Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 6:42 am
To: Sea Change

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Good day.
What about limiting the sizes of fish taken, every time we go out we are plagued by a never ending amount of snapper 25cm size, literally non stop.
Maybe make the take home sizes between 40cm and 50cm, leave the small to grow and the bigger to continue to breed. Closing off these areas will force fisherman to the other remaining areas and those will be under heavier than usual fishing pressure, cut the take home quantity from 7 snapper.
All for conservation, but please don't cause the decimation of the remaining areas by closing off your proposed areas.
Regards
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 7:05 am
To: Sea Change
Subject: Cathedral cove expansion submission
Attachments: Hahei proposal.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

To whom it may concern,

Please find attached the submission made by my husband and I with our personal beliefs as to why the expansion should not go ahead in its current state.
Our contact details follow.

s 9 (2)(a)
s 9 (2)(a)

Sent from my Galaxy

This proposal takes away the culture and lifestyle of Hahei and has a negative impact on the locals in order to cater for tourists in a way that minimally serves the purpose of ecotourism.
The local and permanent residents of Hahei have used this area for over 30years to hunt, snorkel, dive and fish to collect seafood for their families, teach their children about the joys and knowledge of the ocean and it's environment and how to provide and self support their families by collecting seafood. This proposal will impact this and more, stopping the exploration and collection even of shells.
It will add even greater food sources for predators such as sharks which can endanger the lives of the public with more sightings of closer nature, and offer more

risk of human attacks which can not only be fatal, but will also aid in the loss of tourism and increase the danger of the area.

Furthermore the proposed extension of this reserve will not deter or minimize poaching or offshore anchoring but increase the poaching.
The reserve extension stops those without boats to go fishing or diving to support their families or themselves. This particularly will impact not only ourselves but many other permanent residents.
It's extension will greatly impact those locally who have businesses fishing and touring here which further impedes our abilities to support our families and will add greater pressure to survive financially.
It stops much of the local commercial tourism which will make it harder to bring the tourist community in which is a big financial part of our area and lead to these

tourists to explore themselves creating more damage and less knowledge on how to protect our areas and help them flourish

The proposed extension of these reserves means that the most impacted will be our permanent residents and the most benefitted will be those that take the most in our holiday and tourist seasons. Marine reserve means no take, full stop. The commercial and personal losses this will have on many of us who are here permanently is not only unfair but grossly detrimental to us all.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 8:16 am
To: Sea Change
Subject: submission Marine Protection Proposals package

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded, Reply sent

Submission on Hauraki Gulf Revitalising the Gulf, Marine Protection Proposals package
From: s 9 (2)(a)
s 9 (2)(a)

I support the Revitalising the Gulf, Marine Protection Proposals package.
However, the areas of protection are too small.
Much larger areas of seafloor protection and much larger high protection areas need to be established urgently.

The gulf is severely depleted. Kelp forests have been replaced by kina barrens. This is a biodiversity crisis.
Brood stock of mussels must be protected
Intact ecosystems will be more resilient to future changes, sedimentation, pollution and climate change.

s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 9:32 am
To: Sea Change
Subject: Submission
Attachments: Hauraki Gulf Submission 281022.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Hi There,

Please find attached our submission.

Please confirm via return email that our submission has been received.

Kind regards

s 9 (2)(a)
Office Manager
Sea Urchin NZ Ltd

28th October 2022

Director-General,
Department of Conservation,
PO Box 10-420,
Wellington 6140.
Emailed to seachange@doc.govt.nz.

Submission on the proposed protection zones designed to revitalise the Hauraki Gulf and its marine life ("Seachange")

This is a submission on behalf of **Sea Urchin NZ Ltd (SUNZ), C/-** s 9 (2)(a) s 9 (2)(a) s 9 (2)(a) s 9 (2)(a) on the Seachange proposals.

SUNZ fishes close to 100% of the SUR 1B quota, which includes the Hauraki Gulf. The Seachange proposals have the potential to close large tracts of coastline which are currently fished for SUR (kina). Hence, the proposals will adversely affect the ability for SUNZ to continue managing kina barrens, and manage new areas of kina barren, within the Hauraki Gulf. SUNZ opposes the gazettal of High Protection Areas and new marine reserves, as outlined in the Seachange proposals, unless the commercial harvest of kina is allowed to continue in those areas.

Consequently, SUNZ supports the submission of the Kina Industry Council (KIC) and endorses all points made in that submission.

If a hearing is to be held, SUNZ wishes to attend. SUNZ also wishes to attend any further consultative meetings on the Seachange proposal.

Yours s 9 (2)(a)

28/10/22

s 9 (2)(a) – manager
Sea Urchin NZ Ltd.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 9:42 am
To: Sea Change
Subject: Submission

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

9:40 AM Wed 26 Oct

Notes

Submission on sea cho

s 9 (2)(a)

s 9 (2)(a)

I am personally against the ban on fish
Kawau to Mahurangi. As someone who
and fishing I know from personal exper
to fish. I see this as a safety issue espe
wise would need to go further and in m
I'm sure that other options have been
own to consider.
Reducing daily catch.
Setting a boat limit.
Closing off areas during spawning time
Kind regards

s 9 (2)(a)

Kind regards
s 9 (2)(a)

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Wednesday, 26 October 2022 9:54 am
To: Sea Change
Subject: Feedback on Revitalising the Gulf Document

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

To Whom It May Concern,

My name is s 9 (2)(a) and I'm the s 9 (2)(a)

I've been recreational fishing in the Hauraki Gulf my whole life.

I'm concerned that the research you have on recreational fishing displacement due to your HPA is extremely limited.

I note that the document only considers recreational displacement in terms of snapper, when there are numerous other species with high value for recreational anglers. Kingfish, for example, tend to congregate around reef structures, such as those found around many of your proposed HPA zones (e.g., Mokohinaus, Ōtata/the Noises, Aldermans etc.). Therefore, kingfish fishing spots are actually much more limited than snapper fishing spots in the Hauraki Gulf. The displacement will simply increase fishing pressure on the remaining kingfish reefs.

I also note that Ōtata/the Noises was "not considered in [the] analysis." This location is an extremely popular recreational fishing area for a wide range of species.

I believe blanket 'not-take' areas are not the best solution. It seems that once they have been established there is no going back, even if research suggests recreational fishing should be allowed to some extent as environments and stocks improve.

You can look overseas for many examples of better measures to control recreational fishing - such as closed seasons, slot size limits, and permits.

Kind regards

s 9 (2)(a)

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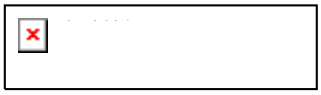
s 9 (2)(a) | Editor & Content Director | New Zealand Fishing Media Ltd

Mobile: s 9 (2)(a)




Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 10:04 am
To: Sea Change
Cc: PFK-Office (Admin, Reporting, etc)
Subject: Submission on proposed marine protection areas
Attachments: PFK Submission on Revitalising the Gulf Marine Protection Proposals.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Kia ora,

Please see attached a submission from Pest Free Kaipātiki.

Ngā mihi
s 9 (2)(a)

s 9 (2)(a)
Tree Champion
s 9 (2)(a)

Pest Free Kaipatiki Restoration Society Ltd.
s 9 (2)(a)
[redacted]

26th October 2022

This submission is made by Pest Free Kaipātiki Restoration Society. We are a community conservation organisation working across Kaipātiki on Auckland's North Shore. We work with volunteers in our community to help protect and restore terrestrial and freshwater ecosystems in our local area. Although our work does not directly involve marine protection, the majority of our 55 reserve groups work to restore the environmental health of catchments that contain streams flowing into the Hauraki Gulf and many care for reserves running along the coastline of Kaipātiki. Freshwater health is an issue that our volunteers raise as a priority with us regularly and freshwater systems have a direct impact on the marine environment. We are acutely aware of the connection between the marine and terrestrial ecosystems. The health of one impacts the health of the other and it is clear that the Hauraki Gulf is in decline. The name Kaipātiki, which we use, refers to the abundant flounder fisheries that were formerly found in the coastal waters of the Northern Waitematā. We would love to see the Hauraki Gulf returned to a state where place names reflect the abundant marine life that can be found there.

Through our restoration work we have been witnessing increasing erosion of watercourses as well as increased sediment flowing into our freshwater systems. This has resulted in rapid growth and expansion of mangroves in coastal areas due to higher nutrient levels flowing into coastal water. We are concerned about the impacts of the damage that storm water flows and sedimentation are causing to aquatic and marine life. Sediment, in particular, kills many aquatic and marine species as it clogs gills causing suffocation. It is especially harmful to benthic communities such as shellfish as they become smothered as the sediment settles and blocks their filter-feeding organs. This issue is too large to be resolved with riparian planting alone. Marine reserves and areas of high protection are another positive step towards recognising the immense pressures that our aquatic and marine species are facing and giving them areas of respite.

Pest Free Kaipātiki supports the proposed marine protected areas as set out in the Revitalising the Gulf Information Document. We are particularly supportive of the High Protection Areas proposed adjacent to, or surrounding, current nature reserves and restoration projects such as the Noises Islands, Hauturu/Little Barrier and Motutapu. Our

seabirds face huge challenges to their survival, both on land and at sea. Providing connected terrestrial and marine protected areas is such a sensible proposal that it seems obvious as a solution to better protect seabird populations, which have suffered tremendous declines.

Through our work we have learnt that being able to experience natural environments first hand and witness their recovery is one of the best ways for people to become passionate about caring for our natural heritage. Having greater exposure to marine reserves and high protection marine areas gives more Aucklanders a chance to experience what a protected and recovering marine habitat looks like, as well as greater scope to learn about and appreciate our native marine wildlife.

Nature does not recognise the boundaries that we have drawn over Aotearoa. Native species have life cycles and behaviours that can take them vast distances and for many this includes time both on land and at sea. Pest Free Kaipatiki and our many volunteers work hard to protect shag rookeries, such as the one at Chelsea Heritage Estate, eel habitat in streams throughout Kaipātiki, and galaxid spawning grounds, such as the one in Soldier's Bay. We want to see these taonga species given the best chance of survival throughout their life cycles and this means greater marine protection. We see the proposed protected areas as a fantastic opportunity to begin to improve this and we support the proposed protected areas.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Friday, 28 October 2022 4:46 pm
To: Sea Change
Subject: FW: What Hauraki Seafood Consumers would Probably Say About Revitalising the Gulf Marine Protection Proposals
Attachments: Once upon a time in NZ 3.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

There are a few alterations to the comments sent earlier. Please use this version

From: s 9 (2)(a)
Sent: Friday, 28 October 2022 12:35 PM
To: seachange@doc.govt.nz
Subject: What Hauraki Seafood Consumers would Probably Say About Revitalising the Gulf Marine Protection Proposals

The attachment comments are not on behalf of any organisation. There is reference to Hauraki Gulf Seafood Consumers but that is just a description of an interest group – there is no organisation with that name, as explained further in the comments. The comments are my own. However, I would not want to waste people's time by compiling some kind of individual perspective, not shared by anyone else.

These are not like that. Instead, I am absolutely sure that they would reflect the views of hundreds of thousands of people in Gulf communities extending from lower Northland to the wider Auckland metropolitan area, northern Waikato, and the entire Coromandel Peninsula. There are suggestions in the comments about where to go to confirm that I have got this right.

s 9 (2)(a)

s 9 (2)(a)

Hauraki Gulf Seafood Consumers – Comments on Hauraki Gulf Marine Protection Proposals

Seafood Consumers and the Hauraki Gulf Marine Protection Proposals

Quite a long time ago (1983), a new Fisheries Act came into effect. It predated the Quota Management System but introduced a new management system – fishery management plans. These were based on the plans that were being used to manage fisheries in many US coastal regions. The US plans were often based around single species fisheries. In NZ, they were to be regional – northern around the east and west coast of the northern North Island, Central – bottom of the North Island, top of the South, and southern region.

Bodies considered representative of the stakeholders in each region were set up to oversee the preparation of the regional fisheries management plans. They were called Fishery management advisory committees, and their membership was as follows:

> "Each such committee shall have as chairman an officer of the Ministry nominated by the Director-General, and may include members representing commercial, processing, wholesaling, retailing, recreational, Maori, and consumer interests in the area relating to fish and fishing".

Consumer interests were seen as key stakeholders when fishery management plans were being prepared. Simply because they were/are by far the most numerous group and had a direct interest in how fishery resources were managed. They were the millions of people who probably rarely or never ventured out fishing, but instead obtained their fish from the markets, fish shops, fast food places, restaurants all over the country.

They obtained their fish in this way for multiple reasons – too busy, too old, don't like fishing, can't afford fishing, live inland, winter time – pretty much a similar set of reasons why most people buy meat rather than by raising farm animals or chickens themselves. Instead, for fish, they relied on commercial fishers to provide one of the healthiest food varieties there is.

Despite the comments about the Hauraki Gulf Plan being the first area based fisheries plan – it wasn't. a fisheries management plan for the northern region was completed and approved, its preparation overseen by the management plan advisory committee, including the consumer interests representative.

But something has happened in fisheries management since then, as seafood consumers have not gone away, but in the Hauraki Gulf proposals our group of stakeholders seems to have been completely forgotten. We are not represented on the Sea Change Steering and Stakeholder Groups, the Ministerial Advisory Committee, or the group overseeing the Hauraki Gulf Fisheries Plan. We are missed out in all of the assessments of the effects of the various Hauraki Gulf proposals on stakeholders. There are no images of seafood consumers in any of the very graphic documents.

There is clearly an assumption that somehow assessing the effects of proposals on income obtained by commercial fishing interests is all that is required to account for the commercial aspects of fishing in the Gulf. It's not. Consumers are at the end of the supply chain. The potential effects of the marine protection proposals on us are in the price we pay for the seafood commercial fishers catch for us.

It is possible that the following statement points to the reason why Hauraki Gulf seafood consumers have been forgotten – "there is a desire for healthy functioning ecosystems that underpin the wellbeing and prosperity of people who live, work and play in the gulf". Maybe that's it – consumers are not so obvious because they have no presence in the Gulf. Instead, we are all around it.

"We" can be found in places like Toby's Seafood Massey, the Village Fisheries Mangere, Leigh Fish and Chips, the Mariner Mount Eden, Orewa Beach takeaways, Countdown seafood counter, Oceanz Seafood Botany, Albany, Henderson, the Coromandel Smoking Co, Fish Faze Maramarua, Auckland Seafood Market, Kingi Restaurant, Kaiaua Fisheries, PaknSave seafood counter, east Village takeaways Howick, Harbourside Ocean Bar and Grill, Scott Seafood Waitakere, the Wharf Café Thames, FISH nets Warkworth, New World seafood counter, Mairangi Bay Fisheries, Otara Fresh Fish, Silverdale Fresh Fish and Takeaways, Catch 22 Devonport, Avondale Takeaways, the Seafood Collective Mission Bay, Manuka Fish and Chips, Upland Fish Shop, Seafood Central restaurant, Marsic Brothers Glen Innes, Kiwi Fish, Sanford and Son's Fishmonger, Hunter Fish, Otara, South City Seafoods, Otahuhu, Bishop Fish and Chips Green Bay, Te Atatu Fisheries, Aquarius Fish and Chips Paeroa…etc.

Who are "we". There is no organisation called "Hauraki Gulf Seafood Consumers", and it is likely that there never will be. And these comments have not been compiled by any collective group of these people getting together to provide a combined response. We are not associated with any other group with interests in the Gulf. The comments are my own.

But I have absolutely no doubt that they reflect the interests of the hundreds of thousands of people who can be found in all of the outlets in this list, and so many more, on any day of the week, buying fish. It is very likely that any of you from DOC/MPI, who happen to read these comments will be Gulf seafood consumers.

And I know that what I have to say here accurately reflects the views of virtually all these people, because their interests are so simple – they all would like a continued supply of fresh, reasonably affordable snapper terakihi, kingfish and gurnard – preferably taken from close by in the Gulf as it always has been. Given that species like snapper are already at the limits of affordability, while they support marine protection measures, they would be most concerned if any that lead to further price increases, are not of clear benefit for these prime species.

While the number of Gulf seafood consumers exceeds that of any interest group, it is unlikely there will be many submissions from them. That's simply because these people lead busy lives, and marine protection is complicated even for experts to understand, so compiling submissions, attending meetings, and participating on committees is not something they can be expected to want to do. We don't see groups forming to represent collective interests in other consumer goods like cosmetics, or toys, or furniture. We might do if there were obvious influences that started to make any of these things more expensive, or scarce.

It would be very easy to obtain confirmation that these comments do reflect what these consumers think about the Gulf marine protection proposals, and all the others outlined in the Spatial Plan. Simply talk to any/all of the people you will meet at the outlets in the above list, and the many more that there are all around the Gulf. Try asking the questions on Page 8 and 9, such as:

> "Would you support the exclusion of the fishing methods from the Gulf that caught the fish you have just paid for, if doing so means that fish is no longer available, or only at higher prices?

… and you will certainly get a clear picture of their views.

Hauraki Gulf Seafood Consumers, Marine Protection Proposals, and our Favourite Species – we are everywhere around the Gulf, these are our favourite species, and we would like marine protection areas that do not unnecessarily change their availability and price

Gulf seafood consumers share the interest of all stakeholders in having a healthy marine environment supporting abundant marine life of all kinds, including sustainable fisheries for the species we most value. There have been commercial fisheries supplying us with fish caught in the Gulf since the later 1800's and between then and now we have enjoyed a mostly reliable supply. But perhaps inevitably with steadily rising prices, so that some of our favourite species like snapper and terakihi are now in a near luxury bracket. But others like gurnard, trevally and kahawai remain reasonably affordable. Our main interest is that fisheries management measures continue to make these species available to us at reasonably affordable prices – so not appreciably adding to catching costs and in turn to prices.

A few of us are aware that the management measure that undoubtedly had the most impact on Gulf fisheries was the introduction of the Quota Management System in 1986. The state of Gulf fisheries at the time, especially for snapper was one of the main reasons this step was taken, as there were obvious signs of depletion and catches were close to unsustainable. Since that time, we think there has been a significant recovery.

This feeling is not based on consideration of research findings – instead it is the experience of some of us who also go recreational fishing, and/or the experiences of friends who do – that over recent years catches have been consistently good. This despite the population around the Gulf having risen to near 2 million, and with a growing proportion participating in increasingly effective recreational fishing. And the prices we pay have remained reasonably stable.

So, we think the Quota Management System has proven itself to be an effective way to manage our most desired species. We also think that the growth of recreational fishing catches has had a significant effect on commercial fishers' ability to catch these species, simply because of the quantity they are taking now. And this will have affected the prices we pay. These things have influenced our thinking on the extent to which additional protection measures, including the marine protection proposals, are needed for our favourite seafood species.

The proponents of the marine protection proposals say that "national and international experts consider area-based marine protection to be one of the most effective methods for protecting marine life". This is an exceptionally broad and generalised statement, not explained further anywhere in the information document. It doesn't say if such protection is effective in every location, of any size, for every habitat type, and for any/all species – including the pelagic species that we are interested in.

We are not opposed to the concept of protected areas – they undoubtedly have a role to play in habitat protection. We just want to be sure that they will be effective, especially for our favourite pelagic species like snapper, terakihi and kingfish. And we are unconvinced, because there is minimal assessment of the effectiveness of the similar areas in the Gulf where fishing has been prohibited, in some places for many years.

We are aware of and appreciate the success that the Cape Rodney to Okarito Point reserve has demonstrated in providing a haven for snapper and other species. But the more exposed nearby closed area at Tawharanui doesn't seem to have had a similar effect and neither to our knowledge have the Whanganui-a-Hei and Aotea Island reserves.

The effects of the shallower Long Bay, Ponui and Waiheke reserves on enhancing fish populations are also not discussed, although it seems there are no further protection proposals in similar areas.

That means we think the potential effectiveness of the Mokohinau, Te Hauturu-o-toi, Te Ruamahua and Whakahau proposed protected areas and the extension to the Wanganui-a-Hei reserves needs to be carefully assessed, as they correspond to places where our favoured pelagic species may be caught at times.

> "Have your say • Is there anything you would like Ministers to consider when deciding the marine protection tool to be applied at these sites? For instance, are there other ecological values you would like them to be aware of?"

Yes there is - in relation to High Protection Areas we would like the Minister to consider whether non-benthic non- harmful commercial fishing methods should continue to be allowed to catch the transient pelagic species such as snapper that we most value, in these areas. The Danish seine method that is used to catch snapper and is not one we would class as having adverse seabed impacts. The species these methods catch show no particular reliance on localised areas within the Gulf – they range over all, so exclusion of fishing for them in localised areas will have minimal effect on their abundance.

So, preventing catch of transient species like snapper, terakihi, and in the High Protection Areas serves no practical protection purpose, since these fish will be there comparatively briefly before ranging out around the wider Gulf. Catch limits and bag limits are the only effective way to ensure sustainable stocks of these species. We doubt that the "national and international experts who consider area-based marine protection to be one of the most effective methods for protecting marine life", would include protection of pelagic species as effectively protected by area – based measures.

If this was 1984, the 1983 Fisheries Act would have required that the assessment of effects of the protected areas would certainly have included an assessment of restrictions of fishing on consumers. We are still here, and there are many more of us and with increasing interest in healthy food choices. So, it is very likely that the proportion of seafood on our diet is considerably higher now. And there has been much recent interest in supply chains – the sequence from the origin of products through processing, transport, retail and eventual purchase by consumers. It is not possible to change any part of the chain without affecting all others. So it is with capture of seafood – if anything in the seafood supply chain changes (like catching costs), eventually consumers will feel it.

We think that when looking at the impacts of High Protection Areas, simply calculating commercial fishers' lost revenue is not enough. There should also be an estimation of the price implications if fish sometimes caught and supplied to us from such areas, have to be found elsewhere.

The estimates of the level of commercial reliance on these areas indicates it is comparatively small. So price implications for us may also be modest. However, we see any such changes as having to be assessed alongside the ever-expanding recreational catch, that is year-by-year reducing the availability/increasing the price of our favoured species. There is no sign of this trend ending, meaning that potential loss of areas compounds this loss of availability and so should only happen where potential benefits are relatively certain.

We note the influence of recreational fishers is such that it appears added attention will be paid to assessing effects of the protected areas on them. A definition of recreation is: "activity done for enjoyment when one is not working". We should be so lucky. One reason we are unable to enjoy relaxing in a boat out on the Gulf is that many of us are working. Another is that we can't afford the boat and the gear. They say they are fishing for sustenance/the table. Undoubtedly some are. But

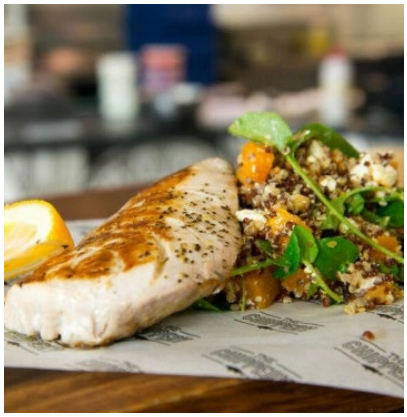
we think the enjoyment factor is pretty high too, with the bonus of fresh, free seafood. For these reasons we think there should also be an assessment of the cost implications for us of commercial fishers being unable to access the high protection areas for the pelagic species we value highly. As a sign of this value – we have to pay for every fish we eat.

We must emphasise again that we fully support measures to protect the Hauraki Gulf marine environment. We note that Maori have been here for hundreds of years. We may have only been here for around 200 years, but we intend to stay for a long time too, and we hope we can continue to rely on the Gulf for the same reasons they do – as one of the best sources of fresh, healthy food that there is anywhere. Increasing the abundance of fish by a combination of most of the protection measures proposed in the discussion document/spatial plan is the best thing that could happen for us, because if fish become easier to catch, the cost of doing so should fall. And if that happens, so should the price.

For that reason, while we are not marine scientists, we think that the benthic protection areas are a positive move as they will protect habitat that the fish species we like are reliant on in some way. Trawling will be displaced from those areas, but we can see that they are out in the Gulf close to broader fishing grounds so improved habitat there could help the stocks in the wider area.

Our reservations about the highly protected areas are only because the years long increase in recreational catches of the species like snapper that we have always been able to buy, have come at our expense. Recreational fishers are affecting the abundance of these species, and through their influence are gradually requiring commercial vessels catching "our fish" to travel further and further offshore. The effects on us at the end of the seafood supply chain are simple - we keep having to pay more.

For that reason, we feel that we cannot afford to lose any of the proposed protection areas where commercial vessels have access, unless it can be clearly shown that their fishing for pelagic species would somehow compromise the special qualities of these areas. We would be more relaxed about total closure if recreational fishers could give an assurance that their catches of these species throughout the Gulf, could be capped at current levels.



A Kind of PS – the Marine Spatial Plan

Comments are not being requested here on the Marine Spatial Plan that appears to be a finalised document. But we will take this opportunity to comment anyway, since no-one thought to ask us before. Instead, while there are references in the plan to community involvement, and stakeholders on consultative bodies who are representative of communities – there is no sign they were representatives of us – the Gulf seafood consumers.

In the lengthy document there is no reference to our surely reasonable desire that there should be a continued supply of fresh, affordable seafood to all of the many seafood outlets all around the Gulf region. And despite much use of graphics there are no images of the kind included here to emphasise that we exist as perhaps the largest group of stakeholders, affected by many of the proposals in the plan.

Instead, there is this:

> "A community perspective. Alongside the scientific perspective discussed above (and in Appendix 3), the Stakeholder Working Group has been provided very clear feedback that the 'social licence to operate' of the commercial fishing sector is predicated on changing the way in which fishing occurs. There was overwhelming support for the removal of bottom trawling, seining and dredging in the Listening Posts and community surveys we conducted in the initial stages of the Sea Change process. Ongoing discussions with all elements of the communities in which we reside has continued through the Plan development".

And comments like:

> "In the fished areas the management needs a huge shake up; bottom methods like trawling should be kicked out of the Hauraki Gulf Marine Park".

And:

> "There is a willingness to compromise and accept recreational fishing impacts – via rāhui, MPAs or catch/size limits – but only if commercial fishing operations are made sustainable, restricted or removed from the Hauraki Gulf Marine Park".

And statements like:

> "The desirability of generating the greatest value from the fishery, through encouraging commercial methods that produce the highest quality and therefore highest value fish (e.g. artisanal methods such as long-lining)."

Questions:

1. Were people in the "Listening Posts" made aware that the trawling and Danish seining they seek to remove from the Gulf contribute much of the catch from the Gulf that they most likely buy at their local fish shop/seafood counter/fish market/restaurant?
2. Were people in the "Listening Posts" made aware that the 'social licence' of excluding these methods would likely be higher prices for some species, and complete unavailability of a few in local fish shops/seafood counters/fish market/restaurant?

3. Were the people in the “Listening Posts” informed that even if they did not purchase seafood, the ‘social licence’ of such exclusion would mean that their families, their friends, their neighbours who do, may no longer be able to buy and eat prime species like snapper and terakihi, and that instead less sought after fish like mullet and deep sea species might be all that remain available/affordable.

From : 

to 

4. Were any “listening posts” held in places where people were buying/eating seafood, with questions such as “Would you support the exclusion of the fishing methods from the Gulf that caught the fish you have just paid for, if doing so means that fish is no longer available, or only at higher prices?
5. Do the people making the second to last statement realise that what they are saying is that people who take fish from the Gulf as an enjoyable past time, should be given priority over all of us who value fresh fish obtained in the Gulf as food, that we have been able to buy since the early days of settlement here?
6. Do the people making the last statement realise that favouring methods that produce the highest value fish means that they may well lead to landings of fish that most of us can no longer afford?

We are very concerned about the influence recreational fishers exert on fisheries management, because as participants in a kind of sport, they have incentives to form representative organisations with specialist spokespeople. As the Fisheries Act 1996 and the Hauraki Gulf Marine Park Act 2000 require, recreational fisheries management needs to be tailored to the Gulf and its communities. We are definitely a “Gulf community” and think it’s reasonable to expect that our desire to continue consuming affordable, fresh fish caught in the Gulf, is considered in relation to the impact the current level of recreational fishing is having on our access to seafood from the Gulf.

We hope that the people preparing the Gulf Fisheries Plan will be mindful of the kinds of issues this short outline raises. A plan that ultimately ends the supply of the species we enjoy so much, or makes them unaffordable, is hardly one that represents the interests of the wider Gulf community, including us.

Sea Change

From: [redacted]
Sent: Wednesday, 26 October 2022 10:06 am
To: Sea Change
Cc: [redacted]
Subject: Stakeholder submission, Revitalising the Gulf Marine Protection Proposals
Attachments: Tāmaki Paenga Hira Submission [redacted].pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia ora Koutou DoC seachange team,

Re: Submission from Tāmaki Paenga Hira / Auckland Museum to Revitalising the Gulf Marine Protection Proposals

Please find attached an expert stakeholder submission supporting the Rotoroa High Protection Marine Area as part of the Revitalizing our Gulf marine protection proposals.

Can you please confirm receipt of this submission by return email.

Nga mihi,

[redacted]
Tāmaki Paenga Hira / Auckland Museum

To: Minister of Conservation, Hon. Poto Williams and Minister of Oceans and Fisheries, Hon. David Parker

c/- Te Papa Atawhai Department of Conservation by email: seachange@doc.govt.nz

Date: 26th October 2022,

Tēnā kōrua, Minister Williams and Minister Parker,

This submission is on behalf of s 9 (2)(a) Curator of Land Vertebrates, Tāmaki Paenga Hira Auckland Museum. I am a conservation biologist and zoologist with expertise in seabirds and over 18 years research experience working on the study and conservation of the seabirds of Hauraki Gulf Marine Park / Tīkapa Moana / Te Moananui ā Toi.
https://scholar.google.co.nz/citations?user=o6gvQPkAAAAJ&hl=en

RE: STAKEHOLDER SUBMISSION ON MARINE PROTECTION FOR THE HAURAKI GULF WITH REFERENCE TO THE ROTOROA HIGH PROTECTION AREA

1. Congratulations on the release of the marine protection proposals for the Hauraki Gulf Marine Park / Tīkapa Moana / Te Moananui ā Toi. I strongly support the creation of a high protection marine area at the eastern area of Waiheke Island encompassing Tarahiki Island and Pakatoa Island – The Rotoroa High Protection Area.

2. Within this proposed protected area **Tarahiki Island** represents the **major breeding ground** in the Hauraki Gulf **for spotted shag** (*Phalacrocorax punctatus*).

3. My research has shown that **spotted shags breeding in the Hauraki Gulf are genetically distinct**, and reproductively isolated, from populations in the southern North Island and South Island [1]. A complete taxonomic description of the species is currently underway.

4. **Spotted shags in the Hauraki Gulf are threatened with extinction** having declined from widespread breeding colonies in the gulf of many thousands of breeding pairs in the 20th century to approximately 300 breeding pairs today[1]. Approximately 95% of these birds breed on Tarahiki Island with the remainder breeding at two small sub colonies on nearby Waiheke.

5. Annual monitoring of this population over the past ten years suggests **gradual ongoing decline**[2].

6. **Damage to marine habitats and loss of their main prey** (reef and schooling fishes) has had a **profound impact on spotted shag populations** in the gulf. My research has shown that over the past century the fish dietary component of spotted shags has declined and that birds have been forced to move away from shallow water habitats most impacted by anthropogenic pollution and disturbance [3].

7. GPS tracking tags deployed on spotted shags over the past three years have revealed the waters within the proposed **Rotoroa High Protection Area to be extremely important foraging habitat for spotted shags**[2]. In between foraging bouts birds also make use of rock stacks and platforms

on Pakatoa and Rotoroa Islands for resting and preening which is critically important for successful foraging behaviour.

8. **I strongly support** the inclusion of The Rotoroa High Protection Area in the marine protection proposals for the Hauraki Gulf marine park.

9. **Recovery of reef habitats, and thus populations of reef and pelagic fishes,** within this protected area will significantly **benefit spotted shags** and there breeding success on nearby Tarahiki.

10. On Tarahiki Island, nutrient flows from the abundant guano of breeding and roosting spotted shags has a major beneficial impact on marine productivity in the complex nearshore reef systems. As a result of these beneficial relationships between the terrestrial and marine ecosystems **implementation of a high protection area** around this island group **will result in an accelerated recovery** of these important marine habitats.

11. I thank the Government on progressing the proposal for marine protection of the gulf and ask you to move as soon as possible to **enact these marine protection areas this parliamentary term.**

s 9 (2)(a)

s 9 (2)(a)

Tāmaki Paenga Hira Auckland Museum

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[1] Rawlence, NJ, Rayner, MJ, et al (2019) Archival DNA reveals cryptic biodiversity within the Spotted Shag (Phalacrocorax punctatus) from New Zealand, The Condor, Volume 121 (3).

[2] Matt J Rayner unpublished data available on request.

[3] Rayner MJ, Dunphy BJ, et al (2021) Stable isotope record from a resident New Zealand seabird community suggests changes in distribution but not trophic position since 1878. Mar Ecol Prog Ser 678:171-182.

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Wednesday, 26 October 2022 10:18 am
To: Sea Change
Subject: Feedback for Revitalising the Gulf Marine protection proposals

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

To Whom It May Concern,

My name is s 9 (2)(a) and I've been recreational fishing in the Hauraki Gulf my whole life.

I'm concerned that the research you have on recreational fishing displacement due to your HPA is extremely limited.

I note that the document only considers recreational displacement in terms of snapper, when there are numerous other species with high value for recreational anglers. Kingfish, for example, tend to congregate around reef structures, such as those found around many of your proposed HPA zones (e.g., Mokohinaus, Ōtata/the Noises, Aldermans etc.). Therefore, kingfish fishing spots are actually much more limited than snapper fishing spots in the Hauraki Gulf. The displacement will simply increase fishing pressure on the remaining kingfish reefs.

I also note that Ōtata/the Noises was "not considered in [the] analysis." This location is an extremely popular recreational fishing area for a wide range of species.

I believe blanket 'not-take' areas are not the best solution. It seems that once they have been established there is no going back, even if research suggests recreational fishing should be allowed to some extent as environments and stocks improve.

You can look overseas for many examples of better measures to control recreational fishing - such as closed seasons, slot size limits, and/or permits.

Kind regards

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 10:25 am
To: Sea Change
Subject: Marine Protection Program, submission

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

To Whom It May Concern,

My name is s 9 (2)(a) and I've been recreational fishing in the Hauraki Gulf my whole life.

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You can look overseas for many examples of better measures to control recreational fishing - such as closed seasons, slot size limits, and/or permits.

Kind regards

s 9 (2)(a) sent from my iPhone

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Wednesday, 26 October 2022 10:45 am
To: Sea Change
Subject: Feedback For Proposed Gulf Marine Protection Proposals

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

To Whom It May Concern,

My name is s 9 (2)(a)

I'm concerned that the research you have on recreational fishing displacement due to your HPA is extremely limited.

I note that the document only considers recreational displacement in terms of snapper, when there are numerous other species with high value for recreational anglers. Kingfish, for example, tend to congregate around reef structures, such as those found around many of your proposed HPA zones (e.g., Mokohinaus, Ōtata/the Noises, Aldermans etc.). Therefore, kingfish fishing spots are actually much more limited than snapper fishing spots in the Hauraki Gulf. The displacement will simply increase fishing pressure on the remaining kingfish reefs.

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You can look overseas for many examples of better measures to control recreational fishing - such as closed seasons, slot size limits, and/or permits.

Kind regards

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 11:10 am
To: Sea Change
Subject: Hauraki Gulf Revitalisation

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia Ora,

I am an avid sailor and have logged a significant number of open ocean miles over a 35 year period. I have seen first hand the devastating decline in Ocean life… it's now a desert out there beyond the 200 mile limit. 30x30 (30% of the worlds oceans protected by 2030) is not about some tree hugging, hippy extremism… it's about survival.

Bringing that closer to home (inshore), I can't understand why we wouldn't have complete seafloor protection (SPA) across 100% of our inshore limits (inside 12 miles), and at least 30% of our harbours and gulfs (incl. Hauraki Gulf) as high protection areas (HPA). If we protect larger areas more fish will breed and consequently recreational fishing will be more successful (outside the HPAs').

My submission is;
Much greater level of SPA (100%)
Higher level of HPA (30%)

Leave the marine reserve areas as is - allow people access to the wonders of highly protected areas as a first step.

Also, more communication around what is meant by SPA and HPA is needed; I don't think people in general (other than commercial fishermen) would argue about SPA's, if they understood them better. I also think we need to rely on the science more; and therefore we need marine and environmental scientists to have a stronger voice… how? sorry I'm not sure, but maybe there is space on the TV spectrum (it would be better than Parliament TV!!).

Keep up the good work… and go for more rather than less.

Thanks,
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 11:21 am
To: Sea Change
Subject: Submission on revitalising the Gulf
Attachments: Submission on Revitalising the Gulf.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Hi there,

Please find my submission attached.

Kind regards,

s 9 (2)(a)

Submission on Revitalising the Gulf

s 9 (2)(a)
[redacted]
[redacted]
[redacted]

To whom it may concern,

I don't believe HPA's are the right solution to revitalising the Gulf, there are numerous overseas examples where slot limits, closures over spawning times have proven to be instrumental in improving fish stocks. The main issue with HPA's is they displace fishing pressure into other nearby areas thus having a negative overall effect. A slot limit on Snapper for example would leave larger fish in the area to reduce Kina barrens & promote a healthy breeding stock of larger fish with good genes to pass on to the next generation. This would help the Gulf as a whole vs small HPA areas.

Slot limits would also have a positive effect on species like Kingfish, there are a lot of smaller Kingfish in the Gulf 8 – 15kg, but to bring the larger fish back, in greater numbers, a slot limit of keeping fish in the 75-110cm range would make a positive difference. Also, Kingfish limits in the Gulf should be reduced from 3 fish per person to one per person. In the proposed HPA areas there are a lot of popular recreational kingfish reefs, closing these off will make anglers focus on other areas, again having an over negative impact. This is a good example of where slot limits and reduction in recreational limits would be more beneficial to Kingfish vs HPA's.

More fish in the water & angling opportunities increases the potential for tourism and attracting people to NZ. Look at places like Cabo San Lucas, people travel across the globe to fish there and the financial benefits to the whole community are significant. Managing the fishery effectively could make the Hauraki Gulf a hotspot on the global fishing map.

My main concerns relate to destructive commercial fishing methods, trawling and dredging destroy the seafloor in the Gulf and are indiscriminate to the sea life caught / destroyed. Removing these destructive methods of fishing from the Gulf will greatly enhance the eco-system. They should be banned totally from the Gulf.

I also believe the commercial seining/netting of baitfish needs to be banned in the Hauraki Gulf. Mass removal of baitfish has a negative impact for all marine mammals, sea birds and sea life. If the goal is to rejuvenate the Gulf and have more abundance, you need to make sure the increased biomass can be supported by baitfish. I'm unsure if this is something you have taken into consideration? Also banning trawling and dredging allows the sea floor to rejuvenate thus creating a more plentiful food source for all of the marine life. Again HPA's are small band-aids when you could be properly addressing the Gulf as a whole for the benefit of all stakeholders and marine life.

I don't want commercial fishing totally removed from the Gulf but believe more sustainable long-lining methods should be used. The quality of the fish is better, and the bycatch is a lot lower.

Allowing customary take in HPA's has negative impacts on many fronts. It leaves the HPA's open to exploitation through customary take and doesn't align with the goal of creating a HPA if sea life is constantly being removed. Customary take permits allow for a significant removal of sea life, therefore is counter intuitive to the goal of HPA's. By not having HPA's customary take pressure won't be focussed on these areas as they will be the first place a holder of a customary take permit will look to execute their permit. I also think the overall backlash from the community would be significantly negative if people have access to take from HPA's. Another reason to reject HPA's.

I don't believe from what I have seen in your reports there has been enough research done into the financial impact HPA's will have on fishing stores & businesses that rely on the Hauraki Gulf recreational fishing. I think more time is required to gain the actual financial impacts that HPA's could have on businesses that rely on the Gulf and these businesses be properly consulted on plans.

From spending my life fishing on the Hauraki Gulf and being involved in the recreational fishing industry for over 20 years, I can categorically tell you from first-hand experience that the Snapper fishing and fishing as a whole, has never been better in the Gulf (In my lifetime at least). In summary, I believe HPA's are a step in the wrong direction and the timeframe these are being rushed through in are too short without the proper consultation. I am all for looking after the Gulf but believe there are better ways to secure the Gulf's future as mentioned in my points above.

Thanks for taking the time to read my submission, feel free to get in contact if required.

Regards,

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 11:38 am
To: Sea Change
Subject: Hauraki Gulf Marine protection

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia ora koutou

Thank you for consultation on marine reserves in the Hauraki Gulf. My name is s 9 (2)(a) and my family has a bach in s 9 (2)(a) so I spend a bit of time there and I will be commenting on the Whanganui A Hei Marine Reserve.

I support the expansion of the Whanganui A Hei Marine Reserve, I have noticed more and more marine life around the beach and around the offshore islands since the marine reserve has been in place. I am happy for the extension to go along the beach and I hope this will be clearly marked so beach goers can tell where the boundaries are.

Ngā mihi

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 11:47 am
To: Sea Change
Subject: Marine protection plan - Hahei Marine Reserve extension

Hahei Marine Reserve extension submission.

s 9 (2)(a)
s 9 (2)(a)

My family has owned a holiday home in s 9 (2)(a) for well over 30 years and **we do not support** the inclusion of any part of **Hahei beach** into the Te Whanganui a Hei (Cathedral Cove) Marine Reserve Extension.

Our reasons are as follows.

I spent a large part of my youth in Hahei fishing with my Dad on Hahei Beach. I believe fishing off the beach should be protected for future generations. I would argue that the level of recreational fishing that occurs around the beach is not significant enough to adversely affect the fish stock.

I support the creation of marine reserves, but I strongly believe that the location needs to be carefully considered. Restricting fishing off a public beach only penalises the recreational fisher, who usually can't afford an expensive boat to take them out past marine reserves.

The other half of Hahei beach that is not proposed to be included in the marine reserve is usually not suitable for fishing as there is far too much recreational activity from boats, ferries, sea kayaking, and swimming.

The wider proposals in the plan relating to curbing Commercial fishing are weak.
Why not stop all Commercial Fishing within 5 km of the coast? Why not prohibit bottom trawling within 50 km of the New Zealand coastline.

We strongly oppose the inclusion of any part of Hahei Beach in the proposed marine reserve extension.

s 9 (2)(a)
26/10/2022

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 11:53 am
To: Sea Change
Subject: Against sand mining Hauraki Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Kia ora DOC peeps,
I am standing against the sandmining of the Hauraki gulf area.
We are horrified at the potential damage you risk causing to the delicate ecosystem of the gulf and the Mangawhai Pakiri area.
Please let me know where else I can submit AGAINST this proposal.
Nga mihi,
s 9 (2)(a)

--

s 9 (2)(a) | THE BREEZE s 9 (2)(a)

Twitter: s 9 (2)(a)

Phone: s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 12:05 pm
To: Sea Change
Subject: Te Whanganui a Hei marine reserve.
Attachments: Reserve submission 26_10_2022.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

26th October 2022

I am writing this submission in regards to the proposed expansion to the Te Whanganui a Hei (Cathedral Cove) marine reserve.

Although I support the expansion of the reserve by extending it out to sea I am strongly opposed to the alteration of the Hahei beach boundary line and believe it should remain where it is currently positioned at both the beach end and at Mahurangi Island end.

I can see no benefit in having the beach as part of the reserve and surly if there was a benefit then the Cooks beach end of the reserve should also be included.

I have holidayed at s 9 (2)(a) for 49 years so far and have been a property owner for just over 30 years and enjoy showing visitors the marine life in the reserve.

Regards

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 12:16 pm
To: Sea Change
Cc: Sea Change
Subject: Revitalising the Gulf submission, New Zealand Geographic
Attachments: NZGeo_RTG_SubmissionFINAL.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Tēnā koe,

Please find attached the submission of New Zealand Geographic relating to the Revitalising the Gulf proposal. Please ensure this is considered.

Faithfully

s 9 (2)(a)

s 9 (2)(a)
PUBLISHER

s 9 (2)(a)

October 25, 2022

REVITALISING THE GULF
— A ONCE-IN-A-GENERATION OPPORTUNITY —

To whom it may concern,

Thank you for the opportunity to submit on the Revitalising the Gulf proposal.

1. SUBMITTER

   a. New Zealand Geographic is an independent magazine, digital media outlet and research organisation with an audience of more than a million New Zealanders. It was founded in 1989 and has been published for the past 10 years by Kōwhai Media Limited, a family-owned media company based in Tāmaki Makaurau.

   b. New Zealand Geographic has been reporting on the state of the Hauraki Gulf and the scientific evidence around marine protection for more than three decades.

   c. While it is unusual for an independent media outlet to make a formal submission to Government, in 2020 we changed our media and engagement policy on the subjects of climate and biodiversity, and have since taken a more committed stance to both our reporting and representations. This includes uncompromising journalism and direct submissions to government where the science is unequivocal and necessary actions unambiguous. The concerns included within the Revitalising the Gulf proposal meet those standards.

2. PROPOSAL

   a. From the perspective of scientific evidence, direct observation, our own research and interviews conducted by our journalists, **Revitalising the Gulf is a proposal critical to the health, biodiversity and resilience of gulf ecosystems and should be strongly supported.**

   b. There are some recommendations and considerations which, in our submission, are relevant to the public process, the drafting of the bill and the implementation of spatial protections.

3. DISCUSSION

   a. Early issues of New Zealand Geographic documented the battle of marine scientist Bill Ballantine to establish the world's first protected areas at Goat Island and the Poor Knights—areas which have proved overwhelmingly successful over the intervening period. The success of these areas is the subject of numerous scientific papers which document not only the restored kelp forests, biomass and biodiversity of the area within the reserve, but also the benefits that radiate out from the reserve in terms of eggs and larvae, travelling

NEW ZEALAND GEOGRAPHIC: Kōwhai Media, s 9 (2)(a)
Tel s 9 (2)(a) | s 9 (2)(a)

some 50 kilometres into the wider Gulf and supplying more than 10% of snapper recruitment into that area.

b. While the Leigh Marine Reserve is widely believed to be too small to meet its potential, it nonetheless contains eight-times more snapper and ten-times more crayfish than surrounding areas, coming close to the abundance of the Hauraki Gulf in pre-human times.

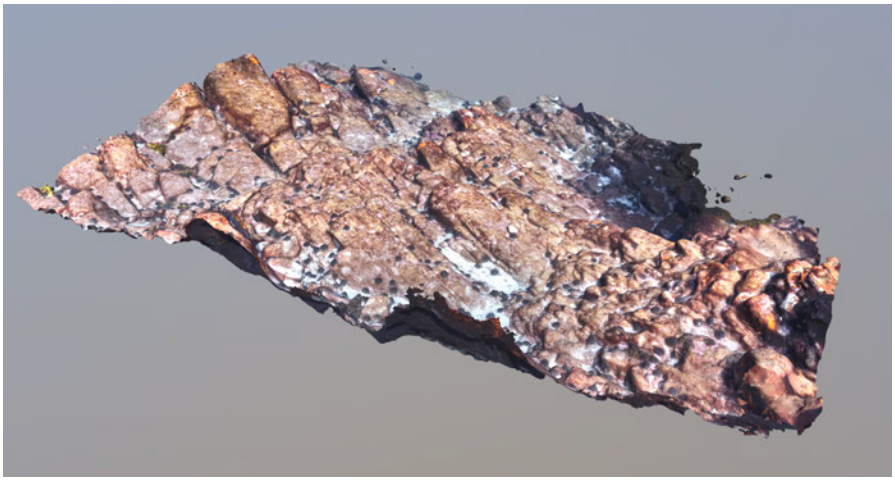
c. The reserves have also been an overwhelming success from an economic and public-access perspective. Despite covering just five kilometres of coastline, the tiny Cape Rodney-Okakari Point (Goat Island) Marine Reserve receives 375,000 visitors each year (an estimated 6,000 people per day in the peak summer) and generates $1.5 million worth of snapper, added $6.4 million to GDP per annum and a further $16.8 million to the total economic activities associated with all direct, indirect, and induced effects related to the recreational fishing activity.

d. However beneficial these reserves are for the surrounding areas, though, the primary purpose is the protection of the ecology within them. Sadly, the only intact marine ecosystems from North Cape and East Cape occur within the bounds of the handful of marine reserves. Most of the vast unprotected area has been depleted to an extent that many areas are subject to trophic cascade—the total collapse of the ecosystem.

e. On rocky reef that is a change from reef dominated by kelp to one dominated by bare rock and kina—so-called urchin barrens that now cover more than half of the rocky reef structures in the Hauraki Gulf. These are regulation failures writ large, so large you can see them from space—light patches on aerial photographs that should be dark and dense with kelp.

