms, including alternative fishing methods such as long lines and fish pots. Government funding into research on the new Precision Seafood Harvesting technology has been allocated since 2012. It has been several years in development and Fisheries NZ has approved the kiwi technology design.⁴ It does not appear to cater for fish safety mechanisms

³ <http://www.hectordolphins.com/>

⁴ <http://www.scoop.co.nz/stories/BU1905/S00612/new-kiwi-fishing-technology-gets-approval.htm>

for Maui & Hector's dolphins at all. It does not appear to have an escape hatch like the SLED (Sea lion exclusion device) ⁵ Therefore, it can be assumed that it is not a Maui & Hector's dolphin safe alternative and was designed for a higher quality product only.

The study undertaken by S.J. Rowe in 2007, recommended further studies to develop effective mitigation techniques and further investigations to aid in the development of successful mitigation measures to avoid marine mammal incidental mortality.⁶ To date, it appears that the Government has not undertaken any research of other alternative fishing methods and concentrated the funding effort on one solution only, which is disappointing.

The TMP is also silent on this issue along with being silent on any potential transitioning of commercial fishers into either alternative fishing methods or moving to another industry. The idea of transitioning out of the industry is not new. Large areas of native forests were moved into the DoC estate in the South Island and a Government Economic & Social package was given to the West Coast region.⁷

FISHING INDUSTRY

Apart from the joint research venture in developing the Precision Seafood Harvesting technology, the fishing industry has been slow to invest in other dolphin safe alternative methods of fishing. While there has been some glimmer of hope in the last three years in media statements, there has been little movement forward to have confidence that the industry is moving away from destructive gill, set net and trawling practices, particularly in the habitat of Hector's and Maui dolphin.

TOXOPLASMOSIS

The TMP has made conflicting statements in the plan but does still end up stating that the fishing related deaths are low compared to toxoplasmosis. That flies in the face of the team of international experts report that states:

--we are concerned that the results from the model could be seriously misleading. For this reason, we recommend that you 'back off' from forcing the model to produce conclusions which are supportable only when a series of questionable assumptions are made and which even then, are highly uncertain---

And: *--Assuming that beach-cast carcasses are representative (or even a rough approximation) of the actual proportions of causes of death is problematic.* ⁸

⁵ https://www.dropbox.com/s/umravq7m9mww65d/PSH-%20CREW%20NEWS%20_WEB.mov?dl=0

⁶ Rowe, S.J. 2007: A review of methodologies for mitigating incidental catch of protected marine mammals. *DOC Research & Development Series 283*. Department of Conservation, Wellington. Page 39.

⁷ <https://www.beehive.govt.nz/speech/forests-west-coast-accord-bill-2000>

⁸ <https://www.doc.govt.nz/globalassets/documents/conservation/native-animals/marine-mammals/maui-tmp/hectors-risk-assessment-workshop-panel-recommendations-appendix-1.pdf>

para 24, 33, pg 2.

And: *More attention should be given by the modelling team to the way observer coverage has been used to infer bycatch mortality rates. We are particularly concerned about making it transparent to readers that many areas have little to no observer coverage and even in those that do, observer coverage is low and often from some time ago.*

The proposed proposals for a Toxoplasmosis Action Plan appear redundant as the basis for setting it up is flawed, as outlined by the experts above. Currently there is no available vaccine for *Toxoplasma gondii*.

Furthermore, it is certainly concerning that toxoplasmosis has risen above other relevant pollutants that seems to have fallen out of favour since the 2007 TMP that states:

6.4.1.4. Pollution

The near-shore habitat of Hector's dolphins exposes them to a variety of pollutants and contaminants such as organochlorines, heavy metals, oil spills and plastic debris. pg 26

And:

Pollution from Land use

Hector's dolphins' near-shore habitat preference has exposed the species to a variety of pollutants, contaminants and plastic debris. The long-term bioaccumulation, contact with or ingestion of pollutants can be detrimental to breeding success, cause sterility and suppress the immune system leading to chronic illness. Entanglement in or ingestion of plastic debris can lead to impaired ability to target preferred prey, avoid predators and cause infection or choking.⁹ Pg 49

Also, in the 2007 TMP, Hector dolphins tissue contain high levels of organochlorines such as DDT, PCBs and dioxins along with stating that it is the highest in the Southern Ocean and the DDT level is the second highest globally. Pg 26.

There are other infectious diseases other than toxoplasmosis that need to be discussed and highlighted as possibly contributing to Maui & Hector dolphins weakening health. It is recognised that if a health system is compromised by a primary disease or is impacted by other contaminants cumulatively, it has the opportunity to suppresses immunity and allow secondary disease such as toxoplasmosis to rise to the fore. Endocrine Disrupters moving through the river & harbour systems have a high potential to impact on the cetaceans.