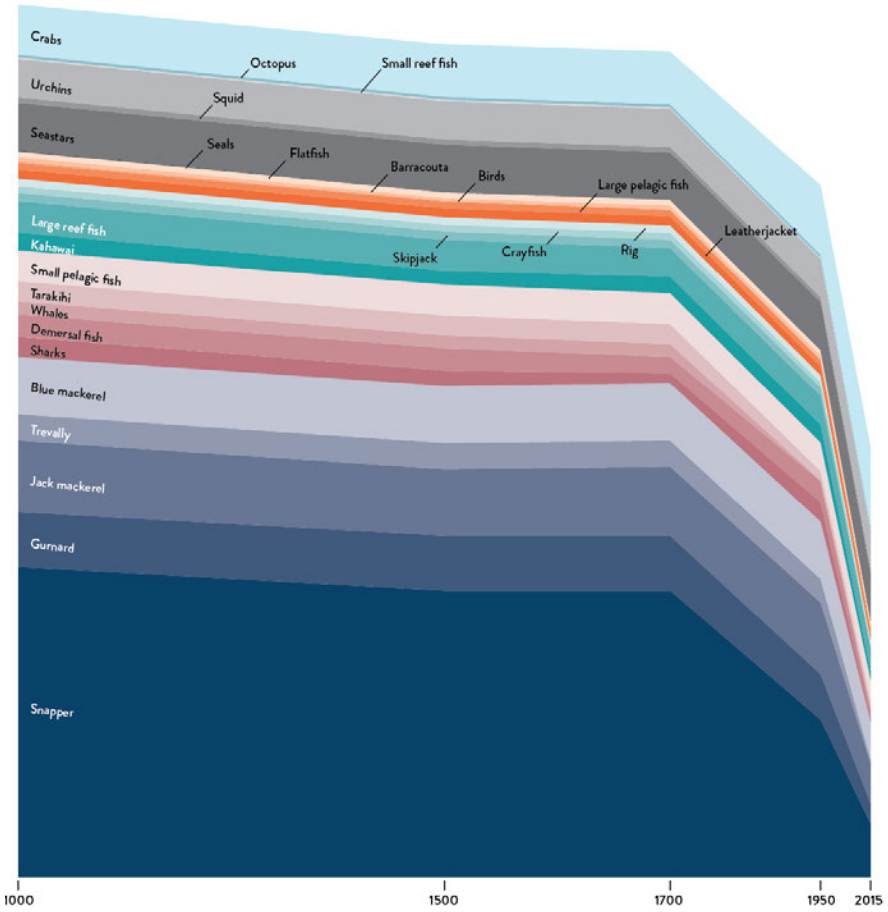
f. On the flats the effect is equally sobering. Large areas of the Gulf have been dredged and bottom-trawled for a century, mowing down benthic structures such as rhodolith beds, mussel beds and corals leaving little to retain larvae and little to avoid the dunes of sediment washing in from land. Rather than a complex benthic ecology, the Gulf is now dominated by monotonous deserts of muck that resist the settlement of life.

g. This has become particularly apparent with the development of New Zealand Geographic's Seascape technology which can create millimetre-accurate three-dimensional photographic models of the seafloor, allowing an unprecedented view of the benthic environment. We have used this technology to understand biodiversity and changes on shellfish beds, reefs and other structures.



h. Above, a 3D model of rocky reef habitat at Hauturu/Little Barrier—a island in the outer Gulf that was once one of the most productive temperate marine ecologies in the world, with verdant kelp forest and high biodiversity. The most cursory glance reveals a denuded rock platform, dominated by kina with little or no living structures. The site is in water that experiences little if any influence from run-off or sedimentation; pristine but for the effects of fishing.

i. The conditions we are seeing in the Hauraki Gulf are the direct result of a century of poorly managed fisheries, which has overlooked the interdependency of species by assessing only the abundance of commercial stocks, and managing those to at a low level—for most species around the soft limit of 20% of virgin biomass. This is without regard for the structuring role that some of those species have in the ecosystem at large.



j. Today we have a relatively depauperate marine environment with a very different population structure and food web. There is no way back, but amends can be made in relatively small areas to preserve not only a memory of the original ecosystem, but a reservoir to feed and restore the wider environment, like oases in a desert. In time, fisheries management may adopt ecosystem-based regulation that will allowed for recovery of unprotected waters, but for now evidence suggests that marine protection is the only tool capable of remediating biodiversity and biomass.

k. As such, the case for a network of effective, productive, well-located and well-sized marine protected areas is substantial and urgent.

4. RECOMMENDATIONS

a. The Revitalising the Gulf proposal meets the expectations of many within the scientific community and fits within the framework of the many stakeholders that New Zealand Geographic has interviewed over decades. While there are many calling for greater protections over greater areas, there are others who balance the necessity for marine protection against economic or recreational concerns and interests.

b. It should be noted that only no-take reserves—including those that allow limited customary harvest—have proven to be effective in arresting decline in biomass and biodiversity. Only the HPAs in the Revitalising the Gulf proposal meet this standard, or the international IUCN standard that defines marine protected areas. Like Benthic Protected Areas (BPAs), Seafloor Protected Areas do not protect the entire water column, nor do Cable Protection Zones—which additionally fail because they are not sited or sized or managed for biodiversity values. By this measure, HPAs cover just 6.1% of the Hauraki Gulf Marine Park, rather than the 18% DOC and ministers advertise.

c. We submit that there are a small number of areas where DOC may consider amending the boundaries described in the proposal.

i. **Hauturu/Little Barrier Island HPA** touches only the northern coast of the island, but reefs around the circumference were once verdant and productive. Protecting these reefs and restoring the biomass of fish at this central point would make a powerful contribution to the recruitment of snapper, crayfish and schooling fish in the wider Gulf, including the otherwise unprotected west coast of Aotea/Great Barrier and Broken Islands.

ii. There is value in extending the **Tiritiri Matangi HPA** to encompass the reefs around the entire island as well as Shag Rock and Shearer Rock. The shallows at this site were once abundant with crayfish and large snapper—an important reservoir for the Gulf. The Sea Change process noted that the "scenario 2" which is close to the proposed design "may be ineffective in meeting the objectives of the Sea Change Plan. The small size of the habitat patches included within the proposed marine reserve, along with the poor reserve design where reef is bisected by the reserve boundaries, would make the reserve unviable." An extension to include the remaining coast of the island and offshore rocks would address this concern. There is also a logical land-sea connection between the sanctuary ashore (the single-most popular excursion in Auckland according to Trip Advisor) and the fringing reef habitat which is particularly complex on the north side. Much of the recreational fishing activity is on the deeper reef on the north-east side so it may be possible to balance these competing interests.

iii. **Mokohinau Islands HPA** should ideally encompass Simpson Rock, a productive pinnacle that sees persistent schools of trevally and pelagic fish. It is also heavily fished with schools halving in extent over the past ten years. There is nowhere else in the Gulf that supports the same persistent feeding activity at the same location.

iv. Given the restored ecology ashore at Rotoroa as a pest-free island there is sense to including Rotoroa within the **Rotoroa HPA**. This would also address a concern raised as part of the Sea Change process that

"uncertainty remains regarding a few of the physical habitats present in the proposal being of viable size to meaningfully afford protection to associated species and ecological processes". Including Rotoroa would protect seven physical habitats and reduce the edge effects also noted in the detailed proposal.

v. There is an idiosyncracy in the plan around the **Alderman Islands HPA**. While sea areas to the north and south of the group have been protected, the area of greatest ecological value and greatest fishing pressure is in a carve-out around the island group itself in recognition of manawhenua who gifted the islands in 1968. The effect of that, however, is that the islands will suffer increased effort and accelerate the collapse. In the interests of maintaining manamoana—which is presumably the concern of iwi—we propose a Special Management Area bridging the two HPA areas which is to be managed dynamically, by iwi or in partnership with iwi. This would satisfy both concerns for biodiversity and kaitiakitanga.

vi. **Motukawao Group** is classed as an area of Outstanding Natural Character in the Waikato Regional Coastal Plan and of all the proposed locations in the inner Hauraki Gulf is probably the site with the greatest potential for recovery. This is true even in the context of the very high sediment flows into the Firth of Thames from Piako and Waihou rivers and in particular from Colville Bay on the adjacent Coromandel Peninsula. Agencies noted uncertainty due to "viable size" of the proposal and also that the proposal "bisects the Motukawao Group, meaning that significant edge effects are likely to result across the proposed boundary". Including other islands in the Motukawao Group (Double Island and Rabbit Island) would immediately address both concerns.

d. While the suggestions above include some criticism of the HPA design in the existing proposal, they are raised to strengthen the overall network and increase its benefits, rather than to imply weaknesses.

e. The proposed trawl corridors and five relatively small Seafloor Protection Zones appear to be the result of political bargaining with the commercial fishing sector rather than evidence-based policy. New Zealand is one of just five countries in the world that still allows bottom-trawling and dredging, an arcane practice that is objectively destructive to benthic ecosystems, primitive in its targeting and carries a high emissions profile by re-suspending and releasing carbon stored soft sediments. It's surprising that New Zealand continues to sanction these fishing methods, and indefensible that it does so in the Hauraki Gulf Marine Park—the closest thing we have to a national park of the sea.

f. The scientific consensus strongly suggests that Government should establish a Seafloor Protected Area over the entire Hauraki Gulf Marine Park.

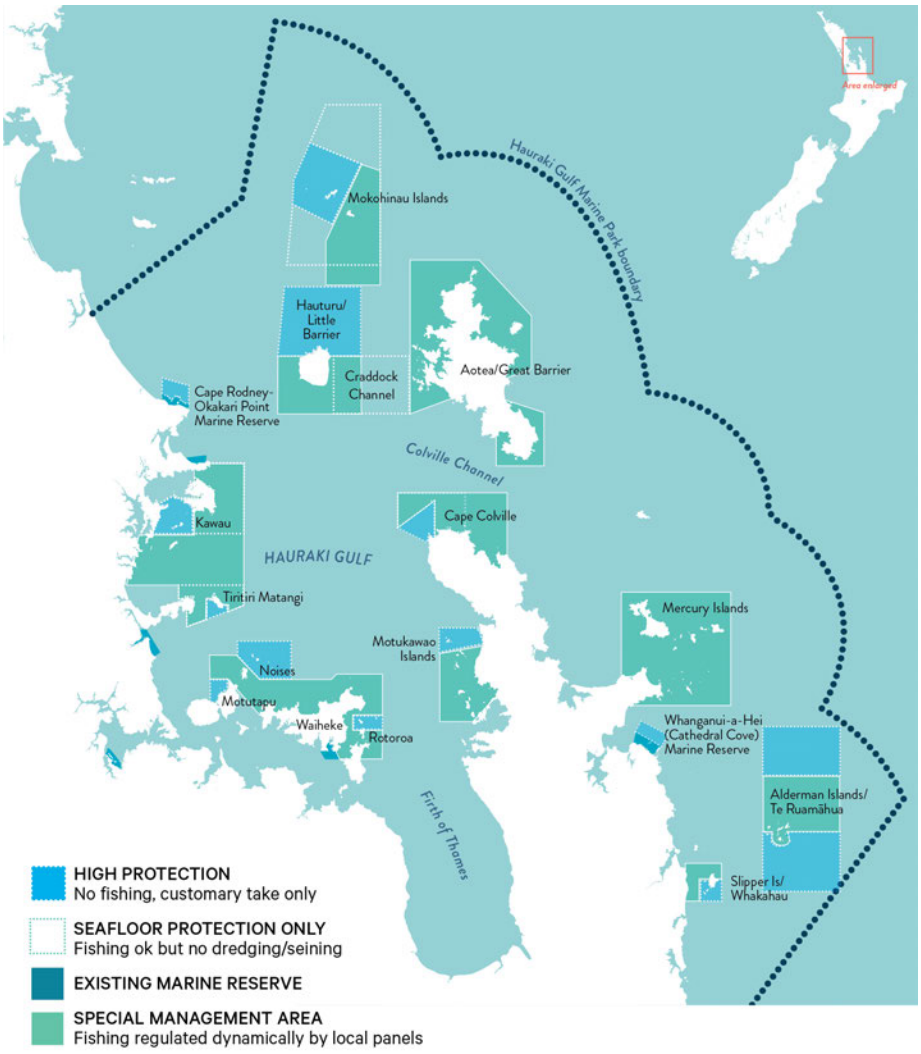
g. Given the efficacy of marine protection in restoring ecosystems, the complexity of these systems, the uncertainties of the design, and the public and industry response over time in terms of spatial substitution, it would be disingenuous to draft legislation limited only to the protections proposed with no means of supplementing with additional protections as required at a later date. Indeed the international commitments of the Government may require such. The Bill should include some means of adding, supplementing or adjusting protections in future, without recourse to new legislation.

5. SPECIAL NOTE: SPATIAL SUBSTITUITION

a. DOC has completed some modelling based on Bruce Hartill's research into spatial arrangements of fisheries pressure, finding that, in aggregate and not including the Noises, 5.7% of snapper catch would be displaced by the proposed HPAs. University of Auckland has unpublished data that demonstrates that the displacement of effort from the Noises HPA is significant at 3.6%, bringing the total to 9.6% for recreational and nearly 18% when commercial effort is considered.

b. This is not diffusely substituted, but will be concentrated in areas that closely resemble the valuable and vulnerable reefs being protected due to the selectivity of fishers. In this way, protecting some areas may result in the collapse of unprotected reef ecologies nearby, though there are some mitigating factors—mainly that snapper on fished-out reefs are transitory, and a doubling of effort doesn't mean a doubling of catch in depauperate fisheries.

c. Displacement of effort is not a reason to reject marine protection, but simply a consideration that requires the attention of fisheries management. In this respect, the Auckland-based group Good Fishing has proposed a mitigation measure. The group has defined sites vulnerable to displaced pressure from the proposed HPAs, and suggested Special Management Areas (SMAs) as an existing instrument under the Fisheries Act to address that additional pressure.



d. A SMA can define limits by species, method, season or user to accurately buffer adjacent areas from the deleterious effects of necessary marine protection, increasing or decreasing protections in order to compensate.

e. While it requires the cooperation of Fisheries, spatial protections are the best possible response to spatial substitution, and the notion of a responsive SMA tool, locally managed, could also address some of the primary concerns of iwi with manamoana, especially at the Aldermans and Hauturu where protections are respectively too small and unpalatable from a manamotuhake point of view.

f. Uneven effort—from an ecosystem perspective—is better than even effort. And a patchwork of spatial protections a more effective way to manage marine space than blanket regulations that are unresponsive to local conditions or impacts. SMAs elegantly address these concerns and embrace the overlapping values of this marine space.

6. SPECIAL NOTE: PUBLIC SUBMISSIONS

a. Opening a public consultation process on the marine protection element of the proposal, without final advice from the Fisheries Advisory Group and with little detail on the nature of customary harvest policies has been challenging or organisations and the public alike. These elements are contingent and should be considered together. This has limited and confused the submission process.

b. Concerns over displacement of effort have led some groups to oppose Revitalising the Gulf. However spatial substitution is merely an effect to be mitigated by fisheries management, and doesn't constitute a reason to reject marine protections. Arguing that displaced effort renders marine protected areas futile ignores the increased productivity of the protected area. No one suggests, for instance, that we should sanction farming within national parks in order to distribute effort more evenly. The argument should be seen for what it is—as a means to justify extraction regardless of the consequences. (It should be noted that the public campaign to ban trawling within the Gulf makes no mention of the effects of displacing commercial effort.)

c. During the course of reporting, New Zealand Geographic has discovered a frequent imbalance in the submissions of a number of organisations and the views of the members they purport to represent. In assessing these submissions, DOC must balance claims with reality.

d. A recent Horizon Poll surveying more than 1000 people bordering the Hauraki Gulf demonstrated that 78% supported as much as 30% marine protection. Only 5% opposed. When segmented by those who fish on a recreational basis, the desire for protection dropped only a few points—72% supported and 12% opposed. (The poll had a margin of error of +/-3% with 95% confidence.)

e. There is no stakeholder group representing the hundreds of thousands users who delight only in the power and beauty of the Gulf without extracting from it. No one from DOC has asked for their views as part of this consultation. DOC must be cautious that the demands of those who already exercise their right to fish across 99.7% of the Hauraki Gulf Marine Park do not drown out the quiet majority who hope only to treasure 6.1% in a natural state.

7. NOTE: GOVERNMENT'S RESPONSIBILITIES

a. Addressing the rapid decline in biodiversity and associated ecosystem collapse is a conservation imperative. DOC is in possession of high-quality scientific advice, and has a responsibility to proceed with the Revitalising the Gulf proposal in its most complete form.

b. Maintenance of indigenous biodiversity is a statutory obligation placed on authorities under the RMA to:

   i. have particular regard to the finite characteristics of the environment and to maintenance and enhancement of the environment;

   ii. recognise and provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna (SNA) as a matter of national importance;

   iii. and to, undertake human activity at the same time as "safeguarding the life supporting capacity of ecosystems".

c. New Zealand is also subject to international obligations relating to indigenous biodiversity. It is a signatory to the Convention on Biological Diversity (CBD) which has three main goals:

   i. conservation of biodiversity;

   ii. sustainable use of biodiversity; and

   iii. fair and equitable sharing of the benefits arising from the use of genetic resources.

d. Contracting parties have undertaken to develop national strategies, plans, or programmes for the conservation and sustainable use of biological diversity, by:

   i. establishing a system of protected areas or areas where special measures need to be taken to conserve biological diversity;

   ii. promoting the protection of ecosystems, natural habitats, and the maintenance of viable populations of species; and

   iii. rehabilitating and restoring degraded ecosystems and promoting the recovery of threatened species.

e. New Zealand has also agreed to the global Aichi targets for biodiversity set out in the Strategic Plan for Biodiversity 2010-2020, which were agreed by parties to the CBD in 2010, including by 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures and integrated into the wider landscapes and seascapes.

f. In addressing biodiversity decline in the marine space, marine protection is the only instrument available to DOC that has scientific support. Fisheries management alone—at least using tools currently practical within the Fisheries Act and stakeholder landscape—is insufficient to prevent trophic collapse. There is more than a century of evidence to support this, including almost four decades under the Quota Management System. The tools are only marginally adequate for managing commercial stocks, and wholly inappropriate for managing marine biodiversity.

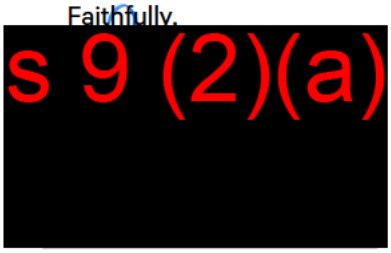
8. SUMMARY

a. After more than 20 years of the Hauraki Gulf Marine Park, and ten years of stakeholder engagement on Sea Change, Revitalising the Gulf is the only practical proposal to surface that has the potential to move the needle on ecosystem health in this generation. There is no alternative waiting in the wings and no better idea with greater support. There is no alternative path other than that which leads towards the spectre of total trophic cascade.

b. DOC is compelled by law to advance this proposal expeditiously, compelled by 76% of Aucklanders who support five times more marine protection than is proposed within this document, compelled by a precautionary approach to protect biodiversity, compelled by international obligations, and compelled by the moral certainty that doing nothing will result in permanent ecological collapse and withering of the mauri of the Hauraki Gulf which was once one of the most productive marine ecosystems on the planet.

c. The audience of more than a million people who connect with New Zealand Geographic, as well as the committed journalists, photojournalists, editors, scientists and publishers of the organisation itself expect the Department of Conservation and Ministry of Oceans and Fisheries to advance this proposal to law with urgency, commitment and political confidence. It has our total support.

Faithfully,



Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 12:18 pm
To: Sea Change
Subject: Submission
Attachments: s 9 (2)(a) submission marine protection.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To whom it may concern
Please find attached my personal s**Submission for *Revitalising the Gulf* Marine Protection Proposals**
My name is s 9 (2)(a) my email address is s 9 (2)(a)
And I am a resident at s 9 (2)(a) .
Thank you

s 9 (2)(a)

Submission for *Revitalising the Gulf* Marine Protection Proposals

s 9 (2)(a) s 9 (2)(a)
s 9 (2)(a) , 26.10.22

My name is s 9 (2)(a) and I live in s 9 (2)(a)
I care deeply about protecting our marine and seabird life which is so unique to Aotearoa and of great significance to the rest of the world.

Protecting our marine life is crucial to protecting our sea birds. It will also ensure that generations to come will be able to fish for food in our seas. Protecting our sea birds (and ensuring pest-free habitat for birds on islands and the mainland) is crucial to protecting our forests and endemic flora and fauna. Protecting our waterways, harbours and estuarine habitats will further ensure success of our marine nurseries and ongoing marine life.

It is critical that this natural cycle is able to continue and that both land and waterways are protected to ensure that marine life is sustainable for future generations to enjoy. It makes ecological sense to protect marine areas that adjoin land conservation areas. Although this is well recognised in the proposals, it could be extended to include ALL marine areas connected to land that is currently protected for conservation in NZ.

IN GENERAL, I support the 'Revitalising the Gulf, Marine Protection Proposals' package to establish new marine and seafloor protection areas to restore the Hauraki Gulf Marine Park/Tīkapa Moana/Te Moananui ā Toi.

The Hauraki Gulf is in a biodiversity crisis and ecological collapse. It is time to act for the benefit of future generations and the mauri of our precious moana.

The Government must act with urgency to set in place all proposed 19 protection zones in the Hauraki Gulf Marine Park by introducing legislation as soon as possible to enact these marine protection areas.

Marine protection is the only proven way to restore an ecosystem to full health. An intact ecosystem is also more resilient to external pressures such as sedimentation, pollution and the impacts of climate change.

We have seen the direct benefit of marine protection at Goat Island and the Poor Knights. The proposal to protect a range of small areas in the Gulf will bring the same benefits to the wider marine environment, feeding and replenishing unprotected waters.

IN ADDITION, to achieve maximum benefits for revitalising the Gulf, I implore the government to *move with pace* to deliver the Hauraki Gulf Fisheries Plan in close alignment with the marine protection proposals.

The extent of recovery within the High Protection Areas is dependent on how well other proposals in Revitalising the Gulf are implemented and managed over time, in particular, reform to fisheries management through the delivery of the Hauraki Gulf Fisheries Plan.

I ALSO ASK that a pathway for other NEW marine protected areas (to be assessed and included), is provided in the Hauraki Gulf Marine Protection legislation. Without such a pathway, the legislation will act as a block to the creation of other marine protected areas and/or mana whenua-led initiatives in the Hauraki Gulf in the future.

The current proposals will result in approximately 6% of the Hauraki Gulf Marine Park being in a form of *no-take marine protection*. This excludes the cable protection zones which don't constitute marine protection under IUCN definitions.
Whilst this is an enormous step forward for the Hauraki Gulf, it is still a very small fraction of the Marine Park and *requires further ambition to reach a 30% target.*

Management of the Hauraki Gulf Marine Park must be ***active, adaptive and enduring*** to meet the current environmental degradation and the uncertainty created by direct and indirect effects of climate change.

FURTHER SUPPORT FOR INDIVIDUAL RESERVES AND ADDITIONAL AREAS:
I have personal experience of the following areas and strongly support their protection

1. **Te Hauturu-o-toi/Little Barrier (#1) and Craddock Channel Seafloor Protection Area (#6)**

The HPA should be extended to include the east coast of Hauturu to include further shallow reef areas that have been excluded from the Seafloor Protection Area.

The currently proposed High Protection Area on the northern coast of Hauturu, New Zealand's premier conservation reserve, will provide for the protection and restoration of a significant area of habitats typical of the Outer Hauraki Gulf. Manta are frequently seen in this area and it is also a highly productive area for seabirds due to upwellings on deep reef structures.

The proposed Craddock Channel Seafloor Protection Area to the east of Hauturu will provide a level of protection for reef and seafloor communities and is relatively large. However the area directly adjoining the east coast of Hauturu has been omitted from the proposal.

There is a strong argument to be made that the entire coast of Hauturu should be protected within a no-take marine reserve to reflect a consistent conservation vision for the land and sea.

2. **Mokohinau Islands High Protection Area (#8a) and Seafloor Protection Area (#8b)**

The Mokohinau Islands have exceptionally high conservation values both on land and in the sea. They contain highly diverse seabird populations, unique reptiles and land invertebrates. Protection will ensure connection through contiguous conservation reserves from land to sea, and including a range of shallow and deep reefs supporting large schools of reef fish as well as sub-tropical species. The "Mokes" has the potential to rival the Poor Knights as a spectacular land and sea reserve. ***Consideration should be given to extending the HPA to include Fanal Island.***

3. **Kawau Bay High Protection Area (#10a) and Seafloor Protection Area (#10b)**

This is an area of high geophysical diversity and high habitat diversity that has great potential for restoration and recovery. It has already had considerable recreational use. The Seafloor Protection Area will provide protection to the zone's seafloor communities including scallop beds and for nursery habitats for snapper, sharks and other species.

4. **Cape Rodney-Okarari Point (Goat Island) (#13)**

The proposed seaward extension to the existing reserve will significantly improve the ecological integrity of the reserve. The new area is based on better understanding of the movements of lobster and snapper. Goat Island is already an outstanding reserve area and is very popular for recreation – the extension will reinforce its status as an icon of marine conservation in New Zealand.

ADDITIONAL AREAS should be considered for protection at:

5. **Aotea/Great Barrier Island** : the northern coast on both the west and east side of the Needles and an area around Rakitu Island.

6. **Tawharanui Marine Reserve** : this should be extended to seaward (for the same reasons as of Cape Rodney- Okarari Point) and also to east and southern coasts of Tokatu Point.

7. **Leigh coastal area** : I would like to advocate a ban of spearfishing along the coastal area directly adjoining the land, from Goat Island marine reserve to Whangateau estuary, to protect our reef fish and marine nurseries.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 12:35 pm
To: Sea Change
Subject: Revitalising the Gulf Submission
Attachments: Revitalising the Gulf.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

I attach a submission in response to the DOC's strategy on revitalising the Hauraki Gulf.

My contact details are

s 9 (2)(a)

s 9 (2)(a)

[redacted]

<<...>>

Revitalising the Gulf

Government action on the Sea Change Plan

Submission from s 9 (2)(a) s 9 (2)(a)

I congratulate the Department of Conservation in proposing more marine protected areas as High Protection Areas and Seafloor Protection Areas and in working with local communities and groups to investigate and implement more protection areas and active restoration. I also applaud taking an ecosystem based approach to fisheries management.

I have been involved with Revive Our Gulf, Motuihe Trust, and recreational boating. I would like to see more protection and more active restoration undertaken by community groups.

In particular I would like the following matters to be included in the Government's Strategy

1. Increase the HPA around Hauturu Little Barrier Island
    a. 25 x 25km HPA centered on the Island, 625sq km compared to the proposed 195sq km
    b. To increase protection for rocky habitat around whole island including Horn Rock
    c. To provides protection for the scallop beds around the island
2. Increase the MPA around Tawharanui Peninsular
    a. Include the coastline around the whole Regional Park
    b. Includes the rocky reefs and habitat from Takatu Point to Jones Bay, including Maori Rock
3. Create a new HPA around Motuihe Island
    a. The beaches and rocky reefs and the shallow subtidal zones were once habitat to shellfish and seaweed which supported a wide variety of marine life and shore birds
    b. Shore birds are an integral part of the mammal pest free Conservation island visited by tens of thousands of boaties per year.
    c. Motuihe Island is 30 minutes from Auckland and is a significant conservation asset, and it makes sense to extend the conservation ethos into the ocean.
4. Increase HPA in Hauraki Gulf to 30%
    a. The social, environmental, and economic benefits from increasing the HPAs have been well documented
5. Stop all bottom contact fishing and dredging in Hauraki Gulf
    a. The lobby group wanting to continue with bottom contact fishing and dredging appear to defy basic ecological reasoning.
6. Create a new protection system for all rocky reefs in Hauraki Gulf

    a. Rocky reefs provide structure for seaweeds which in turn are very important habitat for a functioning ecosystem
    b. Seaweed act as a carbon sink.
    c. Seaweed loss has ben caused by a number of factors including over fishing of large snapper and crayfish.
7. Do not allow any group to take from a HPA using a permit system
    a. Everyone will benefit from increased HPAs
    b. Abundance from ecosystem based fishing-management decisions will provide plenty of fish for everyone in non HPAs.

Sea Change

From: s 9 (2)(a)
Sent: Wednesday, 26 October 2022 12:51 pm
To: Sea Change
Cc: s 9 (2)(a)
Subject: Hahei Residents & Ratepayers submission
Attachments: DoCMarineReserveExpansion HRRA_Final_Submission.pdf; Hahei Pages from waikato-cms-volume-one.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia ora,

Please find attached the Hahei Residents and Ratepayers submission on the proposed changes to Te Whanganui a Hei (Cathedral Cove) Marine Reserve.

Many thanks for the opportunity.

Ngā Mihi,

s 9 (2)(a) MStJ
Chair | Hahei Residents and Ratepayers Association Inc.
Dip. Legal Exec | Dip. Real Estate | Dip. Environmental Management | AREINZ

s 9 (2)(a)

HAHEI
THE COROMANDEL - NEW ZEALAND

s 9 (2)(a)

Hahei Residents & Ratepayers Association

e-mail s 9 (2)(a)

Submission to Department of Conservation

Expansion of Te Whanganui a Hei (Cathedral Cove) Marine Reserve

12 April 2021

Seachange

Department of Conservation

Private Bag

Wellington

On behalf of the Hahei Residents and Ratepayers Association, we wish to make the following submission in relation to the Revitalising the Gulf – Marine Protection Proposals.

Our submission relates solely to the proposed expansion of Te Whanganui a Hei (Cathedral Cove) Marine Reserve as this will directly affect the residents and ratepayers of Hahei.

This submission is based on an intense debate held at our Annual General Meeting (AGM) on 22 October 2022. The meeting was attended by 32 residents and ratepayers of our community.

1 Executive Summary

Our community was instrumental in setting up Te Whanganui a Hei (Cathedral Cove) Marine Reserve and we view it as a very important part of our village. Indeed, the land section of Cathedral Cove was donated to the people of New Zealand in 1972 by Vaughan Harsant a prominent resident of Hahei.

Hahei residents have enjoyed the benefits of Cathedral Cove for many years. We have a strong connection to it and support the expansion, subject to the following:

- ***Hahei Beach Encroachment*** - we do not wish to see our beach divided and would like the current location, at the northern end of Hahei Beach retained
- ***Location of Hahei Beach to Mahurangi Island Boundary*** – a large majority of our residents would prefer the current boundary from Hahei Beach to the northern end of Mahurangi Island retained.
- ***Extension into Mercury Bay*** – we all strongly support the proposed extension of the reserve into Mercury Bay
- ***Improved DoC Management of Cathedral Cove*** – with the expansion of Te Whanganui a Hei (Cathedral Cove) Marine Reserve, we can expect more visitors both on land and sea.

Cathedral Cove is one of New Zealand's most popular tourist destinations and it is vital that DoC upgrades its management capabilities for Cathedral Cove. There must be more investment in enforcement, maintenance and other matters relating to long term management of such a wonderful asset.

We will now discuss each item in detail.

2 Hahei Beach Encroachment

We discussed the proposed location of the marine reserve boundary on Hahei Beach at our AGM and could find no support. Our members recommend that the existing boundary is retained for the following reasons:

- ***Right to Catch Fish from Hahei Beach –*** We strongly feel that residents and visitors, particularly children should be able to catch fish and pick up shells along the entire length of Hahei Beach.
- ***Dog Walking*** – Many residents and bach owners of Hahei love to walk their dogs on Hahei Beach. TCDC has range of dog walking restrictions on the beach and dog owners feel it is unreasonable to add more.
- ***Administrative Challenges*** – As with the existing beachfront carpark, there are challenges when DoC and Council have an interface. Who is in charge when it comes to enforcement, signage and management of a busy beach in the summer? On Summer mornings the most beautiful view in Hahei is filled with camper vans in the DoC section of the Hahei beachfront carpark, with no enforcement taking place. Even though freedom camping in Hahei is prohibited by the Council's freedom camping bylaw. The two agencies rarely mesh in their approach, and we anticipate the same on the beach itself.

3 Mahurangi Boundary

The current boundary was agreed by Hahei Residents when the Marine Reserve was created in 1992.

It was felt important to provide a safe, sheltered area to allow very small boats, i.e fishing kayaks and small dinghies (sometimes with small children on board) to fish, whatever the weather conditions. Even in fine conditions these craft can be too small to go further out "through the gap in the rocks" where the swell can be significant.

A large majority of our member still support this view and so we recommend that the current boundary, running from the end of Hahei Beach to the Northern End of Mahurangi Island, be retained.

4 Extension into Mercury Bay

Our members support the proposed expansion into Mercury Bay. Indeed, we would support further expansion towards Cooks Beach, if appropriate. It is vital however, that with a much larger area, DoC increases staff to control fishing by both recreational and commercial fishers.

5 Department of Conservation Management of Te Whanganui a Hei (Cathedral Cove)

With the expansion of Te Whanganui a Hei (Cathedral Cove) Marine Reserve, it is vital that DoC staff conduct an in-depth review of the management of the area. We worked with DoC staff to prepare the Waikato Conservation Management Strategy 2014 - 2024, we would be happy to work with DoC to update this plan. For your information, we have attached to this submission the section of this plan relating to Cathedral Cove and surrounding areas.

There are some key issues that must be addressed, particularly with the increased visitor numbers that are likely to occur going forward.

5.1 Enforcement

There is no point in expanding the Marine Reserve without improved enforcement. We know that the local DoC office has staffing challenges and so we suggest that DoC consider security cameras, such as those install at the Kapiti Island Marine Reserve.

5.2 Summer Crowding/Boats

During summer, we are seeing huge numbers of boats, both pleasure boats and commercial operators, visiting and sometimes anchoring in the marine reserve. DoC needs to develop a plan to control this.

6 Community Involvement

Going forward, we strongly recommend that any final decisions relating to Te Whanganui a Hei (Cathedral Cove) Marine Reserve, are discussed with our community. Our community has a lengthy and emotional connection to Cathedral Cove, and we are sure many of our residents would participate. We would be happy to organise a workshop at any time convenient for DoC

We look froward to working with you to implement the expansion of Te Whanganui a Hei (Cathedral Cove) Marine Reserve

Yours faithfully

s 9 (2)(a)
Chair
Hahei Residents & Ratepayers Association

10 Hahei Coast and Marine Reserve Place

The Hahei Coast and Marine Reserve Place comprises all public conservation lands and waters from Whitianga Rock Scenic and Historic Reserve to Hot Water Beach Recreation Reserve, including Whanganui-A-Hei (Cathedral Cove) Marine Reserve[49] and Mahurangi Island (Goat Island) (refer Maps 8.3 and 8.3.1). Policy direction for this Place includes advocacy priorities for the protection of natural character, biodiversity and landscape values off public conservation land. The public conservation lands and waters within the Hahei Coast and Marine Reserve Place are as follows:

- Whitianga Rock Scenic and Historic Reserve
- Diggers Hill Scenic Reserve
- Purangi River Marginal Strips
- Cook Bluff Marginal Strip
- Cook Bluff Scenic Reserve
- Cathedral Cove Recreation Reserve
- Mahurangi Island Recreation Reserve
- Te Pare Point Historic Reserve
- Te Pupuha Recreation Reserve
- Hot Water Beach Recreation Reserve
- Whanganui-A-Hei (Cathedral Cove) Marine Reserve
- Wigmore Historic Reserve

10.1 Description

The Hahei Coast and Marine Reserve Place is valued for its scenic coastal landscape, important estuarine and dune ecosystems, cultural heritage, and protected marine ecosystem, as well as land-, island- and water-based recreation and tourism opportunities. It includes the only marine reserve in Waikato and the popular tourist destination of Cathedral Cove, which is one of the most highly visited public conservation sites in Waikato.

The coastal landscape of this Place is characterised by rocky headlands, steep cliffs, and a rocky/platform foreshore with boulder and sandy beaches, and the occasional dune system. The rugged cliff tops provide impressive viewpoints and scenic backdrops. These natural features blend with views of coastal settlements, rural land, historical landmarks, native vegetation and relatively undeveloped areas of coastline. Many sections of the coastline have high visual appeal, stretches of which are protected by the sequence of coastal reserves in this Place. The coastline from Te Pare Point to Hot Water Beach is particularly dramatic and features blowhole formations. The maintenance and improvement of indigenous vegetation cover would enhance the area's natural character and scenic values.

The coastal ecosystems support the Threatened tūturiwhatu/New Zealand dotterel, tōrea pango/variable oystercatcher (*Haematopus unicolor*), taranui/Caspian tern and pohowera/banded dotterel. The marine reserve environment contains a mosaic of habitats that support diverse marine life, including plants, crustaceans, molluscs, more than 50 fish species, 80 algae, and 140 mobile and sedentary invertebrate species.

[49] 'Whanganui A Hei (Cathedral Cove) Marine Reserve' is the legal gazetted name of this Marine Reserve.

The Whitianga Rock, Cook Bluff and Cathedral Cove reserves support remnant coastal forest and scrub habitats. Te Pupuha Recreation Reserve is largely covered with mixed native shrubland, while a nationally significant coastal dune ecosystem is found within Hot Water Beach Recreation Reserve. The Purangi Estuary, which drains into Cooks Bay, supports significant mānawa/mangrove (*Avicennia marina*) forests and is one of the least modified estuaries on the Coromandel Peninsula. Diggers Hill Scenic Reserve, which is covered in remnant coastal forest, adjoins the estuary.

This Place has a diverse history of Māori and European occupation. Many historic sites, including pā sites, middens, pits and terraces, are evident on coastal reserve headlands. The abundance of kaimoana, combined with a subtropical climate, made the area a desirable place for settlement by Māori. Well-preserved pā sites and sites linked to landings and activities of Captain Cook feature at Whitianga Rock, Cook Bluff/Cooks Bay and Te Pare Point, and a further six archaeological sites are also present along Hot Water Beach. Walking tracks provide access to two pā sites that are actively managed by the Department, on Te Pare Point Historic Reserve and Whitianga Rock Scenic and Historic Reserve, with interpretation also provided. Early farming settlement and coastal World War II watch stations also feature in the European history of the area at Wigmore Historic Reserve, Cathedral Cove Recreation Reserve and Mahurangi Island (Goat Island). Protection of those historic places in Appendix 10 is a management priority.

This Place is of great significance to Hauraki Whānui, particularly Ngāti Hei, who have direct links to historic pā sites that are managed by the Department. The sustainability and protection of kaimoana and traditional, cultural and historic values, both spiritual and physical, are important to Hauraki Whānui.

Land- and water-based recreation opportunities are wide ranging and include sunbathing, swimming, snorkelling, scuba-diving, marine mammal viewing, fishing (outside the Marine Reserve), boating and kayaking, walking, picnicking and enjoying the natural beauty and, in some locations, the sense of isolation of the coastline. Coastal walking tracks are a feature, and there is scope for additional opportunities within the existing reserve network, and for improved linkages with reserves administered by Thames-Coromandel District Council. Balancing the demands from increasing visitor pressure with maintenance of the values on which these experiences are based is a key management issue for this Place.

Most commercial activity at this Place occurs in Cathedral Cove Recreation Reserve and the Marine Reserve. Activities include the sale and hire of goods and services to the public in the Cathedral Cove Recreation Reserve, guided walking and kayaking tours, and boat tours to Cathedral Cove. Filming is popular within this Place, especially at Cathedral Cove, and marine mammal viewing is undertaken in the Marine Reserve.

The Hahei Coast and Marine Reserve Place and surrounding area experiences high levels of visitor use over the summer months. Whitianga has been identified as the Peninsula's settlement hub in the Coromandel Peninsula Blueprint Plan. This is likely to increase demand for coastal subdivision and development in surrounding areas, which, in turn, has the potential to impact on the significant conservation values and highly valued coastal scenery in this Place.

The popularity of this Place, particularly Cathedral Cove Recreation Reserve, Cook Bluff Scenic Reserve and on Mahurangi Island (Goat Island) Recreation Reserve, puts considerable demand on facilities while also providing opportunity for commercial activities. However, if not carefully managed, this has the potential to have adverse effects on the natural values and the recreation settings that have made this Place so popular. The management issues in this Place are complex and in some instances linked to management responsibilities of other agencies, particularly Thames

Coromandel District Council. High visitor numbers and, at times, overloading of facilities, particularly at Cathedral Cove, have resulted in flow-on impacts into the local community, such as traffic congestion and illegal parking. The most important issues for the Department include: the integrated provision and management of recreation opportunities and facilities across this Place; establishing the social and environmental carrying capacity limits of, and levels of service provision needed at, highly visited sites; and limits and controls on commercial activity. The Department intends to work closely with local authorities, Hauraki Whānui, tourism agencies and the local community to resolve these issues, including the assessment and further development of options for the provision and management of recreation opportunities, recreation facilities and commercial activities in this Place. This may result in an amendment to this CMS in the future.

Cathedral Cove Recreation Reserve and Cook Bluff Scenic Reserve

Cathedral Cove Recreation Reserve is a very popular destination and features strongly in international tourism marketing campaigns. In 2011/12, 140 000 visitors used the car park and track system (excluding those accessing the reserve by boat)[50]. Peak visitation occurs between December and March, with relatively low numbers during winter. Infrastructure and services, managed by the Department and local authorities, are placed under significant pressure during the peak visitation period. The recreation facilities within the reserve are managed as an Icon destination, which also includes the track on Mahurangi Island (Goat Island).

The undeveloped and outstanding coastal scenery is the main attraction for visitors to the reserve and adjacent Cook Bluff Scenic Reserve. Cathedral Cove and Mares Leg Cove include a natural amphitheatre, the iconic archway, golden sand beaches, and significant geomorphological and coastal landscape features. The underlying geology of the reserve means that it is prone to erosion, and instability of rock material in the archway and along coastal cliffs has, at times, posed a significant risk to public safety. Good vegetation cover across the reserve is important to ensure stability, and the restoration of native vegetation cover, via a planned restoration programme, would also enhance the natural character of the reserve.

The walking track from Hahei Beach to Cathedral Cove is the only land access to the bays and coves within the reserve, and is an integral part of the visitor experience. Large crowds at Cathedral Cove and Mares Leg Cove during peak periods can at times alter the visitor experience. Gemstone Bay, Stingray Bay and bays northwest of Cathedral Cove (the latter being accessible by water only) have lower visitation and provide a more peaceful setting for visitors. The reserve also provides land access to the adjacent Marine Reserve. Maintaining this range of visitor experiences is a management priority. The high visitation also presents an opportunity to increase understanding through interpretation of the natural, cultural and historic values of the reserve and adjacent Marine Reserve. Historic values at Cathedral Cove include a pā site above the archway.

To manage the effects of reserve use, the Department intends to control commercial activities and closely manage recreational use within the reserves. This will include extending the reserve boundary to Mean Low Water Springs, investigating options for creating a commercial hub at the car park, including consideration of car parking requirements (with the possibility of charging for parking), and managing the number and spread of visitors across the reserve to protect the natural setting and visitor experience, particularly during periods of peak visitation. Specific mechanisms include

[50] Unpublished data, Department of Conservation.

the provision of visitor facilities to support the projected level of use, the creation of designated coastal landing sites and the control of some activities, including commercial passenger services (e.g. water taxis), kayak tours, and the sale and hire of goods and services to the public. The Department may also seek mechanisms to control private watercraft use and other commercial activities, should these have adverse effects on the conservation values and visitor experiences of the reserves. As outlined above the Department intends to work with others to inform the management of these reserves.

Whanganui-A-Hei (Cathedral Cove) Marine Reserve

Whanganui-A-Hei (Cathedral Cove) Marine Reserve provides long-term legal protection for important intertidal, subtidal and deep water ecosystems and habitats. The Department manages this area of the sea and foreshore to preserve marine habitats in their natural state for scientific study and education. It is also part of the Hauraki Gulf Marine Park (refer section 7). All marine life, the seabed and the foreshore are protected, and annual biological monitoring informs management about the health of the marine ecosystem. The Marine Reserve is accessed from Hahei Beach and Cathedral Cove Recreation Reserve, which provides an opportunity to showcase the marine environment in a location that is popular with domestic and international visitors. In particular, the Gemstone Bay snorkel trail provides a recreation and educational opportunity for visitors to experience and learn about the marine ecosystem. Adjacent terrestrial reserves and associated indigenous vegetation cover provide an important buffer between farmland and the Marine Reserve.

Illegal fishing, user conflicts (especially between motorised and non-motorised water-based activities in the Marine Reserve) and the large number of people enjoying the reserve during the peak visitor season are key issues. Minimising conflict between water users is a focus for management; however, the absence of legal authority to control commercial and water-based activities in the Marine Reserve does limit the mechanisms available for management by the Department. The Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve Committee, which includes community, tangata whenua, technical and Waikato Conservation Board representation, advises the Department on issues concerning the Marine Reserve. The long-term viability of the Marine Reserve requires the cooperation and support of all users, including commercial operators.

Mahurangi Island Recreation Reserve

Mahurangi Island (Goat Island) is highly modified as a result of previous farming activity. Vegetation cover includes regenerating and replanted coastal indigenous forest, and areas of grassland and kōti/gorse (*Ulex europaeus*). It supports remnant coastal forest, recovering scrub habitat, the Threatened fireweed *Senecio scaberulus* and tara/white-fronted tern, and is free of introduced mammals. The At Risk Mahoenui giant wētā and giant-flowered broom (*Charmichaelia williamsii*) have been established on the island. The legal status of Mahurangi Island Recreation Reserve and its island classification as an Open (island) Sanctuary[51] allows for controlled recreation and nature tourism opportunities. Opportunities include kayaking, day visits and walking. There is the potential for small group tours, and other nature tourism opportunities. Public access to the island could be provided by a regular water taxi service. The community currently helps the Department with conservation management on the

[51] Department of Conservation 2010: The Island Strategy: guidelines for managing islands administered by the Department of Conservation. Ecosystems Management Group, Department of Conservation, Christchurch, New Zealand.

island and there is significant potential for increased community assistance with island restoration. Mahurangi Island (Goat Island) is also an ideal site for interpreting island biodiversity values in Waikato and the Department's approach to island management in general (refer section 8).

Hot Water Beach Recreation Reserve

Situated north of the Hot Water Beach township, Hot Water Beach Recreation Reserve was created to facilitate public access to the beach, and to protect the sand dunes and undeveloped scenic backdrop. The coastline south of the reserve, which incorporates the Hot Water Beach thermal springs, is administered by Thames-Coromandel District Council. The scenic and fragile dune system within the reserve is a priority ecosystem site for the Department, and the foreshore hosts coastal bird populations, including the Threatened tūturiwhatu/New Zealand dotterel. Public access to the beach and foreshore is currently provided on land adjacent to the reserve that is administered by Thames-Coromandel District Council. Unauthorised motorised vehicle use (four-wheel drives and all terrain vehicles (ATVs)) has the potential to have a significant impact on biodiversity and landscape values. Protecting and restoring the sensitive dune ecosystem and maintaining an undeveloped coastal landscape for public enjoyment are key management priorities for this area. The legal status of the reserve as a recreation reserve does not reflect the high priority biodiversity and scenic values present. Therefore, a change in status to scenic reserve will be sought.

10.2 Outcome, policies and milestones for the Hahei Coast and Marine Reserve Place

10.2.1 OUTCOME

The inherent natural values, natural character and dramatic coastal landscape of the Hahei Coast and Marine Reserve Place are protected and restored and remain a draw card for national and international visitors and locals alike.

Priority threatened and at risk coastal and wetland bird populations and other threatened and at risk species are thriving. The ecological health of marine, island, coastal, estuarine and dune ecosystems within this Place is improving. Increased indigenous vegetation cover enhances ecosystem integrity, wildlife habitat and natural character, and contributes to improved land stability.

There is a vegetated buffer zone between the coastal-marine ecosystems and adjacent farmland.

The community, alongside the Department, makes a significant contribution to ecosystem conservation and the restoration of native vegetation cover.

The natural character of estuaries of the foreshore and the margins of the coastal reserves is maintained and enhanced, with minimal built structures present.

European and Māori history and cultural heritage is preserved, showcasing Māori settlement and early European arrival.

Visitors enjoy a diversity of land- and water-based recreation experiences, including accessible short walks, camping, swimming, snorkelling, scuba diving and kayaking. These experiences connect people with the values present, and they leave with fond memories and a greater appreciation of the Place. The number of people encountered varies depending on the time of year and site visited.

Visitors rarely encounter aircraft on public conservation lands and waters, particularly during the peak visitor season.

The Department collaborates with Hauraki Whānui, including local marae, hapū and iwi, the community and local authorities to achieve integrated management of the natural, cultural and historic values of this Place.

Commercial activity is consistent with and does not detract from the landscape, natural, historic, cultural and recreational values of the Place. Conflicts between user groups or activities are avoided.

Whitianga Rock and Te Pare Point

As part of the landscape, the headland pā sites at Whitianga Rock and Te Pare Point are preserved through the retention of vegetation cover and complementary restoration of indigenous vegetation. Visitors to Te Pare Point experience a walk that is sympathetic to the cultural landscape, enjoy uninterrupted views of the coastline and leave with an appreciation of the site's historic significance to Hauraki Whānui Walking tracks at and between Whitianga Rock and Cooks Beach are integrated with walks managed by Thames-Coromandel District Council, along which is interpretation of European and Māori heritage associated with Captain Cook and Māori occupation.