FOOD AVAILABILITY

Apart from other diseases and pollutants, the food availability for a healthy functioning system has largely been ignored or brushed over, particularly in the habitat of Maui Dolphins as food sources in the Northern areas are 10% less that the Hectors habitat. Food availability or lack off, is a significant stressor, particularly during pregnancy and lactation. Maui's & Hector

⁹ Hector's and Maui's Dolphin Threat Management Plan Draft for Public Consultation 29 AUGUST 2007 pg 26, 49

dolphins only calf every 2-3 years and the lifespan are approximately 20 years therefore any loss of the breeding stock is crucial to survival.

The desk top study undertaken by WWF/DoC in 2018,¹⁰ identified that the Hector dolphin had a diet that is diverse, consisting of approximately 24 prey species, crustaceans and cephalopods. Some of their stomach's contents, contained red cod, ahuru, arrow squid, sprat, sole and stargazer. Red cod is one most important prey of Hectors.

It is noted that many of their preferred prey is currently captured in trawl fisheries, either as targeted species or as bycatch. Despite the study title mentioning Maui dolphin, there was no information on their diet to base an assessment, although it would be long bow to assume that the prey of the Maui dolphin is NOT currently captured by trawl fisheries in the North Island.

Disappointingly in the recommendations for further research, it is intended to attach HD cameras and GPS tracking devices with a suction cup method on the Hector dolphins. In 2004 there was widespread opposition to the satellite tagging programs on Hectors dolphins at Banks Peninsula. Subsequently, that practice did not continue due to the technique being invasive and placing the Hector dolphins in a significant stressful situation. Worse still, the 2004 satellite tagging programs did not find out anything different than what was already known by many years of non-invasive research.

Otago University has a long history of non-invasive research using photos, sound recordings and observations instead. That should be the standard throughout Aotearoa, particularly for at-risk species. We are opposed to the use of HD cameras and GPS tracking devices with a suction cup method on the Hector dolphins as it is invasive and is major stressor to the cetacean.

The commercial fisheries have a responsibility for food availability, but so do our regulators. For many years the Quota Management System has been criticised, researched and written about. Recently that was highlighted in the National Academy of Sciences Journal¹¹ which included International Scientists that questioned the robustness of scientific data availability in the operation of the QMS as it relied on self-reported catch and effort data from the fishing industry instead of independent science. It also raised the issue of impacts on small scale fishers, sustainability of fish stocks and negative impacts to the environment.

A recent media statement by LegaSea,¹² echoes the same sentiment of the failure of the QMS and states:

¹⁰ Review of Hector's and Māui dolphin diet, nutrition and potential mechanisms of nutritional stress Jody Weir 2018-WWF& New Zealand and the Department of Conservation. Pg 4-15

¹¹ https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11876449

¹² <https://legasea.co.nz/2019/07/18/the-madness-of-trying-to-manage-fisheries-with-property-rights/>
Submission prepared by Malibu Hamilton 28.7.2019

Having access to abundant fish stocks is fundamental in providing for both Māori and the public's interests in fisheries. However, often as not the pathways to abundance are blocked by quota owners wielding so much influence over fisheries management and marine protection matters."

And:

The Quota Management System: the sustainable depletion of our fish stocks

1. 100 entities own 90% of all quota shares.
2. Over 90% of all fish caught in New Zealand waters is harvested by commercial fishers.
3. 400,000 tonnes of total allowable catch recorded per year is taken commercially.
4. Just 3% of total allowable catch from New Zealand waters is due to recreational fishing.
5. Thousands of tonnes of fish are exported for less than \$3 per kilo, with no added value to New Zealand.
6. 'Sustainable' catch limits defined as 20% of original biomass when 40% is the management default (with a few exceptions in the Fisheries Act).
7. As at 2019, 56% of the targeted fish stocks are NOT scientifically assessed.

A paper by William Hulme-Moir (2017) identifies similar issues of poor management, overfishing and a lack of clear sustainability objectives along with the process for gathering information. It also states:

Future sustainability of fish stocks depends on a change in the regulatory system that incentivises continuous, high quality research about the stocks and promotes the ecological resilience of the systems that are being exploited.¹³

There is a real risk that the amount of food availability for both Hector's and Maui are undervalued and not seen as a priority due to the single focus on harvesting for profit in the export trade. As a country we urgently need a complete rethink of how we can truly have a sustainable, healthy and abundant oceanic system. We cannot provide for future generations if we continue to blindly strip the oceans resources.

¹³ <https://www.otago.ac.nz/law/research/journals/otago672756.pdf>

Risk And Uncertainty In New Zealand's Fisheries Management: Adaptive Management Under The Fisheries Act 1996 William Hulme-Moir A Dissertation Submitted In (Partial) Fulfilment Of The Degree Of Bachelor Of Laws (With Honours) At The University Of Otago October 2017 para 2 page 4

SEISMIC SURVEYING

Seismic airguns create one of the loudest manmade sounds in the ocean as the survey vessel pull an array of airguns that release loud pressurized blasts of air through the ocean and into the seafloor. The blasts may be repeated as often as every 10 seconds for 24 hours a day's, weeks or months at a time. As a result, it creates disruption to the catch rate for fish and interruptions to communication for whales and dolphins during feeding, mating and in avoidance of predators.

Seismic surveying can cause severe adverse noise impacts to marine mammals resulting in behavioural impacts and physiological effects and have the potential to force marine mammals to unsuitable habitats. The potential physical impacts on marine mammals, include injury, death, hearing impairment and stress related behaviour. Sound travels faster through water than air, and low frequencies can travel many tens of kilometres with little loss in energy.

Option 3 does not provide for active protection of Maui or Hector's dolphin as it only goes out to the MMS line. Nor does the 2013 Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations as it fails to recognise the cumulative impacts and relies on a 1.5 km separation distance and a soft start procedure only if a marine mammal is sighted.

SEABED MINING & OIL EXPLORATION

Seabed mining adverse effects from noise and mining equipment can significantly impact on marine mammals and fish and create significant trauma along with effects described above. Seabed mining can cause habitat damage from the sediment plume and seabed disturbance and smother the benthic biodiversity resulting in potential impacts to the food chain. Oil exploration creates adverse impacts to marine mammals from ships using air guns to generate seismic blast waves to map the geological profile of the sea floor. Vessel strikes while carrying out those activities can also be adverse.

Option 3 & 4 for seabed mining is problematic as it seeks to maintain the current exceptions for mining for petroleum and minimum impact activities. In 2018, NZPAM issued a five-year mining exploration permit (55709) to Ironsands Offshore Mining inside a marine sanctuary off the Taranaki coast that supposedly was set up to protect the endangered Māui's dolphins.¹⁴

It appeared that the applicant & NZPAM used a loophole in the Taranaki Regional Coastal plan that allowed for minor seabed disturbance activities associated with exploration as a permitted activity to grant the license without any oversight from either the Taranaki Regional Council or DoC. This action was unthinkable! It clearly demonstrates that economic private interests are more valued than at-risk species that have a specific zone to protect that species. It is clear by the outrage of many people in Aotearoa, that both agencies do not have the social licence

¹⁴ <https://www.stuff.co.nz/national/105428150/mining-exploration-permit-inside-marine-mammal-sanctuary-is-slammed>

to operate, nor does it give confidence to the public that the sanctuary has any protection at all. The sanctuaries are supposed to provide safety from pursuit, refuge and persecution.

That decision has to be revisited. There has to be a rethink of the regulations and current law to reverse that decision and ensure that there are no remaining tensions and overlap by two competing arms of the Government within the marine mammal sanctuaries.

SET NETTING

Maui & Hector dolphins have been caught in gill, set nets and trawl nets and impact on the mortality rate with known incidences that have been reported. It is widely recognised that commercial set netting and trawl netting is a serious threat to Maui's & Hector dolphins throughout their range.

The TMP has identified that commercial sets contribute 84 percent of the risk to dolphins. The Hector dolphin is at greatest risk on the east coast of the South Island. Trawl fishing is assessed at a lower risk, despite several Hector Dolphins being caught and killed by trawl nets in 2018 > 2019. The TMP measures are based on sustainability threshold assumptions which allow for more deaths to occur every year. That proposal is not supported.

Nor is the mix of differing scenarios in both the South and North Island. It appears to reflect economic returns more highly over internationally recognised at-risk species along with dismissing the plight of the Hector's dolphins because there are more survivors, therefore expendable. The assumptions that commercial fisheries only contribute to approximately 59 Hector's dolphin deaths per year has been "brought into question" by the information above.

DRIFT NETTING

Drift netting poses a significant risk to Maui & Hector's dolphin along with other marine life as they are not anchored and can float freely with the currents. There are many examples of drift nets floating out to sea and becoming ghost nets that have the potential to continue causing adverse effects to marine life. All drift nets should be covered by the Driftnet Prohibition Act 1991 and the Fisheries (Auckland and Kermadec Areas Commercial Fishing) Regulations 1986. It is disturbing to see that commercial fishing can be undertaken by the drift net method, particularly at Port Waikato which is within the Marine Mammal Sanctuary. Amendments need to be made to the regulations to address the issue.