Cathedral Cove Recreation Reserve and Cook Bluff Scenic Reserve

The natural values, outstanding coastal landscapes and natural features of these reserves are protected, and cherished by Hauraki Whānui, visitors, the local community and concessionaires. Cathedral Cove remains a popular destination in this Place. Access is by walking tracks, or by boat through the Marine Reserve. The track system is managed as an Icon destination, and weaves through restored native vegetation to the coast. Track design facilitates access and helps to reduce the frequency of visitor encounters. People are aware of the presence of significant natural hazards. Visitors to Cathedral Cove and Mares Leg Cove expect to encounter other visitors, including land- and water-based guided tours, motorised and non-motorised watercraft, and independent visitors, especially during the peak visitor season. Gemstone Bay, Stingray Bay and the coastline to the northwest of Cathedral Cove (Cook Bluff Scenic Reserve) offer a quieter, more secluded experience, with fewer people and an absence of commercial activity, apart from the occasional tour group. Commercial activity within the reserve and along the foreshore does not detract from the natural values that prevail, and has a minimal impact on the natural setting and the experiences of others.

Whanganui-A-Hei (Cathedral Cove) Marine Reserve

Whanganui-A-Hei (Cathedral Cove) Marine Reserve is maintained or restored to a natural state as far as possible. Marine life is thriving, and research and monitoring has led to increased knowledge about the status of the marine ecosystem and species. The Marine Reserve is a popular hub for water-based recreation within this Place and is recognised as a best practice model for marine education. Users respect biodiversity values within the reserve, and conflict between users is minimal. People visit the reserve to experience and learn about marine ecosystems. Land-based access and interpretation is provided from Hahei Beach and Cathedral Cove Recreation Reserve, and the Gemstone Bay snorkel trail connects visitors to the marine ecosystem. The community, iwi, visitors and concessionaires benefit from the Department's cooperative approach to reserve management that reduces user conflict and minimises adverse effects on marine values and the adjacent Cathedral Cove Recreation Reserve.

Mahurangi Island Recreation Reserve

Mahurangi Island (Goat Island) is a biodiversity 'showcase' island destination, on which recreation and conservation occur in close proximity to each other. Free of

introduced mammals, the island supports healthy populations of threatened and at risk birds, plants and wētā, and is an important site for the reintroduction of other threatened and at risk flora and fauna. Biosecurity ensures that the risks of pest incursions are minimised. Restored indigenous forest and scrub habitats cover a large proportion of the island. The public enjoys a small range of island recreation experiences, through day visits focused on walking opportunities in a peaceful, secluded setting. Simple, quality facilities are provided to support these experiences and facilitate access onto the island. The island walking track immerses visitors in the natural, historic and cultural values of the island. The island is also a focal point for interpreting conservation management on other Hauraki Islands. As a centre for conservation volunteer opportunities, biodiversity values on the island are enhanced through restoration programmes, with assistance from the community. Small-scale guided nature tourism and commercial water taxi services enable visitors to access and enjoy an 'island experience' and contribute to island restoration.

Hot Water Beach Recreation Reserve

The undulating dune landscape and priority ecosystem provides an intact natural and scenic backdrop to Hot Water Beach. This important ecosystem is healthy and functioning with improved natural character. The t ūturiwhatu/New Zealand dotterel population is thriving. Visitors enjoy and appreciate the undeveloped natural coastal landscape and peaceful setting, and respect and learn about the dune ecosystem as part of this experience. Infrastructure necessary to protect public safety is located in a small, highly modified area at the southern end of the reserve, to protect natural and scenic values.

10.2.2 POLICIES

10.2.2.1 Advocate for, and work with landowners, iwi, local authorities and others to achieve, the protection of the following conservation values within and adjacent to this Place:

a) the highly valued scenic coastal landscapes, geological features and landforms, including natural character, that underpin the experiences and popularity of this Place;

b) coastal ecosystems, including dune systems, beaches and estuaries, and those ecosystems that provide habitat for threatened and at risk species, particularly shorebirds and wetland birds;

c) the maintenance of indigenous vegetation cover that contributes to biodiversity, natural character and land stability; and

d) marine ecosystems and species in the Whanganui-A-Hei (Cathedral Cove) Marine Reserve.

10.2.2.2 Work cooperatively and in collaboration with Thames-Coromandel District Council to facilitate integrated management of recreation opportunities and associated infrastructure between sites administered by the Council and the Department.

10.2.2.3 Further develop the relationship with Hauraki Wh ānui, including local marae, hapū and iwi, to enhance their special connection with this Place, particularly with respect to sites of cultural significance and their role as kaitiaki.

10.2.2.4 Should not allow the construction of built accommodation within this Place, to protect the natural character and dramatic coastal landscape of this Place.

10.2.2.5 Minimise the placement of structures on Te Pupuha Recreation Reserve, and ensure any structures are small scale and blend into the landscape to protect its scenic values, particularly when viewed from the sea.

10.2.2.6 May allow aircraft take-offs and landings in this Place, shown as Orange Zone on Map 4, only in accordance with the criteria listed in Policies 16.3.5.1, 16.3.5.5, 16.3.5.6 and 16.3.5.8 in Part Three, and provided that:

a) there is a maximum of 20 landings in any year across the Hahei Coast and Marine Reserve Place Orange Zone;

b) the activity only occurs on week days between 1 March and 30 November (inclusive) in any year, excluding public holidays; and

c) landing and take-off (including hovering) sites are identified during the assessment process.

10.2.2.7 Integrate and manage the provision of recreation opportunities and limits and controls on commercial activities in this Place, consistent with the social and environmental carrying capacity of public conservation lands in this Place, particularly Cathedral Cove Recreation Reserve, Cook Bluff Scenic Reserve and on Mahurangi Island (Goat Island). To achieve this, undertake a process for this Place, in close consultation with Hauraki Whānui, local authorities, the community, tourism organisations and other interested parties, to establish: (1) carrying capacities; (2) the range and spatial allocation of recreation opportunities and facilities; and (3) limits and controls on commercial activities (in addition to those specified in the following policies). Should any limits or controls specified in the policies in this Place require review, then a publicly notified partial review of, or amendment to, this CMS will be undertaken to amend the controls and limits set in those Policies.

Cathedral Cove Recreation Reserve and Cook Bluff Scenic Reserve

10.2.2.8 Work cooperatively with Thames-Coromandel District Council, tourism organisations, Hauraki Whānui, adjacent landowners and the local community to facilitate the Department's management of infrastructure, services and the visitor experience at Cathedral Cove.

10.2.2.9 Extend the seaward boundary of Cathedral Cove Recreation Reserve and Cook Bluff Scenic Reserve to Mean Low Water Springs.

10.2.2.10 Consider further restrictions on freedom camping at Cathedral Cove Recreation Reserve in consultation with interested parties.

10.2.2.11 Manage activities and water-based access in Cathedral Cove Recreation Reserve and Cook Bluff Scenic Reserve in accordance with Policies 10.2.2.12–10.2.2.21 for this Place, and subject to Policy 10.2.2.7 for this Place, to reconcile conflicting user demands and to protect natural scenic values and the visitor setting.

10.2.2.12 Should confine all commercial watercraft landings and commercial kayak tour landings to the designated Coastal Landing Sites at Cathedral Cove and Mares Leg Cove, as shown on Map 8.3.1, to minimise the disruptions to people using the beach. The Mares Leg Cove Coastal Landing Site should be used as an alternative landing site only when conditions are not safe to land at the Cathedral Cove Coastal Landing Site.

10.2.2.13 Should not provide or permit any landing structures for watercraft within the reserves to maintain the coastline as a place of unmodified natural beauty.

10.2.2.14 Limit commercial watercraft landings and passenger services (number of concessions, frequency of visits, location and number of landing sites, vessel sizes, and party sizes/number of passenger movements) to ensure that actual or potential adverse effects are avoided, remedied or mitigated so as to protect reserve values and other users (including their experience). Set limits through the process specified in Policy 10.2.2.7.

10.2.2.15 Limit commercial kayak landings (number of concessions, frequency of visits, location and number of landing sites, number of kayaks, and party sizes) to ensure that actual or potential adverse effects are avoided, remedied or mitigated so to protect reserve values and other users (including their experience). Set limits through the process specified in Policy 10.2.2.7.

10.2.2.16 May seek a bylaw to manage the use of private watercraft within the reserves, such as the number of watercraft landing on beaches, to minimise disruption to people using the beach.

10.2.2.17 Should not allow private or commercial use of motorised vehicles (including hybrid land/watercraft) on beaches within the reserves, except as provided for by Policies 10.2.2.12 and 10.2.2.14 for this Place, to minimise disruption to people using the beach.

10.2.2.18 Minimise the provision of visitor facilities and other structures along coastal sections of the Cathedral Cove Recreation Reserve by concentrating visitor facilities and structures at the reserve car park, and ensuring that those facilities are set back from the coastal margin, to protect the coastline of the reserve as a place of unmodified natural beauty and the scenic viewing opportunities from the reserve car park.

10.2.2.19 May allow the commercial provision of visitor information and the sale and hire of goods or services only in accordance with the following criteria, to protect the unmodified natural beauty of the coastline and the visitor setting:

a) the activity (including mobile vendors) only occurs within or directly adjacent to the reserve car park;

b) it complements the visitor experience by being directly related to the public use and enjoyment of Cathedral Cove Recreation Reserve and Whanganui-A-Hei (Cathedral Cove) Marine Reserve;

c) it does not detract from the natural setting;

d) it is at a scale that is in keeping with the capacity of the reserve car park;

e) preference is given to operators offering a scheduled service to the public; and

f) it is assessed in terms of Policy 10.2.2.20 for this Place where the activity involves construction of temporary or permanent structures.

10.2.2.20 May allow structures, such as the development of a combined café-type facility and visitor information centre only in accordance with Policies 10.2.2.18 and 16.2.1.5 in Part Three and the following criteria, to protect the unmodified natural beauty of the coastline and the visitor setting within the reserve:

a) any structures are located within or immediately adjacent to the reserve car park, and sited away from the coastal margin of the car park; and

b) any structures are sympathetically designed to minimise adverse effects on the surrounding landscape and natural values.

10.2.2.21 May allow other activities and events, including organised sports events and filming, only in accordance to the following criteria, to protect the unmodified natural beauty of the coastline and the visitor setting within the reserves:

a) the activity occurs between 1 March and 30 November (inclusive) of any year, excluding public holidays and weekends[52];

b) in the case of events that by design or purpose must occur during weekends, they only occur on weekends during the period specified in subsection 'a' of this Policy, excluding public holiday weekends;

c) adverse effects on the experience of other visitors, including visual and physical intrusion to the reserve, are minimised;

d) the public's right to freedom of entry and access is unconstrained unless it is necessary for their protection in using the reserves;

e) adverse effects on natural, cultural and historic values of the reserve are minimised; and

f) in the case of filming, the activity is also considered in accordance with the criteria in Policies 16.11.1.1 to 16.11.1.3 in Part Three.

Whanganui-a-Hei (Cathedral Cove) Marine Reserve

10.2.2.22 Develop, implement and promote a 'share with care' code of conduct for users of the Marine Reserve, in collaboration with the community, commercial operators, iwi and local authorities, and promote adherence to it by all users of the Marine Reserve.

10.2.2.23 Support and facilitate a cooperative working relationship with Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve Committee.

10.2.2.24 Monitor the compliance of activities undertaken in the Marine Reserve and prosecute alleged offences.

10.2.2.25 Promote marine conservation within the reserve via conservation events such as Sea Week.

Mahurangi Island Recreation Reserve

10.2.2.26 Manage activities and access in accordance with Policies 10.2.2.27–10.2.2.32 for this Place, to protect biodiversity values and the visitor setting on Mahurangi Island (Goat Island).

10.2.2.27 All commercial watercraft pick-ups/drop-offs and commercial kayak tour landings should occur in the designated Coastal Landing Site on Mahurangi Island (Goat Island), as shown on Map 8.3.1, to protect biodiversity values and the visitor setting.

10.2.2.28 Provide a landing platform or similar structure for public and commercial use in collaboration with concessionaires and other interested parties at the Coastal Landing Site on Mahurangi Island (Goat Island), to facilitate and

[52] Consideration outside this time period may be given where the proposed activity is demonstrated to have low impact on conservation/reserve and recreation values, is for a short duration and does not coincide with the busiest times of the day for visitor use and enjoyment.

manage access to Mahurangi Island (Goat Island) and thus protect biodiversity values.

10.2.2.29 May allow limited guided nature tourism on Mahurangi Island (Goat Island) only in accordance with the following criteria, to protect biodiversity values:

a) the activity is directly related to the appreciation of conservation values of the island;

b) the activity contributes to island restoration and conservation activities on the island;

c) the activity meets the requirements of the Waikato Island Biosecurity Plan (draft);

d) the activity is consistent with the Department's Island Strategy (November 2010), or any subsequent strategy, and the island classification for Mahurangi Island (Goat Island) (Open Sanctuary);

e) access for commercial activities is by motorised watercraft (e.g. a water taxi service) or kayak only:

i) watercraft are able, and of an appropriate size, to moor alongside a small platform;

ii) preference is given to operators offering a scheduled service to the public; and

iii) public access to the island by watercraft and kayaks is unrestricted by commercial activity;

f) a maximum of 55 people visit the island per day with concessionaires.

10.2.2.30 May allow the maximum daily limits specified in Policy 10.2.2.29 for this Place to be exceeded for the purposes of transporting volunteers to the island for conservation restoration activities or for holding conservation events.

10.2.2.31 Manage island biosecurity in accordance with the Waikato Island Biosecurity Plan (draft).

10.2.2.32 Should not allow camping or overnight stays on Mahurangi Island (Goat Island).

10.2.2.33 Develop recreational facilities in a manner that does not negatively impact on biodiversity values and restoration.

10.2.2.34 Promote recreation and volunteer opportunities on Mahurangi Island (Goat Island).

Hot Water Beach Recreation Reserve

10.2.2.35 Manage public access and vehicle use to protect the fragile dune ecosystem and shorebirds in accordance with Policies 16.3.1.6 and 16.3.1.7 in Part Three.

10.2.2.36 Investigate reclassification of the reserve to scenic reserve status, to afford more appropriate legal protection to the scenic landscape, sensitive dune ecosystem and threatened and at risk species present.

10.2.2.37 Should not allow development, including structures, in Hot Water Beach Recreation Reserve, except as provided for in Policy 10.2.2.38 for this Place, to protect biodiversity values and the intact natural and scenic backdrop.

10.2.2.38 May allow limited structures within the designated area at the south end of the Hot Water Beach Recreation Reserve, as shown on Map 8.3.1, to protect

biodiversity and scenic values only in accordance with Policy 16.2.1.5 in Part Three and provided that:

a) any structure and associated activity is for the purpose of providing an essential service for public safety only;

b) any structure blends in with the surrounding landscape, is single storey and not visible from the beach, except for that part of a structure which is essential for public safety surveillance of the beach (e.g. an observation tower);

c) the footprint of any structure and associated activities, including vehicle access, is minimised; and

d) any structure is located on a modified site dominated by exotic vegetation, and the site landscaped in a manner that restores and enhances ecological values and indigenous species present on the reserve.

10.2.3 MILESTONES—OUTPUTS

Completed by the end of Year 3 after CMS approval (2017)

10.2.3.1 Scheduled outputs identified in approved work programmes for the priority ecosystem units located in this Place.

10.2.3.2 Scheduled outputs for nationally threatened and at risk species in this Place outside priority ecosystem units for which a work programme is underway (if any).

10.2.3.3 A 'share with care' code of conduct for Whanganui-A-Hei (Cathedral Cove) Marine Reserve has been developed and promoted.

10.2.3.4 Experiential development assessments have been completed for the Icon destination within Cathedral Cove Recreation Reserve and Mahurangi Island Recreation Reserve and other popular visitor destinations within this Place.

10.2.3.5 Outcomes resulting from the actions identified in Policy 10.2.2.7 have been integrated into operational work programmes and implementation is in progress.

Completed by the end of Year 5 after CMS approval (2019)

10.2.3.6 Outcomes resulting from the actions identified in Policy 10.2.2.7 have been integrated into operational work programmes and implemented.

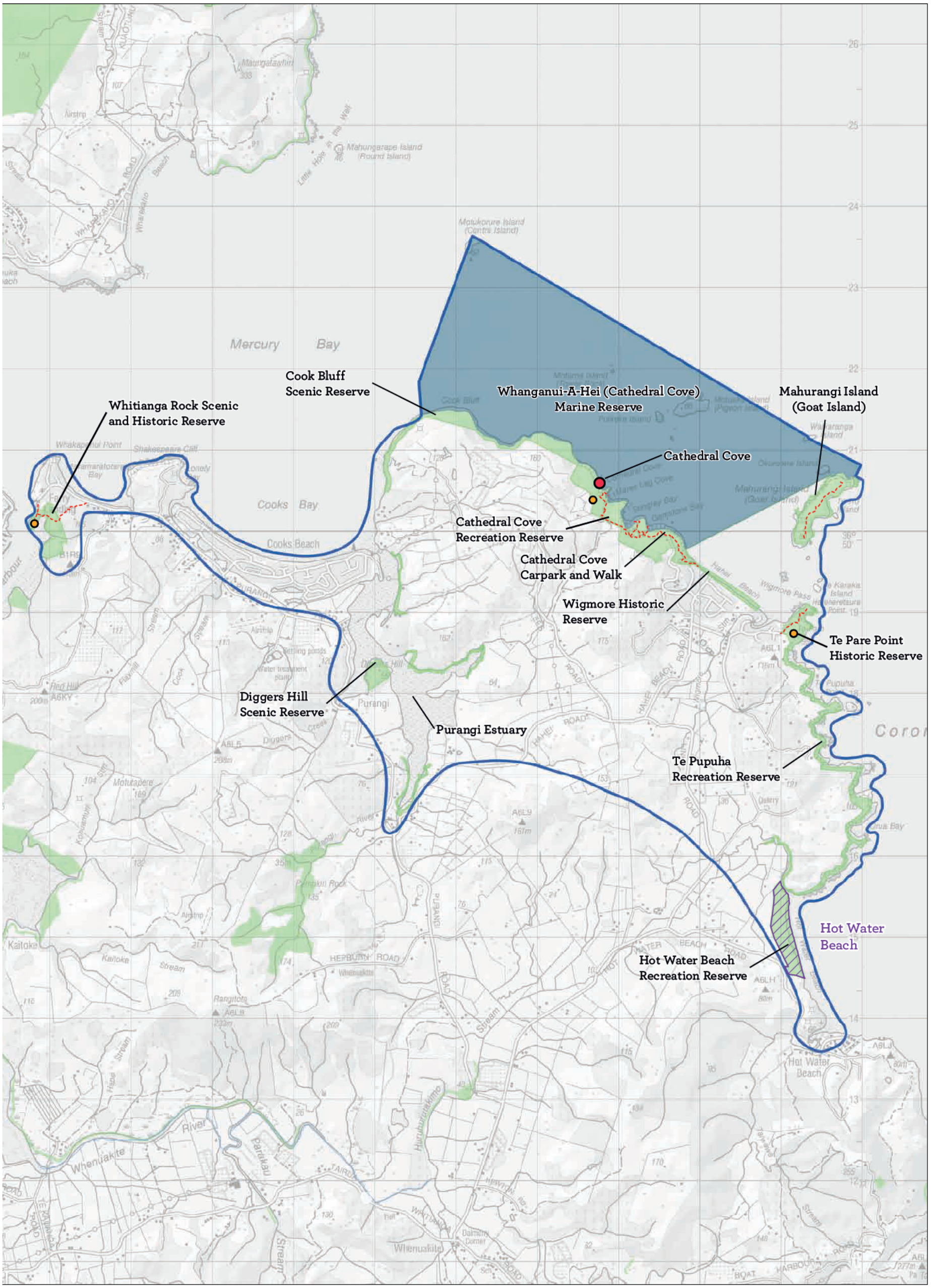
10.2.3.7 Visitor monitoring data (qualitative and quantitative) have been analysed and reviewed for land- and water-based activities on public conservation lands in this Place and the Whanganui-A-Hei (Cathedral Cove) Marine Reserve.

10.2.3.8 Hot Water Beach Recreation Reserve reclassification.

Completed by the end of Year 10 after CMS approval (2024)

10.2.3.9 Cathedral Cove Recreation Reserve 10-year vegetation restoration plan has been implemented.

10.2.3.10 The success of outcomes resulting from the actions identified in Policy 10.2.2.7, and the implementation of those outcomes has been reviewed and recommendations implemented.



Map 8.3 Hahei Coast and Marine Reserve Place

Conservation Management Strategy
Waikato

Cathedral Cove and Mares Leg Cove
Coastal Landing Sites

Mahurangi Island (Goat Island)
Coastal Landing Site

Hotwater Beach Recreation Reserve: Designated area for structures

Map 8.3.1 Hahei Coast and Marine Reserve Place detail

Conservation Management Strategy
Waikato

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 12:55 pm
To: Sea Change
Subject: Opposition to Whanganui-A-Hei (Cathedral Cove) Marine Reserve Expansion Proposal

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

To Whom it May Concern,

I would like to submit my opposition to the proposed Whanganui-A-Hei (Cathedral Cove) Marine Reserve Expansion.
As a s 9 (2)(a) and recreational fisher, I feel the existing Reserve is effective in providing shelter for marine life as it already encompasses an extensive amount of reefs, many of which are sheltered by the islands. Expanding the Reserve will not increase the size of Cathedral Cove or Stingray Bay and will cause more water traffic in the area than there is there now. The proposed extension will affect boating safety adversely as the new area is where one can fish with the security of being visible to the populated area. Including 'Half' or any of the beach will not alter the accessibility to the reserve as this is still weather dependent by sea. The proposed expansion including the beach is a common place for safe surfcasting, and unless drone fishing, you cannot cast near the Reserve from the beach. It will also mean I/we are unable to walk/run our dog the full length of the beach.
Ultimately, a larger Reserve will lead to more visitors. The Cathedral Cove Beach toilet, the toilet block at the Cathedral Cove Lookout and the local Hahei infrastructure are already not adequate for the Summer visitor influx and reducing pollution should be a higher priority than increasing the Reserve size.
I also feel it pointless to extend when it is not particularly well policed at the size it is.

s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 1:27 pm
To: Sea Change
Subject: "Support for Revitalising the Gulf"

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Hi,
I live in s 9 (2)(a) but believe we are harming our oceans in ways that may be irreversible. Please, listen to the to us and 'Revitalise the Gulf' in every manner possible.
Kind regards
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 1:46 pm
To: Sea Change
Subject: Submission: Help Revitalise the Gulf

:

seachange@doc.govt.nz

Your Name: s 9 (2)(a)

Your Email s 9 (2)(a)

Address: s 9 (2)(a)

Subject: Submission Revitalising the Gulf

Message
Hi,
I would like to try and communicate my utter disgust at the proposed changes to the gulf. I honestly could not believe my eyes as I was reading it. Your proposal suggests creating zones where depending on the my ancestors I am either allowed to fish or I am not. I don't think you could get a clearer example of a racist policy if you tried. I just dont understand how you can even suggest creating racist policies in this modern age. I thought we had left all of this in the dark ages. I 100% support the creation of marine reserves, in fact I think you should go further, and place restrictions on at least 30% of the gulf. However, how in your right mind can you think that creating protection zones, and then allowing one race to fish there but not another is helping anyone. If you are actually serious about solving the issues with the gulf then you need to remove the race card from the discussions and just look at the ecological issues at hand. I cant believe I even have to say this, as its so obvious.
Anyway, please, for the love of the gulf, don't go and screw it all up by creating totally racist policies in the name of protection, because I can tell you it wont help anyone, especially not the gulf itself.

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Wednesday, 26 October 2022 1:51 pm
To: Sea Change
Subject: Protection Zones Submission
Attachments: Protection Zones Submission.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Please find attached my submission on the creation of race based protection zones.

Yours Sincerely,
s 9 (2)(a)

Hi,

I am making this submission on behalf of David Lyons, a private individual. These views are my own and do not represent any other organisation or persons.

I would like to try and communicate my utter disgust at the proposed changes to the gulf. I honestly could not believe my eyes as I was reading it. Your proposal suggests creating zones where depending on the my ancestors I am either allowed to fish or I am not. I don't think you could get a clearer example of a racist policy if you tried. I just don't understand how you can even suggest creating racist policies in this modern age. I thought we had left all of this in the dark ages. I 100% support the creation of marine reserves, in fact I think you should go further, and place restrictions on at least 30% of the gulf. However, how in your right mind can you think that creating protection zones, and then allowing one race to fish there but not another is helping anyone. If you are actually serious about solving the issues with the gulf then you need to remove the race card from the discussions and just look at the ecological issues at hand. I cant believe I even have to say this, as its so obvious.

Anyway, please, for the love of the gulf, don't go and screw it all up by creating totally racist policies in the name of protection, because I can tell you it wont help anyone, especially not the gulf itself.

You can contact me at s 9 (2)(a) [redacted]

Sea Change

From: s 9 (2)(a)
Sent: Wednesday, 26 October 2022 3:43 pm
To: Sea Change
Cc: s 9 (2)(a)
Subject: Submission - Revitalising the Gulf Marine Protection Proposals
Attachments: Revive Our Gulf - Submission on Revitalising the Gulf - Marine Protections - 261022.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia ora Sea Change team,

On behalf of the Mussel Reef Restoration Trust, please find attached submission.

We would be grateful for your acknowledgement of this.

Ngā mihi nui,
s 9 (2)(a)
s 9 (2)(a)

The Mussel Reef Restoration Trust
Revive Our Gulf project
www.reviveourgulf.org.nz

Submission to: Revitalising the Gulf Marine Protection Proposals

26 October 2022

Contacts:

s 9 (2)(a)
Trustee & Policy Lead
s 9 (2)(a)

s 9 (2)(a)
Kaihautū / Programme Director
s 9 (2)(a)

s 9 (2)(a)
Advisor
s 9 (2)(a)

The Mussel Reef Restoration Trust
Te Ohu Whakahaumanu i ngā Ākau Kūtai

UNIVERSITY OF AUCKLAND
Waipapa Taumata Rau
NEW ZEALAND

About us

1. The Revive Our Gulf project is an initiative to restore the seabed kūtai / green-lipped mussel (*Perna canaliculus*) reefs of Tīkapa Moana / Te Moananui ā-Toi / The Hauraki Gulf.

2. The project vision is a Hauraki Gulf ecosystem with restored mauri / life essence, and returned to a state of natural biodiversity and abundance.

3. The project has three core collaborative partners: the Mussel Reef Restoration Trust (MRRT), an NZ registered charity; The Nature Conservancy (TNC), a global environmental organisation; and the University of Auckland (UoA). We work in partnership with iwi / hapū across Tīkapa Moana / Te Moananui-ā-Toi / The Hauraki Gulf on mussel reef restoration projects.

4. The opinions expressed in this submission are those of the MRRT backed up by science from the Institute of Marine Science UoA. This submission does not reflect the views of TNC or our tangata whenua partners.

General comments of support

5. **We support the Revitalising the Gulf, Marine Protection Proposals package** to establish new marine and seafloor protection areas in the Hauraki Gulf Marine Park / Tīkapa Moana / Te Moananui-ā-Toi (the Gulf).

6. **We encourage Ministers to proceed as quickly as possible** to implement these much needed changes.

7. We support the Hauraki Gulf Forum in its stated goals to protect 30% of the Hauraki Gulf Marine Park and restore 1,000 sq km of shellfish-bed and reef.

8. There is broad scientific consensus that protecting or conserving at least 30% of land and oceans is the minimum needed to curb biodiversity loss and to reach global climate goals. The Hauraki Gulf Forum's 30% marine protection goal accords to the proposed United Nations Convention on Biological Diversity target of 30% marine protection by 2030.

9. MRRT is a member of The Hauraki Gulf Alliance – a collaboration of environmental and recreational fishing organisations – calling for an end to destructive mobile bottom contact fishing methods that impact the seabed in the Hauraki Gulf Marine Park.

10. Globally, marine areas that abound densely populated cities are under significant pressure. Auckland and the Hauraki Gulf Marine Park are not unique in this challenge, and increasing protection and more careful management of inshore coastal areas is vital.

Why marine protections are important to us?

11. The Revive Our Gulf project is all about regenerating ecosystems which have been removed from the Gulf or are severely depleted. Marine protection is critically important to the success of our kaupapa.

12. Marine protection will protect some known critically important wild mussels. These remaining, older wild mussels are vital brood stock. Large adults make a disproportionate contribution of eggs and sperm. They are now incredibly valuable as a source of scientific study and as potential brood stock while we are attempting to regenerate the reefs.

13. New research indicates that mussel farms may not add to viable larval flow indicating the importance of wild stock (Toone et al. 2022). The intention of the Revive Our Gulf project is to create large kūtai/mussel beds that will increase larval supply and stimulate natural recruitment.

14. The proposed marine protection package includes areas where we are currently undertaking active restoration and others areas we are planning restoration work. Protection helps insure our investment in this mahi.

15. Kūtai are dependent on algae species to complete their lifecycle, specifically, larvae usually settle first on flexible filamentous surfaces such as seaweed. Reducing fishing effort (by creating HPAs) should aid the restoration settlement substrate needed for kūtai, and we note that kūtai are farmed extensively and available cheaply at the supermarket.

Support for customary practices, special legislation and active restoration

16. We acknowledge and support the Government's work to recognise customary practices of Mana Whenua while meeting the needs of marine protection in the Hauraki Gulf.

17. We request that the Government puts appropriate effort into public education around customary practices as, presently, little information is available to support public understanding.

18. We support customary management tools such as rāhui, and observe that their increasing use in the Hauraki Gulf Marine Park is symbolic of a failure of Government agencies to manage and protect the Gulf's marine ecosystem through current legislative and regulatory tools.

19. **We therefore support the Government creating special legislation** (i.e. the Hauraki Gulf Marine Protection Bill) for the Hauraki Gulf Marine Park.

20. In creating special legislation **we request the Government be future focussed and:**

- Provide a mechanism to introduce additional marine protected areas over time.
- Include a marine protection target of 30% marine protection for the Hauraki Gulf, to provide clear points of reference for ongoing engagement with iwi and stakeholders and to align to the goals already set by the Hauraki Gulf Forum.
- Be based on best practice marine protected area design principles: no take, well enforced, old (>10 years), large (>100 km^2), and isolated by deep water or sand (Edgar et al 2014).
- Recognise ecosystem based management principles, including explicitly acknowledging the interconnectedness among systems, such as between land and sea; and recognising the strong interdependencies between ecological, social, economic and cultural perspectives. (TNC Marine Spatial Planning).

21. In a New Zealand context, an ecosystem based management approach would also incorporate both science and mātauranga measures to recognise and meet Tīriti obligations and because such an approach should get the best results for the environment.

22. **We support the inclusion of "active habitat restoration initiatives,** such as the removal or addition of marine life (translocation) to improve habitats of interest" in the HPA proposals.

23. Our research shows that active restoration alone is unlikely to restore the Gulfs historic kūtai reefs at any scale. Passive restoration will need to work hand-in-hand with active restoration to reduce the cost of the restoration effort in order to achieve square km scale.

24. **We request that the Government take care when designing the legislative provisions for active habitat restoration, so as to enable the ability to add species <u>and</u> also supporting material, such as substrates, and structures.**

25. We also request that care be taken to ensure the planning and consenting processes for such activities are pragmatic and able to be responsive to urgent situations and opportunities. For example, earlier this year, Revive Our Gulf prepared and undertook a large mussel deployment in just six weeks, to coincide with the first Matariki public holiday, at the request of one of our iwi partners.

26. The Government could consider allowing Territorial Authorities to manage such permissions under regional plans and consenting processes, or in the very least, ensure that the responsibilities between the Territorial Authorities and the Department are clearly articulated.

27. We are interested in undertaking mussel reef restoration in several of the HPAs. **We would therefore kindly request to be included in discussions with Mana Whenua about biodiversity objectives.** We are also working on translocations of other species which may accelerate biodiversity goals.

28. We already have relationships and plans with several Tangata Whenua for mussel reef restoration in their respective rohe. We believe by being included in the kōrero about biodiversity objectives we may be able to offer our support to realise those objectives faster.

Seafloor Protection Areas (SPAs)

29. As noted above, MRRT is a member of The Hauraki Gulf Alliance – a collaboration of environmental and recreational fishing organisations – calling for an end to destructive mobile bottom contact fishing methods that impact the seabed in the Hauraki Gulf Marine Park.

30. We support the Hauraki Gulf Forum's policy to remove all industrial bottom trawling and scallop dredging harvest techniques from the entire Hauraki Gulf Marine Park.

31. These fishing techniques were responsible for the loss of huge (100s of square kilometres) kūtai ecosystems in Aotearoa New Zealand.

32. Although we would like to see the entire seafloor of the Hauraki Gulf Marine Park protected, we were also involved in the Hauraki Gulf - Benthic Spatial Planning Advisory Group (HG-BSPAG) with DOC which was run by Fisheries New Zealand. In the design process, the SPAs were useful in limiting the impact of bottom trawling and Danish seining on the seafloor, and in that vein, we understand that the SPAs are critical to the design of the bottom trawling corridors.

Regular review and adaptive management

33. *Revitalising the Gulf* refers to the development of a monitoring and reporting framework for the Hauraki Gulf, which will be underpinned by an adaptive management cycle to ensure management actions can be adjusted based on regular evaluation.

34. The *Marine protection proposals* consultation document is currently silent on the matter of evaluation.

35. Although we understand the sense of review to assess progress and refine goals and conservation targets, we suggest the Government exercise caution when defining how regular evaluation will take place. The IUCN definition of a marine protected area includes that the area should be managed in perpetuity and not as a short-term or temporary management strategy (IUCN 2008,2013).

36. *Revitalising the Gulf* also refers to the development of a monitoring and reporting framework, and the development of a Gulf research plan.

37. As an organisation that invests in and undertakes considerable research and development we would be interested to work with the Government in preparation of its research plan.

38. Over the last four years the Government has provided some seed funding for mussel reef restoration – for which we are grateful. MPI/FNZ has also put in resources, created the biosecurity risk assessment and given guidance on mapping.

39. MRRT already has a good understanding of most of the topics identified for the *Habitat Guidance Framework*, the key deliverable for Active Habitat Restoration identified in Revitalising the Gulf. A bigger impediment to progress is the lack of funding needed to develop capability and capacity.

40. In the short-term, funding is required to undertake extensive habitat mapping and to establish collaborative projects with Mana Whenua. Over time, funding to build capacity for scale will be needed. In 2020, Australia's Federal Government invested $20 million (AUD) in shellfish restoration (TNC 2020).

41. The Sea Change Ministerial Advisory Committee report noted that "Our major concern with this part of the strategy is a complete lack of reference to funding sources for restoration. While identifying regulatory barriers is mentioned, there is no mention of funding barriers, which are arguably just as significant. Active restoration efforts will require resources to implement and sources of funding should be identified."

42. We request the Government allocate funds for monitoring, research and reporting for the Hauraki Gulf, to match the scale of the problem we are working with.

Conclusion

43. If implemented along with the Hauraki Gulf Fisheries Plan, the marine protection proposals have the potential to move the needle on ecosystem health for Tīkapa Moana / Te Moananui ā-Toi / The Hauraki Gulf.

44. It has now been almost 10 years since stakeholder engagement on Sea Change commenced.

45. There is broad public support for more marine protection in the Hauraki Gulf. **77% of respondents supported the idea of putting 30% of the Hauraki Gulf into marine protected areas. Only 5% were opposed in** a recent Hauraki Gulf Forum research poll conducted by Horizon Research. There is clear mandate to proceed with this proposal, and more substantial protections in the Hauraki Gulf Marine Park.

46. Along with many other organisations, including land based restoration activities, Revive Our Gulf is working to build a healthier, more vibrant moana, but it is the Government that holds the keys to unlock the benefits that would result from marine protection of this scale. We need all these efforts combined.

47. **Urgent action is needed to repair damage to the Gulf and to stop it degrading further. We encourage Ministers to proceed as quickly as possible** to implement these much needed changes. It has our absolute support.

The Mussel Reef Restoration Trust / Revive Our Gulf project
www.reviveourgulf.org.nz

References

IUCN. 2008,2013. *Guidelines for Applying Protected Area Management Categories*, Best Practice Protected Area Guidelines Series No. 21. N.p.: International Union for Conservation of Nature.

Edgar, G., Stuart-Smith, R., Willis, T. *et al.* Global conservation outcomes depend on marine protected areas with five key features. *Nature* **506**, 216–220 (2014). https://doi.org/10.1038/nature13022

Toone, Trevyn, Emilee Benjamin, Sean Handley, Andrew Jeffs, and Jenny Hillman. 2022. “Expansion of shellfish aquaculture has no impact on settlement rates.” *Aquaculture Environment Interactions* 14 (135-145).

TNC, Marine Spatial Planning, What is Ecosystem-Based Management, https://marineplanning.org/overview/tnc_approach/what-is-ebm/

Sea Change

From: s 9 (2)(a)
Sent: Wednesday, 26 October 2022 3:46 pm
To: Sea Change
Cc: s 9 (2)(a) GMail s 9 (2)(a)
Subject: Submission

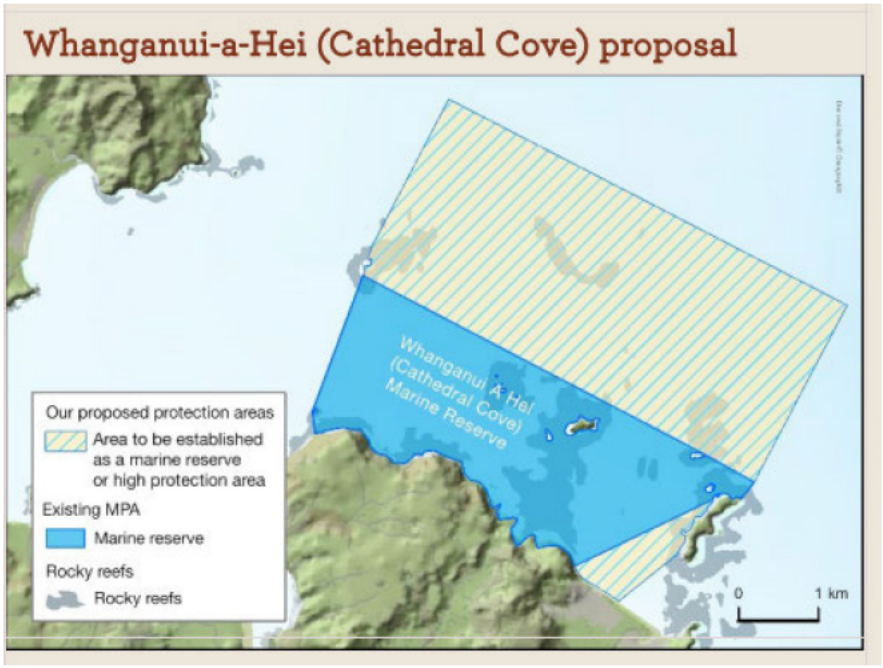
Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Submission regrading to the expansion of Te Whanganui a Hei Marine Reserve

I am submitting this application on behalf of the owners of s 9 (2)(a) and our families. Our family have owned this property for 47 years.

1. We fully support the proposed boundaries of the expansion of Te Whanganui A Hei. See below.



2. Regarding the type of protection tool to be applied to the proposed new area, we support whichever of the tools (HPA or Marine Reserve) are preferred by mana whenua following that DOC consultation.

3. We are members of the Hahei Residents and Rate Payers Association. We do not support their submission. Their submission does not represent our views.

Nga mihi

s 9 (2)(a)

s 9 (2)(a)

[redacted]

Postal [redacted]
Phone s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:17 pm
To: Sea Change
Subject: Endangered Species Foundation - Revised submission
Attachments: ESF submission - Hauraki Gulf Consultation 2022.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Kia ora,

Following further expertise advice, we are now recommending that the Pakiri / Mangawhai area should be a High Protection Area to give this area the best chance of regeneration.

I have updated our submission accordingly, and this is now attached. My apologies for any inconvenience this may cause.

Ngā mihi nui,
s 9 (2)(a)

s 9 (2)(a)
General Manager
Mobile: s 9 (2)(a)
www.endangeredspecies.org.nz

Endangered Species Foundation

Endangered Species Foundation

Submission in response to 'Revitalising the Gulf' marine protection zones proposed by the Department of Conservation.
Link: https://www.doc.govt.nz/haveyoursayonthegulf

Nature of submission	The Endangered Species Foundation opposes key elements of the current proposal for the entire Hauraki Gulf, and particularly in relation to the Pakiri and Mangawhai coastal areas. This submission supports the ending of bottom trawling and seabed mining in the Hauraki Gulf, including the creation of a High Protection Area in the Pakiri / Mangawhai rohe.
Date:	18 October 2022

On behalf of The Endangered Species Foundation and its 2200+ supporters.

The Endangered Species Foundation (ESF) is a registered charitable organisation supporting high-priority conservation projects that protect New Zealand's most vulnerable indigenous species and habitats from extinction.

Our vision is to enable sustainable, long-term support needed for endangered species and to provide a way for all New Zealanders to get involved and to make a lasting contribution.

ESF is backed by 2200+ supporters and supports submissions by other groups and individuals who we are in coalition with to protect the habitat of endangered species and their ecosystems including Te Whānau o Pakiri, Friends of Pakiri Beach, Save our Sands Mangawhai Pakiri, and the Mangawhai Harbour Restoration group.

The destructive effects of seabed mining and bottom trawling

ESF compare the impact of sand-mining, seabed bottom trawling and Danish Seining to the destruction of 190 million years of kauri forests over a period of a few decades to the benefit of a very few and the long-term damage to the environment and the people of New Zealand.

According to Professor Mike Hilton, these processes at best leave a 'ploughed paddock' in their wake, at worst a desert where nothing can live or grow and many hundreds of years will be needed to recover if they recover at all.

We also concur with statements made by experts asked to submit to the panel on seabed mining Professor Mike Hilton and Doctor Shaw mead as below;

> *"The results of the DML survey also provides further support to the conclusions I have so far presented, and raise concerns about the environmental impacts of dredging the offshore area of the Mangawhai-Pakiri embayment. The current application worked on the assumption that the large scale impacts now visible in seabed imaging by DML were not occurring, and as a result there are assumptions and conclusions that are likely no longer valid with respect to both physical and biological impacts. Had the conditions of the consent been correctly exercised and regulated from when dredging began and produced such as those in the recent seabed imaging, it is questionable whether 5 dredging would have continued in the same way it has until today, or indeed whether it would have been allowed to continue at all."*
>
> *"The available evidence indicates that the current trend is one of erosion/retreat and a lack of expected recovery following storm events, which are projected to become increasingly more energetic due to climate change".*
>
> Dr Shaw Mead, 27 years' experience in coastal restoration technologies

"The data gained by DML Ltd provides a very worrying picture of the extent and density of trenches and marks on the surface character of the Pakiri seabed. The pattern and close spacing of trenches, compared with areas of seabed outside the mining areas, is suggestive of a 'ploughed paddock', one that is tens to hundreds of hectares in area. This intensity of extraction, over a large area, must raise questions as to the extent to which the activity is consistent with the imperative to preserve the natural character of the coastal environment."

Professor Mike Hilton

"Sand mining was stopped off Mt Maunganui Beach in 1976. Today the Mount has a well-formed beach. Mangawhai and Pakiri Beaches ecosystems are presently revealing increasing symptoms of unsustainable and induced sand budget deficits; the protracted long-term offshore dredging activities are now impacting and damaging existing back-beach and foredune zones".

Gregory Jenks, 25 years' experience in marine research and consulting, reported:

These views are not only held by academics and environmental groups -individual members of the public have seen the degradation that has occurred over the years and on 19 November 2021, a Horizon Research poll, commissioned by the Hauraki Gulf Forum, showed that;

84% of the public who live in the vicinity of the Hauraki Gulf oppose mobile bottom contact fishing to continue due to the destructive impact it has on marine species and ecosystems on the seafloor. This is in contrast to the recent Revitalising The Gulf proposal which suggests allowing these activities to continue in the future.

ESF's Principal Concerns around the 'Revitalising the Gulf' proposal and the lack of protections across the Gulf include;

1. The threats to endangered marine and bird life;
2. The lack of recognition and impact of global warming;
3. The current fragile state of this area, linked with seabed damage, finite sand supply and declining marine life;
4. The lack of recognition and provision for Māori cultural practices (tikanga) , and the Principles of Te Tiriti o Waitangi;
5. The lack of recognition of proven environmentally sustainable, commercially viable alternatives;
6. The irreversible destruction of seabed eco systems;
7. The operational integrity of the commercial interests involved.

A great deal of damage has already occurred to the Hauraki gulf through sand-mining, seabed bottom trawling and Danish Seining. Sand mining has been occurring for over 70 years, causing huge loss of biodiversity in the area including species of fish, crayfish, scallops and horse mussels to name a few. This not only impacted on the ability of sea birds to source food for themselves and their chicks but also local iwi's traditional rights to source kaimoana in the area.

There are significant impacts from the practices of Danish seining, bottom trawling and suction hopper dredges, which plough the seabed, smash corral, destroy mussel beds and catch non-target species as well as smothering marine plants and wildlife. As well as this physical damage there are negatives effects on marine species from noise pollution and sediment plumes.

Seabed mining at the Pakiri coastline to the Mangawhai sandspit threatens whole ecosystems

ESF's view is that threatened, at risk and endangered marine life and birds have been negatively impacted by the sand mining and seabed bottom trawling particularly at Mangawhai and Pakiri.

Several species of bird in this area are declining or critical, most obviously and critically the tara iti, NZ fairy tern. The tara iti is listed as "nationally critical" which is the highest threat ranking for any endangered species. With only 10 breeding pairs left it is New Zealand's rarest endemic breeding bird with a current population of just 37 birds.

Once widespread around North Island coasts, its current breeding sites are Waipu, Mangawhai, Te Arai, Pakiri and Papakanui Spit. The damage being caused by seabed bottom trawling is more difficult to see but it is clear much damage both to the seabed ecosystem and the fauna and flora living there is occurring.

According to an expert on birds, Ian Southey MSc (Hons) the degradation of fairy tern nesting areas and feeding areas caused by the sand mining could lead to their functional extinction in the region. It is clear that the encroachment of human activity on their nesting grounds is a major threat to these birds.

"Beach narrowing, due to loss of sand, forces the terns to nest closer to the sea, putting their eggs at risk during storms and king tides".

Mangwhai harbour is also home to 26 threatened and at-risk species of birds and continued mining in this area puts the habitats of all these birds at risk:

Threatened species	Threat category
White Heron	Nationally critical
Fairy Tern	Nationally critical
Australasian Bittern	Nationally critical
Reef Heron	Nationally endangered
Grey Duck	Nationally vulnerable
Caspian Tern	Nationally vulnerable
Wrybill	Nationally increasing
Brown Teal	Nationally increasing
New Zealand Dotterel	Nationally increasing

At Risk species	
New Zealand Pipit	Declining
North Island Fernbird	Declining
Lesser Knot	Declining
Banded Dotterel	Declining
Banded Rail	Declining
South Island Pied Oystercatcher	Declining
Black-billed Gull	Declining
Red-billed Gull	Declining
Bar-tailed Godwit	Declining
Spotless Crake	Declining
White-fronted Tern	Declining
Variable Oystercatcher	Recovering
Pied Shag	Recovering
Black Shag	Relict - population now survives in only a few localities
Little Shag	Relict - population now survives in only a few localities
Little Black Shag	Nationally uncommon
Royal Spoonbill	Nationally uncommon

Sandmining in this rohe / area, does not consider the kaitiakitanga values of tāngata whenua, whānau and hapū and the communities most directly impacted by the activity. It is a direct breach of the duty of active protection of taonga (treasures) including the restoration of mauri (life-force). The proposed activity impacts adversely on marine environment, cultural values, customary activities and way of life.

ESF opposes the current proposal which will enable sand mining, seabed bottom trawling and Danish Seining in the Hauraki Gulf.

We want to see an end to seabed mining and bottom trawling in the Hauraki Gulf, and are calling for the Pakiri / Mangawhai area to be designated as a High Protection Area.

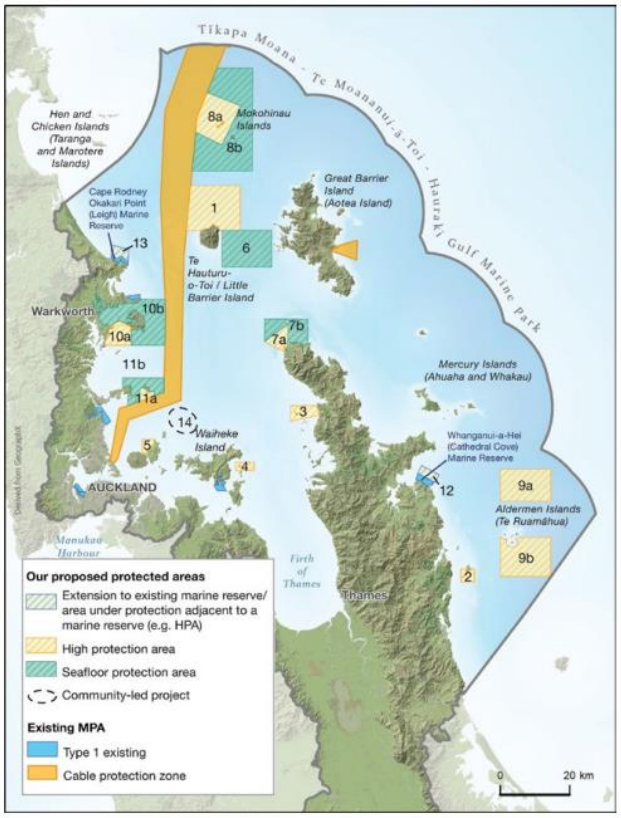
While research and data indicate these practices should be off limits for ever, they should be stayed at least until further work can be carried out to understand the true impact of them on fauna and flora and consultation is properly held with of tāngata whenua, whānau and hapū and the communities most directly impacted by these activities.

We believe that the bare minimum, in the short-term, given the rampant desecration and destruction of this sea floor area a High Protection Area is needed in the Pakiri / Mangawhai area to:

- maintain, restore and protect ecologically important habitats while allowing for compatible uses.

- protect seafloor habitats and communities susceptible to damage from activities such as fishing (particularly dredging, bottom trawling and Danish seining), sand extraction and mining.

Figure 8: Locations of the protected area proposals that we will engage and consult on.



Finally

The many organisations and individuals fighting to save the seabed, marine life and species such as the tara iti in this area do not have equal resources in regards to commercial interests but we do have numbers, the people of the area do NOT want these practices to continue, they want sustainable practices led by the kaitiakitanga values of tāngata whenua, whānau and hapū and the communities most directly impacted by the activity to get the required studies completed and make good, long term decisions on managing this iconic area.

2022 is not the time to turn a blind-eye to the long-term damage that has been and is still occurring in the seabed and foreshore which has benefited a very few individuals and companies to the cost of every other New Zealander, this is the time for change, for making some tough decisions in the hope that some of these wrongs can be righted and that our mokopuna have something to thank us for.

Species such as the tara iti can never be replaced, and decisions such as enabling further sand mining must be delayed until all the required information is gathered, analysed and can be used for ensuring the best decisions are made for all parties.

We need to take action today to end destructive seabed mining, bottom trawling and Danish Seining and support more sustainable practices for future generations and te taiao.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:41 pm
To: Sea Change
Subject: Sand Mining & Botton Trawling.

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded, Reply sent

To Whom it May Concern,

I would like to register concern with the continuation of Bottom Trawling, based on the scientific evidence of environmental damage. The continuing sand mining in Mangawhai also needs to be stopped for the same reasons.

Regards s 9 (2)(a)

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:47 pm
To: Sea Change
Subject: My submission..

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Please stop allowing bottom trawling and sand mining in our Hauraki Gulf.

We need to preserve our environment for future generations and these abuses are counter to this objective.

Thanks, s 9 (2)(a)
--
s 9 (2)(a)

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:48 pm
To: Sea Change
Subject: Hauraki Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

I wish to record that I am totally against further sand mining and bottom trawling in the gulf, and also elsewhere in the country.
We need to put in place as many protective measures as possible, not destroy our taonga.
We need to increase the number of marine reserves.
Regards,
s 9 (2)(a)

s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:48 pm
To: Sea Change
Subject: STOP BOTTOM TRAWLING EVERYWHERE

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Please stop bottom trawling everywhere in New Zealand. It's too destructive and not what most of us want.

PLEASE STOP

Vxvdq#Khp p lqj vhq#
3537#939#939#
vxvdqkhp 939c jp dlifrp #

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:49 pm
To: Sea Change
Subject: Hauraki Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

I oppose the continuation of bottom trawling and sand mining in any of the Hauraki Gulf

s 9 (2)(a)

Sent from my iPhone

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:49 pm
To: Sea Change
Subject: Please stop bottom trawling and sand mining

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Hi,

I'm a resident on the east coast of north Auckland and was surprised and concerned to hear that the Department of Conservation is proposing to allow the practices of bottom trawling and sand mining to continue.

Please stop these practices immediately. Both are unsustainable and do massive environmental damage. I am confused why you want it to continue.

Regards
s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:50 pm
To: Sea Change
Subject: Submission : Hahei Marine Reserve

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

I object to the proposed HPA extension of the reserve and in particular your intention to include more of the beach and to move the South Eastern boundary to take in the North Western side of Mahurangi Island.

The inclusion of more of the beach is unnecessary. It adds nothing to the reserve in terms of underwater habitat and would be confusing to all beach users.

The discussion documents refer to Beach access to the Reserve. This area is all sand bottom and the only access into the existing reserve would still be by swimming, as it is now, as the rocky bluffs at the end of the beach are impassable. To swim is often extremely dangerous as the wind funnels through here along the cliffs creating strong and dangerous tidal rips.

Your paper on Direct pressure on the Reserve is misleading it is not factual and is contradictory. You encourage visitors and then complain about the adverse effects .

Your previous record in regard to the creation of the reserve is not good and one must question your motives. Will you only be satisfied when you take the whole beach?
Your representative at the Community meeting spoke of needing buffer zones, a boundary is a boundary.

The proposal to extend the South Eastern boundary into the Bay would remove the last safe area we have for all fishing and boating activities in adverse Easterly/North Easterly conditions.
This area is also often used as a safe anchorage for passing vessels.

Traditional use of an area to be included in a reserve must be considered.
In Hahei this has always meant walking, swimming, surf casting, dog walking, family picnics, sandcastles, tourists, boating. This must also be preserved.
Our grandchildren should always be able to use the beach respectfully doing all these things as we have done.
,
The intention to extend the Northern boundary to include the South Sunk reef while having a lesser impact on recreational divers will severely impact boat fishing as this is a very popular fishing ground.

Have DOC considered creating a new reserve south of Tairua as an alternative rather than upsetting a community who have accepted the current status quo and who are generally supportive of the current reserve.

s 9 (2)(a)
s 9 (2)(a)
s 9 (2)(a)
Residents and recreational diver and fisherman for over 50 years.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:50 pm
To: Sea Change
Subject: Revitalising the Hauraki Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

I am totally opposed to bottom trawling and sand mining.
Please do not continue with this devastating practice.

Sincerely,
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:50 pm
To: Sea Change
Subject: Sea bed trawling and sand mining

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Good afternoon

We would like to express our disappointment that these practices are still occurring in NZ and in the Hauraki Gulf.

We would like to see these practices banned and a higher degree of protection afforded to our fragile marine ecosystems.

Please do the right thing and take action to stop sea bed trawling and sand mining in the Hauraki Gulf and throughout NZ.

Kind regards
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:50 pm
To: Sea Change
Subject: Help revitalise the Hauraki Gulf by having your say on marine protection

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia ora koutou

I support increasing protections.

I am also appalled by hearing that we still allow bottom trawling. As kaitiaki for future generations of this incredible taonga and ecosystem, we need to do everything we can to protect and not exploit and ban seabed trawling.

My comments are as an individual and not representing anyone else.

Noho ora mai

s 9 (2)(a)
s 9 (2)(a)

Sent from my iPhone

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:54 pm
To: Sea Change
Subject: Hauraki Gulf protection plan DOC

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

As a marine scientist who researched the endangered Brydes whales in the Hauraki Gulf, I am in full support of increasing protected the zones. However I am shocked that we are allowing bottom trawling to continue outside of protected areas.

Benthic communities are foundational for a healthy system. Bottom trawling is short sighted and deeply damaging to this precarious balance. Please reconsider this aspect, and help bring NZ's fishing management back in line with contemporary ecosystem understanding.

Sincerely,
s 9 (2)(a)
MSc. Biology, PGDip Sci. Env Mgmt

Sent from my Galaxy

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 4:57 pm
To: Sea Change
Subject: Hauraki Gulf marine Protection

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

My name is s 9 (2)(a)
I am making this submission to register my opposition to both sand mining and bottom trawling anywhere in the hauraki gulf.

s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 5:01 pm
To: Sea Change
Subject: Hauraki Gulf please end trawling and dredging permanently PERMANENTLY

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

You already know all the reasons why

Kind regards,
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 5:02 pm
To: Sea Change
Subject: Revitalizing the Hauraki Gulf submission

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Submitter – s 9 (2)(a)
Email s 9 (2)(a)
Mobile s 9 (2)(a)

1. I agree with the proposed 12 High Protection Areas (HPAs): 5 Seafloor Protection Areas: and 2 protected areas.
2. In my view the proposals still allow safe passage for marine users , although prohibiting anchoring in bad weather in HPA 1 (north Little Barrier) and HPA 8(A) part of the Mokohinau group, may cause a safety issue for vessels seeking Lee shelter in bad weather given the exposed nature of both locations.
3. I agree with the continued use of the Customary permit process, as it offers continued management of that process.
4. In my view, and in line with the original stated ministerial objectives of the QMA system when it was first introduced in the 1980s , recreational fishing rights should prevail over commercial catch. I would therefore prefer to see Crown settlement with commercial quota holders and the removal of commercial take from the Hauraki Gulf well ahead of the reduction on recreational access to the fishery.
5. I would not support wholesale expansion of additional (additional to the current proposals) HPA's or SPAs or protected areas without significant future consultation.

Kind regards

s 9 (2)(a)

s 9 (2)(a)
s 9 (2)(a)

s 9 (2)(a)

s 9 (2)(a)

s 9 (2)(a)

s 9 (2)(a)

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 5:07 pm
To: Sea Change
Subject: Objection to bottom trawling and sand mining

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia Ora
I wish to object to the proposed bottom trawling and sand mining in the Hauraki Gulf. I often frequent Waipu and Mangawhai and am very conscious of the rarity of the fairy terns which would have their habitat interfered with. Also, bottom trawling catches many species which are needed to keep our ecosystem healthy.
Nga mihi
s 9 (2)(a)

Sent from my iPad

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 5:22 pm
To: Sea Change
Subject: Submission on 'Revitalising the Gulf'
Attachments: Submission Hauraki Gulf 26 Oct 2022.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Good afternoon.
Attached please find my submission on the document ‘Revitalising the Gulf’.
Yours sincerely
s 9 (2)(a)

Submission on 'Revitalising the Gulf'

Date of submission: 26 October 2022
Name: s 9 (2)(a)
Submission on behalf of: Private individual
Contact details:

Postal address
Tel.
Email
s 9 (2)(a)

HPAs
The marine environment of Auckland's Hauraki Gulf needs as much protection as possible. Therefore, I am in favour of the establishment of High Protection Areas and Seafloor Protection Areas, and the extension of marine reserve areas as set out in the document, *Revitalising the Gulf – Marine Protection Proposals*.

Bottom trawling and sand mining
However, I am shocked to discover that bottom trawling and sand mining, both of which are notoriously detrimental to marine life, are still allowed in ***any*** area of the Hauraki Gulf.

Submission 1:
I submit that all bottom-trawling activities should be made illegal in the entire area of the Hauraki Gulf, with immediate effect.

Submission 2:
I submit that all sand-mining activities should be made illegal in the entire area of the Hauraki Gulf, with immediate effect.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 5:40 pm
To: Sea Change
Subject: Hahei Marine Reserve extension

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Hello

My name is s 9 (2)(a) , my wife is s 9 (2)(a)

We both oppose part of the proposed extension of the marine reserve that takes in Hahei beach , we are happy for the reserve to extend out towards the Mercury Islands , but not increasing onto Hahei Beach

Our Address is s 9 (2)(a)

Regards

s 9 (2)(a) s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 5:42 pm
To: Sea Change
Subject: Hauraki Gulf Fisheries

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

I support the complete ban of bottom trawling and sand mining in the Gulf area, further more we should be following the rest of the world and banning bottom trawling in our entire EEZ. Why is clean green NZ so far behind with protection of our fisheries and still plundering the pacific ? We should stop this immediately to enable our sea based ecosystems to rejuvenate.

Thankyou
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 6:07 pm
To: Sea Change
Subject: Revitalising the Gulf submission
Attachments: Revitalising the Gulf submission.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded, Reply sent

Good evening,

Please see a submission regarding the High Protection Areas proposed under Revitalising the Gulf.

The submission has been made by a number of authors, as outlined in the document. We are not submitting on behalf of an organisation nor do we represent the views of an organisation. We are Master of Science students specialising in marine conservation.

Please use my contact email here as the main point of contact if you have any further questions.

Kind regards,
s 9 (2)(a)
s 9 (2)(a)

Revitalising The Gulf (Fisheries) marine protection proposals submission

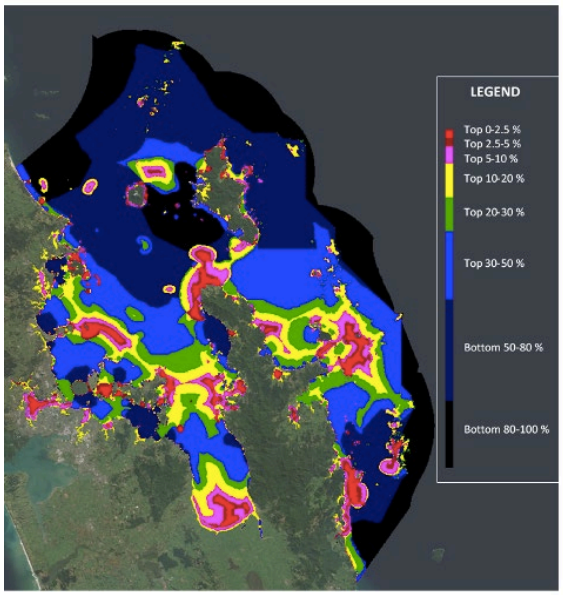
Contributing authors: s 9 (2)(a) [redacted]

The authors of this submission in response to the New Zealand government's Revitalising the Gulf marine spatial plan proposal firstly would like to recognise the significance of this plan for the Hauraki Gulf. The gulf has long been exploited by commercial and recreational fisheries and it's nearly past the time where we're able to rectify the damage we've caused (Forum, 2020). Only six marine reserves currently exist protecting approximately 0.3% of the Hauraki Gulf Marine Park (Tablada et al., 2022). We support any further addition to these numbers. However, this submission challenges some proposed High Protection Areas (HPA/HPAs) in the justification by the Revitalising the Gulf (RTG) working group and makes reasoned suggestions as to why.

Purely from a biodiversity perspective the HPA proposals don't deliver the biodiversity protection needed for the region (Tablada et al., 2022). While other factors are important to consider when developing a marine spatial plan, underperforming on biodiversity protection is a key flaw. This is interesting given that information used to inform HPAs, Seafloor Protection Areas (SPA/SPAs) and Cable Protection Areas (CPA/CPAs) were largely based on biodiversity and ecology data sourced by scientific advisers. The working group hasn't undertaken a systematic conservation approach to ensure a cross-section of all marine environments found in the Gulf are being protected. Our revised proposed HPAs aim to cover a larger area of the Hauraki Gulf, from the proposed 1,587 km^2 to 10,696 km^2 and cover a broader range of marine habitats to create a more comprehensive system of protection.

Figure 1

Zonation map of areas in the Hauraki Gulf that require top attention



Caption: Warm colours indicate higher priority areas for biodiversity representation, and colder colours indicate lower priority areas (Lundquist et al., 2020).

Figure 1, originally from Lundquist et al. (2020) visualises the different habitats in the Gulf and which habitats in which locations should be prioritised. This Zonation study is the basis for a lot of this submission's justification, and we have included it here for reference alongside the HPAs and SPAs proposed by the authors.

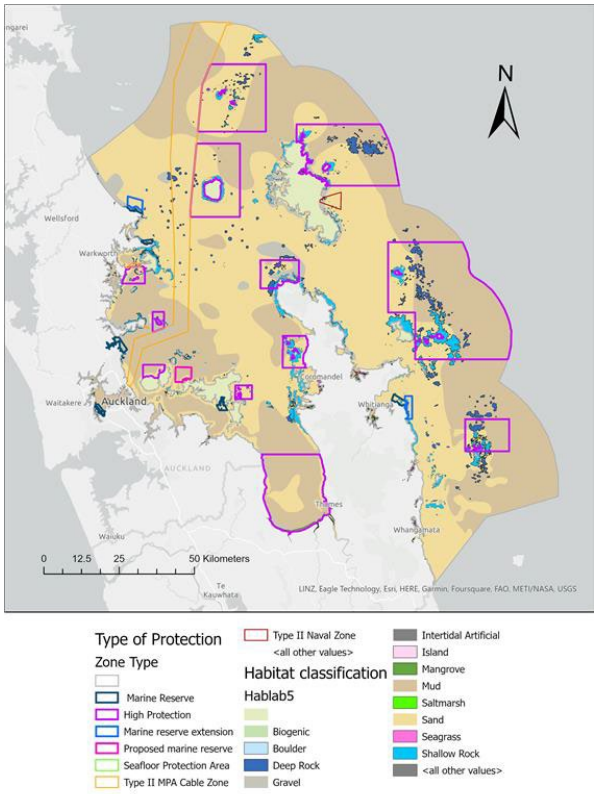
The authors also find that RTG does not have a broad criterion for what constitutes an HPA. For example, some proposed HPAs include buffer zones while others do not, some HPAs include whole reef systems while others are chopped in half without justification. It would be beneficial to understand why the working group decided to include components, rather than justify why habitats have been excluded (such as the reef habitats).

Our submission could be considered extreme, but the goal is to go hard in what we propose to allow for inevitable range reductions on all fronts. This was evident in the adjustments between the Sea Change proposal and RTG proposal. We have used available data on ArcGIS alongside available research and reports to analyse proposed HPAs and create our own version in response with relevant justification. Overall, we've found RTG isn't cohesive with other plans and proposals i.e., excluding Noises (which we acknowledge has now been included), Waiheke, and the Mercury Islands. We have made suggestions, based on research, as to where these locations should be protected by HPAs.

We would like to recognise that these revisions were done without consultation from Mana Whenua and communities who regularly use these areas. It's important to acknowledge we're not trying to restrict the use of areas for customary practices or suggest these extensions without prior consultation with local iwi.

Figure 2

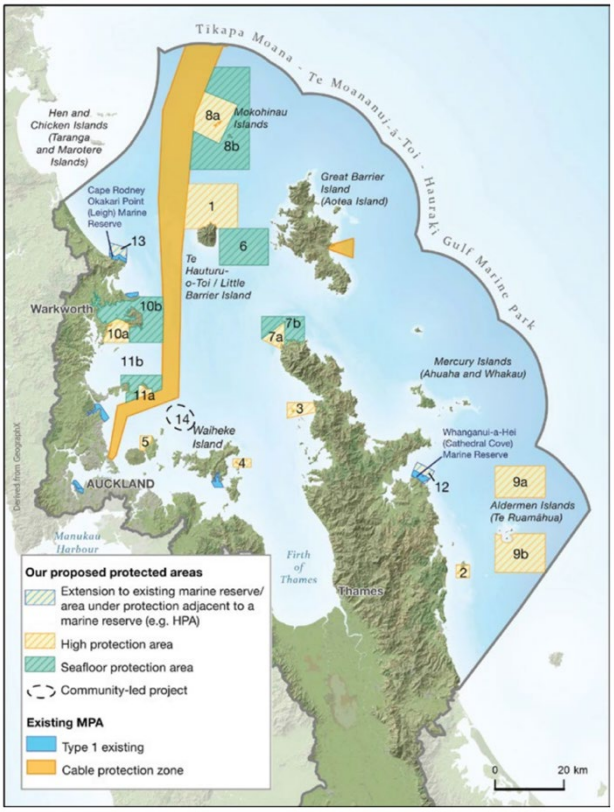
The authors' proposed HPA suggestions in response to RTG proposal



Caption: Proposed extensions and additions to HPAs proposed in RTG, created using ArcGIS.

Figure 3

RTG's proposed HPAs and SPAs in the Hauraki Gulf Marine Park



Caption: The HPA and SPA areas as outlined in Revitalising The Gulf. Retrieved from https://www.doc.govt.nz/globalassets/documents/our-work/sea-change/revitalising-the-gulf.pdf

The revised HPAs in our submission can be found alongside the current proposed HPAs by location in Revitalising the Gulf in Appendix 1. Figure 2 represents the authors' proposed revisions to Revitalising the Gulf's proposal across the entire Hauraki Gulf Marine Park, while Figure 3 is Revitalising the Gulf's current marine reserve proposal.

The revised HPAs in our submission can be found alongside the current proposed HPAs by location in Revitalising the Gulf in Appendix 1. Figure 2 represents the authors' proposed revisions to Revitalising the Gulf's proposal across the entire Hauraki Gulf Marine Park, while Figure 3 is Revitalising the Gulf's current marine reserve proposal.

Three Islands: approx. 24km^2

We propose a novel HPA around three islands: Pakatoa, Rotoroa, and Shag, within the inner Hauraki Gulf. From here on, referred to as Three Islands. Our main objective when we establish an HPA is the protection of biogenic areas – both soft and hard substrates and the species associated with the habitat (Forum, 2020). Also, natural environments provide more diverse ecosystem services that would build habitat resilience to future perturbations (Aguilera et al., 2020). Weighed by factors like heterogenous biogenic areas with distributions of both endemic and exotic demersal fish species, Three Islands falls within the top 10% of priority areas in the spatial prioritisation models shown in figures 1 and 4 (Lundquist et al., 2020; Tablata et al., 2022). By

establishing Three Islands HPA, we are incorporating more diverse and biogenic coastal and offshore habitats and protecting the associated animals too. For example, Three Islands hosts five permanent breeding populations of seabirds, including two species within order Charadriiformes and members from Sphenisciformes, Procellariiformes and Pelecaniformes (Gaskin & Rayner, 2017). Thus, this biodiverse region requires top priority in marine protection. Thus, the expansion of HPA to include more heterogenous habitats over larger scales is advantageous and efficient long term. Small populations of vulnerable species would benefit from the stability of larger environments, as smaller habitats – and the associated organisms – are more vulnerable to stochastic disturbances (Aguilera et al., 2020).

Motukawao Group: approx. 79km^2

We propose expanding the HPA range for the Motukawao Island group off the west coast of the Coromandel Peninsula. One of the main objectives when we establish an HPA is the protection of biogenic areas – both soft and hard substrates like sponges, soft corals and species associated with them (Forum, 2020). Furthermore, Motukawao falls within the top 10% of priority areas in the latest spatial prioritisation plans (Lundquist et al., 2020). Weighed by the heterogenous biogenic areas and overlapping distribution of both endemic and exotic demersal fish species (Lundquist et al., 2020; Tablata et al., 2022). By expanding the Motukawao Island group, we are incorporating more diverse, biogenic coastal and offshore habitats and protecting the associated animals too (Forum, 2020). The species and rare habitats that would be benefited are *Carpophyllum flexuosum* forests (absent in many other locations) to 3m depth. Coastal reef fishes and occasional sub-tropical fishes like silver drummers also utilise these shallow water habitats around the islands (Forum, 2020). Another example of uncommon habitats is macroalgal *Ecklonia radiata* occurring at exposed locations along intertidal zones, with dog cockles occurring below reefs and the occurrence of horse mussel beds. In areas south of the proposed area, there are the first records of tube-building worms *Galeolaria hystrix* with possible occurrence to the west of the islands. Studies found breeding grounds for white-faced storm petrels off the west coast of the coromandel (Gaskin & Rayner, 2017). Thus, we are supporting the nesting site and the natural resources necessary for the seabird populations in the area and the biodiverse range of flora and fauna.

Firth of Thames: approx. 475km^2

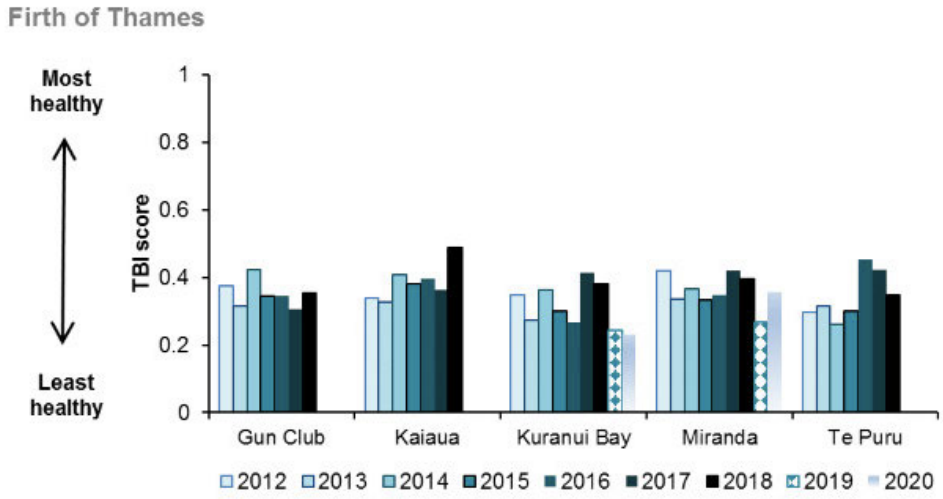
We propose a novel HPA in the inner gulf of the Firth of Thames that will protect biogenic habitats and the associated organisms, in turn increasing the health of the Thames (Tablada et al., 2022). Based on Zonation spatial planning, a recent study highlighted the inner gulf of the Thames as a high-prioritisation area (Lundquist et al, 2020; Tablada et al., 2022). The area consists of diverse biogenic substrates like shallow tidal flats of approximately 85 km^2 and includes shallow estuarine, shell banks, grass flats, mangrove forest, salt marsh, and limited freshwater swamp margins (DOC). Shell banks or Chenier plains are beaches full of fossilised bivalves (cockles) that not only provide nesting habitats for shorebirds but add great historical value with their rarity. RAMSAR convention of wetlands has assigned international importance to an estimated 8.5 km^2 of intertidal grounds of the Thames (RAMSAR). The inner gulf is the high tide roost and important foraging ground for dense populations of birds (RAMSAR). Approximately 74 species of seabirds, of which many are rare, are sighted in the Thames (RAMSAR). Specifically, this HPA will protect the breeding sites for black stilts, dotterels, pied shags, black-billed gulls, and Caspian terns (Gaskin & Rayner, 2017). Other rare species that utilise the mudflats of the Thames as over-wintering grounds are transequatorial migratory birds like Sharp-tailed sandpiper (*Calidris acuminata)* and eastern bar-tailed godwits (*Limosa lapponica baueri)*, where as many as 10,000 individuals can be present in summer (RAMSAR).

Waikato biodiversity forum has specified that the inner Firth of Thames is a “productive habitat for infauna like bivalves – pipis and cockles- and fish, particularly benthic soft-sediment feeders such as yellow belly flounder, dab flounder and short-finned eel”. Demersal species like snapper, yellow-eyed mullet, pilchard, Ahuru, and grey mullet are also found within the inner Firth of Thames. Shark species are also known to feed in the area. In spring, the females of several species, including rig, hammerhead, bronze whalers, and schools of shark,

utilise the upper Firth of Thames for birthing (Waikato biodiversity forum). It is known the area can be fished for snapper and flounder, with sand sharks being bycatch. By protecting riverine and estuarine environments, we protect the specific habitats necessary for commercially important juvenile snappers (Parsons et al., 2011).

Figure 4

Traits-based score of 5 sites within the Firth of Thames between 2012 to 2020.



Caption: sourced from Waikato Regional Council (2020).

A nine-year survey conducted by the Waikato regional council on the estuarine health of the Thames revealed that most sites sit in the moderately healthy zone of 0.3 - 0.5 (figure 4). The traits-based index (TBI) measures the number of organisms and their associated traits (feeding mode, body size) as a proxy for their ecological performance in the environment (Waikato Regional Council, 2020). The final score can range from one, the healthiest, to zero, the least healthy. The latest survey across all sites demonstrated that no area is above 0.5 (figure 4). Hence by including the inner Thames as an HPA, we are not only protecting the species that utilise the area but also restoring the mauri of degraded habitats like Miranda and Kaiaua. This new HPA would benefit from leadership and restoration works led by Mana Whenua, who have utilised the area for traditional and customary harvesting (RAMSAR). Therefore, consultation with iwi is compulsory. By adding this HPA, we also need to consider the connectivity of land and sea. Strict regulations should be applied to terrestrial activities like mining, farming, land, and housing development beside the major rivers like Piako and Waihou, which are large contributors to catchment run-off into the Thames (RAMSAR).

References

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(Pagrus auratus). *Canadian Journal of Fisheries and Aquatic Sciences, 68(*4), 632–642. https://doi.org/10.1139/f2011-005 council/how-auckland-council-works/harbour-forums/Documents/seabirds-hauraki-gulf.pdf

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Waikato regional council. (2020) *Regional Estuary Monitoring Programme.* https://www.waikatoregion.govt.nz/environment/coast/ecosystem-health/regional-estuary-monitoring-programme/reports/firth-of-thames/

Noises: approx. 57km2

We appreciate that RTG has reinstated and affirmed the need for protection at The Noises and surrounding islands. This was a serious hole in the marine spatial plan for the Gulf, and it's great to see such a significant High Protection Area proposed, encompassing all islands and reef habitats in that zone. It makes sense to include the Noises as part of the wider spatial plan, rather than a separate proposal and we support this. It's well-known by those in the boating community that this area has been pillaged and only has a fraction of the biodiversity it once had (Forum, 2020). An HPA in this area which restricts recreational and commercial fishing, outside of customary fishing practices, will be hugely beneficial for the area and allow for key species to replenish such as crayfish, scallops, and snapper (Forum, 2020).

Tiritiri Matangi: approx. 21km^2

RTG recognises the unique, high biodiversity value of Tiritiri Matangi's marine environment in its HPA justification (Department of Conservation et al., 2021). It's rich in a range of reef habitats and is a breeding ground for many juvenile fish species. It's also acknowledged that sea grass has previously been in the area north of the wharf of the western side of the island (Anderson et al., 2019). Our proposed HPA extension builds on this concept by incorporating the marine environment and some surrounding waters of the entire island, including Shag Rock. It will allow the extensive biogenic habitats, seagrass, reefs, sponges, and fish to thrive. This will accompany the surrounding SPA by creating a spill over effect over time for recreational fishing since juvenile fish in protected habitats will have time to grow without the impact of recreational and commercial fishing (Taylor & Buckenham, 2003). RTG also recognises the value of protected land-sea linkages and our proposed HPA revision allows for this connection between the Tiritiri Matangi Island Sanctuary and the corresponding protected marine environment. While not entirely similar given people cannot visit without a permit, Te Hauturu-o-Toi / Little Barrier is a somewhat comparable example in this proposal, where whenua and moana are equally protected to restore biodiversity. Our extended proposal will facilitate a tourist-friendly version of this area of the Gulf.

Kawau: approx. 53 km2 (with SPA area of 215km2)

It's great to see an HPA recommended off the Mahurangi coast and near Kawau Island. As stated in RTG, this area is a relatively pristine and highly diverse ecosystem (Department of Conservation et al., 2021). Data analysis by Anderson et al. (2019) shows the presence of once dense scallop beds on the southern end of Kawau island, some of the most dense in the gulf. Data also shows seagrass present in the area which is an important habitat for juvenile fish species (Morrison, 2021). However, this area is unprotected by RTG's proposed HPA and is instead covered by a proposed SPA. Justification for the SPA by RTG is to allow for commercial fisheries to continue in the area south of the island. We propose extending the area to cover the southern end of Kawau Island, as seen by our revised HPA map in Appendix 1. While the SPA restricts bottom trawling methods, it still allows for non-invasive commercial fishing and recreational fishing and diving

practices. An HPA will allow this area to replenish and bring back the unique diversity of the area. There is a goal to phase out harmful fishing practices from the Gulf, such as Danish seining and bottom trawling (Tablada et al., 2022). When better a time than through implementing a strong Revitalising the Gulf strategy that truly sets out to do what it says and starting this process now at Kawau?

Rangitoto and Motutapu: approx. 26km^2

RTG itself discloses the uncertainty about the effectiveness of the current Rangitoto and Motutapu HPA proposal. It questions the relatively small boundaries and their ability to adequately protect marine species from fishing outside of the area, given that species may have a much larger home range than the proposed HPA. Therefore, our proposal shifts this HPA to encompass the Western side facing Auckland's coast. It will help to protect the coastal areas of high biodiversity priority along Rangitoto and Motutapu as shown in figure 1. There are many fish species present in this area and an HPA will allow for the likes of juvenile snapper on sheltered reefs to grow. Furthermore, it's known that kina barrens are present in the area (which RTG acknowledges), indicating the removal of keystone species such as kōura over time has degraded the marine environment (Navarrete & Menge, 1996). An extension of the Rangitoto and Motutapu HPA will reduce the doubts of the effectiveness of a smaller HPA and undeniably benefit the habitats and species that call this abundant ecosystem home.

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Mercury Islands: approx. 1207km^2

The Mercury group of islands, including Ahuahu (Great Mercury), Whakau (Red Mercury), Moturehu (Double Island), Kawhitu (Stanley Island), and Aitu (Middle Island) were originally included in the Sea Change proposal, and then later excluded from RTG. According to the Sea Change Plan's document, this area is rich in biodiversity and unique habitat. The original proposal included 5km^2 of marine area, with a width of 2km and covering around 13km of coastline. This would have covered some shallow water rocky reef, only one of many interesting ecosystems and habitats surrounding the Mercury group. It was excluded from RTG with the reasoning that the proposed area of Type II MPA on the Mercury group wouldn't provide sufficient protection for biodiversity in the area. RTG explains that the gap in protection will be reviewed and will perhaps be addressed later. There has been no timeline included as to when or how this gap will be addressed, which we think should be remedied as soon as possible. It's the least that should be done if our proposal for new HPA is ignored.

The Sea Change document specifies what ecological features this location sports. In terms of habitat, the area is host to reefs, both shallow and deep, sand, caves, pinnacles, and drop offs. This area is rich in biodiversity and is a high priority to conserve, according to the zonation map in Figure 1. Deep reefs, denominated by dark blue on our proposed map, are home to rare sponges, and black and gorgonian corals. Shallow reefs house red and packhorse rock lobster and brown seaweed, mainly *E. radiata*, which is important for habitat building (Nelson et al., 2018). Both species of rock lobster are fished, and the red lobster, kōura, are one of the most economically valuable fisheries in New Zealand (Shaffer & Rovellini, 2020). Hopefully, through the spill over effect, protecting their habitat here could help reinvigorate their populations outside of the HPA, on the untouched Ahauhu, which did happen at Leigh Marine Reserve (Kelly et al., 2002). Also, it is abundant in many diverse coastal fishes (Sea Change, 2021).

Where RTG proposes no HPA in this location, we see ample space, opportunity, and reason, to propose the largest one in the Gulf. We do miss Ahuahu Bay, which is unfortunate as it has some of the last remaining seagrass beds in New Zealand, that have already declined by 85% (Clark & Crossett, 2019). Our proposed area covers sandy bottom, the muddy seafloor of the outer shelf, as well as shallow and deep-water rocky reef. The idea that none of this huge area would be covered under RTG is appalling and should be fixed. We skipped over Ahauhu, understanding both that this is privately owned, and stakeholders can be difficult to deal with, and that the Mercury islands are a big hotspot for recreation. This way, recreational activities can still occur off the coast of Ahauhu.

Cape Colville and Channel Island: approx. 106km^2

Here, we are combining Cape Colville and Channel Island (7a and 7b) into one proposal. Cape Colville and Channel Island have been afforded a generous amount of protection by RTG. We only have a few issues with the proposed space. One key problem is that there is a great expanse of deep and shallow rocky reef, sandy bottom, gravel, and even mud. This is an incredibly diverse spot and is one of the biggest priority areas in Figure 1, so it's good that RTG gave it so much attention. However, under the parameters of an SPA, there are few benefits for reef ecosystems. Benthic organisms, including cockle beds that promote biodiversity, live in the soft substrate that would be protected by the SPA, but not reef systems.

There is also no buffer zone in between the proposed HPA and SPA, which can and will initiate the well-researched edge effect. With no buffer between the two, the size of effective HPA would be much smaller than the designated area, due to outside disturbance being too close to the edge of the HPA (Ohayon et al., 2021). Also, because some singular reefs sit across multiple zones, it would be very difficult to enforce boundaries for recreational activities. Using a triangular shape as the border of the area does nothing to help enforce it either, what is to stop someone from drifting straight through the 'point' while fishing?

One good thing about how much space this covers, is that it would allow for interconnected protection between intertidal shallow reef, deep reef, and soft-sediment benthic habitats. However, with the problems posed by the lack of buffer zone and awkward shape leading to a reduced area of effect, our proposal is more inclusive. We propose making the whole area from 7a and 7b combined from RTG into an HPA, thereby protecting this unique and biodiversity rich spot.

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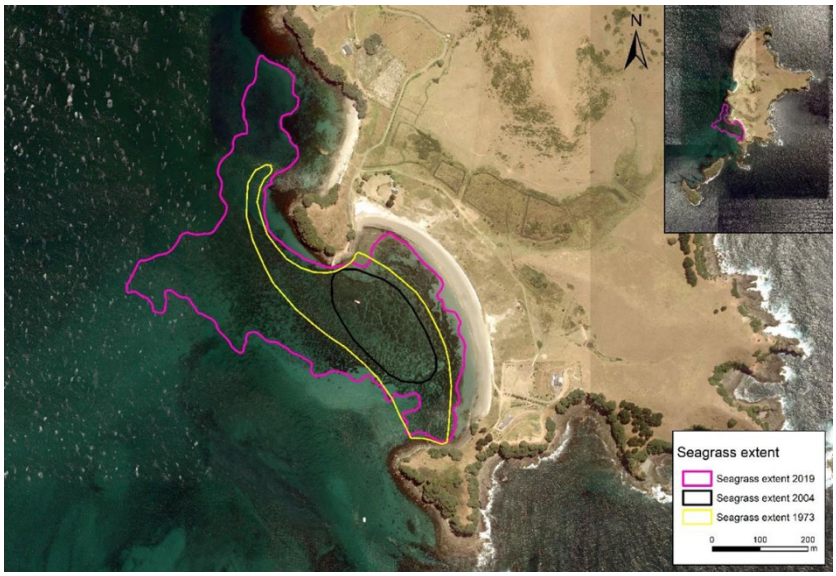
Whakahau (Slipper Island): approx. 14 km^2

This native seagrass (*Zostera muelleri*) meadow at Whakahau is one of the few subtidal seagrass meadows documented in Aotearoa and is a vital support for biodiversity in this area (Schwarz et al., 2006) (Figure 5). Seagrass beds are an essential nursery environment for juvenile fish (Parsons et al., 2014, 2016, 2020), and seagrass are vulnerable to erosion (Guilini et al., 2017). Erosion could lead to decreased physical density, which is what provides the shelter that juvenile fish are drawn to. Loss of seagrass meadows creates feedback mechanisms that no longer maintain the specific environmental conditions needed for seagrass meadows (Turner & Schwarz, 2006). Therefore, protecting existing seagrass is critical and regular monitoring to quantify trends in distribution, extent, and condition must be undertaken every 3-5 years (Morrison et al., 2014; Turner & Schwarz, 2006).

Figure 5

Seagrass presence at Slipper Island.



Caption: Extent of the seagrass meadow at South Bay (south) and Stingray Bay (north), Slipper Island, estimated in 2019, 2004 and 1973. Aerial imagery was taken in 2017 (supplied by Waikato Regional Council). Image and caption taken from Clark and Crossett (2019).

Clark and Crossett (2019) suggest further protection should include restricting further damage from anchoring, swing moorings, propellers, and dredging, (Figure 6) some of which may be protected by this HPA, but more extensive protection may stem from a combined HPA and SPA.

Overall, we are happy with the Slipper Island proposal. The proposed HPA will help continue the excellent water clarity at Whakahau by decreasing anthropogenic impacts such as substance discharge and physical

disturbance. Additionally, because HPAs allow monitoring and research, the seagrass can be continually monitored and surveyed by GIS and through a potential citizen science initiative (accomplishable due to the likely increase of tourism experienced within the future HPA). It will also allow research into the susceptibility of seagrass meadows to *Labyrinthula* disease (which does infect some seagrass at Whakahau).

It is critical to recognise the uniqueness and importance of the *Z. muelleri* seagrass meadows by having additional benthic protection. This will be reflected in adjustments to the regulations of the HPA. These will include (alongside everything that the HPA restricts) restrictions on anchors, swing moorings, and dredging to protect this irreplaceable habitat.

Figure 6

Swing moorings scouring seagrass

Caption: Swing moorings pictured in South Bay, Slipper Island. Image from Clark and Crossett (2019).

Ruamaahu (Alderman Islands): approx. 155km^2

RTG proposed that the southern and northern areas of Ruamaahu be designated as an HPA. This is considered to increase ecological benefits and minimise the displacement of fisheries, the most prevalent being the the kōura fishery. We know that there is an abundance of kōura at Ruamaahu, forming an integral part of the commercial and recreational fishery, providing essential ecosystem services, and are a taonga species. Knowing this, it is important to not focus on creating a protected area that minimises revenue loss. Instead, we should look at the big picture. How can we provide the most protection for valuable species that will cause biomass spillover into fishable areas?

The Southern area of our proposed HPA specifically carries very high biodiversity and ecological values that would benefit from protection. A black coral reef is located southwest of the islands (Skipworth, 2020), which needs benthic protection.

It makes more sense to have a singular, large HPA with a southern SPA dedicated to the black coral reef rather than two small HPAs that exclude the main islands, as per the current proposal. Smaller MPAs often only work in specific circumstances, e.g., if they have complete no-take protection, are in sheltered locations with complex habitats, and have positive community involvement to generate kaitiakitanga (Turnbull et al., 2018). The current Ruamaahu HPA proposal doesn't fulfil this. Our modified HPA/SPA gives high-level protection to key habits and species in Ruamaahu, such as extensive rocky reefs, volcanic formations, caves, and pinnacles,

as well as black coral, anthozoans, fish, elasmobranchs, and marine mammals. This is necessary because in 1933, the Crown proclaimed Rumaahu a wildlife sanctuary, to which Māori responded in 1969 by gifting them to the Crown to endorse that purpose (Monin, 2010). They have incredible environmental and cultural value, which should be reflected in the protection they receive.

Whanganui-a-Hei (Cathedral Cove) Marine Reserve combined area of 24km^2

The current proposal is a seaward extension of the Whanganui-a-Hei marine reserve. Our proposal involves a modification that improves the protection of the rocky reef ecosystems around and to the south of Mahurangi Island. These reefs are more extensive than what is displayed in the original proposal and possibly support more biodiversity. This new extension accounts for offshore kōura movements, improving the ecological integrity of ecosystems protected within the marine reserve. We have included a keyhole in the area off Hahei beach to allow for recreational activities that don't overlay any important habitats.

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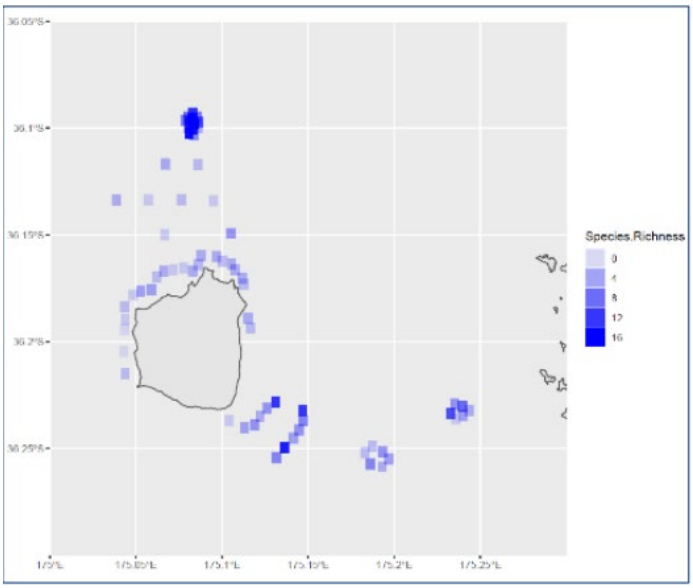
Te Hauturu-o-Toi (Little Barrier): approx. 349km^2

The current plan to protect the marine habitats around Te Hauturu-o-Toi/Little Barrier Island have the HPA only protecting the northern half of the island and reefs. Our plan involves extending the HPA south to encompass the whole reef habitat of the island. This area is of specific and considerable economic value as a location in the Gulf with one of the highest levels of commercial fishing in recent years by green weight (Leung-Wa & Kulwant, 2021). The reef habitats surrounding Te Hauturu-o-Toi are the traditional habitat of

Chrysophrys auratus, one of the top 3 fished species in the Gulf (Leung-Wa & Kulwant, 2021), and thus are worthy of extra protections for the ongoing health and sustainability of fish stocks (Rees et al., 2021). The reef habitats are also home species of sponge, coral, and algae.

Figure 7

Fish species presence around Little Barrier



Caption: Dermal fish species richness around Little Barrier/ Te Hauturu-o-toi (Howarth, O.; Smith, A.N.H. 2020)

RTG's proposed northern area HPA successfully covers the species rich reef section known as "the coral patch" but neglects other areas in which demersal fish congregate (Sea Change, 2021). Specifically, the south-eastern reef area as identified in figure 7 derived from underwater baited videos.

Our suggestion for an enlarged HPA might limit some access to commercial fishing and considering that this area contains the largest fish stocks in the Gulf (Revitalising the Gulf, 2021), adjustments will likely have to be made for the boundary locations to suit fisheries' interests. However, this doesn't mean that we can't also take habitat locations into account in that process.

Craddock Channel: approx. SPA area of 133km^2

As noted in the RTG justification for the Seafloor Protection Area in Craddock Channel, reef areas within the SPA wouldn't be adequately protected. Now that the HPA of Te Hauturu-o-Toi encompasses the reef areas, the channel SPA can focus on specific benthic protection. This area contains a variety of habitats for sponges, algal assemblages, and anemones, and is could also be an important thoroughfare for Bryde's whales and Bottlenose dolphins (Dwyer et al., 2014). As such, the proposed SPA is appropriate for the ecological needs of the area and should provide continuing protection and benefit to the local benthic species and rare or endangered mammals.

Cape Rodney-Okakari Point (Leigh): combined area of 21km^2

In an area of high ecological value to the cultural and scientific communities of New Zealand, the proposed extension of the Marine Reserve at Cape Rodney-Okakari Point is an appropriate measure to ensure the continued preservation of species in this area. Providing for understood movement of species with additional sea area protections will allow for more effective conservation and the limiting of habitat edge effects (Revitalising the gulf, 2021). The extension represents 71% increase in size of protected area which will be of considerable benefit to researchers and students at the nearby University of Auckland Marine Science Laboratory, allowing for new areas of study and the observation of biogenic habitat improvement after an area is protected.

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Aotea/Great Barrier Island: approx. 583km^2

Currently there is no marine reserve around Great Barrier Island, apart from the Naval Base Zone which possesses the same restrictions as CPAs. The only marine reserve around is between Great Barrier Island and Little Barrier Island, and this is an SPA. Substrata around Aotea consists of some rocky reef and deep sand and mud areas. This habitat has the potential to support rich and biodiverse marine life. Sivguru, et al. (2004) conducted a study researching the habitat and biodiversity on a location within our proposed HPA. Conclusions found there was significantly rich marine life with 57 rocky bottom species, including unique black corals, sponges, and gorgonian corals. Alongside 76 benthic species including polychaetes, crustaceans, and molluscs. This research is important in presenting biodiversity and the range of substrate around Aotea, with emphasis on the area of the island opposite the current reserve (between east-coast of Aotea and Little Barrier Island). Providing data to support our proposed HPA, which expands slightly off the study location from Sivguru et al. (2004).

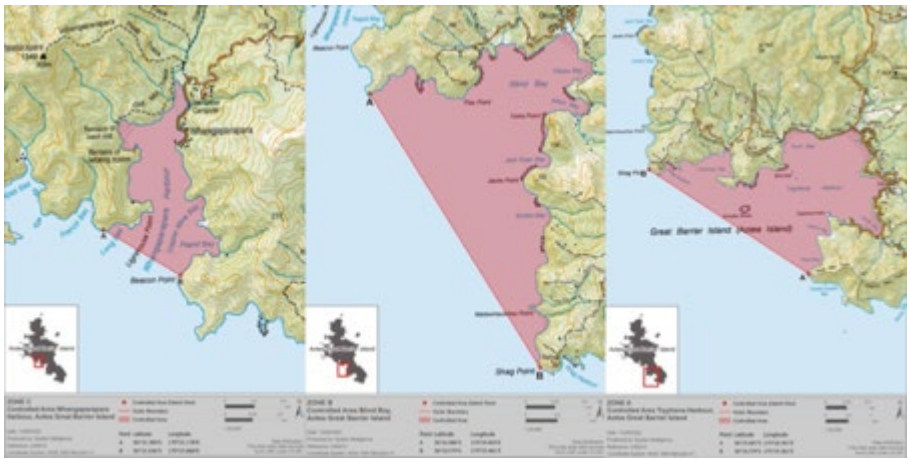
We are proposing an HPA on the north-west side of Aotea. Our intention stems from similar justification supporting the proposal submitted in 2008 by DOC for a Marine Reserve of 56,000ha. This reserve covers a substantial area of Aotea, and would cover a range of differing habitats, substrate, and ecosystems, supporting the spread of healthy ecosystems around the island and within the HPA.