POLLUTION AND SEDIMENTATION

The TMP has only made minor mention of pollutants and sedimentation and yet it is recognised that seabed, mining, exploration and pollutants from river systems and harbours are a contributor. The TMP states that wetland restoration and riparian planting are a key to removing parasites from cats and ignores other pollutants.

As discussed above, Hector dolphins tissue contain high levels of organochlorines such as DDT, PCBs and dioxins with elevated levels of DDT. Any investigations should not be focused on Toxoplasmosis only, but encompass a broader view on diseases that suppress immunity

including known persistent contaminants, emerging contaminants along with assessments of cumulative impacts.

CAMERAS & OBSERVERS

The team of international expert's report identified that observer coverage is low and out of date and other experts are stating that there is an underestimation of dolphins dying in fishing nets. Plus, the low observer coverage is approximately 2-3% due to the overlap between fishing and dolphins. Furthermore, the complexity of the modelling is raised as an issue as it is based on assumptions.¹⁵

The Minister of Fisheries has announced that cameras will be fitted to 28 boats on the West coast of the North Island from Kaitaia to Whanganui over a period of four years.¹⁶ While that is supported, it has not gone far enough as it leaves the Hector Dolphin area exposed to more deaths from being caught in commercial fishing nets. There has to be more oversight and monitoring to halt the decline in numbers of the nationally critical species.

TRACKING FISHING VESSELS

Despite the technology being available, there was no previous attempt to track the fishing fleet utilising the Automatic Identification System (AIS). Recently, MPI made it compulsory for all trawl vessels over 28m to be fitted with digital monitoring using the Geospatial Position Reporting (GPR) equipment from 1 October 2017. Unfortunately, there is no requirement for all other fishing vessels to be fitted with GPR and leaves those vessels free from digital monitoring and tracking of their fishing practices.¹⁷ There needs to be observers, cameras and the GBR system fitted on all fishing boats throughout the habitat range of Hector and Maui dolphins.

MARINE SANCTUARY

We support the extension to the Marine Mammal Sanctuary southwards to Wellington (out to 12 nautical miles) and the extension to Banks Peninsula Marine Mammal Sanctuary north to the southern boundary of the Te Rohe o Te Whānau Puha / Kaikōura Whale Sanctuary, south to Timaru, and offshore to 20 nautical miles throughout.

CONCLUSION

It is clear that the Ministers need to take immediate and positive action to avoid the Maui dolphin from extinction and the Hector dolphin from rapidly heading for the same fate. It is not acceptable any longer to allow such iconic species in Aotearoa to move into extinction. Strong protective actions must take place immediately to stop the decline.

¹⁵ <http://www.scoop.co.nz/stories/SC1906/S00024/dolphin-protection-plan-expert-reaction.htm>

¹⁶ <https://www.msn.com/en-nz/news/national/boats-fishing-near-m%C4%81ui-dolphins-required-to-have-on-board-cameras/ar-AACuZwi?li=BBSVtLJ&ocid=mailsignout>

¹⁷ <https://www.fishserve.co.nz/information/digital-monitoring>

RECOMMENDATION

1. We seek that the areas set out for Tangata Whenua are excluded from any regulation that may be put in place as a result of the TMP as accorded their right in Te Tiriti o Waitangi.
2. We do not support further research into the Toxoplasmosis disease unless it encompasses a broader view on diseases that suppress immunity including known persistent contaminants and emerging contaminants along with assessments of cumulative impacts.
3. We seek a ban on seismic surveys and seabed mining within the Maui & Hector dolphins' habitat out 100m depth and seek changes to the regulation.
4. We seek a regulation change to prohibit prospecting and exploration in the marine mammal sanctuaries and the removal of the license to current permit holders.
5. We seek a ban on gill nets, set nets and trawl fishing out to 100m depth on the West Coast and the full habitat of Hector's dolphins in the South Island out to a 100m depth.
6. We support a total prohibition on drift netting.
7. We seek the implementation of cameras on all commercial boats in New Zealand waters and on-board observers along with the installation of GBR digital reporting system on all fishing boats throughout the habitat range of Hector and Maui dolphins.
8. We support the extension to the Marine Mammal Sanctuary southwards to Wellington (out to 12 nautical miles) and the extension to Banks Peninsula Marine Mammal Sanctuary north to the southern boundary of the Te Rohe o Te Whānau Puha / Kaikōura Whale Sanctuary, south to Timaru, and offshore to 20 nautical miles throughout.

***Ko te moana i te wai kau
No Tangaroa ke tenei marae
He maha ona hua e ora ai
nga manu o te rangi
Te iwi ki te whenua***

The sea is not any water
It is the marae of Tangaroa
It yields life for many things
The birds in the sky
The people on the land