This proposal area includes the Aiguilles Island, whereas DOC's proposal only included the eastern side of Aiguilles Island. This proposal was submitted in 2004 and was confirmed supported by The Ministry of Conservation and The Ministry of Transport in 2006, while The Ministry of Fisheries continued to not agree. Eventually, in 2008 The Ministry of Fisheries rejected the proposal for the marine reserve on the north-east coast of Aotea was never instated. One of the main factors contributing the rejection of DOC's marine reserve proposal around Aotea was the importance of the Hauraki Gulf and Great Barrier Island specifically, for recreational fishing. We agree on the importance of recreational fisheries for both Auckland and the local iwi of the island, though we believe implementing an HPA wouldn't significantly impact fishing activity around the island, as Aotea has extensive range to provide excellent fishing spots. We do expect the HPA to create positive impact to the fishing activity for local iwi and recreational fishing through a spill-over effect (Takashina, 2020).

Great Barrier Island currently has a rāhui and Controlled Area Notice (CAN) in place to combat the invasion of exotic *Caulerpa* species. Biosecurity New Zealand placed a CAN in Blind Bay, Tryphena Harbour, and Whangaparapara Harbour (figure 8). It was then extended for another 6 months from October 20th, 2022. The extension aims to continue limiting the spread of the *Caulerpa* species, and therefore the potential negative effects. This species is highly invasive, which raises concerns for the potential of Aotea's marine life to degrade due to loss of native species and niche habitats being influenced (Parreira, et al., 2021). Rāhui locations are all harbours that often host boats, which is one way these species can spread. With the ongoing efforts to control *Caulerpa* on Great Barrier Island, the HPA is more important than ever. By having a HPA in our proposed location, it limits the frequency of boat traffic and doesn't allow for fishing activities at all, which are both recognised as ways in which *Caulerpa* species are spread. It also protects biodiversity and ecosystems in this zone.

Figure 8

Map of CAN restrictions on Aotea



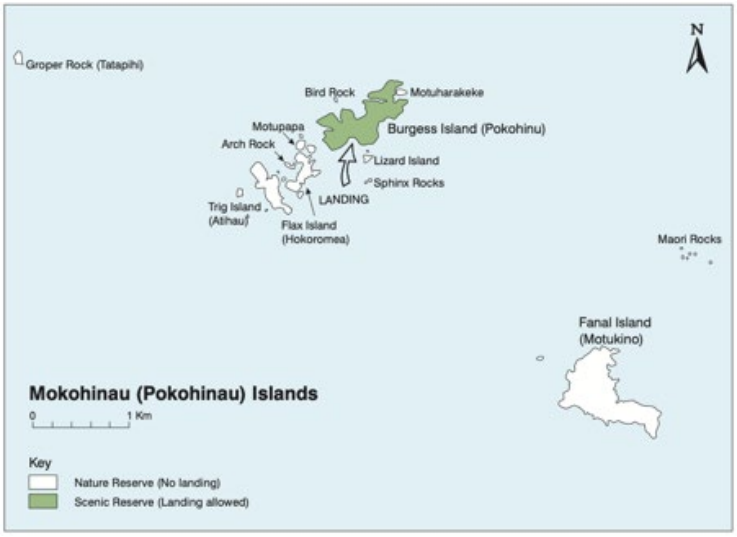
Caption: CAN restriction areas to combat and maintain the spread of *Caulerpa* species on Aotea. From Biosecurity New Zealand.

Mokohinau Islands

We are proposing to extend the current HPA proposal for the Mokohinau Islands. The current HPA proposal only covers Burgess Island, covering 16km of coastline, and the seafloor protection area extends over Fanal Island. The HPA we are proposing will cover both Burgess and Fanal Island, along with the surrounding islands and rocks. This HPA will continue to run along the easy edge of the CPZ. The Mokohinau Islands sit in the centre of the Hauraki Gulf entrance at 160ha of land, and are 100km from Auckland city, making it a location of interest for fishery activities. Smith (2004) identified Mokohinau Islands and Great Barrier Island to have relatively less biodiversity compared to the Poor Knights and Alderman Islands. This supports the importance of a larger HPA covering more variety and number of marine habitats, like the HPA we are proposing. Fanal, Flax, and Trig Islands are nature reserves and wildlife sanctuaries, this means that public landing is prohibited (figure 9). Though this doesn't stop fishing activity and boats around Fanal Island. We believe that by extending the HPA to include all the Mokohinau Islands, you would capture a greater range of biodiversity, as the diversity around this area is already relatively low. As well as restricting fishing activity around these wildlife sanctuaries as they are important for both terrestrial animals, as well as sea bird species. Due to the Mokohinau Islands being non-residential, there is no local iwi using the land for kai moana or cultural reasons. Therefore, placing a larger marine reserve would not affect local iwi and communities, and just limit the distance of recreational fisheries activities. An HPA of this size would also support recreational fishing activities by creating the potential for a greater spill over effect. As the Mokohinau Islands are already heavily fished, due to their proximity to mainland, these ecosystems require added support.

Figure 9

Mokohinau Islands nature and scenic reserves



Caption: from https://www.doc.govt.nz/globalassets/documents/parks-and-recreation/places-to-visit/auckland/mokohinau.pdf

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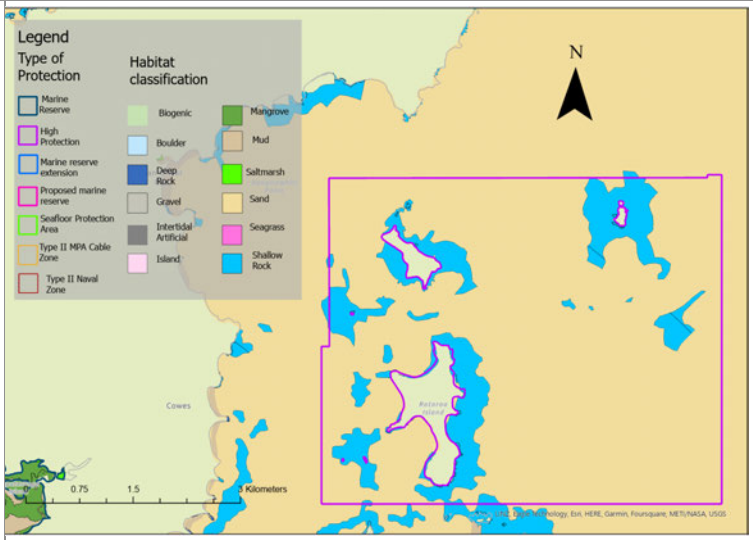
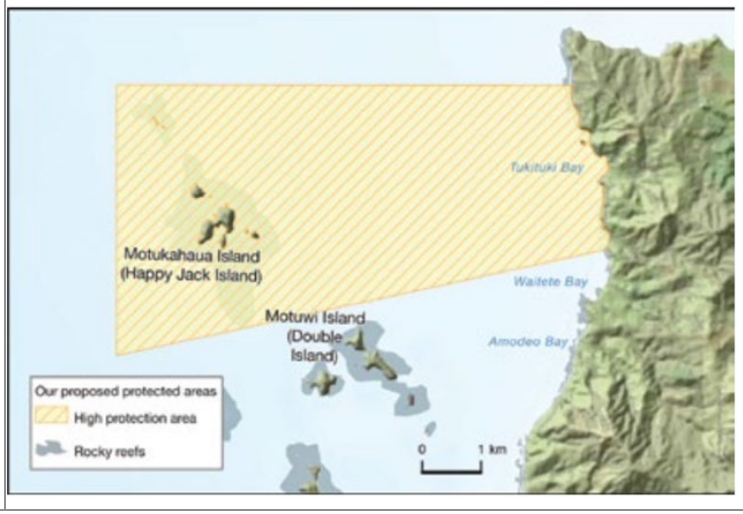
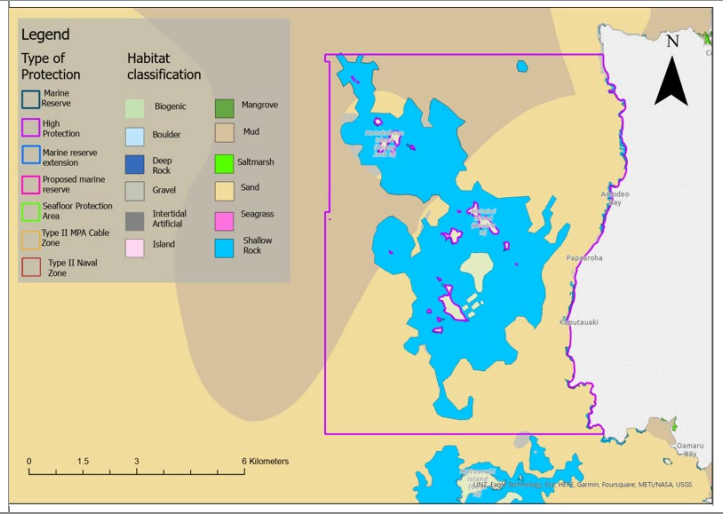
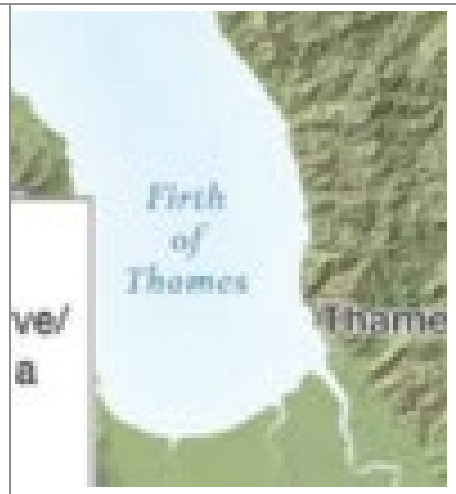
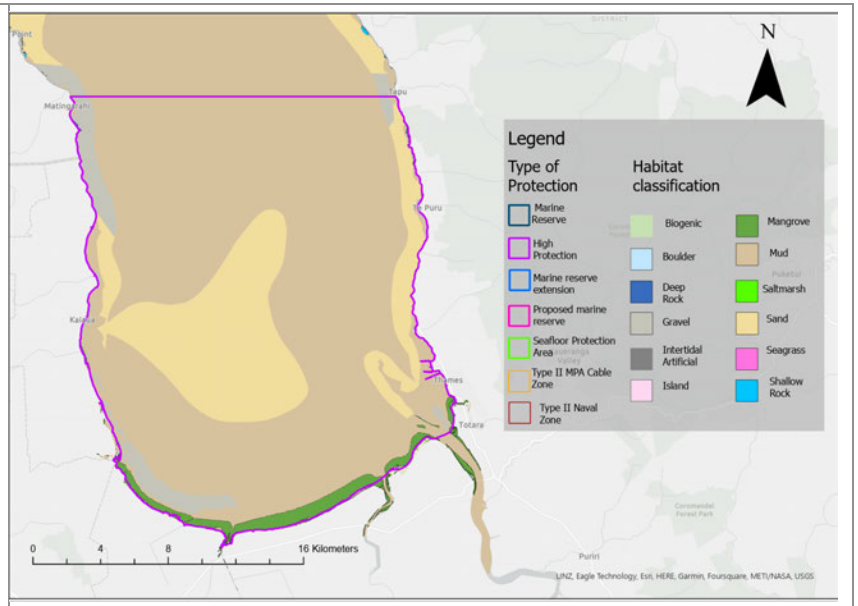
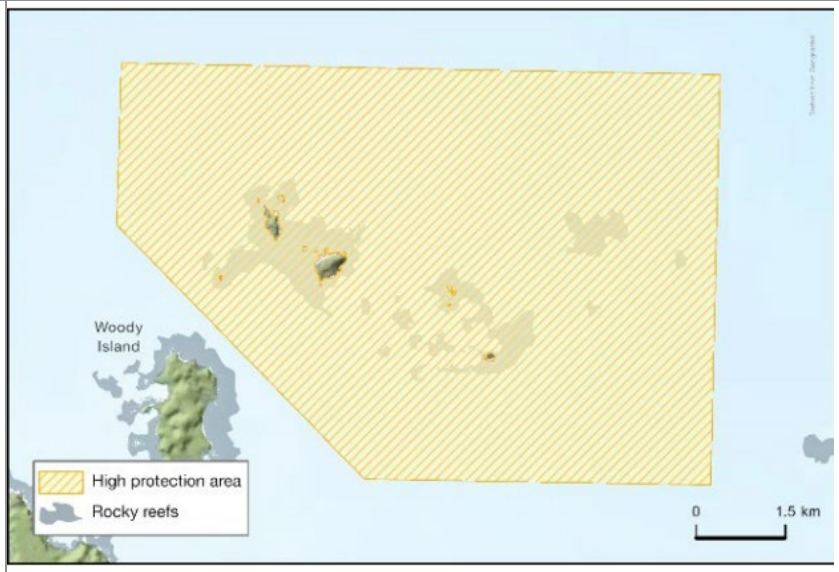
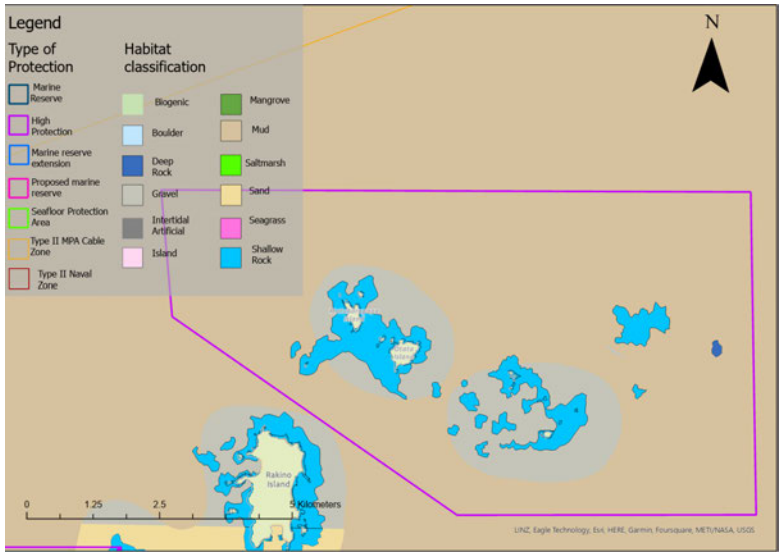
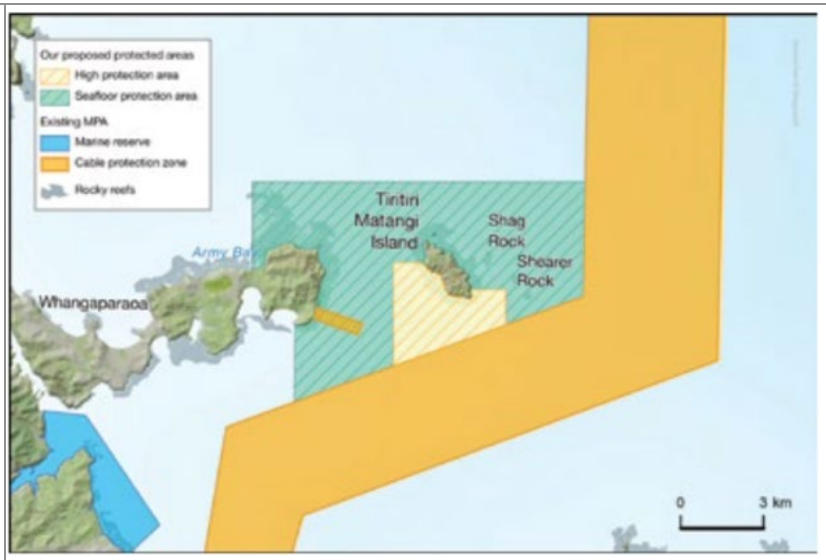
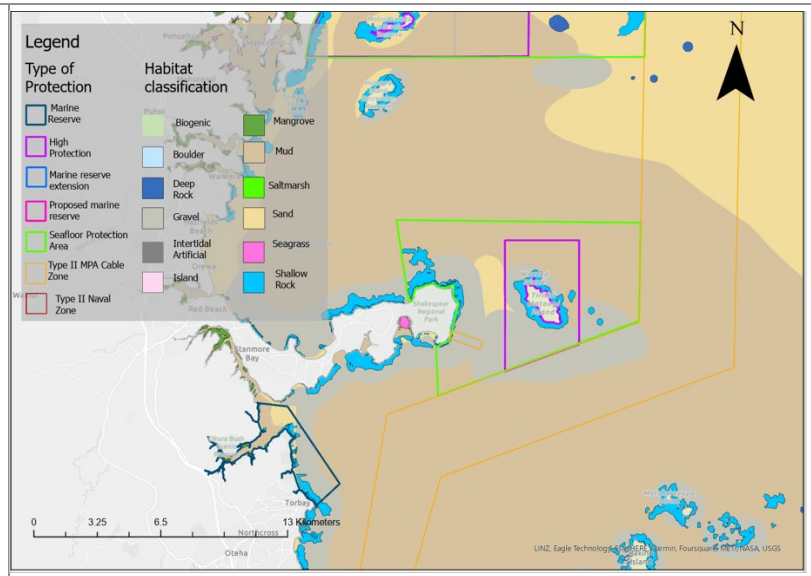
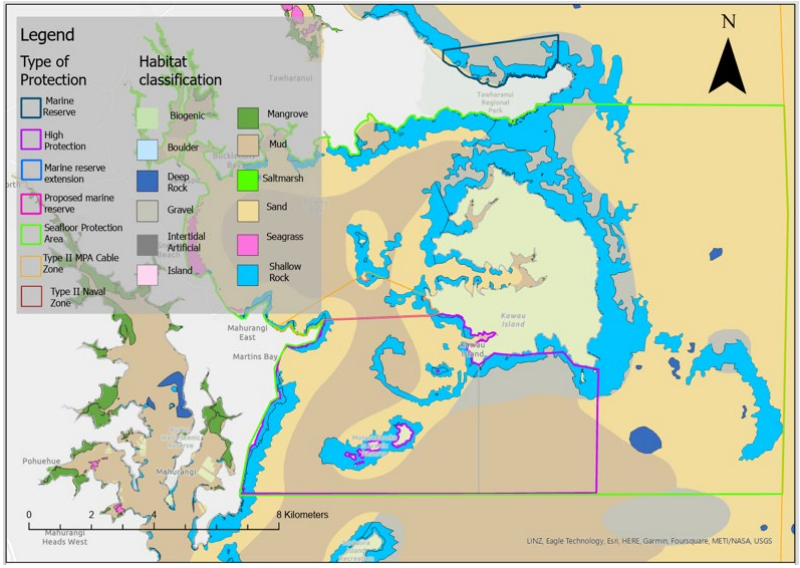
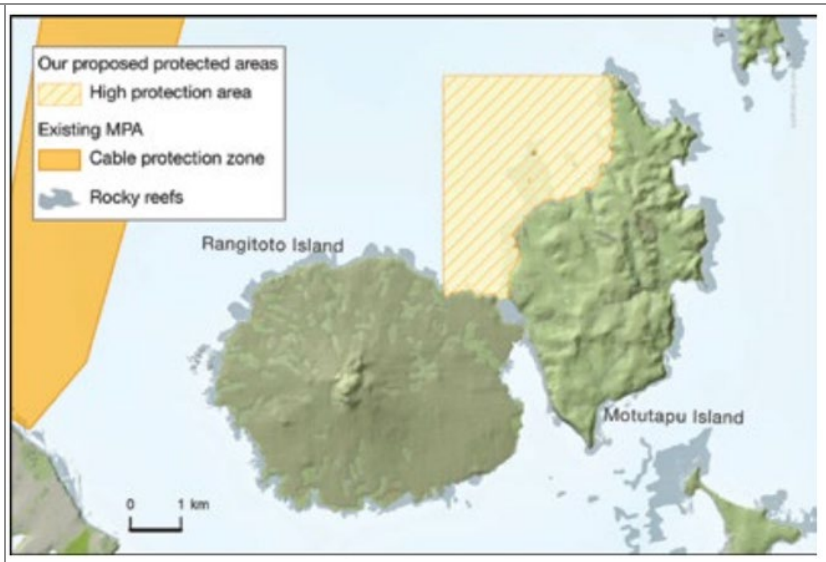
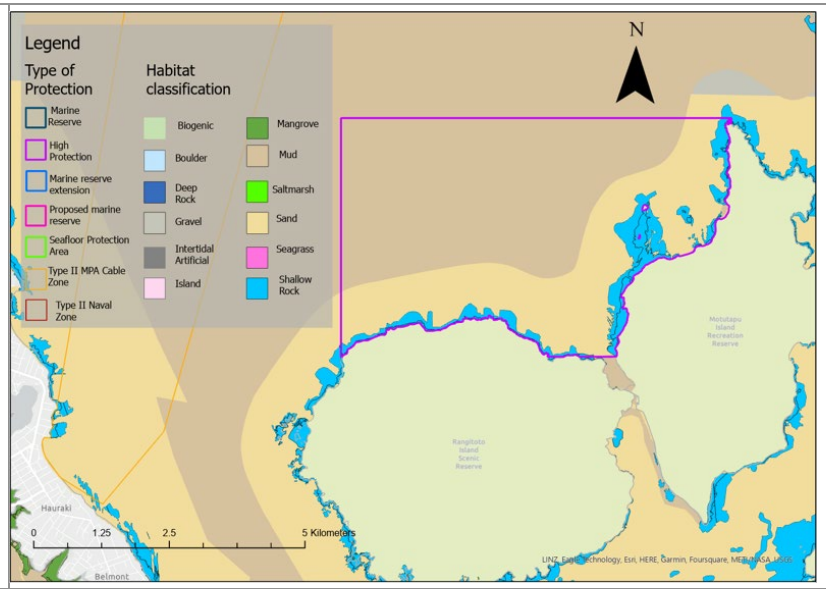
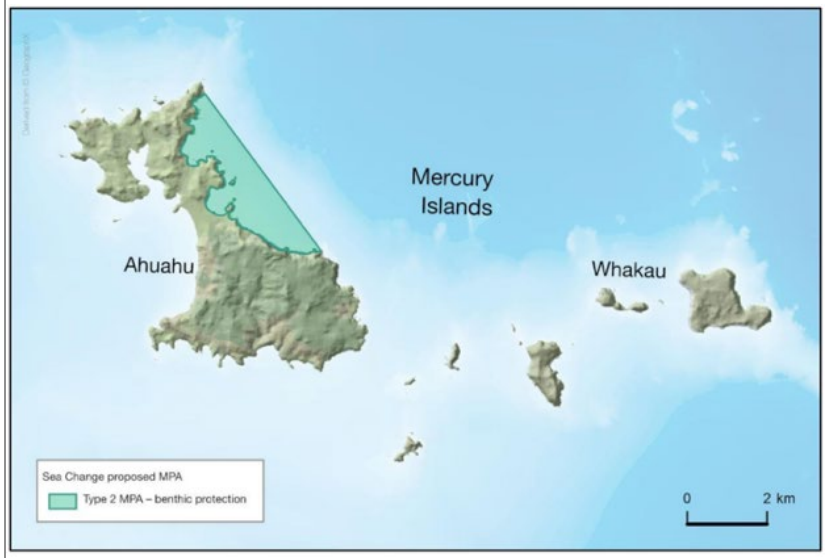
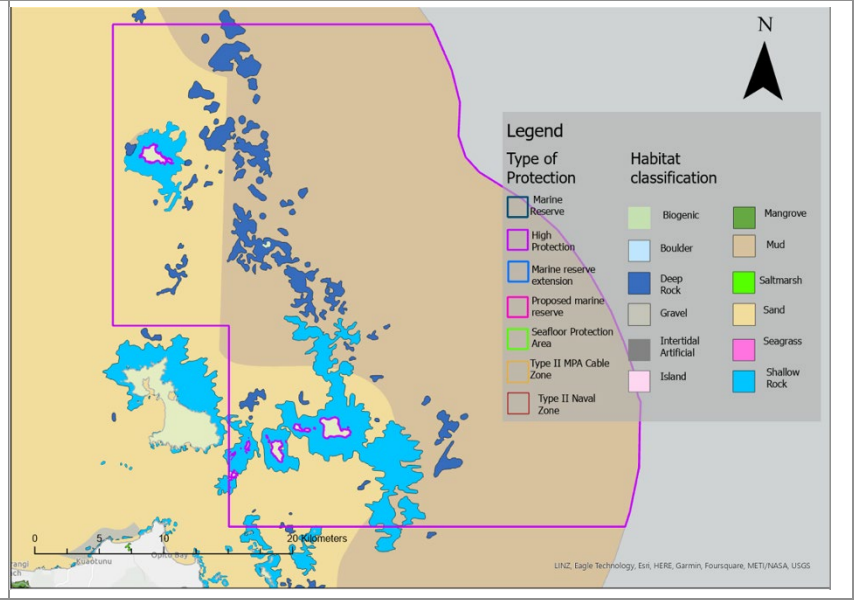
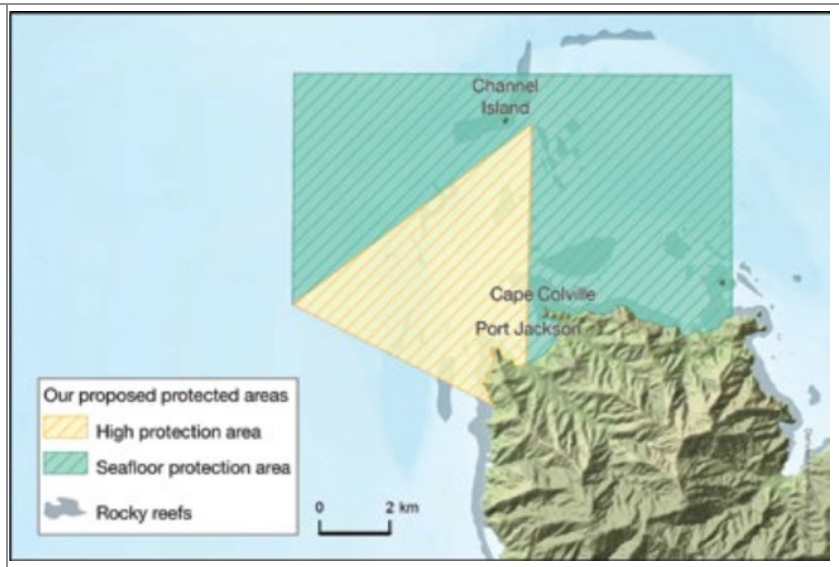
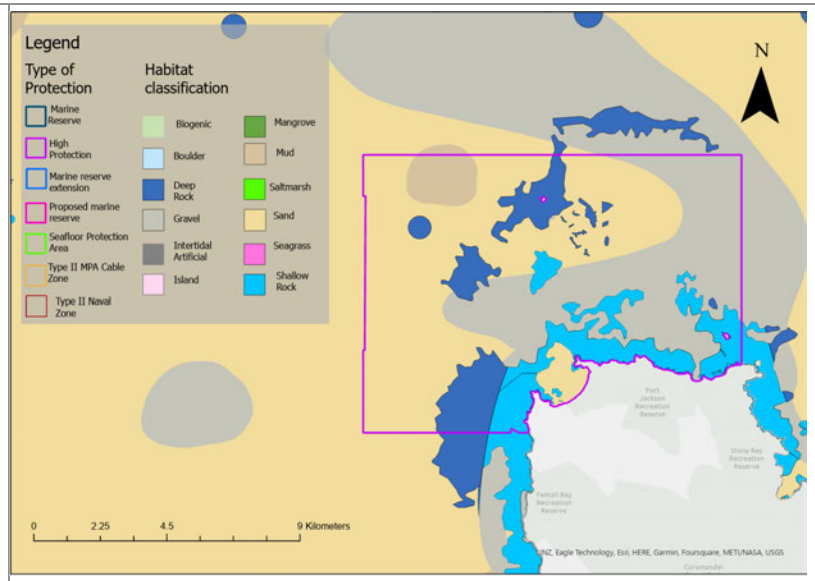
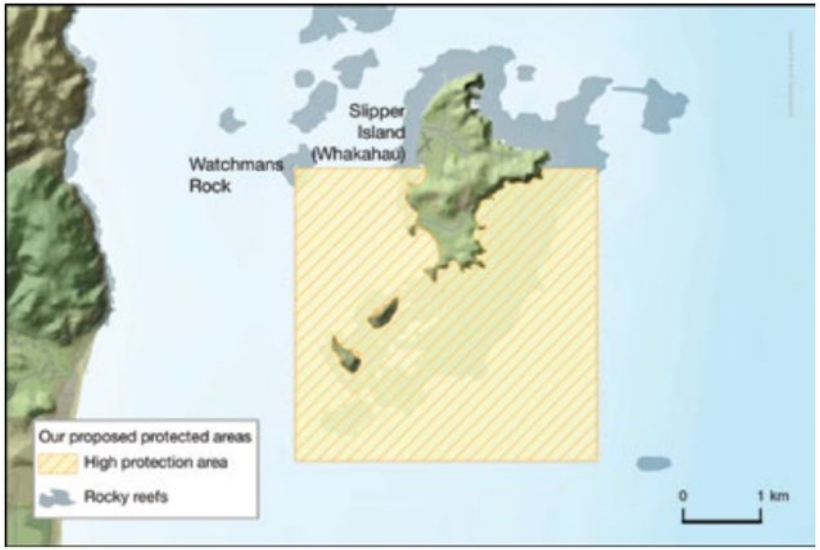
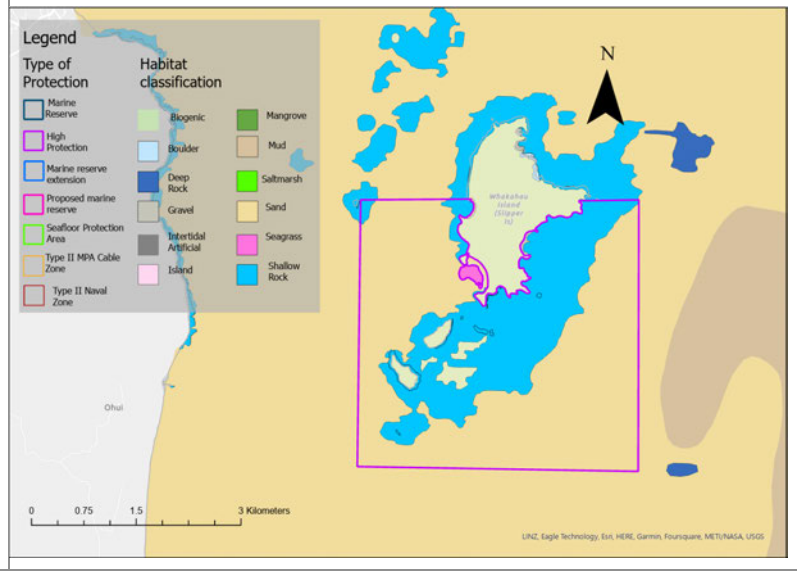
Appendix 1: table of proposed HPA revisions

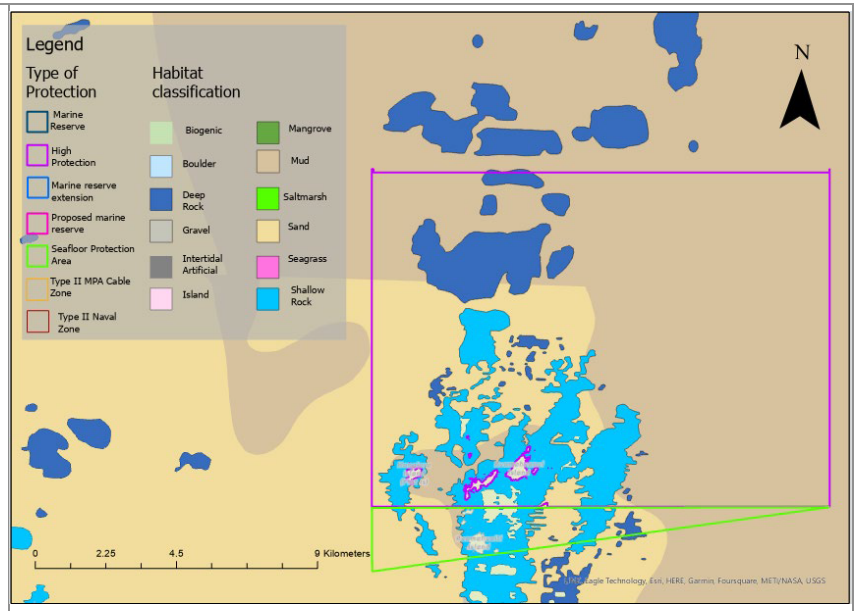
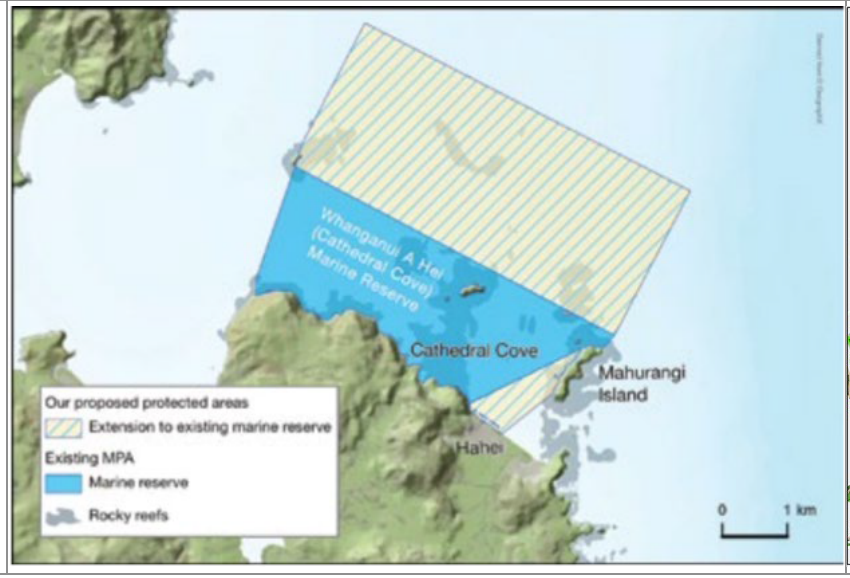
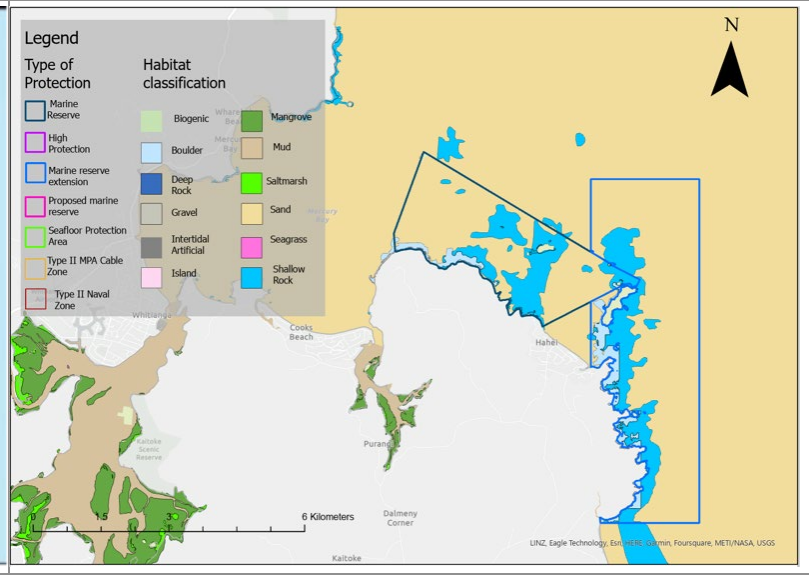
Marine reserve location	RTG proposal	Our proposal
Rotoroa Island		
Motokawao Group		

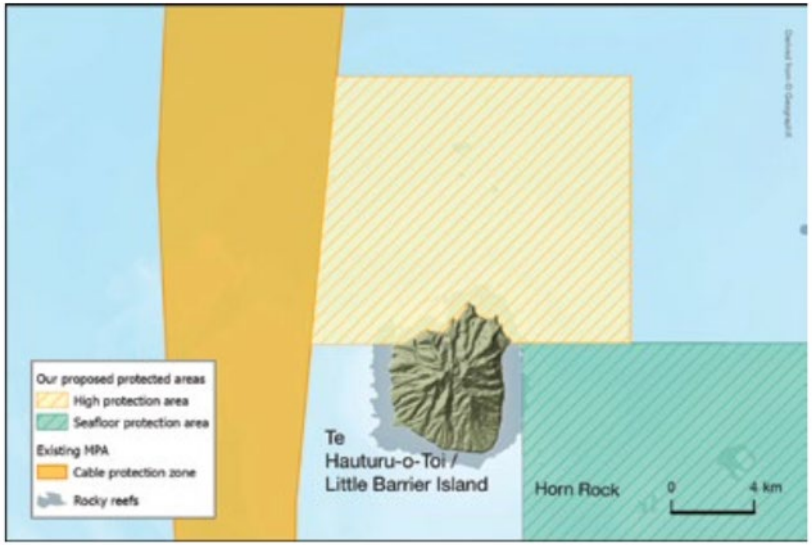
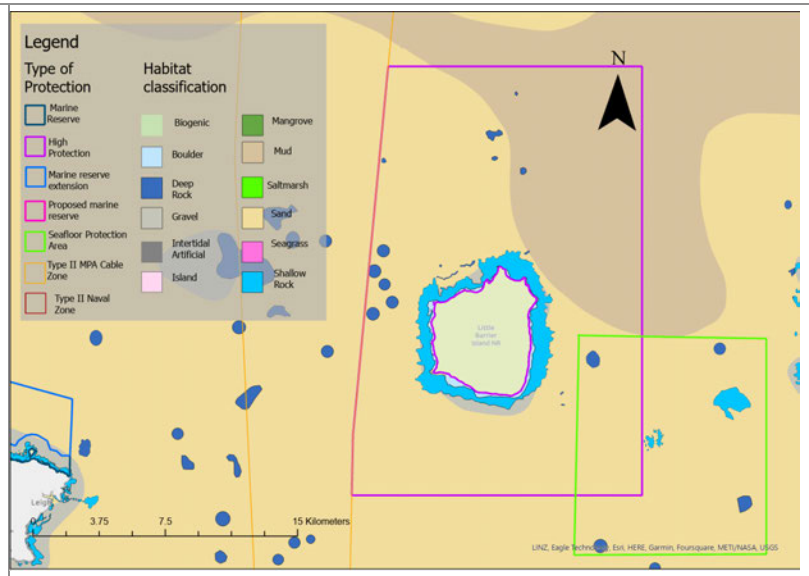
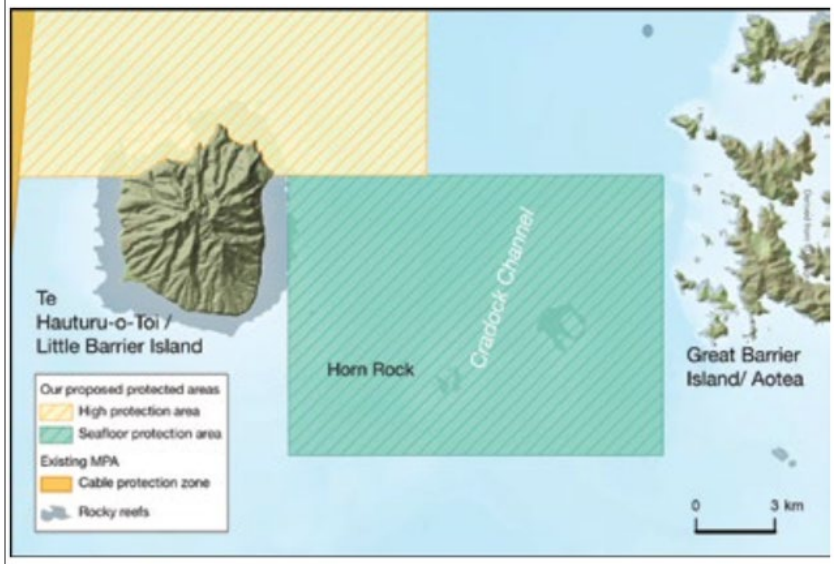
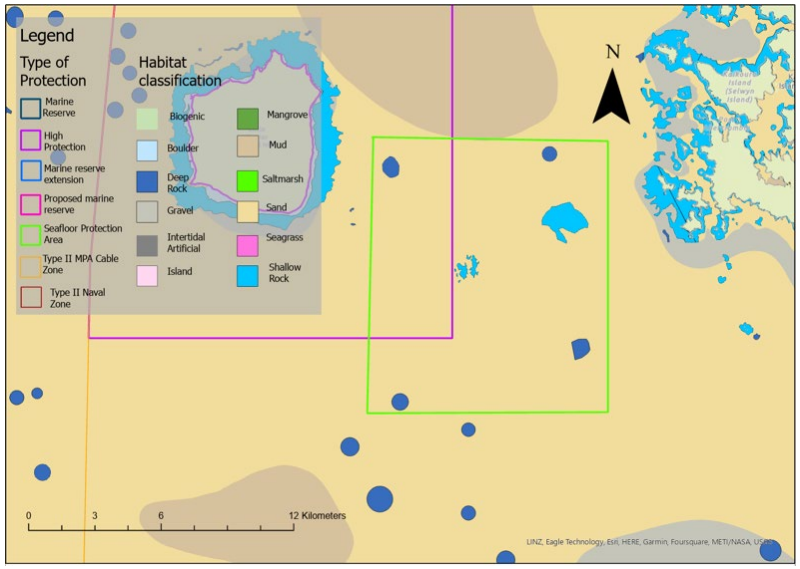
Firth of Thames		
The Noises		

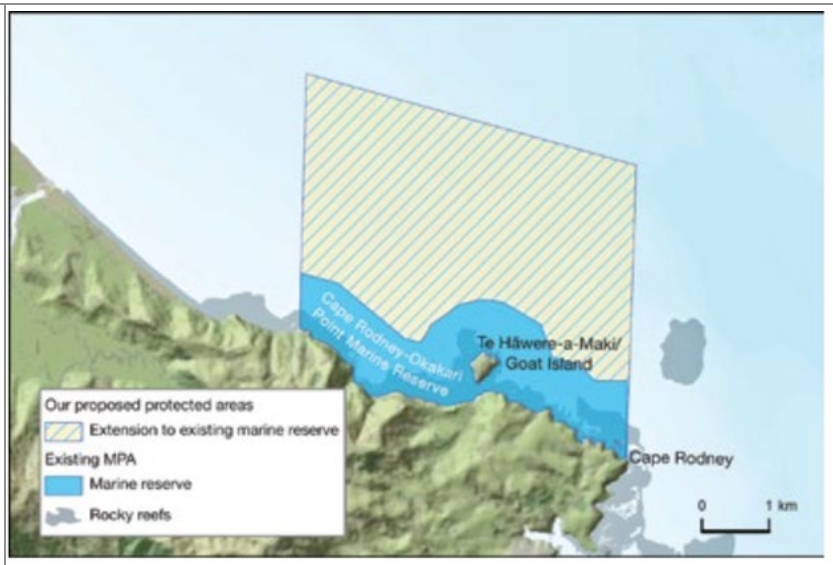
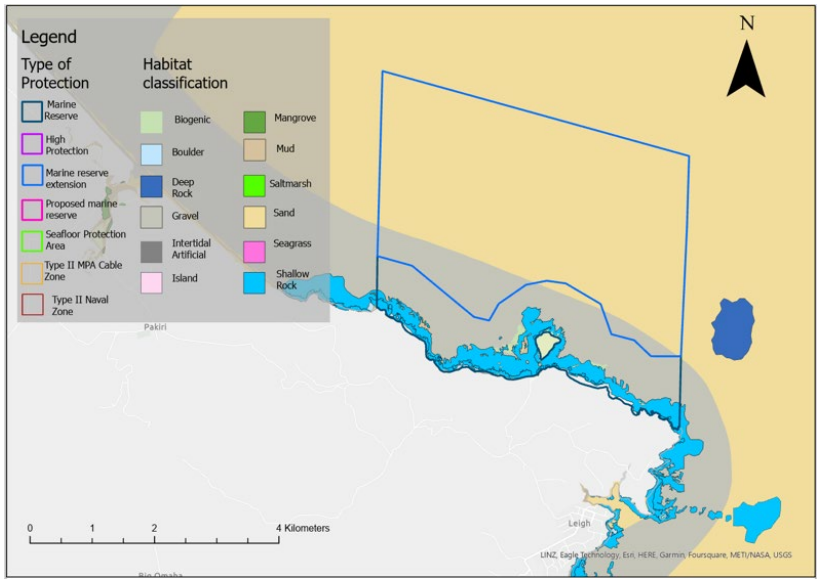
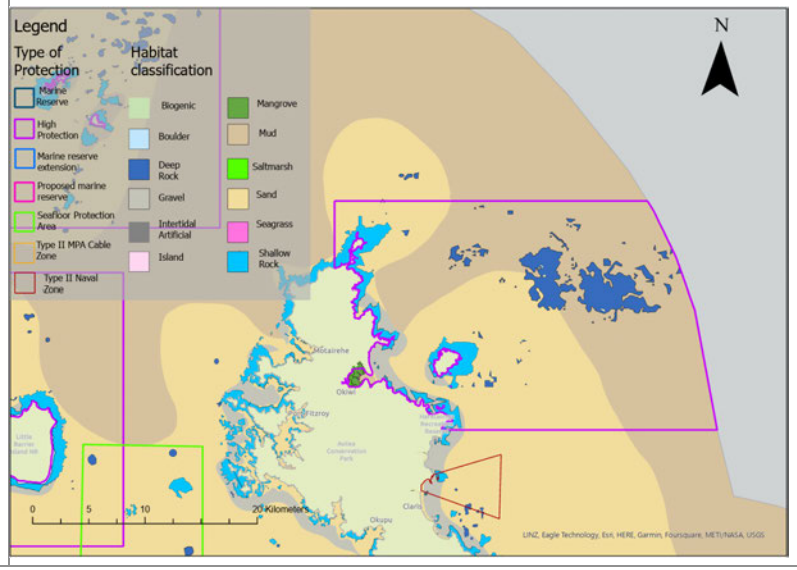
Tiritiri Matangi Island		
Kawau Bay		

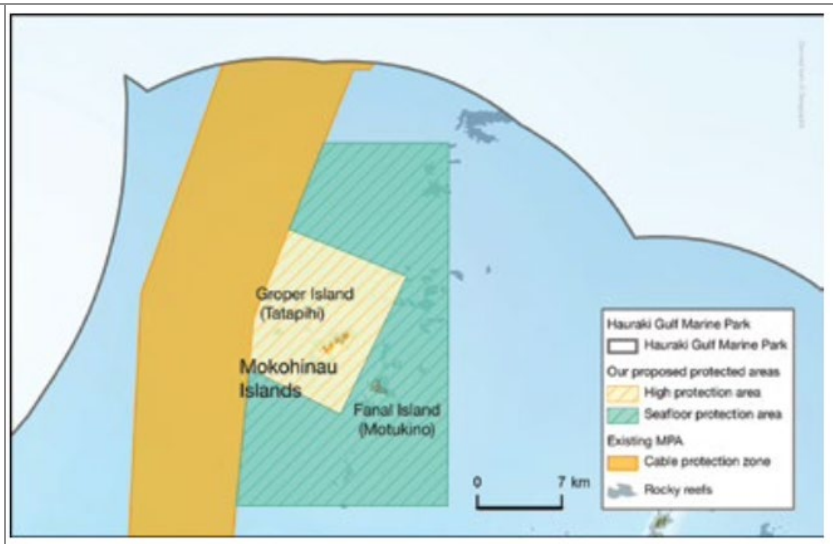
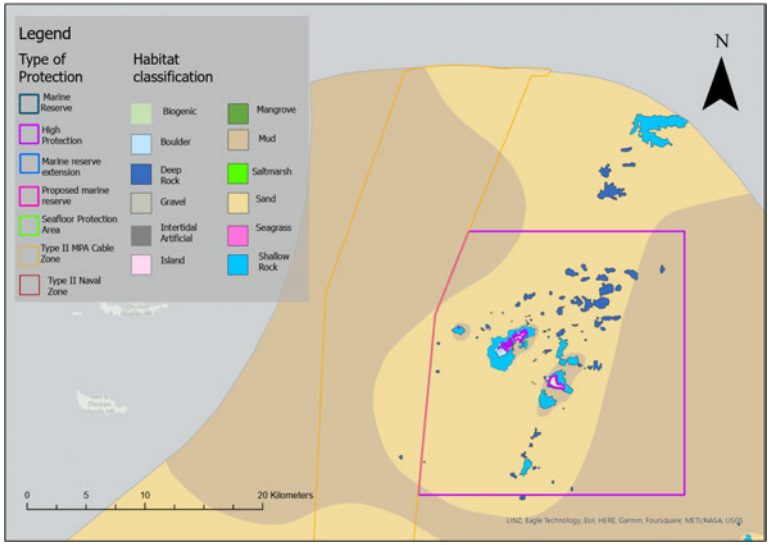
Rangitoto and Motutapu Islands		
Mercury Island Group (From Sea Change Proposals)		

Cape Colville		
Slipper Island		

Alderman Islands		
Whanganui-a-Hei (Cathedral Cove) marine reserve		

Little Barrier Island		
Craddock Channel		

Cape Rodney-Okakari Point (Leigh) marine reserve		
Great Barrier		

Mokohinau Islands		

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 6:14 pm
To: Sea Change
Subject: Submission: Help Revitalise the Gulf

:

seachange@doc.govt.nz

Your Name: s 9 (2)(a)

Your Email s 9 (2)(a)

Address: s 9 (2)(a)

Subject: Submission Revitalising the Gulf

Message
We undoubtedly need to protect our marine environments, and more larger Marine Reserves is great idea. However, I absolutely do not support the continuation of such destructive and short-sighted practices, as bottom trawling and sand mining. Environment > profit.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 6:17 pm
To: Sea Change
Subject: Submission: Help Revitalise the Gulf

:

seachange@doc.govt.nz

Your Name: s 9 (2)(a)

Your Email: s 9 (2)(a)

Address: s 9 (2)(a)

Subject: Submission Revitalising the Gulf

Message
Please protect the Hauraki Gulf by not allowing bottom - trawling or sand mining, which are both highly destructive to the marine ecosystem and are antiquated practices.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 6:49 pm
To: Sea Change
Subject: Seachange submission
Attachments: Scan0605.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded, Reply sent

OCEAN DREAM CHARTERS LTD

s 9 (2)(a)

s 9 (2)(a)

To Whom It May Concern,

Please find attached submission.

Kind regards,

s 9 (2)(a)

Seachange
Department of Conservation
Seachange@doc.govt.nz

25 October 2022.

Submission on proposed High Protection Zones in the Hauraki gulf

My/our concerns about this process and the proposal itself can be summarised as follows:

It is not democratic

- Very little time has been given for people to hear about, understand and respond to these marine protection proposals .
- The source documents are complex and the most important information about the size and reach of the proposed High Protection Areas are located in the appendix (slides 124 to 142) of a 144 page report
- Not all relevant stakeholders or intermediaries between the proposal and the affected groups have been directly contacted by DOC or HGF to alert them to this proposal. For example bait and fishing supply shops had no idea of this proposal yet it is their customers who will be directly affected by the establishment of no fish zones around the inner gulf areas including 50 km2 area around the Noises.

It is potentially very divisive.

The proposal expressly prevents any recreational or commercial fishing in these areas but allows for :

The customary practices of mana whenua, including customary non-commercial fishing, will be provided for within HPAs. Customary practices will be managed to achieve the biodiversity objectives agreed with mana whenua for each site. Protected Customary Rights (PCR) and Customary Marine Title (CMT) recognised under the Takutai Moana Act will be unaffected.

Inevitably this will be reinterpreted as two different sets of rules for the same area of water that was once accessible to all. There is no guidance within the documentation on how this work in practice in large areas such as the Noises (50 km2) or the Motukawao Group (30 km2) which is a very popular and productive fishing area across all cultural groups, Maori, Pakeha, Pacifica and Asian

It inconsistently applies its own guidelines to justify the HPA's .

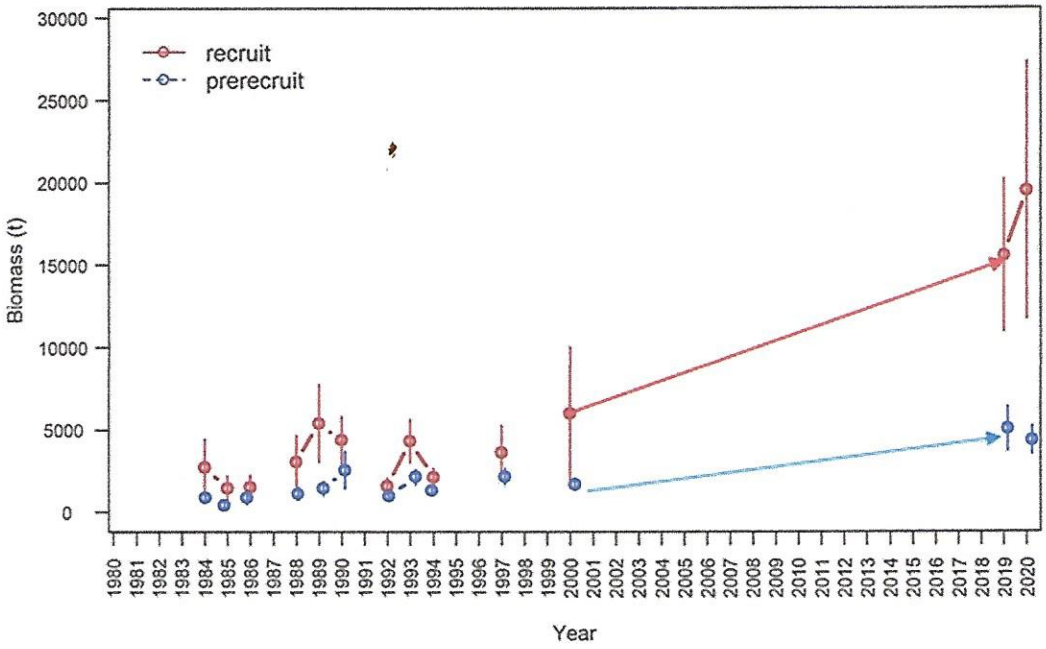
The purpose of the High Protection Ares is to *support the recovery of some of the most biodiverse regions in the Gulf.*

Some of the most at risk marine ecosystems include scallops, crayfish and the loss of kelp forests, in part, to a greater or lesser extent, due to the encroachment of kina.
Yet few of the detailed assessments outlining the ecological objectives and justification for an HPA specifically mention the protection or restoration of scallops or crayfish and in some cases the report acknowledges that *most of the soft-sediment habitat within the area has unknown values; it is thought to be dominated by mud substrate (Motukawao group).*
Nor is there any data or observations that set the benchmark on how the establishment of the specific HPA's will improve the pre-HPA ecosystems around these areas.

Part of the fundamental rationale for the establishment of these HPA's are out of date or no longer apply .
Much of the work on the establishment of these HPA's began 6- 7 years ago; well before the Gulf wide government moratorium on scallop collection or dredging, or collection of crayfish or the establishment of rahui to protect coastlines. But the rationale for these HPA's do not reflect these important advancements in the protection of sea-life and the sea floor.

The narrative of the DOC proposal and its supporting documentation also predates the publication of the NIWA trawl survey data in 2021 that shows snapper stocks and many other species have significantly recovered over recent years .
See slide below :

Fishery independent trawl surveys



HPA's are not strategically aligned to solving the biggest future threat to the Gulf .

With the reduction of commercial fishing pressure, decreases in recreational bag quota and the moratoriums on crayfish and scallop harvesting the pressure on the future of the Hauraki Gulf increasingly shifts towards land based, not sea-based activities.
The biggest threat to the recovery of the Gulf is sedimentation; from rural and forestry-based activities in the Waikato and Coromandel catchments and the rapid development of rural land for housing and commercial developments along the northern and southern coastlines of the Auckland region.
The increasing rate of subdivision, combined with higher frequency high volume rainstorms has accelerated the flow of sediments down the many streams and rivers to the estuaries that feed into our coastlines from Long bay north to Leigh, and on Waiheke Is land . And the extension of the northern motorway is only going to push that rate of sedimentation along the very coastline that feed into the HPAs for Tiritiri Matangi, Mahurangi, Kawau Is land right up to Goat Is land itself.
If we need to see what the future of suffocating sedimentation looks like, visit Long Bay reserve after a storm, or compare the health of the Waitemata harbour to what it was 6 years ago.
The danger is that the establishment of HPA's creates an illusion of protection and revitalisation when sedimentation will continue to spread across the Gulf irrespective of these new boundaries.

In summary the proposed creation of these HPA's is:

- based on out of date data and assumptions about the biggest threats to the Gulf,
- the process for gathering feedback is undemocratic
- the establishment of the HPA's is potentially very divisive between manu whenua Māori and other long established groups of gulf users.
- Will not solve the fundamental problems facing the health of the Hauraki Gulf, which are now fundamentally land based.

Thank you, for your consideration.

Regards

s 9 (2)(a)

s 9 (2)(a)

s 9 (2)(a)

OCEAN DREAM CHARTERS LTD 26-10-22

s 9 (2)(a)

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Wednesday, 26 October 2022 7:16 pm
To: Sea Change
Subject: "Support for Revitalising the Gulf"

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Name: s 9 (2)(a)
Contact: email
I support the sea change, but feel it is too little too late.

I am a recreational fisherman myself and I personally would prefer to see you draw a line from bream head to Cape Colville and
1. stop all commercial fishing immediately. For 5 years to let the stocks properly replenish
2. Reduce bag limits for recreational to 3 fish of legal size per day per person of any species for the next 5 years and introduce the same bag limits for customary fishing.
3. After 5 years and if stocks have sufficiently recovered, allow long line fishing for commercial vessels inside the area outside of spawning season. Never let nets back in.
4. Increase bag limits when fish stocks have returned to proper levels.
5. Commence a programme of reseeding the harbour beds with shellfish, you can employ the out of work trawlers.
6. Even up the sizing so trawlers need to meet the same minimums as recreational fishers.

Sent from my Galaxy

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 7:38 pm
To: Sea Change
Subject: Hauraki Gulf protection zoned

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded, Reply sent

- s 9 (2)(a)

s 9 (2)(a)

- I support 100 percent Seafloor protection for the whole of the Hauraki Gulf to support the regeneration of our sea flora and fauna.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 8:09 pm
To: Sea Change
Subject: Submission Hauraki Gulf
Attachments: Help save the gulf s 9 (2)(a) docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Ma mahi, ka ora

s 9 (2)(a)
Archaeologist
s 9 (2)(a)

Cell: s 9 (2)(a)
Email: s 9 (2)(a)
s 9 (2)(a)

s 9 (2)(a)
s 9 (2)(a)

26 Oct 2022

This is a private submission.

Help revitalise the Hauraki Gulf!

The proposed areas of high protection are too small. The only way to enhance the gulf is to restrict the volume of the fishery. Protected areas assist with that but restrictions on catch are needed as well.

Seabed protection is slightly better and appears to mean no bottom trawling. That is good. Why not restrict fishing methods as well such as long line.

The placement of the HPAs is good and builds to an extent on existing protection.

There is nothing here about enforcement and increased staffing and resources for enforcement agencies. There is nothing about audit of the effectiveness of customary protection and customary take.

I strongly support the extension of protection areas in the Cape Rodney and Kawau areas.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 8:23 pm
To: Sea Change
Subject: Submission on revitalising the gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

I support the proposals to increase protection in the Hauraki Gulf.

Sand mining, bottom trawling and other fishing practices which disturb the seafloor extensively should be further limited with targets to phase them out in the future.

I am submitting this as an individual.

s 9 (2)(a)
s 9 (2)(a)

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Sent from MetroMail

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 9:17 pm
To: Sea Change
Subject: Bottom Trawling

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded, Reply sent

I would like to add my voice to those who want to see an end to bottom trawling fisheries in the Hauraki gulf and indeed around all of NZ coastline. It is an environmentally devastating practice that destroys the sea floor flora and fauna as well as releasing huge amounts of green house gases. I strongly request our leaders and government stop this practice immediately.

Thanks for listening and your action towards protecting our environment and supporting the future for our children.

s 9 (2)(a)

Child, Adolescent, Family & General Psychiatrist. Email: s 9 (2)(a)
Mob s 9 (2)(a)

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Wednesday, 26 October 2022 9:20 pm
To: Sea Change
Subject: Submission - Hauraki Gulf Marine Protection Proposals

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Name: s 9 (2)(a)
Contact details:
s 9 (2)(a)
(Pakeha and Te Rarawa)

I fully support ALL the proposed marine protection areas for the Hauraki Gulf in the documents here https://www.doc.govt.nz/haveyoursayonthegulf

Other than that I would say they are far too little, both the HPAs and the SPAs.

I grew up on the North Shore and Whangaparaoa, the sea life wasn't in great shape then, and now it's just decimated. Snorkelling at local reefs held some attraction in the 1960-70s but now is just sad and depressing. They are so empty, and although sedimentation is an issue, it's mostly about overfishing, low abundance, scared fish, and no diversity. Both we and the fish deserve better.

Access to HPAS:

- Not only does the marine environment of the Gulf desperately need more HPAs, but the people need many more and most importantly in areas with road access!
- As far as I can tell from the map, only one of the proposed HPAs has road access
- This means only the affluent and privileged who have a boat or can afford a tourist boat can get to them, it's a travesty of furthering inequality.
- Kiwi's have a right to be able to experience a living ocean at their local reef!
- **So YES to the proposed HPAs, and encouragement to put some where people can get to them**

Customary Take:

- While I understand the sovereignty issues, I believe that NO fishing should be allowed in the HPAs for many years if not decades.
- Food sovereignty doesn't exist in an empty moana
- The depleted state of our oceans is too perilous to allow take from this very tiny percentage of the Gulf, just fish down the road.
- I am very concerned that if Maori are seen fishing in the HPAs pakeha fishers will not respect them and will just fish in them anyway, they already struggle to respect the current tiny closed areas we have.

Seafloor Protection Areas

- I'm in full support of the proposed SPAs

- But seriously why so few and so small.
- In the media the fishing industry has been saying they will now only be fishing in "corridors" in the Hauraki Gulf, making it sound like most of the seabed communities will be protected. This clearly won't be the case.
- Why not protect the Gulf and create some actual "fishing corridors" for the commercial fleet
- BTW Corridor Definition & Meaning - ***a usually narrow passageway or route.*** Merriam-Webster Dictionary

Get these done, and then get on with some REAL protection to actually revitalise the Gulf !!!

--
s 9 (2)(a)
M s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 10:27 pm
To: Sea Change
Subject: Submission: Help Revitalise the Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

:

seachange@doc.govt.nz

Your Name: s 9 (2)(a)

Your Email s 9 (2)(a)

Address: s 9 (2)(a)

Subject: Submission Revitalising the Gulf

Message
As a diver with over 40 years experience I have seen the decline in oceanic life in the Hauraki Gulf
I can remember getting scallops of Browns bay or spending a few hours on a fishing and diving trip returning with a feed of Snapper Kawai Scallops and Crayfish around the Noisies and Waiheke
My greatest regret is not being vocal enough about dumping of dredging spoil and allowing silt runoff from sub division s spoiling our beach's and sea plant life
I have also been witness to the Kina barrens spreading across the Gulf due to trawlers and man indiscriminately removing the preditors that keep nature in balance.
I have seen the impact of marine reserves and rahui can can have on our ocean play ground and support what it takes to help nature to naturally repair and rebuild man's destruction of the Moana .

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Wednesday, 26 October 2022 11:55 pm
To: Sea Change
Subject: Revitalise the Hauraki Gulf Submission

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Reply sent, Recorded

Kia ora,

My name is s 9 (2)(a) I am a stakeholder of the health of the Hauraki Gulf by virtue of a) growing up and still residing in Auckland, b) being a competitive sailor and spending 10 000 sailing, competing, and coaching on its waters, c) being a member of sailing clubs, and educating child and adult learn-to-sail programmes in different areas of the Gulf, d) taking the Devenport ferry as part of my commute, e) using a 30ft yacht to holiday around the Gulf at least once a year, f) enjoying diving

I wish to convey that much more action needs to be done for meaningful conservation, and fast.

General feedback

- The Sea Change plan began its life almost 10 years ago and there is still very little to show for improved outcomes for the Gulf. I am aware of some of minor recent progress but I do not believe that central and local government are moving fast enough to improve the mauri of the Gulf.
- I do not regard Cable Protection Zones as meaningful marine life protection, therefore I do regard the 17.6% figure as stated by the report as meaningful.
- The international best-practice target is 30% for highly protected areas, so for the government plan to be 10 years in the making and a) not target 30% protection and b) inflate the 'protection' area with weak protection zones (such as the cable protection zone) is **not acceptable.**
- Very supportive of a move to ecosystem-based management. Do this quickly.
- Create a beautiful, living legacy of a thriving Gulf!!

Fisheries management:

- I agree with the written outcomes
- recreational fishing is an extremely important area to regulate well. Cumulative effects are significant and there are reports of insufficient fisheries officers to enforce bag limits. I want all recreational fishers to require a license through a fishing club that ensures education about the ecosystems in the gulf, fishing rules and fishing areas.
- Bottom trawling should be severely limited in the Gulf.
- Fisheries rules should be easy to understand to help compliance. Therefore, I recommend large, no-take marine reserves, and total bans of the worst fishing practices in the Gulf. Low impact commercial fishing could be allowed provided ecological limits are not passed, otherwise the fishery should close.
- To support the habitat restoration and other six areas, fishing management must be very strong.
- Review, rewrite and update the Fisheries Act 1996 to enable ecosystem based management of all fisheries.
- Transition the Quota Management System (QMS) to an ecosystem-based approach that enables the interactions of all species, their environment, and the interactions between trophic levels to be addressed in management to ensure fish, shellfish and associated and dependent species populations are maintained at ecologically healthy, resilient levels.

- Support all commercial fisheries to transition to operate with verifiably best practice methods and equipment that minimises ecological impacts, including avoiding bycatch of protected species, and carbon release from sediments, and that fishing occurs within agreed take areas.
- Reduce ghost fishing gear by mandatory marking, and disposal facilities
- Set a target of zero fishing-related mortality of marine mammals, turtles, seabirds, and other protected marine species, for all fisheries, set interim mortality limits for these species and close fisheries as soon as a limit is reached.
-
- Marine predators such as sharks, whales, dolphins, rays, and seals should have very high protection

Habitat Restoration

- Support the vision and proposed actions.
- Do this as quick as it biosecuritarily safe to do

Aquaculture

- Aquaculture of seaweed and other species that create and restore ecosystems WITHOUT introduction of feed should be prioritised.
- Research and create 'blue carbon' sequestering opportunities

Support appropriate financial mechanisms (e.g. resource rentals) so that users of coastal waters (e.g. marine farmers) pay a use or occupation charge for private commercial use of public coastal and marine space and ensure the funds raised support sustainable management.

Marine Protection

- There should be a 30% **no-take** marine reserve plan. You have proposed 0.3% (i.e. no significant change) which is **dismally low**.
- Areas with permissible customary fishing (e.g. high protection areas/MPA 1 zones) should be on top of the 30% no-take areas.
- Marine protection should not only protect 'special and rare' areas, but also regular, typical marine areas. See Dr Bill Balantine's book on Marine Reserves
- Although I support Te Tiriti and customary fishing, I do not support this to be available in all parts of NZ waters. By heavily protecting no-take marine reserve areas, the Crown **would be supporting Māori fishing rights,** ensuring those rights are preserved for generations to come by a) restoring the mauri of the Gulf, and b) by spill-over species from the marine reserves and c) allowing better studying of undisturbed marine ecosystems.
- Update the Marine Reserves 1977 Act to speed up the creation of a coherent network of marine reserves covering exceptional and standard areas of marine ecosystems

Protected species

- The actions described are almost entirely theoretical/bureaucratic and are not practical steps to reduce bycatch/improve protections
- The minister should use their powers to directly implement recovery plans for all species in decline (including seabirds). Biodiversity of 100+ years ago should be the target, including sponges, seals, whales, seabirds, shellfish and fish species. This should happen under 'manage' and in 1-2 years.

Ahu Moana

- Looks good.

Governance

- Although I am supportive of increasing the powers of the Hauraki Gulf Forum in the medium term, I think in the short term we need to actually get the work done of improving the Gulf with the resources available to us.
- An Oceans Ministry should be set up rather than a Cross-Agency group (long term)

Thanks for your time and work towards this crucial matter.
Kind regards,

s 9 (2)(a)
(he/him)

Marketing

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 6:32 am
To: Sea Change
Subject: Bottom Trawling and Mining

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

My family is opposed to bottom trawling and mining any of the Hauraki Gulf, as it essentially obliterates all eco-systems. I do not agree with special access being granted to one group of people as I see it as being a form of apartheid.

We also want the area off Pakiri / Mangawhai to be designated a Special Protection Area to stop sand mining off the shores of Pakiri and Mangawhai. The impact of further mining will be detrimental to the beaches and dunes of this area and Mangawhai Harbour.

Thank you
s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 7:00 am
To: Sea Change
Subject: Hauraki Gulf Proposal

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Hi all,

In general I support the proposed change BUT would like to ensure that the seabed protection areas do not prohibit recreational diving / fishing and catching scallops/crayfish by hand up to agreed bag limits.

The stock levels will benefit from reduced commercial catching and can be better managed by fisheries with changes to the bag limits if needed rather than a blanket approach.

Regards s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 7:42 am
To: Sea Change
Subject: Remove the High Protection Areas from the proposal

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Cheers
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 7:51 am
To: Sea Change
Subject: Submission - Revitalising the Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Our family enjoy the Hauraki Gulf from our yacht and have noticed the real deterioration in water quality and bio diversity. This is a genuine crisis needed genuine leadership.

I support the establishment of 19 new protected zones including 12 High Protection Areas, 5 Seafloor Protection Areas and 2 protected areas (marine reserve extensions) adjacent to Whanganui-a-Hei and Okakari Point.

However I believe this does not go far enough. I believe bottom trawling and seabed mining have NO PLACE in New Zealand waters.

Therefore I believe both practices should be banned outright in the ENTIRE Hauraki Gulf area.

This is the only way our family will see improvement in water quality and bio diversity.

Ngā mihi nui
s 9 (2)(a)
s 9 (2)(a)

s 9 (2)(a)

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 7:53 am
To: Sea Change
Subject: Submission on "Revitalising the Gulf" proposal

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Thank you for the opportunity to make this submission.

My submission on this is: Please remove all references to the Treaty of Waitangi and Iwi involvement.

Reason: It is not complicated. As far as I am aware New Zealand is still a democracy in which we are all equal. New Zealanders marched on the streets to oppose apartheid in other countries – why are we introducing it here? While the entire world is preaching equality why is New Zealand marching resolutely backwards towards discrimination? This proposal as currently drafted takes us further along this road backwards to darkness.

Thank you

s 9 (2)(a)
s 9 (2)(a)

Sent from Mail for Windows

Sea Change

From: Meadowbank School Marine team s 9 (2)(a)
Sent: Thursday, 27 October 2022 8:07 am
To: Sea Change
Subject: Submission: Help Revitalise the Gulf

:

seachange@doc.govt.nz

Your Name: Meadowbank School Marine team

Your Email s 9 (2)(a)

Address: s 9 (2)(a)

Subject: Submission Revitalising the Gulf

Message
s 9 (2)(a)

We have visited Goat Island Marine Reserve with EMR. Visiting the reserve opened our eyes as we saw lots fish and sustainable ecosystems. Seeing this made us care alot about marine reserves and other habitats and we think how incredible it would be if everybody got the experience.
When we visited Goat Island we were amazed by the clarity of the water and the diversity of the species, combined with the balance of the ecosystem. It really showed us what a healthy ecosystem looks like, not only underneath the water but also in the rock pools and other bodies of water like the streams that fed into the ocean.
We saw so many fish species; eagle rays, spotty, snapper, eleven armed starfish, crabs and a forest of kelp. It really shocked us how many species lived there compared to our local beaches. Personally it was a real eye opener, seeing the difference between a protected and unprotected area. This motivated us to take action and spread awareness.
Finally, if we had more marine reserves, we could get people to realise the impact of marine reserves, not only for the creatures but on people's point of view. Establishing more reserves will not only introduce new species but let others species thrive and get people excited and passionate about the health of our ocean and land At our local beaches you can barely ever see fish and most of the seaweed is just washed up on the beach. Extending our marine reserves will motivate our people to care, similarly it will motivate anyone else (tourists) who visits us. It's crucial. if we don't act now it will be an inevitable that the health of our ocean will decline.

s 9 (2)(a)
We enjoyed learning about healthy water ecosystems with EMR during our visit to Goat Island Marine Reserve and we would like to share some of what we experienced.
I was expecting less of this marine reserve. It was awe-inspiring to experience the difference in this ecosystem and environment, compared to our local beaches.
It was beautiful swimming though the healthy water. Snapper poked in and out of the swaying kelp forests. Blue Cod and Red Moki mingled around each other. There was also an enormous amount of kina feeding on the kelp.

If we increase the amount of marine reserves in the Hauraki Gulf, then our local ecosystems will thrive. Also, if there are more reserves, more of the public can feel and see, what I felt and saw, and will do what I did - take action to protect it.
I think it would be amazing to be able to just bike down to the beach with my friends and my snorkel gear, and feel what we experienced at Goat Island. I think it is crucial that we increase the marine reserves around Hauraki Gulf.
IT'S NOW OR NEVER!

s 9 (2)(a)

We have visited goat island marine reserve with EMR.
Before we went to goat island, we weren't aware of how much diversity can form when an area is protected. We really enjoyed seeing a wide variety of species from golf ball sponges to blue eyed triplefins. We saw species that we could have only ever have imagined of but when we saw them in person it was wonderful. Many fish were confident to swim up to us because they know that they are safe from fishing at Goat Island.
In our local beaches we swim in very murky water: the occasional small fish are to scared to go near anyone, plenty of pollution is scattered both in the ocean and on the sand. This especially encouraged us to take action to protect marine areas in our local community and to decrease litter. At Goat Island we saw a huge population of diverse marine life as we swam over forests of kelp. We saw eagle rays, snapper, jellyfish, piper fish, red moki, leather jacket fish, kina and the eleven armed starfish. After I had submerged my head under the icy water, I glimpsed a long thin object slithering behind the kelp, At that point my curiosity took over, so of course I swam over> To my amazement I saw a elegant eagle ray gliding away, my jaw dropped, and for a while I stared at the spot it had disappeared at, Undoubtedly that was the best experience ever.
Currently in the whole Hauraki Gulf there is only 0.3 percent protected. So without a doubt we think there should be more marine reserves in the hauraki gulf. Firsty to protect endangered and threatened species to stop them plummeting down the cliff of extinction, Secondly to repopulate uncommon species that can help balance the natural ecosystem, and thirdly so that more species will thrive. If the idea is accepted we will be protecting a whopping 17.7 percent more than previously. We think this will impact other people and they could help other parts of the world in our road trip towards an eco friendly earth and healthy oceans worldwide.

s 9 (2)(a)

We have visited Goat island and Poor knights with EMR. We enjoyed looking at a healthy ecosystem and a good role model for other ecosystems.
We saw the astounding difference between protected and unprotected areas;the amazing diversity of the ocean animals found there and the substantial size difference between fish in our local environment and the protected environments. We saw a immense assortment of fish that we would not see in our local environment like:Eagle Rays,Stingrays, eleven armed starfish,blue maomao,Kelp,Piper,Trevally,Blue eyed triplefin,spotty,Blue cod. We also heard the kina. When we poked our heads into the thick green kelp, we found a monstrosity of a crayfish staring at us. Annoyed at the whole poking ordeal, we were so surprised we nearly swallowed our snorkels out of fright. I had never seen a crayfish that well feed!
We should create more protected areas in the Hauraki Gulf for the following reasons:
Firstly, if we create more marine reserves closer, people can then truly experience the beauty of a protected marine environment easily and they will hopefully be motivated join us and protect this stunning environment
Secondly, the protection in these areas would increase the variety of marine animals and and as a result, our ocean life would thrive.
Thirdly, we know that whatever we do in our oceans in New Zealand affects the ocean globally. So we have this responsibility to take action and keep our water healthy.
Finally, we would love to take trips to different areas in New Zealand and experience what we experienced at Goat Island and the Poor Knights.

s 9 (2)(a)

We have visited Goat island with EMR. We enjoyed seeing all the breathtaking diversity of their ecosystem,and would like to see more of this around NZ. It helped us to set the standard for how amazing the ocean could be. While snorkeling around Goat Island, the visibility level was high, But at our local beaches, we can't even see our feet in knee length water. There is also a disappointing lack of fish at our local beaches. Surprisingly, at Goat island there was an enormous amount of snapper, red moki and kina but less of other species. It was rather like a game, dodging any passing fish and floating jellyfish. The kelp forests were flourishing and we were fascinated by the fact that an healthy ecosystem could have an certain dominating species.
The proposal of more marine reserves in the Hauraki Gulf is an excellent idea. We want the local citizens of Auckland and its surrounds to experience what the ocean has to offer. We must take action NOW! Our wish is to let the endangered species recover and re-balance the ecosystem. People need to actually see what the ocean could become to feel motivated to take action. Adding more marine reserves and protected areas that are accessible to people would help with that. We must be more civilized and take better care of our earth .

It is imperative that we act now before things take a turn for the worse.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 8:12 am
To: s 9 (2)(a) Sea Change
Subject: Re: Submission on Revitalising the Gulf Marine Protections proposal - jOHN white

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Thank you for your reply.

Please only publish this amended response.

My name is s 9 (2)(a) I reside in s 9 (2)(a) New Zealand .I support the Gulf Marine Protection Package proposed to establish new marine and sea floor protection areas in the Hauraki Gulf Marine Park.

The health of the gulf is important to all of us who have the opportunity to enjoy all the recreation activities and wild life the Hauraki Gulf.
We now have a Mayor in Auckland with the ability and determination to lead and achieve protection of our sea waters and the fresh water assets which directly impact on the quality our sea shores.

The Department of Conservation will also get full support from Auckland people in their practical preservation work.

s 9 (2)(a)

s 9 (2)(a)

From: Revive Our Gulf on behalf of jOHN white
Sent: Wednesday, October 26, 2022 7:32 AM
To: seachange@doc.govt.nz
Subject: Submission on Revitalising the Gulf Marine Protections proposal - jOHN white

Kia ora DOC,

My name is s 9 (2)(a) . I reside in s 9 (2)(a) s 9 (2)(a)

I support the Revitalising the Gulf, Marine Protection Proposals package to establish new marine and seafloor protection areas in the Hauraki Gulf Marine Park / Tīkapa Moana / Te Moananui-ā-Toi (the Gulf). I encourage Ministers to proceed as quickly as possible to implement these much needed changes.

The health of the Gulf is important to me because I swim at the beaches, I visit the islands, I sail, I do water sports (ski, surf, paddle board, kite boarding, windsurf).

Preservation of our sea bed in the Hauraki Gulf is the responsibility of all people in the greater Auckland area. We know have a Mayor with the determination and ability to lead a determined effort to protect

both our sea and fresh water assets.
The Department of Conservation will also get full support from Aucklanders in their excellent effort of preservation..

We have seen the direct benefit of marine protection at Goat Island / Te Hāwere-a-Maki, Whanganui-ā-Hei and the Poor Knights / Tawhiti Rahi. The proposal to protect a network of small areas in the Gulf will stimulate regeneration in these areas and beyond them.

The Government MUST act with urgency to set in place all 19 protection zones proposed. Expert opinion and successive State of the Gulf reports indicate that the Gulf is in a biodiversity crisis and close to ecological collapse. It is time to act for the benefit of future generations to improve the state of the Hauraki Gulf Marine Park.

Nāku noa, nā
s 9 (2)(a)
s 9 (2)(a)
[redacted]

IMPORTANT: Please remove my contact information (email address & phone number) prior to publishing this submission in the public domain.

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Thursday, 27 October 2022 8:37 am
To: Sea Change
Subject: Hauraki Gulf / Sea Change

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

I am absolutely opposed to bottom trawling as it is uneccesary and destructive.
s 9 (2)(a) Taranaki.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 9:00 am
To: Sea Change
Subject: Submission on 'Revitalising the Gulf'
Attachments: Submission Hauraki Gulf 27 Oct 2022.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Good morning.
Please find attached my submission on the ‘Revitalising the Gulf’ proposals.
Yours
s 9 (2)(a)

Submission on 'Revitalising the Gulf'

Date of submission: 27 October 2022
Name: s 9 (2)(a)
Submission on behalf of: Private individual
Contact details:

Postal address s 9 (2)(a)
Tel.
Email

HPAs
The marine environment of Auckland's Hauraki Gulf needs as much protection as possible. Therefore, I am in favour of the establishment of High Protection Areas and Seafloor Protection Areas, and the extension of marine reserve areas as set out in the document, *Revitalising the Gulf – Marine Protection Proposals*.

Bottom trawling and sand mining
However, I am shocked to discover that bottom trawling and sand mining, both of which are notoriously detrimental to marine life, are still allowed in ***any*** area of the Hauraki Gulf.

Submission 1:
I submit that all bottom-trawling activities should be made illegal in the entire area of the Hauraki Gulf, with immediate effect.

Submission 2:
I submit that all sand-mining activities should be made illegal in the entire area of the Hauraki Gulf, with immediate effect.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 9:06 am
To: Sea Change
Subject: Proposed changes to the marine reserve on the Hauraki Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

I wish to add my voice to the proposed changes to the Hauraki Gulf.
I would like to see a marine reserve extending much further than the proposed 18%, this is not enough. The Hauraki Gulf is a desert, it has been decimated by overfishing, particularly deep seabed dredging for scallops.
Seabed dredging should be forbidden, it is barbaric and it is incredible that this is still permitted in a country like ours.
There have been local initiatives in the Coromandel Peninsula to protect scallop beds which have been welcomed by New Zealanders, there is a real desire to do something about the future of our seabeds.
This is one last chance to make a change, do it once and do it properly, we are the guardians of our future, we have to act like we are guardians and not just pillagers of the sea.
Yours faithfully
s 9 (2)(a)

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Thursday, 27 October 2022 9:18 am
To: Sea Change
Attachments: marine reserve submission 1.jpg

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Sent from Mail for Windows

s 9 (2)(a)

s 9 (2)(a)

I am a full time resident and a boat owner and keen fisherman. I agree with all the following points made by the Hahei Ratepayers at the AGM.
Please register my opposition to the proposal to extend the Marine reserve boundary to the main Hahei Beach.

Key direction following the AGM

Following robust discussion at the AGM the attendees came to the following consensus.

1. Hahei Beach Boundary

We **do not agree** that the marine reserve should be extended along Hahei Beach because:

1. It would be almost impossible to clearly identify the start/end of the Marine Reserve on a beach. This could lead to administration confusion relating to concessions, policing etc.
2. We believe dog owners should be able to walk their pets over the entire length of the beach when permitted by current TCDC regulations.
3. Hahei Residents believe they should retain the right to fish (or remove items such as shells or seaweed) along the entire beach

2. Mahurangi Island Boundary

A large majority would prefer that the north west coast of Mahurangi Island remain outside of any marine reserve expansion since it offers a safe family boating/fishing experience in adverse weather

3. Expansion of marine reserve seaward

All were in favour of this taking place.

4. Enforcement

There is no point in expanding the reserve unless **DOC provides better enforcement**, case in point the management of freedom camping in the beachfront carpark

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 9:40 am
To: Sea Change
Subject: Revitalising the Hauraki Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

I support the Revitalising the Gulf initiative because it has been such a wonderful resource in so many ways over the years - for leisure, for food and so much more. I can't believe the state it is currently in

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 9:53 am
To: Sea Change
Subject: RE: Submission on Revitalising the Gulf Marine Protections proposal - s 9 (2)(a)

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Just to clarify, I don't actually support this proposal because I believe we need to do much more then protect just a few small areas of the Gulf.

Regards,

s 9 (2)(a)

s 9 (2)(a) | s 9 (2)(a) | www.totalsport.co.nz

Here are some Great Events coming up in Stunning Locations!

Hunau Hillbilly - 5 November 2022 - www.hunuahillbilly.co.nz
The Taniwha - 12 November 2022 - www.thetaniwha.co.nz
Poronui Passage - 3 December 2022 - www.poronuipassage.co.nz
Speights West Coaster - 10 December 2022 - www.thewestcoaster.co.nz
Cargo Plus Coastal Challenge – 18 February 2023 - www.coastalchallenge.co.nz
Northpower Wild Kiwi – 11 March 2023 - www.thewildkiwi.co.nz
Partners Life Dual – 1 April 2023 - www.thedual.co.nz
T42 Central Plateau – 6 May 2023 - www.t42.co.nz
Eukanuba Tails and Trails - May 2023 - www.tailsntrails.co.nz
The Tora - May 2023 - www.thetora.co.nz
Cougar Trail Run - July 2023 - www.cougartrailrun.co.nz

From: Revive Our Gulf on behalf of s 9 (2)(a) <mailer.no-reply@reviveourgulf.org.nz>
Sent: Thursday, 27 October 2022 9:30 am
To: seachange@doc.govt.nz
Subject: Submission on Revitalising the Gulf Marine Protections proposal - s 9 (2)(a)

Kia ora DOC,

My name is s 9 (2)(a) . I reside in s 9 (2)(a)

I support the Revitalising the Gulf, Marine Protection Proposals package to establish new marine and seafloor protection areas in the Hauraki Gulf Marine Park / Tīkapa Moana / Te Moananui-ā-Toi (the Gulf). I encourage Ministers to proceed as quickly as possible to implement these much needed changes.

The health of the Gulf is important to me because I swim at the beaches, I visit the islands, I sail, I snorkel and/or SCUBA dive, I do water sports (ski, surf, paddle board, kite boarding, windsurf).

Surely protecting just a very small handful of areas and letting people (big industry) have at it with the rest is clearly not the way to go! We need to develop a plan for the WHOLE Hauraki Gulf Marine Park that removes destructive ways of fishing (such as bottom trawling - period) and implements sensible catch limits for all. I don't even eat/catch fish but it seems pretty clear that this Marine Park concept is not the way to improve the health of the Gulf as a whole.

We have seen the direct benefit of marine protection at Goat Island / Te Hāwere-a-Maki, Whanganui-ā-Hei and the Poor Knights / Tawhiti Rahi. The proposal to protect a network of small areas in the Gulf will stimulate regeneration in these areas and beyond them.

The Government MUST act with urgency to set in place all 19 protection zones proposed. Expert opinion and successive State of the Gulf reports indicate that the Gulf is in a biodiversity crisis and close to ecological collapse. It is time to act for the benefit of future generations to improve the state of the Hauraki Gulf Marine Park.

Nāku noa, nā
s 9 (2)(a)
s 9 (2)(a)

IMPORTANT: Please remove my contact information (email address & phone number) prior to publishing this submission in the public domain.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 10:01 am
To: Sea Change
Subject: Plan submission
Attachments: Hauraki Gulf Marine Spatial Plan Submission.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

s 9 (2)(a)

s 9 (2)(a)

27.20 2022

Re: Revitalise Hauraki Gulf Proposal

As a resident of Auckland I support the – Hauraki Gulf Marine Spatial Plan with the following amendments.

1. All trawling should be prohibited from the entire Hauraki Gulf Marine Park area.

Regards

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 10:17 am
To: Sea Change
Subject: Submission

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To Whom it may concern

I have read the brief on what is proposed. As a diver and fisherman in the hauraki gulf I am concerned that the proposal does not extend far enough to bring the gulf back from the brink.
The SPA's need to be extended through the whole of the inner gulf to allow the seabed to reestablish.The piecemeal approach will not have the impact needed.

Regards
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 12:50 pm
To: Sea Change
Subject: Hauraki Gulf Protection Proposal
Attachments: Seachange DOC proposal.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To whom it may concern.

Please see attached
Regards s 9 (2)(a)

Seachange
Department of Conservation
Seachange@doc.govt.nz

25 October 2022.

Submission on proposed High Protection Zones in the Hauraki gulf

My/our concerns about this process and the proposal itself can be summarised as follows:

It is not democratic

- Very little time has been given for people to hear about, understand and respond to these marine protection proposals .
- The source documents are complex and the most important information about the size and reach of the proposed High Protection Areas are located in the appendix (slides 124 to 142) of a 144 page report
- Not all relevant stakeholders or intermediaries between the proposal and the affected groups have been directly contacted by DOC or HGF to alert them to this proposal. For example bait and fishing supply shops had no idea of this proposal yet it is their customers who will be directly affected by the establishment of no fish zones around the inner gulf areas including 50 km2 area around the Noises.

It is potentially very divisive.

The proposal expressly prevents any recreational or commercial fishing in these areas but allows for :

The customary practices of mana whenua, including customary non-commercial fishing, will be provided for within HPAs. Customary practices will be managed to achieve the biodiversity objectives agreed with mana whenua for each site. Protected Customary Rights (PCR) and Customary Marine Title (CMT) recognised under the Takutai Moana Act will be unaffected.

Inevitably this will be reinterpreted as two different sets of rules for the same area of water that was once accessible to all. There is no guidance within the documentation on how this work in practice in large areas such as the Noises (50 km2) or the Motukawao Group (30 km2) which is a very popular and productive fishing area across all cultural groups, Maori, Pakeha, Pacifica and Asian

It inconsistently applies its own guidelines to justify the HPA's .

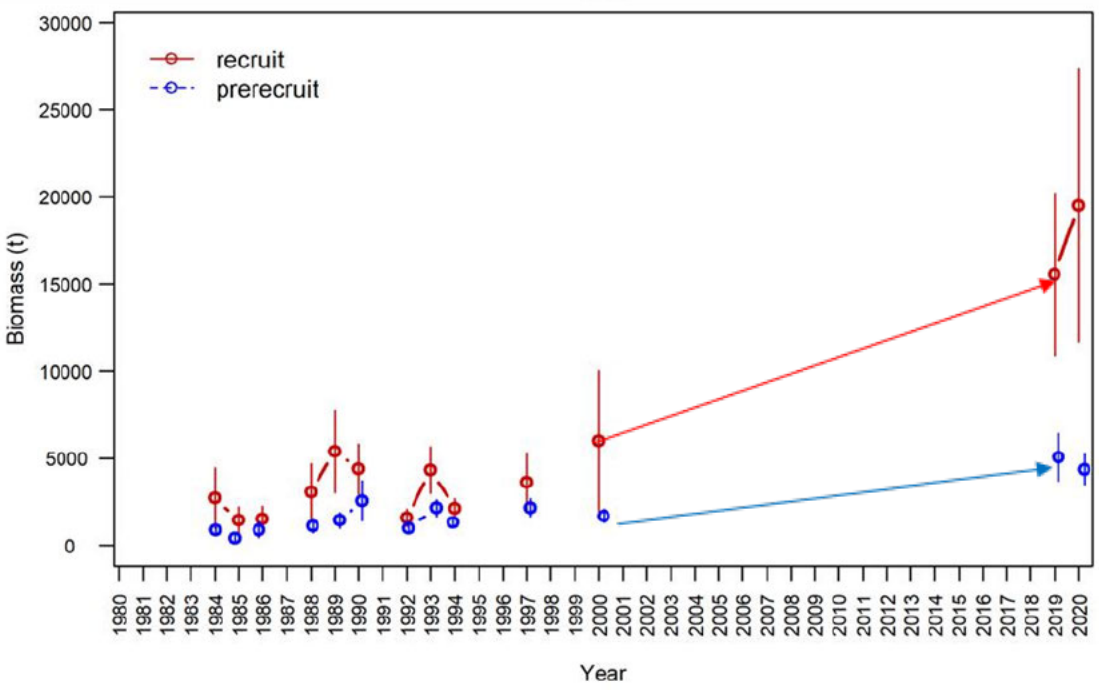
The purpose of the High Protection Ares is to *support the recovery of some of the most biodiverse regions in the Gulf*.

Some of the most at risk marine ecosystems include scallops, crayfish and the loss of kelp forests, in part, to a greater or lesser extent, due to the encroachment of kina.
Yet few of the detailed assessments outlining the ecological objectives and justification for an HPA specifically mention the protection or restoration of scallops or crayfish and in some cases the report acknowledges that *most of the soft-sediment habitat within the area has unknown values; it is thought to be dominated by mud substrate (Motukawao group).*
Nor is there any data or observations that set the benchmark on how the establishment of the specific HPA's will improve the pre-HPA ecosystems around these areas.

Part of the fundamental rationale for the establishment of these HPA's are out of date or no longer apply .
Much of the work on the establishment of these HPA's began 6- 7 years ago; well before the Gulf wide government moratorium on scallop collection or dredging, or collection of crayfish or the establishment of rahui to protect coastlines. But the rationale for these HPA's do not reflect these important advancements in the protection of sea-life and the sea floor.

The narrative of the DOC proposal and its supporting documentation also predates the publication of the NIWA trawl survey data in 2021 that shows snapper stocks and many other species have significantly recovered over recent years .
See slide below :

Fishery independent trawl surveys



HPA's are not strategically aligned to solving the biggest future threat to the Gulf .

With the reduction of commercial fishing pressure, decreases in recreational bag quota and the moratoriums on crayfish and scallop harvesting the pressure on the future of the Hauraki Gulf increasingly shifts towards land based, not sea-based activities.
The biggest threat to the recovery of the Gulf is sedimentation; from rural and forestry-based activities in the Waikato and Coromandel catchments and the rapid development of rural land for housing and commercial developments along the northern and southern coastlines of the Auckland region.
The increasing rate of subdivision, combined with higher frequency high volume rainstorms has accelerated the flow of sediments down the many streams and rivers to the estuaries that feed into our coastlines from Long bay north to Leigh, and on Waiheke Is land . And the extension of the northern motorway is only going to push that rate of sedimentation along the very coastline that feed into the HPAs for Tiritiri Matangi, Mahurangi, Kawau Is land right up to Goat Is land itself.
If we need to see what the future of suffocating sedimentation looks like, visit Long Bay reserve after a storm, or compare the health of the Waitemata harbour to what it was 6 years ago.
The danger is that the establishment of HPA's creates an illusion of protection and revitalisation when sedimentation will continue to spread across the Gulf irrespective of these new boundaries.

In summary the proposed creation of these HPA's is:

- based on out of date data and assumptions about the biggest threats to the Gulf,
- the process for gathering feedback is undemocratic
- the establishment of the HPA's is potentially very divisive between manu whenua Māori and other long established groups of gulf users.
- Will not solve the fundamental problems facing the health of the Hauraki Gulf, which are now fundamentally land based.
- The snapper stocks have recovered but I am finding fish that are in poor health due to starving with silting inhibiting fish to feed properly. I have fished the gulf for 35 plus years and this problem has increased remarkably over the last 10 years.

Thank you, for your consideration.

Regards

s 9 (2)(a)
Commercial Skipper
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a) >
Sent: Thursday, 27 October 2022 11:13 am
To: Sea Change
Subject: Submission on Hauraki Gulf Marine Park Marine Protection Proposals
Attachments: HGMP_Submission.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To whom it may concern,

Please find my submission attached.

s 9 (2)(a)

Hauraki Gulf Marine Park Marine Protection Proposals - Submission

I reject the government proposals in favour of 100% seabed protection and more meaningful public consultation.

- I do not support the Government-proposed Marine Protection proposal for the Hauraki Gulf Marine Park because it doesn't go far enough.
- I support an integrated approach to managing both conservation and fisheries management in the Hauraki Gulf Marine Park, acknowledging marine protection needs to align with fisheries management
- I want bottom trawling, mining, dumping, scallop dredging, and Danish seining banned from the Marine Park.
- I support 100% seabed protection for the entire Hauraki Gulf Marine Park.
- I object to the lack of information and detail around the proposal and implementation plan.
- I'm in favour of 100% seabed protection, meaning low-impact activities such as commercial fishing, potting and small-scale long lining, Māori customary and recreational fishing can continue.
- I support extending the consultation deadline for marine protection to align with the Hauraki Gulf Fisheries Plan process which ends in February 2023.

s 9 (2)(a)

s 9 (2)(a)

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 11:51 am
To: Sea Change
Subject: Proposal Response - Sand Mining and Bottom Trawling - Hauraki Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Please accept this email as my opposition to any further sand mining and bottom trawling in the Hauraki Gulf.

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 12:07 pm
To: Sea Change
Subject: Hauraki Gulf proposals.

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To whomever it may concern,

My name is s 9 (2)(a) and I am a teacher at s 9 (2)(a) (Not representative of the organisation).

I find it deeply disturbing that sand mining and deep sea trawling are both included in the proposals for revitalizing the gulf. These need to be removed entirely for the benefit of our oceans and society.

Including these practices is completely contradictory to the purpose of the proposal and will undo any revitalization in other areas. While this may cause disturbances to certain economic groups, the benefit will be felt by generations of Aucklanders and tourists.

The idea of protecting "certain areas" rather than others is a human construct which, believe it or not, animals do not adhere to. Many fish and species of sea life are migratory creatures that rely on the health of this Taonga.

Recently the ability for the Mediterranean sea has lost a very important benefit. It no longer acts as a carbon sink as it traditionally has.

This is due to the same overheating and overfishing that New Zealand waters are currently undergoing. While the timelines are obviously different, the scenario acts as a poignant reminder.

From a Maori perspective, these two actions would significantly undermine the promises made in The Treaty of Waitangi, specifically for Iwi in Northland and Tamaki Makarau. The ocean is a Taonga and these actions would leave future generations without the abundance of life and Kai Moana that our generation has enjoyed.

The entire Hauraki Gulf needs a legalized Rahui on all seafloor practices. The water table and all of the life included are reliant on this bottom level, as is the temperature of our ocean.

Warm regards,
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 12:12 pm
To: Sea Change
Subject: Submission on marine protection proposals for the Hauraki Gulf
Attachments: Seachange DOC proposal.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Please find my submission for the on marine protection proposals for the Hauraki Gulf mainly the Noises restriction on recreational fishing.

Please feel free to contact me if you have any questions

Regards

s 9 (2)(a)
s 9 (2)(a)

Seachange
Department of Conservation
Seachange@doc.govt.nz

25 October 2022.

Submission on proposed High Protection Zones in the Hauraki gulf

My/our concerns about this process and the proposal itself can be summarised as follows:

It is not democratic

- Very little time has been given for people to hear about, understand and respond to these marine protection proposals .
- The source documents are complex and the most important information about the size and reach of the proposed High Protection Areas are located in the appendix (slides 124 to 142) of a 144 page report
- Not all relevant stakeholders or intermediaries between the proposal and the affected groups have been directly contacted by DOC or HGF to alert them to this proposal. For example bait and fishing supply shops had no idea of this proposal yet it is their customers who will be directly affected by the establishment of no fish zones around the inner gulf areas including 50 km2 area around the Noises.

It is potentially very divisive.

The proposal expressly prevents any recreational or commercial fishing in these areas but allows for :

The customary practices of mana whenua, including customary non-commercial fishing, will be provided for within HPAs. Customary practices will be managed to achieve the biodiversity objectives agreed with mana whenua for each site. Protected Customary Rights (PCR) and Customary Marine Title (CMT) recognised under the Takutai Moana Act will be unaffected.

Inevitably this will be reinterpreted as two different sets of rules for the same area of water that was once accessible to all. There is no guidance within the documentation on how this work in practice in large areas such as the Noises (50 km2) or the Motukawao Group (30 km2) which is a very popular and productive fishing area across all cultural groups, Maori, Pakeha, Pacifica and Asian

It inconsistently applies its own guidelines to justify the HPA's .

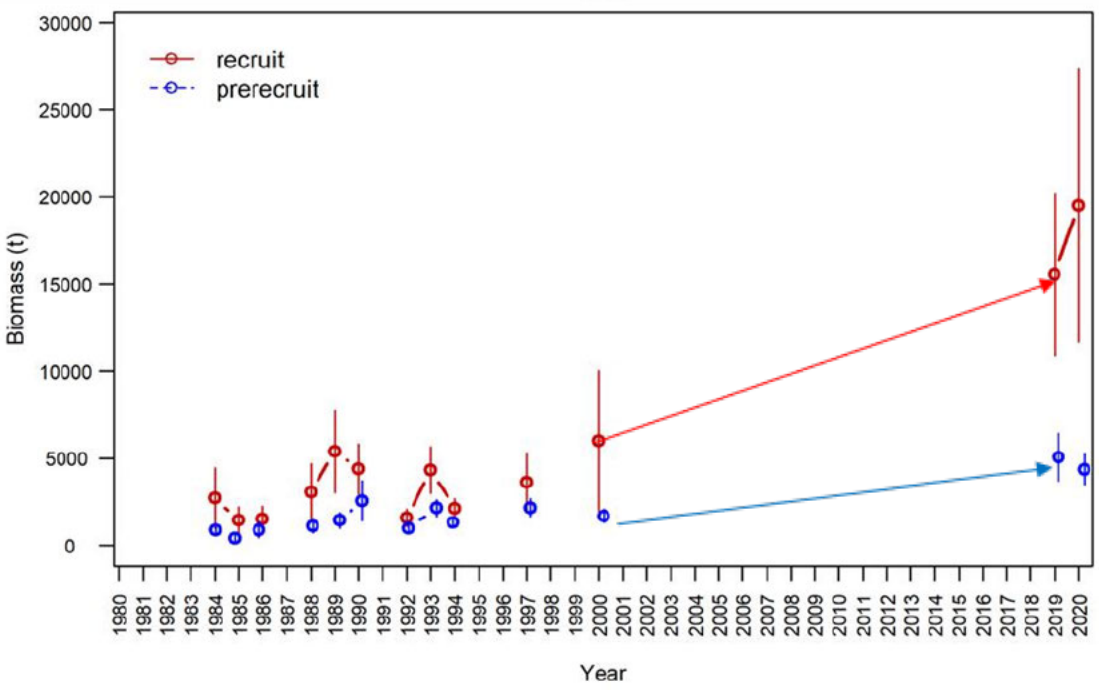
The purpose of the High Protection Ares is to *support the recovery of some of the most biodiverse regions in the Gulf*.

Some of the most at risk marine ecosystems include scallops, crayfish and the loss of kelp forests, in part, to a greater or lesser extent, due to the encroachment of kina.
Yet few of the detailed assessments outlining the ecological objectives and justification for an HPA specifically mention the protection or restoration of scallops or crayfish and in some cases the report acknowledges that *most of the soft-sediment habitat within the area has unknown values; it is thought to be dominated by mud substrate (Motukawao group).*
Nor is there any data or observations that set the benchmark on how the establishment of the specific HPA's will improve the pre-HPA ecosystems around these areas.

Part of the fundamental rationale for the establishment of these HPA's are out of date or no longer apply .
Much of the work on the establishment of these HPA's began 6- 7 years ago; well before the Gulf wide government moratorium on scallop collection or dredging, or collection of crayfish or the establishment of rahui to protect coastlines. But the rationale for these HPA's do not reflect these important advancements in the protection of sea-life and the sea floor.

The narrative of the DOC proposal and its supporting documentation also predates the publication of the NIWA trawl survey data in 2021 that shows snapper stocks and many other species have significantly recovered over recent years .
See slide below :

Fishery independent trawl surveys



HPA's are not strategically aligned to solving the biggest future threat to the Gulf .

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The biggest threat to the recovery of the Gulf is sedimentation; from rural and forestry-based activities in the Waikato and Coromandel catchments and the rapid development of rural land for housing and commercial developments along the northern and southern coastlines of the Auckland region.
The increasing rate of subdivision, combined with higher frequency high volume rainstorms has accelerated the flow of sediments down the many streams and rivers to the estuaries that feed into our coastlines from Long bay north to Leigh, and on Waiheke Is land . And the extension of the northern motorway is only going to push that rate of sedimentation along the very coastline that feed into the HPAs for Tiritiri Matangi, Mahurangi, Kawau Is land right up to Goat Is land itself.
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In summary the proposed creation of these HPA's is:

- based on out of date data and assumptions about the biggest threats to the Gulf,
- the process for gathering feedback is undemocratic
- the establishment of the HPA's is potentially very divisive between manu whenua Māori and other long established groups of gulf users.
- Will not solve the fundamental problems facing the health of the Hauraki Gulf, which are now fundamentally land based.

Thank you, for your consideration.

Regards

s 9 (2)(a)

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 12:19 pm
To: Sea Change
Subject: Support for Sea Change proposal

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Kia ora,

I wholeheartedly support this initiative.

The proposals to create 12 high protection areas and 5 seabed protection areas and the 2 extended protection marine reserve areas of Goat island / Okakari Point and Cathedral Cove / Whanganui-a-hei is necessary to save the Hauraki gulf and beyond from becoming a marine desert!

I am a teacher , who has taught Sea sports which utilises the gulf for sailing, snorkeling, scuba diving, sustainable fishing (catch- measure-record-release) in the curriculum.

I volunteer for Coastguard and am in a position to educate boaties about safe recreational use and environmental protection of the gulf.

Also living on s 9 (2)(a) for over 40 years I have witnessed the decline in the marine life around the island.
This proposal has my support. I beg you to embrace it.
This is the best collaboration I've seen. Use it!

s 9 (2)(a)
s 9 (2)(a)

Sent from my iPhone
--

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 12:22 pm
To: Sea Change
Subject: Revitalise The Gulf.

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To Whom It May Concern,

My name is s 9 (2)(a) and I've been recreational fishing in the Hauraki Gulf my whole life.

I'm concerned that the research you have on recreational fishing displacement due to your HPA is extremely limited.

I note that the document only considers recreational displacement in terms of snapper, when there are numerous other species with high value for recreational anglers. Kingfish, for example, tend to congregate around reef structures, such as those found around many of your proposed HPA zones (e.g., Mokohinaus, Ōtata/the Noises, Aldermans etc.). Therefore, kingfish fishing spots are actually much more limited than snapper fishing spots in the Hauraki Gulf. The displacement will simply increase fishing pressure on the remaining kingfish reefs.

I also note that Ōtata/the Noises was "not considered in [the] analysis." This location is an extremely popular recreational fishing area for a wide range of species.

I believe blanket 'not-take' areas are not the best solution. It seems that once they have been established there is no going back, even if research suggests recreational fishing should be allowed to some extent as environments and stocks improve.

You can look overseas for many examples of better measures to control recreational fishing - such as closed seasons, slot size limits, and/or permits.

Kind regards

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 12:30 pm
To: Sea Change
Subject: Marine Reserves

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

My name is s 9 (2)(a) and I think that it would be better if you did the other things you were proposing apart from the Mokahinaus and Kawau.
--

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 12:57 pm
To: Sea Change
Subject: Submission Revitalising the Gulf marine protection proposals
Attachments: Revitalising the Gulf submission SShort 27.10.22.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To whom it may concern at the Department of Conservation.

Please find attached a copy of my submission on Revitalising the Gulf marine protection proposals.
Please acknowledge receipt of this submission.
Thank you,

s 9 (2)(a)

Email: s 9 (2)(a)

s 9 (2)(a)

Cellphone: s 9 (2)(a)

Submission on Revitalising the Gulf marine protection proposals

Thank you for the opportunity to comment on the Revitalising the Gulf Marine protection proposals. Please accept the following as my submission.

I support moves to enhance the health of the Hauraki Gulf. The 'Revitalising the Gulf' plan represents a step in the right direction, but it doesn't go far enough.

High Protection Areas

I am dismayed to find that the proposals do not include a single new 'no-take' area - scientifically proven as the most effective type of marine protection.

The proposed 'High Protection Areas,' which will allow customary take rights - exclusive to iwi and at their discretion - make the stated objective of marine protection secondary to iwi fishing concessions.

In effect the High Protection Areas will allow exclusive–to–iwi fishing reserves. This flies in the face of the collective responsibility we all have - i.e. to protect the Gulf. This is also contrary to the Treaty of Waitangi, which promises "ngā tikanga katoa rite tahi" - equal rights for all.

No-take marine reserves under the Marine Reserves Act are a more effective way to restore the health and biodiversity of the Gulf. **Therefore, I recommend the 'High Protection Areas' be replaced with a higher level of marine protection such as a marine reserve classification.**

Extensions to Whanganui-aHei (Cathedral Cove) and Cape Rodney – Okakari Point marine reserves.
I recommend that the two proposed protected areas adjacent to these reserves be no-take marine reserve extensions – not High Protection Areas.

Seafloor Protection Areas

The proposal for new 'Seafloor Protection Areas' is welcome. However, this proposal doesn't go far enough. I recommend that bottom trawling, scallop dredging and Danish seining – in fact any destructive fishing methods – be banned from the entire Hauraki Gulf Marine Park. Restricting these practices to 'trawling corridors' does not ameliorate the destruction - it is still environmental vandalism.

In summary, I urge the following:

"Let us put self-interest aside and unite in our commitment to do the best we can for the health and well-being of the Hauraki Gulf."

Thank you.

s 9 (2)(a)

27 October 2022

Sea Change

From: Glass Bottom Boat [redacted]
Sent: Thursday, 27 October 2022 1:05 pm
To: Sea Change
Subject: Marine protection submission
Attachments: Submission - Marine reserve Extension - 27 October 2022.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Good afternoon,

Please find attached our submission for the marine protection proposal.

Please feel free to contact me on [redacted] to discuss our submission.

Thanks,

[redacted]

Glass Bottom Boat

[redacted]

www.glassbottomboatwhitianga.co.nz

Submission: Proposed protection zones designed to revitalise the Hauraki Gulf and its marine life.

Date: 27 October 2022

Name: s 9 (2)(a)

Company:

Glass Bottom Boat Whitianga

s 9 (2)(a)

The Glass Bottom Boat is an eco-tour company based out of Whitianga. We spend the majority of our tour viewing the marine life inside the marine reserve. Our tours are very environmentally focused and team members discuss the importance of the marine reserve, the need for sustainability and how our guests can become the Kaitiaki of the ocean.
We often view inside the reserve to show our guest what a healthy ecosystem can look like, then them outside and show them how unhealthy a non-protected area can end up. We discuss matters such as over fishing, disturbing the marine life and the kina barren issue.

This is our response in regards to the marine protection proposals:

12 High Protection Areas (HPAs):
We agree with the purpose of High Protection Areas: "To protect, enhance and restore the full range of marine communities and ecosystems and outstanding, rare, distinctive or nationally important marine habitats to protect the mauri of the Gulf." is in line with the thinking, philosophy of our company and crew. We believe people will love and protect what the can see. By getting to show our guests a healthy ocean full of marine life they will understand the importance of protecting it and become an advocate for this. The more HPA areas there are the better chance we have a healthy marine eco system.

5 Seafloor Protection Areas:
These areas will protect sensitive sea floor habitats. They will do this by prohibiting activities that damage or disturb the seafloor, like bottom trawling and mining. But they will still allow for activities that do not conflict with seafloor protection objectives. Such as fishing that does not use bottom-contact methods, snorkelling, and kayaking. We agree that activities such as bottom trawling and mining should not be allowed in protected areas.

2 protected areas: These will be adjacent to Cathedral Cove | Whanganui-a-Hei and Cape Rodney-Okakari Point marine reserves. These will be established as either two new High Protection Areas, or as extensions to the two existing marine reserves.

Expansion of Te Whanganui-A-Hei Marine

We are in full support for the extension of the Te Whanganui A Hei Marine Reserve. This would enhance the reserve by reducing the pressure of fishing at the edges, enabling effective protection of the reef ecosystem. As we are on the water most days we see fishing happening on the boundary line of the reserve most days. This is done by both recreational fishing boats and commercial. We believe this is unacceptable practice!

The pros of having a glass bottom means we can see where the healthy eco systems start and finish. In regards to Mahurangi Island, its very easy to tell where the marine reserve boundary line stops. We can see the lack of predatory fish and cray fish in the area along the island and can see the damage that the kina are doing to the kelp and weed areas. Moving the boundary line to include entire Western side of the island and also the southern end would be highly beneficial to the marine life in the area. It would be great to see the health of the area return along with the kelp.

This area is also where most fur seals are seen while on the tour, indicting it's a popular spot for them to rest and fish. With the recent struggle the seal pups have been facing the past few years, these rookery areas should certainly be protected.

Even though we agree with the expansion of the reserve we have some concerns and considerations:

- We agree with the seaward expansion.

- We agree with the southward extension adjustment to align with the western coastline of Mahurangi Island and to avoid impacting on the recreational values associated with the eastern side of the island. However would like to see the southern end of the island included

- We do not agree with the proposal of the boundary line to come halfway along Hahei Beach. This will impact use of the beach for beach fishing and sea shell collection, dog walking or other beach activities. The township of Hahei is very dependent on these. The proposed boundary line half way along the beach will also be very hard to enforce, unless someone is stationed there every day.

Our company and our team are very environmentally focused and have a passion for our the Te Whanganui A Hei Marine Reserve and the conservation of the area. We feel It's a very special area that deserves respect and protection. The expansion of the marine reserve Will be highly beneficial to the area and warmly welcomed.

Sea Change

From: s 9 (2)(a)
Sent: Thursday, 27 October 2022 1:36 pm
To: Sea Change
Subject: HGMP submission
Attachments: HGMP_Submission.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

CAMERON OUTDOORS LTD

s 9 (2)(a) | Operations manager
s 9 (2)(a)
www.cameronoutdoors.co.nz
Postal Address: s 9 (2)(a)
Warehouse: s 9 (2)(a)

Hauraki Gulf Marine Park Marine Protection Proposals - Submission

I reject the government proposals in favour of 100% seabed protection and more meaningful public consultation.

- I do not support the Government-proposed Marine Protection proposal for the Hauraki Gulf Marine Park because it doesn't go far enough.
- I support an integrated approach to managing both conservation and fisheries management in the Hauraki Gulf Marine Park, acknowledging marine protection needs to align with fisheries management
- I want bottom trawling, mining, dumping, scallop dredging, and Danish seining banned from the Marine Park.
- I support 100% seabed protection for the entire Hauraki Gulf Marine Park.
- I object to the lack of information and detail around the proposal and implementation plan.
- I'm in favour of 100% seabed protection, meaning low-impact activities such as commercial fishing, potting and small-scale long lining, Māori customary and recreational fishing can continue.
- I support extending the consultation deadline for marine protection to align with the Hauraki Gulf Fisheries Plan process which ends in February 2023.
- I disapprove of the racist access proposed for customary gathering in restricted areas.

s 9 (2)(a)

s 9 (2)(a)

Sea Change

From: Hauturu Supporters s 9 (2)(a)
Sent: Thursday, 27 October 2022 1:36 pm
To: Sea Change
Subject: Marine protection proposals re Hauturu-o-Toi
Attachments: Submission on marine protection proposals relating to Hauturu-o-Toi.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Greetings -

As chair of the Hauturu Supporters Trust, I attach our submission on the marine protection proposals relating to Hauturu-o-Toi.

Best wishes.

s 9 (2)(a)
Chair

Hauturu Supporters Trust
s 9 (2)(a)

HAUTURU
SUPPORTERS TRUST

Consultation on Marine Protection Measures for the Hauraki Gulf
Department of Conservation
seachange@doc.govt.nz

Submission on Marine Protection Measures for the Hauraki Gulf

The Hauturu Supporters Trust is a charitable trust with a long history of working to protect the unique environment of Hauturu-o-Toi or Little Barrier Island.

Hauturu-o-Toi is one of the most highly prized and protected areas of the natural environment in New Zealand. Ironically this protection stops at the shoreline. Below the waterline, it is open slather for all kinds of fishing activities. This has resulted in massive adverse impacts on this unique and important natural environment.

"The last 50 years or more of heavy fishing pressure around the island has had a devastating effect on the health of its reefs, leaving a desolate wasteland of urchin or kina barrens, depleted fish and other kaimoana stocks, and the loss of previously productive kelp forests (*Ecklonia radiata*). What we now have is a mere shadow of the rich and diverse marine ecology of yesteryear" (Grace, 2019).

More recent research confirms that unrelenting fishing pressure is continuing to damage the underwater ecosystems surrounding Hauturu-o-Toi (Dartnall, 2022). This research has found that kina barrens did not occur on the reefs around Hauturu-o-Toi in the 1950s. By the 1970s, however, they were a major habitat on subtidal reefs, covering 11.6% of reef at Hauturu-o-Toi. By 2022 this has almost tripled to 32%. "This progression is consistent with industrial scale removal of predators, such as the spiny rock lobster and snapper, from the middle of last century" (Dartnall, 2022).

In addition to the widespread destruction of the underwater environment of this precious motu, vessel activity in the vicinity of Hauturu-o-Toi, especially commercial fishing vessels, greatly increases the risk of incursion from pest species on the island, especially rodents. Such an incursion would be of major significance to the extremely high conservation values of Hauturu-o-Toi. To achieve pest elimination, an very expensive response would be needed.

We support the proposed marine protection measures for Hauturu-o-Toi. We believe that they need to be more extensive to provide greater and more comprehensive protection to a highly valuable marine environment that is integral to sustaining the ecological integrity of the associated nature reserve at Hauturu-o-Toi.

Thank you for consideration of our concerns on this matter.

s 9 (2)(a)
Chairperson

References:

Grace, R. 2019. Seas around Hauturu. In: Hauturu: The history, flora and fauna of Te Hauturu-o-Toi Little Barrier Island. Eds. Wade, L. & Veitch, D. Massey University Press, pp.250-265.

Dartnall, L. 2022. The extent of kina barrens over time at Hauturu-o-Toi and the Noises Islands. MSc Thesis, in Marine Science. University of Auckland. 69pp.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 1:41 pm
To: Sea Change
Subject: Submission
Attachments: 2022 Hauraki Gulf.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Proposed protection zones designed to revitalise the Hauraki Gulf and its marine life

This submission is in support of the proposed protection zones in the Hauraki Gulf. This is an individual submission representing my personal views.

I live in Auckland and use the Waitemata Harbour for swimming and sail boarding. I also have a camping site in Matheson Bay in Leigh where I can connect with the Hauraki Gulf. One of my best memories is watching a family of Orca come in close to the beach on the north side of Motuihi Island. As a doctor, my main professional interest is in human health. It is clear that human health is dependent on the health of the environment (for further information see the Planetary Health Alliance[1]. People benefit from connection with nature.[2] It is also clear that an integrated complex systems approach is needed whereby the health of the ocean, wetlands, biodiversity, as well as climate change, all impact of the health of New Zealanders.

The state of the Hauraki Gulf has been recently described in at least two excellent articles in the New Zealand Geographic: How to Fix the Hauraki Gulf, May-Jun 2020[3] and A Tragedy of The Commons, Jan-Feb 2022,[4] and extensively reviewed in the Auckland Council report, State of our Gulf 2020[5]

I support the Revitalising the Gulf, Marine Protection Proposals package to establish new marine and seafloor protection areas to restore the Hauraki Gulf Marine Park / Tīkapa Moana / Te Moananui ā Toi.

Marine protection is the only proven way to restore an ecosystem to full health. An intact ecosystem is also more resilient to external pressures such as sedimentation, pollution and the impacts of climate change.

We have seen the direct benefit of marine protection at Goat Island and the Poor Knights. The proposal to protect a range of small areas in the Gulf will bring the same benefits to the wider marine environment, feeding and replenishing unprotected waters.

s 9 (2)(a)

Auckland, Aotearoa New Zealand
Email s 9 (2)(a)
Phone s 9 (2)(a)

1 https://www.planetaryhealthalliance.org/planetary-health Planetary health is a solutions-oriented, transdisciplinary field and social movement focused on analyzing and addressing the impacts of human disruptions to Earth's natural systems on human health and all life on Earth.

2 Pritchard, A., Richardson, M., Sheffield, D., & McEwan, K. (2020). The Relationship Between Nature Connectedness and Eudaimonic Well-Being: A Meta-analysis. Journal of Happiness Studies, 21(3), 1145–1167. Moll, A., Collado, S., Staats, H., & Corraliza, J. A. (2022). Restorative effects of exposure to nature on children and adolescents: A systematic review. Journal of Environmental Psychology, 84, 101884.

3 https://www.nzgeo.com/stories/how-to-fix-the-hauraki-gulf/ The once abundant Hauraki Gulf is on the brink of collapse, and while science is clear on how to repair it, many are putting rights before responsibilities. Here's what needs to happen.

4 https://www.nzgeo.com/stories/a-tragedy-of-the-commons/ Land is owned, but the sea is shared. And we haven't been sharing very well.

5 https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/harbour-forums/docsstateofgulf/state-gulf-full-report.pdf The Hauraki Gulf / Tīkapa Moana / Te Moananui-ā-Toi is special. It's special because of the beauty and variety of its land and seascapes. Sandy beaches, towering bluffs, islands large and small, clear open water, reefs, sheltered harbours, tidal estuaries, and a host of other natural habitats. It's special because the abundance and diversity of life those places support. It's special because it enriches our lives.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 1:42 pm
To: Sea Change
Subject: Revitalising the Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To whom it may concern,

I **do not** support the proposed new marine protection zones in the Hauraki Gulf as they don't appear to be genuine efforts towards conservation.

If the objective is revitalisation of the gulf, then there should be broader changes to limits and fishing methods allowed. E.g. lower limits on specific daily takes, a ban on taking crayfish, bottom trawling, scallop dredging etc. Any proposed changes should be transparent and supported by proper scientific studies.

The establishment of the "High Protection Areas" (HPAs) doesn't seem likely to achieve much, aside from annoying a lot of recreational anglers. The HPAs would completely exclude some popular, safe, accessible areas for a lot of Auckland fishers (areas 11a, 10a and 5 in particular). However, there would still be significant pressure on the fisheries in those areas from customary practices of mana whenua.

Full marine reserves could have some merit and provide some attractive areas for recreational snorkelling & diving but the areas outlined appear excessive for this purpose. I would support some extension of the Leigh marine reserve but again the area outlined seems excessive.

Yours sincerely,

s 9 (2)(a)

s 9 (2)(a)

Sea Change

From: s 9 (2)(a)
Sent: Thursday, 27 October 2022 1:44 pm
To: Sea Change
Subject: SUBMISSION RE GULF PROTECTION PLAN - s 9 (2)(a)
Attachments: Submission to Dept Of Conservation re Gulf Protwection Plan 27 October 2022.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

My submission is attached.

Please acknowledge receipt

s 9 (2)(a)
s 9 (2)(a)

I reject the government proposals in favour of 100% seabed protection for the whole Hauraki Gulf Marine Park - and more meaningful public consultation.

- I want bottom trawling, mining, dumping, scallop dredging, and Danish seining banned from the Marine Park.
- I support 100% seabed protection for the entire Hauraki Gulf Marine Park.
- I object to the lack of information and detail around the proposal and implementation plan.
- I'm in favour of 100% seabed protection, meaning low-impact activities such as, small-scale long lining, Māori customary and recreational fishing can continue.
- I am not in favour of exclusive Maori customary rights prevailing over all other fishers.
- I support extending the consultation deadline beyond 28 October – although being uncertain of any extension, make this submission now.

Please outline how this proposal will affect the way you experience the Hauraki Gulf Marine Park.

I was previously a licensed commercial long-liner – 1970-1984 and then a Recreational Charter fishing Skipper 1991-2004. Since retirement, I am now a regular recreational fisher spending at least an average of one day fishing per week. My area of activity is the inner Gulf around Tiri Tiri and up to Kawau.

Have carefully studied the map of the proposed HPA for Tiri noting that the only permitted fishing activity will be for Maori. Whilst the area is small – I cannot accept there is justification for excluding Pakeha from this area. It will inevitably lead to confrontational situations.

It is rumoured that this HPA area is to be extended to encompass what the Map shows as a SPA, effectively locking Pakeha out from the area Shearer's Rock to Army Bay.
If there is any substance in that rumour – I suspect that "all hell will break out" as this is an area well used by many boaties and provides good shelter in many weather conditions.

A recent News Hub item informs us that three ex Police inflatables will be crewed by Maori to check on fish extraction. This has the potential to create significant racially divisive responses.

My catch experience does not support the belief that the fish stocks within the Gulf are in dire straits. Earlier removal of inner Gulf trawling and Danish Seining has seen a resurgence of stocks to levels experienced years ago. If totally removed form the entire Gulf, the results will be even better.

s 9 (2)(a) s 9 (2)(a) 27 October 2022

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 2:18 pm
To: Sea Change
Subject: Hauraki gulf revitalisation plan

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

s 9 (2)(a)
I am only representing myself but I do not agree with some of the proposals entered in the plan, it is a start but the public that fishes those areas recreationally need to be included in those plans as they have a huge understanding of the biodiversity.
Contact details
s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: Coastal Custodians [redacted]
Sent: Thursday, 27 October 2022 2:38 pm
To: Sea Change
Subject: Revitalise The Gulf Submission
Attachments: Coastal Custodians SeaChange Submission 27 Oct 22.pdf; Coastal Custodians Submission 17 March 22.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Dear Minister for Oceans and Fisheries, and Minister of Conservation,

Please find attached our submission on the Sea Change Plan, as well as a supporting document (our submission on the FOHG marine reserve proposal).

Yours Faithfully,

Coastal Custodians Leadership Group:
[redacted]

--
Coastal Custodians
https://coastalcustodians.org/

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 2:50 pm
To: Sea Change
Subject: submission on Revitalising the Hauraki Gulf Marine Protected areas.
Attachments: TOSSI-RTG-Submission-05FINAL.pdf

Good afternoon

On behalf of the Tāwharanui Open Sanctuary Society Inc, I attach a submission in support of extending the marine protected areas around the Tāwharanui Peninsula east of Warkworth.

There are a myriad of reasons why this is not just a good idea but critical to the continuing success of the sanctuary, and the revitalisation of the wider Gulf.

We look forward to positive consideration of this submission.

Kind regards

s 9 (2)(a)
Secretary
Tāwharanui Open Sanctuary Society Inc

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 3:13 pm
To: Sea Change
Subject: submission on extension of Whanganui-A-Hei marine reserve
Attachments: Submission on the Extension of the Whanganui 2022.docx

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Please find attached my submission concerning the changes to the Whanganui-A-Hei (Cathedral Cove) marine Reserve.

s 9 (2)(a) Ph.D., FAACB, J.P.(rtd).
s 9 (2)(a)
s 9 (2)(a)

Sent from Mail for Windows

Submission on the Extension of the Whanganui-A-Hei(Cathedral Cove) Marine Reserve

As a recreational fisherman and s 9 (2)(a) ratepayer I have been fishing off Hahei Beach for the last 60 years. Initially using a 2.4 meter dingy and rowing out from the beach and more recently a 3.4 meter dingy. As a result, I am well experienced with the sea conditions experienced in small boats off the beach and around the surrounding islands.

The proposed extension of the southern border all but **removes all access to protected water** from Hahei beach. This means that I and other users **would be prevented** from an activity that I have enjoyed with my children and grandchildren for many years. The new boundaries make it impossible for children and often inexperienced holiday makers to learn small boat skills and catch fish in a semi protected area

Despite the protection of the adjacent reserve over many years (30) in my experience there has been little significant change in the number, or species of fish caught. Access to this protected water area has historically, always been available for visitors and residents.

If, as I suspect, the reserve will extend from MHWS then several current activities (including collection of shells, interesting pebbles, and the occasional fossil as well as dog activities) that occur on this section of sandy beach will be prohibited. This **is not in the best interests of the people of New Zealand**

I therefore strongly object to any extension of the southern border of the Marine reserve along Hahei beach and Mahurangi Island.

s 9 (2)(a) Ph.D., FAACB, J.P(rtd).

Individual submission

s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 3:26 pm
To: s 9 (2)(a)
Cc: Sea Change
Subject: Re: Submission on Revitalising the Gulf Marine Protections proposal - s 9 (2)(a)

Received, thank you.

On Thu, Oct 27, 2022 at 10:54 AM Revive Our Gulf on behalf of s 9 (2)(a) <mailer.no-reply@reviveourgulf.org.nz> wrote:

> Kia ora DOC,
>
> My name is s 9 (2)(a) . I reside in s 9 (2)(a) .
>
> **I support the Revitalising the Gulf, Marine Protection Proposals package** to establish new marine and seafloor protection areas in the Hauraki Gulf Marine Park / Tīkapa Moana / Te Moananui-ā-Toi (the Gulf). I encourage Ministers to proceed as quickly as possible to implement these much needed changes.
>
> The health of the Gulf is important to me because I visit the islands, I motor boat, I snorkel and/or SCUBA dive.
>
> Over the last 60 years I have worked at various times in the gulf.
>
> We have seen the direct benefit of marine protection at Goat Island / Te Hāwere-a-Maki, Whanganui-ā-Hei and the Poor Knights / Tawhiti Rahi. The proposal to protect a network of small areas in the Gulf will stimulate regeneration in these areas and beyond them.
>
> The Government MUST act with urgency to set in place all 19 protection zones proposed. Expert opinion and successive State of the Gulf reports indicate that the Gulf is in a biodiversity crisis and close to ecological collapse. It is time to act for the benefit of future generations to improve the state of the Hauraki Gulf Marine Park.
>
> Nāku noa, nā
> s 9 (2)(a)
> s 9 (2)(a)
> s 9 (2)(a)
>
> **IMPORTANT: Please remove my contact information (email address & phone number) prior to publishing this submission in the public domain.**

Sea Change

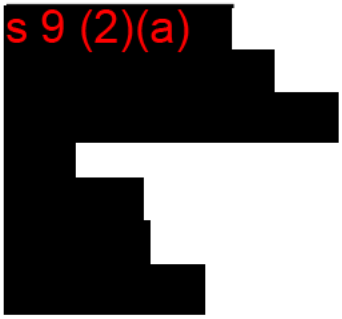
From: s 9 (2)(a)
Sent: Thursday, 27 October 2022 3:31 pm
To: Sea Change
Subject: Submission on Seachange - Aldermen Islands
Attachments: FW:_Attached_Image_**Do_Not_Reply**.eml

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

Please find attached the Aldermen Islands Reserve Group's submission on seachange as it affects that Island Group which includes a copy of UNESCO's document covering the Aldermen Islands.

Kind regards



s 9 (2)(a)

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 3:27 pm
To: Hamish Ross
Subject: FW: Attached Image **Do Not Reply**
Attachments: 0243_001.pdf

Kind regards

s 9 (2)(a)

s 9 (2)(a)

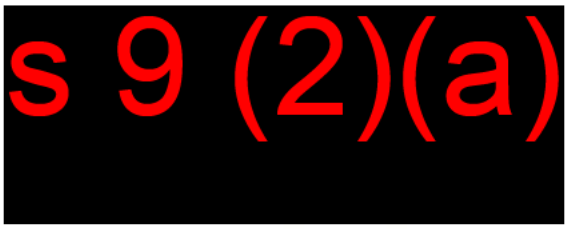
s 9 (2)(a) | Director
s 9 (2)(a)
s 9 (2)(a)

Website : www.elitekc.co.nz

From: s 9 (2)(a)
Date: Thursday, 27 October 2022 at 3:25 PM
To: s 9 (2)(a) s 9 (2)(a)
Subject: Attached Image **Do Not Reply**

ALDERMEN ISLANDS MARINE RESERVE GROUP

AUCKLAND, NEW ZEALAND



27 October 2022

The Department of Conservation
New Zealand

EMAIL TO: seachange@doc.govt.nz

Re: Revitalising the Gulf – Marine Protection Proposals - Aldermen Islands (South - Eastern Coromandel)

The Aldermen Islands and their inshore waters 12 nautical miles off the coast of the South Eastern Coromandel are on the UNESCO List for protection. Attached is a document published by UNESCO confirming the Aldermen islands are on the UNESCO list for protection which also covers protection of its inshore waters.[1] The UNESCO document recommends "consideration should be given to extending the site by .... (c) including marine protection areas which may eventually be formed around island clusters..."

The Aldermen Islands are also recognised by the Waikato Regional Council and the Thames Coromandel District Council as an area of Outstanding Natural Beauty deserving of protection.[2]

The absence of proposals for the protection of the inshore waters of the Aldermen Islands is of grave serious international concern. The proposals for the Aldermen Islands have the appearance of a quick afterthought at the end of a large marine area. We **strongly urge** their protection as a full marine reserve for at least 1500 metres from their Mean High Water Mark, akin to those established at Whanganui-a-hei (Cathedral Cove) and at Mayor Island. The location of this offshore Island group a marine reserve, between these existing reserves creates a chain of offshore marine reserves. Making a Marine Reserve will have no impact on commercial fishing and recreational takes. There are many other nearby more accessible islands for recreational fishing. Additionally, a reserve at the Aldermen Islands will aid regeneration of stock available for both commercial and recreational fishing elsewhere.

We are well aware of the history of the Islands and their status; gifted by the Mana whenua to the Crown, on the condition they remain a reserve whilst retaining rights to gather titi. The protection of existing customary rights for the Mana whenua is understood and supported. To afford **no protection at all**, to the inshore waters is illogical and severally depreciates the

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[1] https://whc.unesco.org/en/tentativelists/5126/.

[2] https://www.waikatoregion.govt.nz/assets/WRC/WRC-2019/TR201605_section_E2.pdf?fbclid=IwAR3xBluAjm7LD9AhIxyWzLayHRxZ_EuHoVkj8_THtnXKUmlM-LU_Di1UB9c)

laudable efforts proposed provide deep water protection nearby as well as the Reserve Status the Islands enjoy. The current proposals in respect of the Aldermen Islands are in our view poorly thought-out and fail to recognise their unique national and international status.

The Aldermen Islands inshore marine environment suffers from large growing areas of Kina barrens resulting from overfishing. This has greatly accelerated in recent years. There would seem to be little point in having protected the land of the Islands and the nearby deep seas, if their inshore waters receive no official protection of any sort.

There is also, no reason why parts of the Alderman Islands cannot be designated a marine reserve and allow recreational fishing in other parts, as is proposed for other islands and areas. Doing so will mean a great deal for the Coromandel Region as it will benefit from increased conservation tourism, as the marine protection of the Poor Knights Island Group has done for Northland.

It is important that in establishing marine boundaries that they are easily to understood and police. Making inshore waters of specific named islands off limits for fishing promotes understanding, acceptance and compliance aiding the conservation objectives.

The proposed random subdivision of the island areas into two levels of protection on an artificial east-west line is illogical, irrational and uninformed as it fails to take into account the geography of the Islands both above and below water. As a few examples, the world famous Honeycomb Caves area on the northern side of Hongiora Island, the lagoons on the northside of Middle Island and Severn Cove area on the southern side of Middle Island must at least be within the areas of the highest level of protection available. Simply drawing a straight line through the group is reminiscent of lazy colonial map drawing without reference to the area at all.

In summary, the Aldermen Islands Marine Reserve Group strongly urge that:

1. Marine Reserve Status be extended to the inshore waters of the Aldermen Islands of at least 1500 meters to their Mean High Water Mark to place both its land areas and inshore underwater conservation status on the same level; and
2. That any new reserve focuses in particular on Hongiora Island and the Middle Island group;

We ask to be included in all further communications and given an equal opportunity to all others make submissions on all proposals that may affect the conservation of the Aldermen Islands and their surrounding waters.

We would welcome showing you the Islands in person, should the opportunity arise in the future which will greatly enhance an understanding of decision makers of why the Aldermen Islands are on the UNSECO list.

Yours faithfully

s 9 (2)(a)

s 9 (2)(a)

Whakarua Moutere (North East Islands)

Description

Whakarua Moutere (or the North-East Islands) is a serial site of nine locations (eight of them island groups) extending along the northeastern coastline of the North Island. The northernmost cluster is the Three Kings Islands (latitude 34° 10' S) 60 km NW off Cape Reinga; the southermost is the Aldermen Islands (36° 58' S) 20 km off the eastern coast of the Coromandel Peninsula.

The nine clusters in the site are:

- Three Kings Islands/Manawatawhi;
- Te Paki and North Cape Reserves;
- Poor Knights Islands;
- Hen and Chickens Islands;
- Mokohinau Islands;
- Hauturu/Little Barrier Island;
- Cuvier Island;
- Red Mercury and lesser Mercury Islands; and
- Aldermen Islands

Statements of authenticity and/or integrity

Most of the islands have the highest level of terrestrial legal protection available (Nature Reserves or Wildlife Sanctuaries). This level of protection equates with IUCN's category 1a protected area. All sites are strictly managed by the Department of Conservation.

In the longer term however, consideration should be given to extending the site by:

(a) adding Mayor Island (Tuhua) which has outstanding geological features and landforms.

(b) adding Ohinau Island, the privately-owned Murimotu Island off North Cape, and some of the smaller privately-owned islands in the Cavalli Islands group; and

(c) including marine protected areas which may eventually be formed around the island clusters (or Te Paki/North Cape).

Only two of the island groups currently have marine reserves in their surrounding seas. The seas around the Three Kings Islands, the benthic communities of Spirits Bay and Tom Bowling Bay, Parengarenga Harbour, and the rock wall and fish communities of the Poor Knights Islands are outstanding marine ecosystems with high levels of species diversity and endemism. An outstanding feature of these marine environments is their relatively unmodified nature, with high water clarity arising from low levels of human-induced sedimentation.

All the Whakarua Moutere islands have prime conservation functions as 'sanctuary islands' where species threatened on the mainland can recover.

New Zealand
Date of Submission: 30/03/2007
Criteria: (vii)(viii)(ix)(x)
Category: Natural
Submitted by: Department of Conservation
State, Province or Region: Northland to Bay of Plenty

Ref.: 5126

Export

Word File .doc

Sea Change

From: s 9 (2)(a)s 9 (2)(a)
Sent: Thursday, 27 October 2022 3:55 pm
To: Sea Change
Subject: Revitalising the Gulf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

I am an occasional diver and fisherman who has enjoyed being able to feed my family (on a good day) from the assets we all enjoy in the Hauraki Gulf since the early 1970s.

I have seen the benefits of marine reserves such as Goat Island, Cathedral Cove and further afield but have also seen the loss of so many resources from over fishing and totally inappropriate fishing methods such as bottom trawling.

I am totally in favour of extending the reserves and protected areas as outlined, even though this potentially limits my catch zones. Extending them even further would also get my support.

The rules and regulations should apply equally to all Kiwis, irrespective of race or racial "identity". So I am totally opposed to having different rules for mana whenua (or any other subset of Kiwis). It creates a gaping hole that can be exploited by anyone who "identifies as Maori", for which there is no legal definition. It also makes policing far more difficult.

So a good move, but there should be one set of rules for all.

s 9 (2)(a)
s 9 (2)(a)

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 4:02 pm
To: Sea Change
Subject: Support for Enhanced Marine Protection for Tikapa Moana

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

From: s 9 (2)(a) s 9 (2)(a)
s 9 (2)(a) .

Kia ora.
I wholeheartedly support ALL enhanced marine protection proposals for Tikapa Moana. Having lived on it's shores and in it's waters most of my life, it is part of me and I am part of it. Tikapa Moana ko au, ko au tikapa moana.
I sense the lack of marine abundance and biodiversity. If the presence of indicator species such as resident marine mammals, large flocks of feeding gannets and leaping shoals of kahawai reflect plenty of food and habitat - these are no longer common off our beach, even with the nearby presence of a small marine reserve.
I see the huge plumes of sediment that flow from the land into Te Whanganui o Hei - Mercury Bay, whenever we have heavy rain. I believe to have a healthy ocean we must have a healthy land. Like elsewhere we have increased housing intensification with the resulting implications for freshwater demands and downstream degradation. This also brings increased pressure on "recreational" fishery species.
I grieve when I see the barge heading out to dump it's load of dredgings from the Whitianga River, canal housing development and marina. Every other marina and harbour is doing similar. What damage do they do, where is it dumped?
We can't ignore the increasing effects of climate change and global warming. We already have exotic pest seaweeds in our waters.
The Hauraki Gulf Marine Protection Bill can't happen soon enough for me ...
Na mihi nui
Ko s 9 (2)(a) taku ingoa.

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 4:04 pm
To: Sea Change
Subject: Marine reserves on an around the coromandel peninsula

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Recorded

To whom it may concern,
My family have been involved with the commercial crayfish industry for the last 29 years. In the Cra 2 area an mostly in 906 .
This submission is is not in favour of these extra no go areas an no fishing zones, The extension of the hahei reserve will directly effect us with appropriate of s 9 (2)(b)(ii) quota being caught in the bay an s 9 (2)(b)(ii) .
It's fine to say just catch it elsewhere but it's not as easy as that , it puts more pressure on a smaller space an more tension on fisherman fishing on top of each other , We find at present we have MPI closing off grounds due to Culerpa weed EWC trying to close off areas in its 10 year coastal plan an now we have DOC an it's intensions of closures for the hauraki gulf (an how did the pacific coast side get tied up with the hauraki gulf all the way down into the bay of plenty) Also add rahui to the list of closed areas with next to little scientific reasoning , An over the next ten years aquaculture closed fishing ground is on the agenda for much of the east coast.
Being hit by so many applications for closures is daunting to be fair I'm not sure if it's going to be fiscally viable to fish an earn export dollars an bring money into a small community if all of the above come to fruition.
We do have available our catch history in regards to our log book program with Cra 2 if that's required Regards s 9 (2)(a) s 9 (2)(a)

Sent from my iPad

Sea Change

From: s 9 (2)(a) s 9 (2)(a)
Sent: Thursday, 27 October 2022 4:19 pm
To: Sea Change
Subject: Waikato Regional Council Submission on Revitalising the Gulf: Marine Protection Areas
Attachments: Waikato Regional Council Feedback on Revitalising the Gulf - Marine Protection Proposals.pdf; Attachment A - Mapping_rocky_reef_habitats_on_the_eastern_Coromandel_Peninsula_with_multispectral_satellite_imagery.pdf; Attachment B - Follow-up meeting with council marine experts on Sea Change MPAs HTML.htm

Follow Up Flag: Follow up
Flag Status: Completed

Kia ora,

Thank you for the opportunity to provide feedback on Revitalising the Gulf - Marine Protection Areas. Please find attached the Waikato Regional Council's submission.

Waikato Regional Council looks forward to being involved in further engagement regarding the development of Revitalising the Gulf- Marine Protection Areas.

Should you have any queries regarding the content of this document please contact myself or s 9 (2)(a) s 9 (2)(a)

Please confirm receipt.

Ngā Mihi,
s 9 (2)(a)

s 9 (2)(a) | s 9 (2)(a) | Policy Implementation, Science, Policy and Information
WAIKATO REGIONAL COUNCIL | Te Kaunihera ā Rohe o Waikato
s 9 (2)(a)
s 9 (2)(a)

File No: 25 12 05
Document No: **24815665**
Enquiries to: s 9 (2)(a)

Waikato
REGIONAL COUNCIL
Te Kaunihera ā Rohe o Waikato
Private Bag 3038
Waikato Mail Centre
Hamilton 3240, NZ

waikatoregion.govt.nz
0800 800 401

28 October 2022

Department of Conservation - Te Papa Atawhai
18-32 Manners Street, Wellington 6011

Email: seachange@doc.govt.nz

Tēnā koe

Waikato Regional Council Feedback to Revitalising the Gulf – Marine Protection Areas.

Thank you for the opportunity to provide feedback on the information document: Revitalising the Gulf – Marine Protection Areas. As a result of the timing of submission and local boy elections this matter was unable to be place before our elected members. Our submission will be retrospectively shared with members at the next available opportunity. The attached submission has been signed under delegation by the Director of Science, Policy and Information.

Should you have any queries regarding the content of this document please contact s 9 (2)(a) s 9 (2)(a) directly on s 9 (2)(a) or by email s 9 (2)(a)

Nāku iti noa, nā,

s 9 (2)(a)

Director Science, Policy and Information

Feedback from Waikato Regional Council on the information document: Revitalising the Gulf – Marine Protection Areas.

Summary

1. We appreciate the opportunity to provide feedback on the information document Revitalising the Gulf – Marine Protection Areas.

2. The use of additional tools to manage the effects of activities on the biodiversity of the Gulf is supported. The proposed new tools – High Protection Areas (HPAs) and Seafloor Protection Areas (SPAs), have the potential to achieve positive outcomes for the marine's fauna and flora communities and ecosystems. We agree that the tools could provide an increase on the abundance of fish stocks and will also help building our understanding of marine ecosystems.

3. We understand that the extension of the protected area for Whanganui-a-Hei (Cathedral Cove) has the potential to have positive effects for the area. However, we consider that further discussion with mana whenua is appropriate to evaluate the most appropriate protection framework for Cathedral Cove given the potential impact on customary rights and practices.

4. It is recommended that the Department of Conservation – Te Papa Atawhai (DOC) and Ministry for Primary Industries (MPI) work to ensure comprehensive and meaningful engagement with mana whenua moving forward, especially when developing the Customary Practice Management Plans (CPMPs). It is also recommended that comprehensive and meaningful engagement should continue to be undertaken with key stakeholders who may be impacted by proposals.

5. We take this opportunity to raise the issue of managing biosecurity risks as a key component of protecting native biodiversity. To this effect, we propose an amendment to the HPAs provisions to help prevent the spread of marine pests.

6. It is also considered that there is a need to expand the protected areas in the future to better provide for marine biodiversity. In this regard we provide two reports in support of this proposal and as evidence for potentially assessing other areas for protection. We note there are opportunities for expanding the protected areas within the Eastern side of the Coromandel Peninsula. However, before progressing to further stages, DOC should ensure the proposed tools are tested and able to deliver the proposed benefits, and that engagement with stakeholders is undertaken

7. We also consider that in creating marine reserves and new protection zones suggests active compliance, monitoring, and enforcement (CME) activity by the regulator to ensure the integrity of these areas. We urge DOC to carefully consider what resources would be required to effectively deliver on CME functions and to make sufficient provisions for these.

Submitter details

Waikato Regional Council
s 9 (2)(a) [redacted]

Contact person:

s 9 (2)(a) [redacted]
s 9 (2)(a) [redacted]

Is there anything you would like Ministers to consider when deciding the marine protection tool to be applied at these sites? For instance, are there other ecological values you would like them to be aware of?

8. We would like to highlight the importance of comprehensive and meaningful engagement with mana whenua. We also note the importance of engagement with key stakeholders, including any local groups and local communities. Moving forward, it is essential to confirm with mana whenua and key stakeholders if the proposed areas are acceptable. Further, we strongly recommend that central government must ensure there is appropriate funding for engagement during the engagement phase to develop the Customary Practice Management Plans (CPMPs). We recommend that central government must clarify the roles (and opportunities for input and influence) for mana whenua, local authorities, stakeholders, and communities when developing these plans.

9. The discussion document mentions the options for protection tools in the areas adjacent to Whanganui-a-Hei and Cape Rodney-Okakari Point marine reserves. We consider it appropriate to further consult with mana whenua to evaluate which protection tool is appropriate to be put in place, considering the potential impacts on customary rights in case a marine reserve is created. Engagement should be comprehensive and meaningful, providing opportunities for individuals to be heard. We also note that other key stakeholders should also be included in any further consultation. Both proposed protection tools will result in potential restrictions for the community as a whole.

10. We are aware that members of the local Whitianga community have discovered black coral (*Antipatharia* sp.) east of Te Pare point, approximately 800m southeast of the Whanganui-a-Hei Reserve. We understand that contact is being made with taxonomic experts to provide validated confirmation of the coral. Given this is a protected species, the area requires further surveying and could be considered for seafloor protection. This was mentioned at the meeting with DOC on 8 June 2020 (communication to Irene Pohl, please see Attachment B).

11. The Council has published two reports that align with the proposal and are of relevance. The first report (Attachment A) is a satellite-based survey that demonstrates 'kina barrens' as more extensive (as a percentage of habitat coverage) outside of the Whanganui-a-Hei Reserve than inside. The report provides commentary on the effects of sedimentation and overfishing in our CMA. The second report[1] provides a subtidal seagrass meadow map for Slipper Island which is within one of the proposed areas. Subtidal seagrass is a rare yet highly valuable habitat subject to multiple anthropogenic impacts and we support its protection.

12. We understand that DOC have a wealth of evidence regarding the benefits from protecting marine areas in terms of recovery of biodiversity, such as the reduction of urchin barrens as a result of the increase in size and numbers of snapper and rock lobster[2]. Moving forward, we advocate for appropriate monitoring for the Marine Protected Areas (MPAs). This could include using remote techniques, such as satellite monitoring for certain habitats to assess the changes in biodiversity like changes on rocky reef habitats. Council is open to explore multi-agency effort to identify synergies and operating efficiencies.

13. Further consideration should be given to the protection of Great Mercury Island – Ahuahu, as stated in the 2017 Sea Change Marine Spatial Plan, but that is absent in the current proposal. As noted in Attachment B, DOC concluded that "*Overall, agencies consider that the outstanding biodiversity values associated with the Mercury Islands (and towards the coast) would warrant area-based protection*". Council holds data that identifies the biodiversity values of Ahuahu and

[1] Subtidal seagrass surveys at Slipper and Great Mercury Islands | Waikato Regional Council

[2] https://www.doc.govt.nz/documents/science-and-technical/inventory-monitoring/im-toolbox-marine-reserves/cape-rodney-report-card.pdf and https://www.sciencedirect.com/science/article/pii/S2212041618300524

other islands in this group. However, DOC then concluded that "*the team suggests discarding this proposal as it is too small and would not provide any effective protection to the biodiversity values associated with the Mercury Islands/Kennedy Bay area. The team suggests flagging this area as a potential gap in the MPA network given the area's outstanding biodiversity values*".

14. We acknowledge that the proposed Ahuahu MPA may have been too small, but question why there was no attempt to correct this. Many of the MPAs in the current proposal were substantially altered with respect to boundaries, other areas such as the Noises were added in for protection, but to our knowledge no attempt was made to reconfigure an effective MPA in this location.

15. It is noted that the absence of the Ahuahu MPA leaves a gap in the network, noticeably in the north-eastern section of the Coromandel, given the distance between Cape Colville and the Whanganui-a-Hei Reserve. The combined proposed protection falls below the 20% target, which the Ahuahu MPA would have helped to address. Seafloor protection would safeguard the biodiversity of Ahuahu from certain physical disturbances and cascading effects of predator removal and would limit the impacts of dredging should the current rahui be lifted. The Council has commissioned the University of Auckland to map subtidal habitats around the Mercury Island group and provide assessment of biodiversity and 'reef health'. This work is ongoing, but there is at least some early indication of kina barrens being present at the island group and low abundance/density of rock lobster. There are multiple ecological reasons, in addition to paragraph 15, highlighting why further consideration should be given for protection in the north-eastern Coromandel under the current legislative opportunity.

16. Management of biosecurity risks is a key component of protecting native biodiversity. Marine pests can permanently alter the ecosystem, predating on or smothering native biodiversity. There are very few tools available to eradicate marine pests, which makes preventing their spread crucial. Whilst we acknowledge the efforts of the Top of the North Marine Biosecurity Partnership to progress an inter-regional marine pathway management plan, we encourage DOC to consider including marine biosecurity provisions in HPAs rules as a minimum. This could include amending the activities permitted to read "normal ship operations such as piloting and anchoring a vessel, where the Level of Foul does not exceed 2 and the anchor and chain are cleaned prior to moving". We support the prohibition of discharge of ballast (unless for the immediate safety of the ship) as ballast water discharge is a key pathway for spread of marine pests.

What impact will the marine protection proposals have on you or your interests?

17. The use of a HPAs and SPAs framework is acknowledged as a useful mechanism. Noting that the combination of tools have the potential to be effective than what could be achieved through provisions included in a reviewed draft Waikato Regional Coastal Plan (WRCP).

18. We note that land-based activities could negatively affect the protected areas. As an example, residential development near protected areas could lead to an increase in sedimentation in these areas. This could have a detrimental effect on the marine's fauna and flora communities and ecosystems. We are currently working on the implementation of the National Policy Statement for Freshwater Management and National Environmental Standards for Freshwater, and we consider this work could partially mitigate this issue when addressing acceptable levels of nutrient and sediment from rural and residential activities.

19. We consider there is a potential unintended consequence to the Council from this proposal. Communities have incorrectly concluded that the Council is aiming to restrict and prohibit fishing in the Firth of Thames through the WRCP review. It is recommended that MPI and DOC provide a user-friendly diagram capturing all central government outputs regarding fishing proposals and publishing this in an accessible way for our coastal communities. This will assist our communities

to understand the different plans, areas of coverage and their contents. We envision the potential for further confusion with the release of the Hauraki Gulf Fisheries Plan. Information that is well communicated and easy to understand for our communities will assist in alleviating the problem of misinformation in our community.

Do you think there are any additional costs or benefits we haven't considered? For instance, those specific to individual operators?

20. It would be beneficial to explore other areas for protection that could result in a more overarching and functioning network of protected areas in the future. Regarding potential new areas we consider the northern east coast of the Coromandel Peninsula would require further detailed discussion.

21. The information document did not capture how monitoring will be undertaken for the new proposed areas. We consider that monitoring and enforcement, with associated resources, is essential to ensure the success of the proposed areas. This will also provide the data to inform a potential second round of assessment for new proposed areas of protection.

Waikato Regional Council Internal Series 2018/08

Mapping rocky reef habitats on the eastern Coromandel Peninsula with multispectral satellite imagery

Waikato
REGIONAL COUNCIL
Te Kaunihera ā Rohe o Waikato

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Mapping rocky reef habitats on the eastern Coromandel Peninsula with multispectral satellite imagery

Jared Kibele and Nick T. Shears

November 30, 2017

Abstract

With increasing anthropogenic pressure on coastal marine ecosystems there is a greater need than ever to develop cost-effective methods of gathering information on marine habitats at large spatial scales to inform management. However, traditional methods of habitat mapping rely heavily on time consuming and expensive direct observation by divers and produce unverified habitat maps with low spatial resolution. This study employs newly developed approach (termed MORE-MAPS) to map dominant subtidal habitat types from Cook's Beach to Hot Water Beach on the Coromandel Peninsula. The MORE-MAPS method includes rapid collection of ground-truth imagery with a drop camera system, classification of images into 4 broad-scale habitat types (Mixed Weed, *Ecklonia* Forest, Barrens, and Soft-sediment), mapping these habitats over larger study area using multispectral satellite imagery, and providing an accuracy assessment of the habitat map. Additionally, a map of estimated bathymetry is provided.

1165 benthic ground truth photos were collected, classified, and georeferenced. Using WorldView-2 satellite imagery, a bathymetric map of the study area was produced with an RMSE of 1.61 m, and broad-scale habitats were mapped to a depth of approximately 20 m with an overall mapping accuracy of 73% across the entire study area. Within the study area, mapping accuracy varied with turbidity from 42% overall accuracy in the most turbid region to 78% overall accuracy in the least turbid region.

The area examined also included the Whanganui A Hei (Cathedral Cove) Marine Reserve which allowed assessment of the proportions of different habitat types inside and outside the marine reserve. The proportion of Mixed Weed habitat inside and outside the reserve was similar (10% and 11% respectively), Barrens were lower in the reserve (5% vs 20%) and *Ecklonia* forest higher (85% vs 69%). These differences are consistent with previous studies that suggest long-term protection from fishing can facilitate the shift from urchin dominated barrens back to a natural kelp dominated state.

This study demonstrates that the MORE-MAPS approach provide a cost-effective approach to mapping subtidal marine habitats to depths of ~20 m on open coasts with good water clarity. Accuracy was reduced in more turbid areas, indicating that the method will only be suited to mapping shallower

water habitats under such conditions. The quantification of differences in habitats between reserve and fished sites demonstrates the wider application of these methods for understanding human impacts on marine ecosystems and also monitoring temporal variation in the distribution of important marine habitats.

1 Introduction

Thematic maps of nearshore subtidal habitats are vitally important to marine spatial planning (MSP) (Foley et al., 2010; Saarman et al., 2012), coastal risk assessment (Warren et al., 2016), conservation (Hamel and Andréfouët, 2010), and ecological studies (Parsons et al., 2004; Leleu et al., 2012; Boström et al., 2011). Given the worldwide trend toward MSP (Force, 2009; Li, 2006; Boyes et al., 2007) and the increasing application of landscape ecology methods to the marine environment (Boström et al., 2011; Wedding et al., 2011), there is a growing need for subtidal habitat maps (Andréfouët, 2008; Stamoulis and Delevaux, 2015; Wedding et al., 2011). Remote sensing has long been recognized as the most efficient means of generating habitat maps over large areas at scales relevant to MSP and ecological studies (Green et al., 1996) but, due to the complexities involved, these methods typically require the involvement of remote sensing specialists. In light of this increasing demand for habitat maps, there is a need, particularly in data-poor developing countries (Andréfouët, 2008; Clifton, 2009; Cabral et al., 2015), for a system of habitat map production, comprising low cost tools and methods, that can increase map production capacity (i.e., the capacity of scientists and resource managers without extensive remote sensing expertise to produce maps of submerged habitats) (Andréfouët, 2008).

The removal of fishing pressure by use of no-take marine reserves in New Zealand can rehabilitate degraded rocky reef ecosystems over a time scale of several decades (Shears et al., 2006; Shears and Babcock, 2003). With rehabilitation and preservation of ecosystems as goals of reserve status, ongoing monitoring of marine reserves is required to objectively justify reserve status (Cole et al., 2003). However, traditional diver surveys are expensive, time consuming, and provide poor spatial coverage in comparison to modern remote sensing methods (Green et al., 2000; Mumby et al., 1999). The use of drop camera surveys and aerial habitat mapping has long been suggested as an economical and effective alternative to diver surveys (Cole et al., 2003), and the increasingly difficult liability issues and associated costs of research diving in New Zealand favor an "above the water" approach now more than ever.

Studies in New Zealand's oldest no-take marine reserve, Cape Rodney to Okakari Point, have demonstrated the viability of monitoring ecosystem rehabilitation through habitat mapping (Leleu et al., 2012; Ayling, 1978; Parsons et al., 2004). These studies demonstrated that previously noted shifts in the distribution of habitats (specifically, the shift from urchin dominated barrens to *Ecklonia* dominated kelp forest (Shears and Babcock, 2003)), are clearly detectable via habitat mapping.

However, the habitat mapping methods used in those studies are not well suited for repeated use in a cost-conscious reserve monitoring context. The first

habitat mapping of the entire reserve (Ayling, 1978) provided a vital baseline map of habitat distribution shortly after the removal of fishing pressure through a staggering quantity of direct, pre-GPS underwater observation and pre-GIS, hand-drawn cartography. Parsons et al. (2004) used diver operated video transect methods to delineate the transition from barrens to kelp forest in a portion of CROP, but their methods required expensive acoustic positioning equipment, laborious data processing steps, and interpolation between data points that produces jagged, unrealistic divisions between habitats. Due to these limitations, it is difficult to accurately and efficiently map large areas using this method. Leleu et al. (2012) combined numerous direct observation and remote sensing methods (e.g., towed diver surveys, drop camera, towed video, manual interpretation of aerial imagery, side scan sonar) to map habitats throughout CROP and out into some of the bordering areas. They were able to map a reasonably large area and further elucidate the shift from barrens to kelp forest that has taken place in CROP since the elimination of fishing, but the methods employed, though certainly more efficient than the original survey (Ayling, 1978), still require a level of expenditure and labor that render them impractical in a continuous reserve monitoring context.

High resolution multispectral satellite imagery, such as that available from the WorldView-2 (WV2) satellite (DigitalGlobe, 2012), can provide a comparatively objective, efficient, and cost-effective means of mapping submerged habitats over large areas (Mumby et al., 2004; Xu and Zhao, 2014; Green et al., 2000). The successful mapping of submerged habitats via multispectral image classification depends largely on water column correction (WCC) methods that can compensate for the attenuation of light in seawater (Zoffoli et al., 2014), but most WCC methods were developed for clear oligotrophic tropical waters and are complex and difficult, if not impossible, to implement in the comparatively turbid temperate waters of New Zealand. Recent work, conducted at the University of Auckland's Leigh Marine Laboratory (Kibele, 2016; Kibele and Shears, 2016; Kibele, 2017), has resulted in a suite of methods and open source software, referred to as MORE-MAPS, that are designed for use across a wide range of water clarity conditions, including the temperate waters of north eastern New Zealand. The methods and software that comprise MORE-MAPS address the entire habitat mapping process, from ground truth data collection and processing with the free and open source software (FOSS) Benthic Photo Survey (BPS) (Kibele, 2016), through to depth estimation (Kibele and Shears, 2016), image processing, water column correction, and accuracy assessment with the FOSS OpticalRS Python library (Kibele, 2017). MORE-MAPS showed promise as a tool for monitoring habitat distribution when it was used to map broad scale habitats to depths of 20 m in and around CROP with better accuracy and lower cost than the habitat mapping methods previously employed in the same reserve (Kibele, 2017).

The present study will use these newly developed methods to map subtidal reefs along a 10km stretch of coast on the Coromandel Peninsula, from Cook's Beach to Hot Water Beach (Fig. 1). This area includes the Whanganui A Hei Marine Reserve (established in 1992) and will therefore allow an assessment of the efficacy of the reserve in rehabilitating the local ecosystem. In addition to their function as a one-off assessment, the maps and ground truth data generated may prove to be

valuable baselines for future studies. Furthermore, the repeated application of these, or similar, methods as additional satellite imagery becomes available could prove to be an efficient and cost-effective tool for ongoing marine reserve monitoring and assessment of habitat distribution as a proxy for the health of rocky reef ecosystems.

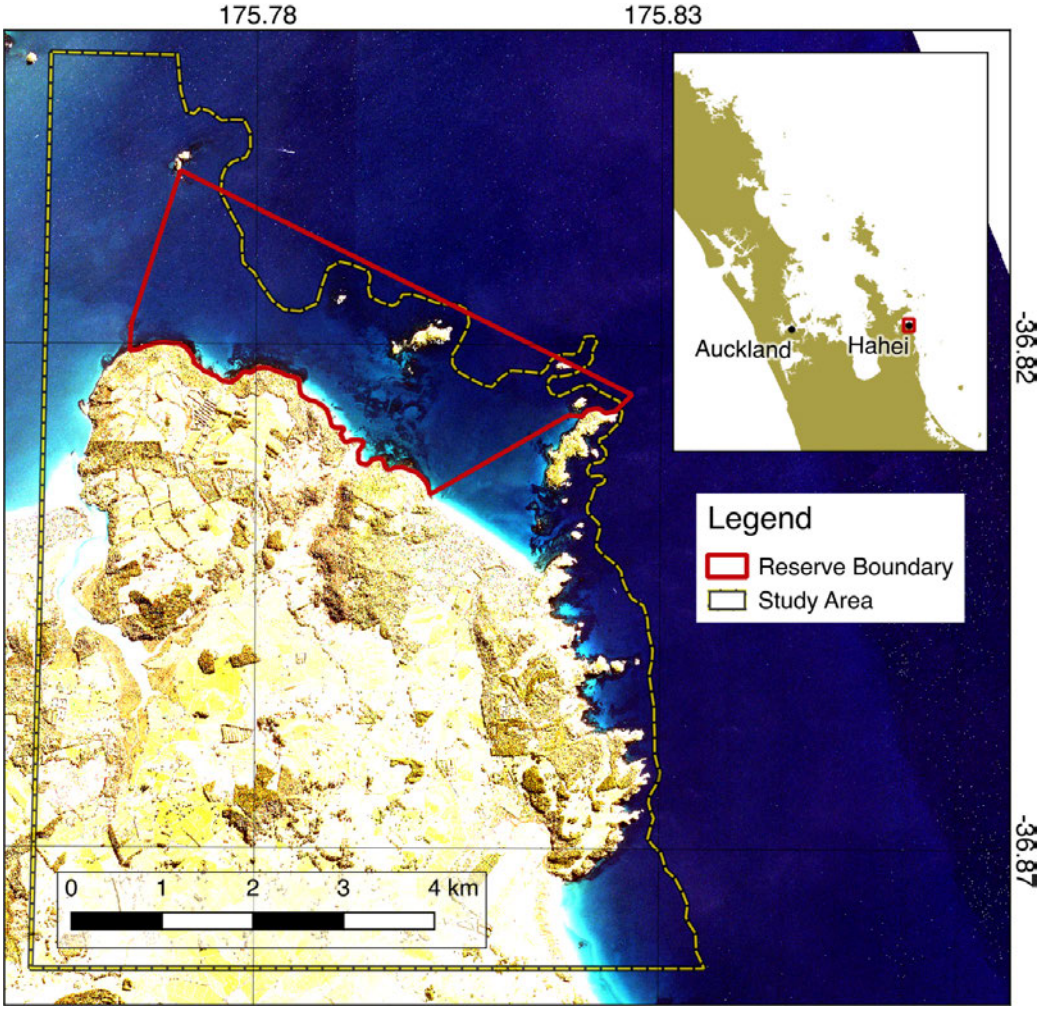

Figure 1: RGB composite of the 8-band WV2 imagery used in this study. The Te Whanganui A Hei Marine Reserve boundary is displayed in red and the image classification area out to the approximate 20 m depth contour is shown in yellow.

2 Materials and Methods

2.1 Habitat Categories

Several similar classification systems for rocky reef habitat types have been devised for use in north eastern New Zealand (Ayling, 1978; Gordon, 1976; Grace, 1983; Shears et al., 2004; Leleu et al., 2012; Parsons et al., 2004). The system presented by Shears et al. (2004) has been well validated but, in order to create a habitat

map from satellite imagery, the classification system must include only classes which can be distinguished on the basis of image colour spectra. Stated simply, habitats must be different colors in order to be discriminated via aerial or satellite imagery. For instance, coarse and fine sediment may constitute different habitats from an ecological perspective but, assuming the sediments are composed of the same material, their spectral signature (i.e. their colors) will be nearly identical and, therefore, indistinguishable.

With this limitation in mind, a set of simplified habitat categories, based on Shears et al. (2004) was devised (Table 1) and has been previously used for mapping reefs with multispectral satellite imagery in north eastern New Zealand (Kibele, 2017). The *Caulerpa* mat and red foliose algae categories (Shears et al., 2004) were excluded because they did not occur frequently enough or over large enough areas for the reliable derivation of a spectral signature. The encrusting invertebrates category was likewise excluded because it typically occurs on vertical walls which are not visible from the satellite's viewing angle. The sponge flats category was merged with the Ecklonia forests category because they occur in relatively deep water (>18 m and >10 m respectively) where WCC is less reliable (Kibele, 2017) and are likely to be spectrally similar due to the presence of *Ecklonia radiata*. "Urchin barrens" and "Turfing algae" are typically dominated by coralline algae and short turfs and are therefore spectrally similar. These two habitats both lack large brown macroalgal canopies so were combined into a "Barrens" category. Thus, these simplified habitat categories (Table 1) represent broad-scale, spectrally distinct habitats.

2.2 Study Area and Satellite Imagery

The stretch of coast from Cooks Beach to Hot Water Beach, encompassing the Te Whanganui A Hei (Cathedral Cove) Marine Reserve, has been the locale for numerous rocky reef ecology studies both before (Choat and Ayling, 1987) and after the reserve was established in 1992 (Shears et al., 2008; Shears, 2002; Kelly et al., 2000; Willis et al., 2003; Willis and Millar, 2005). Situated on the eastern side of the New Zealand's Coromandel Peninsula on the southern edge of Mercury Bay, water clarity can be affected by high sedimentation rates from the Whitianga and Purangi estuaries (Reeve, 2008). Heavy sediment loads and spatial variation in water clarity are significant challenges to optical remote sensing methods (Green et al., 2000).

High resolution (2 m), 8-band WorldView-2 (WV2) imagery for this study was supplied by the DigitalGlobe Foundation, free of charge, as an imagery grant. The first of the two WV2 image scenes was acquired by the satellite at 10:30 local time on 16 August, 2014 with a solar elevation of 33.2°, a solar azimuth of 32.4°, a satellite elevation of 59.8°, a satellite azimuth of 22.5°, and an off nadir view angle of 26.5°. The second scene was acquired 17 seconds later with nearly identical solar angles, a satellite elevation of 63.9°, a satellite azimuth of 25.4°, and an off nadir view angle of 23.0°. The first scene covers the study area from approximately the middle of the reserve to the east and the second scene covers from west of the study area to just short of the eastern corner of the reserve, so the scenes overlap from just east of Moturoa Island in the middle of the reserve to the eastern edge of Mahurangi Island. As will be described below, the scenes were processed separately and the

Table 1: Broad-scale habitat types based on a simplification of the classification scheme presented in Shears et al. (2004).

Habitat	Description
Mixed Weed	Rocky reef dominated by large brown algae other than *Ecklonia radiata*. *Ecklonia*, if present, is sparse and mixed with *Carpophyllum spp.* Includes shallow *Carp.*, *C. flexuosum* forest, and Mixed algae categories from Shears et al. (2004).
Ecklonia	*Ecklonia radiata* forming a canopy over rocky reef. The canopy may be sparse on deep reefs but is generally near continuous with occasional *C. flexuosum* plants mixed in. Includes *Ecklonia* forest and Sponge flats from Shears et al. (2004).
RTB	RTB is an abbreviation of Rock, Turf, and Barrens. Accordingly, this category includes bare rock, turfing algae (e.g. articulated corallines and other red turfing algae), and urchin barrens dominated by crustose coralline algae. Essentially, any rocky reef areas not dominated by large brown algae fall into this category. Includes Cobbles, Urchin barrens, Turfing algae categories from Shears et al. (2004).
Sediment	Bottom covered in sediment. Includes gravel and shell rubble as well as coarse or fine sand. No comparable habitat in Shears et al. (2004). Only reef habitats were considered.

resulting habitat maps were stitched together.

For benthic habitat mapping, imagery should be free of cloud cover, large variations in water clarity, and excessive sunglint. Ideally, the image acquisition date should be close as close as possible to date of ground truth data collection to avoid the potential impacts of intervening shifts in habitat distribution. The imagery used (Figure 1) does suffer somewhat from heterogeneous water clarity due to apparent sediment outflow from the Whitianga Estuary on the western edge of the study region. Furthermore, the combination of low solar elevation with steep coastal cliffs caused some nearshore areas to be covered with deep shadow. The scenes used, despite these shortcomings, were chosen from the DigitalGlobe catalog as the best available imagery for mapping habitats in the reserve.

2.3 Field Data

Drop camera surveys of the benthos within the study area were conducted from a small boat from 6 - 8 February 2017. The surveys were conducted for use with the

Benthic Photo Survey (BPS) ground-truth system (Kibele, 2016). The drop camera system used was an improved version of the one used with MORE-MAPS in the Cape Rodney to Okakari Point Marine Reserve (Kibele, 2017). The new system (Figure 2) comprises a purpose-built weight (~5 kg) and camera stand, a GoPro Hero 4 camera in a waterproof housing, a coaxial cable to transmit WiFi (CamDo Solutions, 2017), a mobile phone running the GoPro Capture app to trigger image capture, and a polypropylene rope to take the lifting strain off of the cable. The coaxial cable was run through the center of the single braid waterski tow-rope to facilitate ease of handling. The camera was positioned 1 m from the bottom of the weight, pointing down. Tests conducted in a seawater tank determined that GoPro images taken using this setup cover an image area of approximately $1.8\,m^2$. A Sensus Ultra depth logger (`https://reefnet.ca/products/sensus/`) was attached to the camera housing, and a hand held Garmin 60csx GPS was positioned on the boat as close as possible to the camera. The GoPro's clock was synchronized to the GPS ($\pm 1s$) at the start of each day's data collection to ensure correct geolocation of the photos.

Target transect lines running perpendicular to the coast (down the depth gradient) were drawn prior to field work, based on visual estimation of habitat types, in an effort to stratify the sampling across habitat types (Table 1) and provide spatially distributed coverage throughout the study area (~200-400 m apart). In the interest of efficiency, the predetermined transect lines were used as general guidelines rather than exact positions. The vessel was navigated to the approximate position of the upwind end of a transect line and brought to a halt. The camera handler would then lower the weight and camera (with depth logger attached) until the weight made contact with the seafloor while the GPS continually logged position (at 4 second intervals), above water, on the boat. The floats positioned at the top of the camera stand ensured that the stand remained vertical at all times. The boat driver monitored the camera image on the mobile phone using the GoPro Capture app, and pressed the image capture button when the camera stand was on the bottom. The camera handler would then pull in a few meters of line to lift the stand off the bottom, and the boat driver would drift, or very slowly drive, the boat ~10 - 15 m down the transect, stop the boat, and repeat the process. Every effort was made to keep boat directly over the camera, but some offset was unavoidable, particularly in deeper water.

After returning to shore, the photos, GPS log, and depth log were loaded into BPS, and positions and depths were automatically assigned to each photo based on digital timestamps (Kibele, 2016). Then, in order to maximize the reuse potential of the ground-truth data set, BPS was used to assign visually estimated proportions of the cover types listed in Table 2 to each photo rather than simply assigning one of the broad-scale habitats (Table 1). This allows for greater flexibility in the visualization and analysis of field data.

For use as image classification ground-truth, the proportions were converted to broad-scale habitat types according to the rubric in Table 3. Out of 1165 benthic photos, this rubric left 347 unclassified photos (Figure 3). Visual examination of the unclassified photos revealed them to mostly be of transitional (e.g., half sand and half Ecklonia dominated reef) or, less commonly, indeterminate bottom type (e.g.,

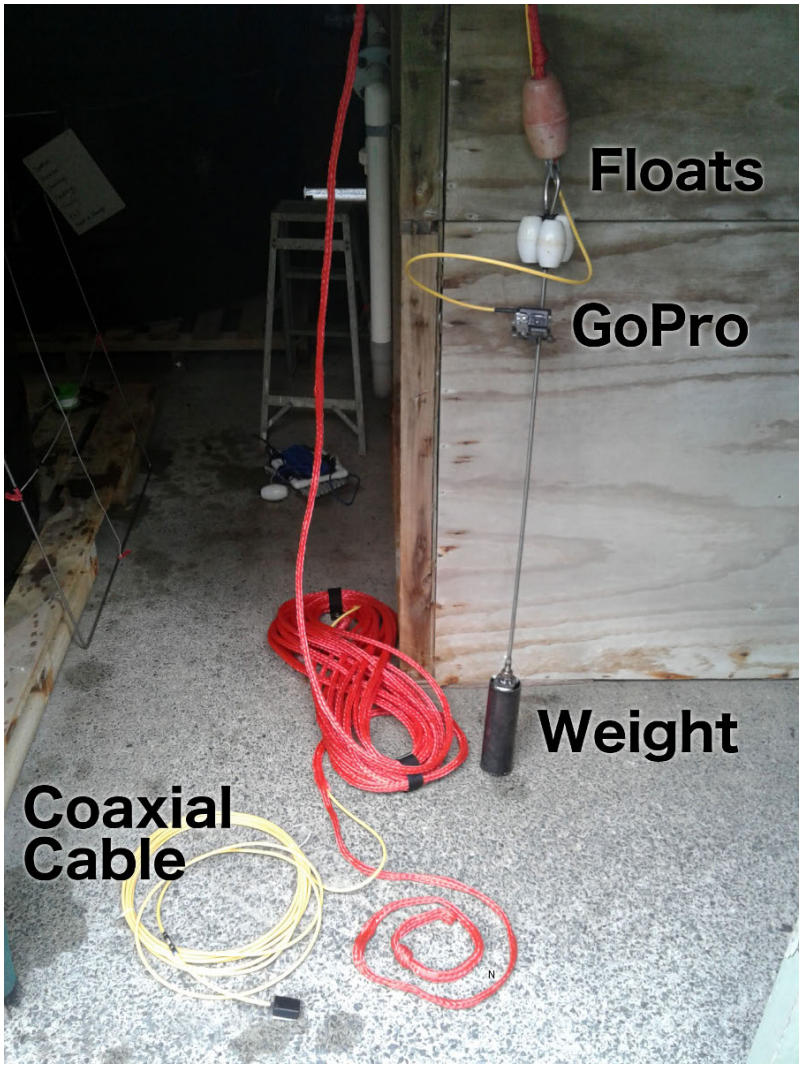

Figure 2: The GoPro drop camera system used to collect ground truth images. The depth Sensus Ultra depth logger is attached to the camera housing but is not visible in this figure.

view of a very small portion of the bottom due to uneven terrain, or a mixture of bottom covers that doesn't neatly fit into any of the categories in Table 1).

2.4 Lidar Data

MORE-MAPS can, and has, been used without additional depth data beyond that which is derived from the depth logger used with BPS (Kibele, 2017). However, the depth estimates (Kibele and Shears, 2016), subsequent water column correction, and image classification can be improved with additional depth measurements. In this case, high resolution bathymetric lidar data were available (from Waikato Regional Council) for a portion of the study area.

The numerous individual ascii point cloud files received from the council were merged and converted to OGR virtual file format using standard Unix command

Table 2: Bottom cover types from drop camera survey. Visual estimates of these cover types were assigned to each photo and subsequently used to assign each photo to one of the broad scale habitat types in Table 1.

Bottom Cover	Description
Sand	Fine to medium grained sediment.
Rubble	Coarse sediment, gravel, and/or broken shell.
Rock	Bare rock with very little encrustation. Generally represented by cobbles.
Barrens	Crustose coralline algae with urchins present.
Turf	Articulated coralline algae and other red turfing algae.
Ecklonia	*Ecklonia radiata* canopy coverage.
Brown Algae	Any large brown macroalgae other than *Ecklonia radiata*. In practice, this was most often *Carpophyllum spp.*.
Other Reef	Any reef cover that could not be assigned to another category.

Table 3: Rubric for converting image proportions of bottom cover types (Table 2) to broad-scale habitat types (Table 1).

Habitat	Bottom Cover Conversion Rule
Sediment	$Sand + Rubble \geq 90\%$
RTB	$OtherReef + Rock + Barrens + Turf \geq 0.8$
Ecklonia	$Ecklonia \geq 70\% \, and \, BrownAlg \leq 10\%$
Mixed Weed	$BrownAlg \geq 30\% \, and \, BrownAlg + Ecklonia \geq 70\%$

line tools. GDAL (GDAL Development Team, 2016) command line tools were then used to convert the point data to a raster of the same extent and 2 m resolution as the WV2 coverage of the study region (Figure 1). Point depths were averaged within raster cells, and cells that contained no points were masked.

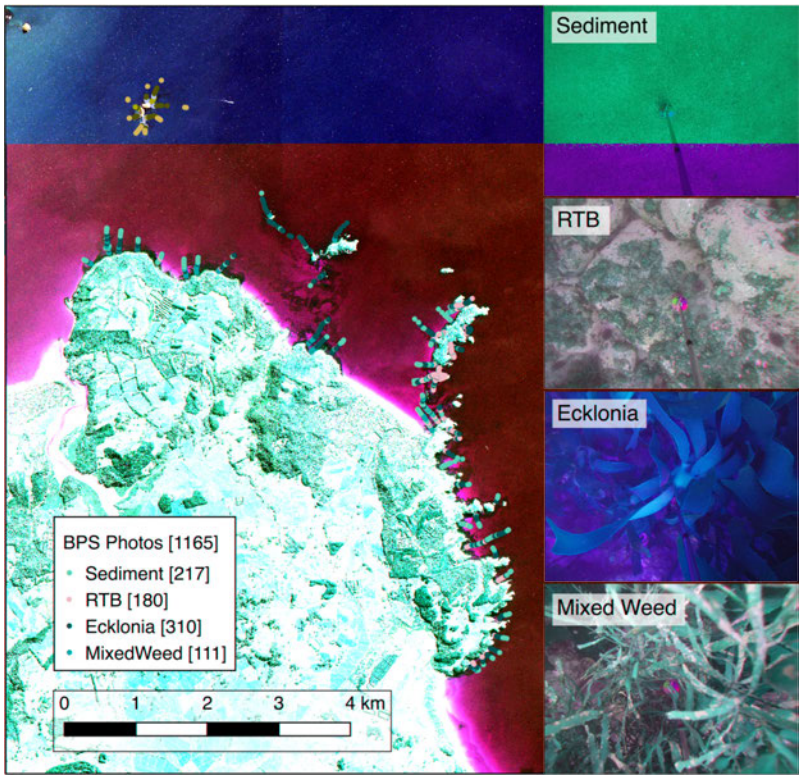

Figure 3: The Benthic Photo Survey (BPS) ground truth points used to ground truth the habitat map are displayed with marker colors that correspond to the habitat type at each point. The right side of the figure shows representative benthic photos of the 4 broad-scale habitat categories used in this study.

2.5 Imagery Preprocessing

The multispectral imagery was received from DigitalGlobe Foundation at the ortho-ready standard product level (DigitalGlobe, 2012). Several steps were required to prepare the imagery for depth estimation, water column correction, and image classification. First, the individual image tiles for each scene were merged using QGIS (Quantum GIS Development Team, 2011). The merged scenes were then clipped to the rectangular bounding box of the study area (Figure 1). To avoid the loss of any image data, the clipping coordinates were chosen as offsets (in 2 m multiples) from the image origin point so that the original image resolution was retained and no resampling of pixel values was required.

All subsequent preprocessing steps were scripted using the OpticalRS Python library (Kibele, 2015). Image DN pixel values were converted to top of atmosphere reflectance using the OpticalRS implementation of methods recommended by DigitalGlobe (Updike and Comp, 2010). Then land was masked out by thresholding the Near Infrared (NIR) bands and applying a morphological filter. Lyzenga's sun glint removal algorithm (Lyzenga et al., 2006) adapted for use with WV2 imagery. Due to the time-delayed integration technique employed by the WV2 sensor array, the capture time of image bands 2, 3, 5, and 7 are offset from those of bands 1, 4, 6,

and 8 by up to 24 seconds. Lyzenga's method relies on correlating NIR reflections from the water's surface with visible band values so all the band values must be coincident. The OpticalRS implementation, splits the 8 WV2 bands in to 2 groups of four, applies Lyzenga's method, and reintegrates the results into 6 glint corrected visible bands with the two NIR bands returned unaltered.

2.6 Depth Estimation

In preparation for depth estimation, the WV2 image was smoothed using a bilateral denoising algorithm (Tomasi and Manduchi, 1998) available via the scikit-image Python library (van der Walt et al., 2014). The lidar and BPS depths were first corrected to chart datum values and then adjusted to depth at image acquisition time (+ 2.1 m). The BPS data points depths could have been used to train the depth estimation classifier as has been previously done (Kibele, 2017). However, it has been demonstrated that KNN depth estimation accuracy can be increased with additional training data (Kibele and Shears, 2016), so the lidar data were used to train the KNN depth estimation algorithm instead. This left all 1165 BPS depths available for accuracy assessment of the estimated depths. An exhaustive explanation of these methods is available in Kibele and Shears (2016).

2.7 Water Column Correction

Water column correction was carried out using a method based on (Maritorena et al., 1994). Briefly stated, the reflectance of optically deep water (R_∞) and the diffuse attenuation coefficient (K) were estimated for each image band by using the Levenberg-Marquardt algorithm (Marquardt, 1963) by fitting the image reflectance values (R) to estimated depths (Z) using this relationship derived from Maritorena et al. (1994):

$$R_i = R_{\infty i} + (A_i^{toa} - R_{\infty i})e^{-K_i g Z} \tag{1}$$

The estimated parameters (R_∞ and K) were then used along with estimated depths (Z) to retrieve the bottom albedo as sensed at the top of the atmosphere (A^{toa}). This retrieved bottom albedo represents an estimate of what the image might look like if the water column were removed. All calculations were carried out using the OpticalRS Python library(Kibele, 2015). An exhaustive description of these methods can be found in Kibele (2017).

2.8 Image Classification

The classification of the water column corrected imagery into a thematic habitat map was conducted with the Semi-Automatic Classification Plugin (SCP) for QGIS (Congedo, 2016) using methods common in terrestrial habitat mapping (Congedo and Munafò, 2012). Prior to classification, the image was smoothed by averaging spectral values in each band within a radius of 2 m or each pixel. This helps to compensate for the increase in spectral variability that is a byproduct of water column correction (Kibele, 2017).

Regions of interest (ROIs) were created near BPS ground truth points of known habitat. These ROIs were used to generate spectral signatures representative of each habitat. After tuning spectral signature thresholds and algorithm band weights by trial and error, the maximum likelihood algorithm was used to generate the classifications for the entire image. Throughout the tuning process, results were visually compared to the BPS ground truth points.

2.9 Accuracy Assessment

The previously described BPS ground truth data were used to assess the accuracy of the habitat map. All accuracy assessment calculations were carried out using the GroundTruthShp module of the OpticalRS Python library. To account for positional error 3 m radius was used in the accuracy assessment. A given ground truth point was counted as a successful classification result if the ground truth habitat is found within a 3 m radius on the habitat map. The 3 m radius, on a habitat map with 2 m resolution, includes a minimum of 11 pixels up to a maximum of 16 pixels (44 to 64 m^2) depending on the exact location on the point within the grid of pixels. If the ground truth habitat is not found within this area, the most common habitat in the area is reported in the error matrix instead. Accuracy assessment was conducted for the full study area and then conducted again for separate regions of the study area to assess the impact of apparent variations in water quality on mapping accuracy.

3 Results

3.1 Ground Truth Data

Field data collection and processing resulted in a shapefile containing a total of 1165 points attributed with depth, bottom cover proportions, dominant bottom cover, and paths to benthic photos (Figure 3). After quantification of bottom cover and habitat classification according to Table 3, there were 217 Sediment points, 180 RTB points, 310 Ecklonia points, and 111 Mixed Weed points.

In addition to its role as ground truth data for the production of a habitat map, this ground truth shapefile is useful in and of itself as a record of bottom types. Using QGIS (or similar desktop GIS software), one can simply click on a data point and view the corresponding benthic photo. This can allow a quantitative assessment of differences in the extent and depth distribution of habitats across the study area and serve as baseline data for future studies.

3.2 Bathymetry

The estimated bathymetry for the study area is shown in Figure 4. When compared to the BPS depths gathered for ground truth, the root mean square error (RMSE) of the estimate was found to be 1.61 m. Visual comparison with the available lidar derived bathymetry suggests better accuracy in shallower (less than approx. 12 m depth) areas, and this was borne out in the comparison to BPS depths (Figure 4, inset).

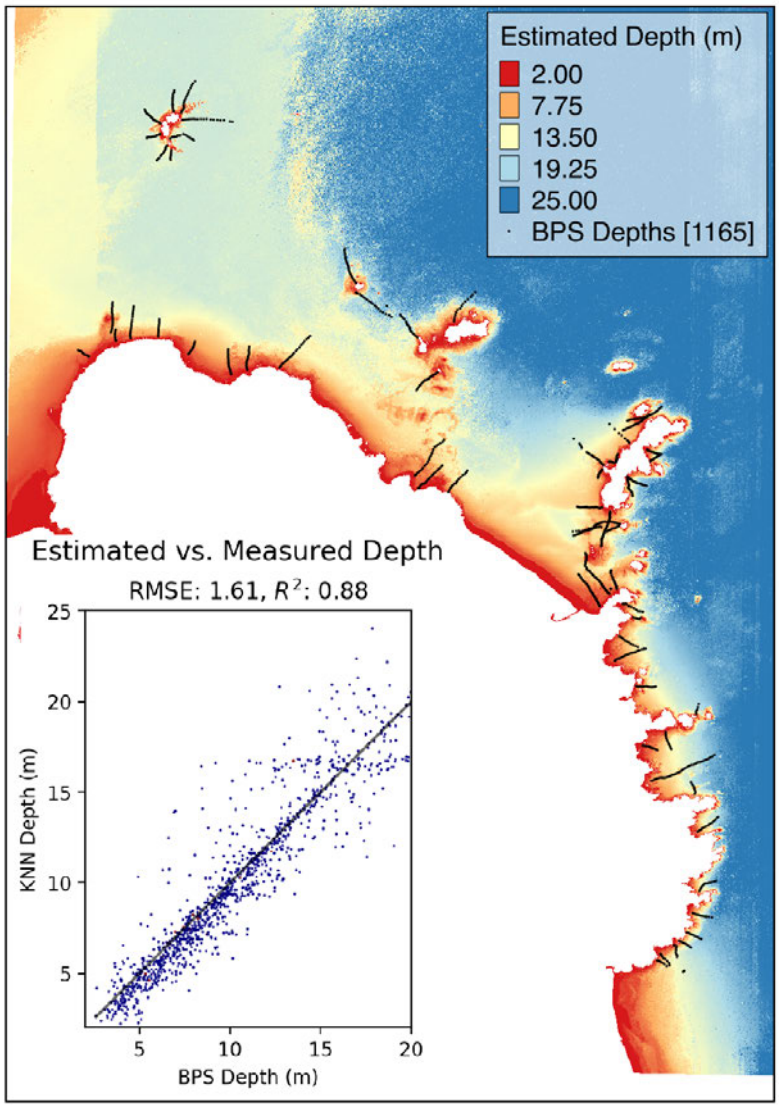

Figure 4: Bathymetry of the study area as estimated from WV2 imagery using the KNN method (Kibele and Shears, 2016). The inset shows estimated depths vs ground truth depths for the 1165 Benthic Photo Survey (BPS) points.

3.3 Habitat Map

The map of the 4 broad-scale habitat types (Table 1) within the study area is shown in Figure 5, and the regions used for accuracy assessment and summary statistics are outlined in black. The eastern boundary of the reserve was chosen as the demarcation between the Reserve and Eastern assessment regions because it is relevant from an ecological perspective as well as a reserve monitoring standpoint. Due to a sediment plume emanating from Whitianga Estuary and flowing out of Cooks Bay past Centre Island, this area was treated as a separate region in the classification analysis. In this way, the mapping accuracy in this region of reduced water clarity could be assessed separately from the rest of the study area, and

erroneous results could be excluded when comparing the reserve habitat distribution to the eastern non-reserve habitat distribution.

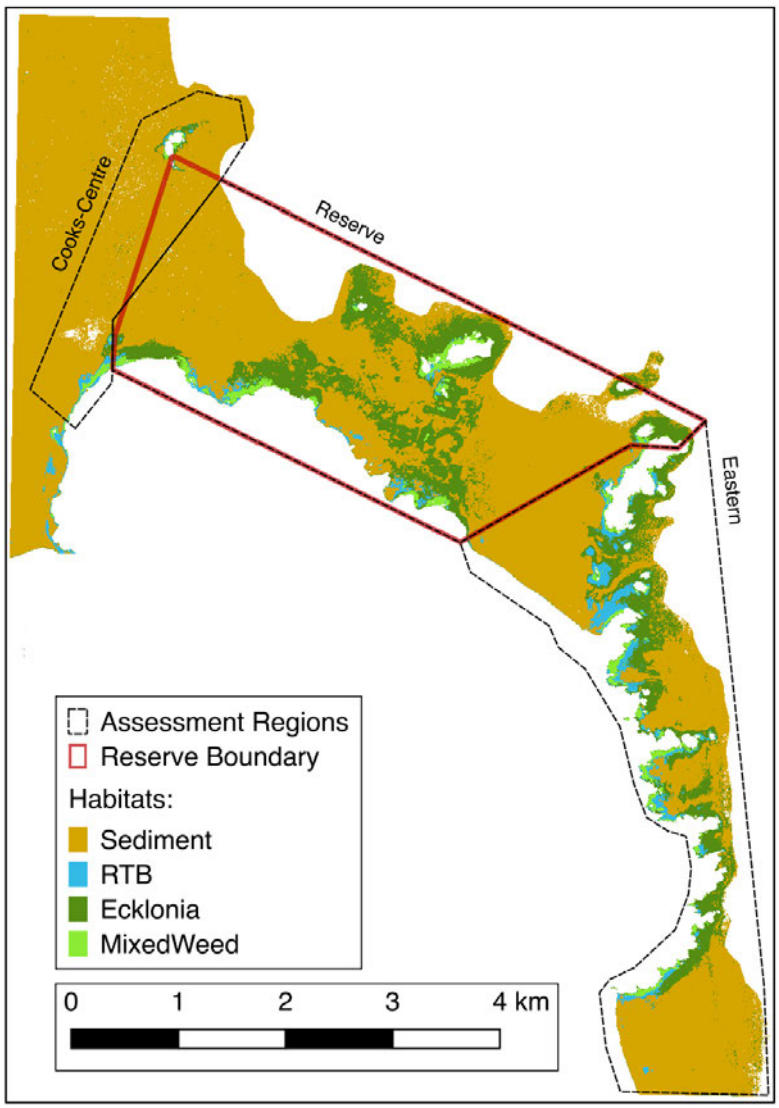

Figure 5: The habitat map showing distribution of 4 broad scale habitat types in and around the Whanganui-A-Hei Marine Reserve out to approximately 20 m depth. The reserve boundary is shown in red, and the assessment regions used for accuracy assessment are outlined in black dashed lines.

Areas were calculated for each habitat type within the Reserve and Eastern assessment regions (Table 4), and total reef area was calculated as the sum of the RTB, Ecklonia, and Mixed Weed habitat areas. Sediment was found to occupy the largest area in both the Reserve and Eastern regions (435.82 ha and 348.86 ha, respectively). A much larger area of RTB (29.42 ha) was found in the Eastern region than in the Reserve region (9.27 ha).

Percentages of reef cover were calculated for the 3 reef habitat types (RTB,

Table 4: Mapped habitat areas (ha) for the Reserve and Eastern assessment regions. Reef totals are the sums of RTB, Ecklonia, and Mixed Weed habitat areas.

	Sediment	RTB	Ecklonia	Mixed Weed	Reef Total
Reserve	435.82	9.27	149.78	17.44	176.49
Eastern	348.86	29.42	101.99	15.45	146.86

Table 5: Reef habitats as percentage cover of reef in the Reserve and Eastern assessment regions.

	RTB	Ecklonia	Mixed Weed
Reserve	5%	85%	10%
Eastern	20%	69%	11%

Ecklonia, and Mixed Weed) in the Reserve and Eastern regions by dividing the area of each reef habitat by the total reef area (Table 5). Mixed Weed was found to occupy nearly the same percentage of reef area in both regions (10% in Reserve vs. 11% in Eastern). However, the RTB and Ecklonia percentages of cover were markedly different. The RTB habitat was less prevalent within the reserve (5% in Reserve vs. 20% in Eastern) while, conversely, the Ecklonia habitat category was more prevalent within the reserve (85% in Reserve vs. 69% in Eastern).

3.4 Accuracy Assessment

As is common practice in habitat remote sensing studies (Congalton and Green, 2008), accuracy assessment metrics are reported in an error matrix with reference data (i.e., ground truth) in columns and mapped data in rows. User's accuracy (the percentage of mapped pixels of a given class proven correct by ground truth), producer's accuracy (the percentage of ground truth points of a given class that were classified correctly in the map), and overall accuracy (percentage of all ground truth points with successful classification) are also reported.

Accuracy assessment metrics for the entire study area are shown in Table 6. An overall accuracy of 73% was found for the 817 ground truth points examined. Producer's accuracy for Mixed Weed was low (35%), with frequent misclassification as Ecklonia and slightly less frequent misclassification as RTB.

Accuracy assessment metrics for each region of the study area (Figure 5) are displayed in Table 7. The overall accuracies of the Reserve and Eastern regions (75% and 78%, respectively) are much better than the overall accuracy of the Cooks-Centre region (42%). Across the 2 more accurately mapped regions (Reserve and Eastern), the Sediment and Ecklonia habitat classes were mapped with higher accuracy (both user's and producer's) than the RTB and Mixed Weed classes.

Table 6: Accuracy assessment error matrix for the entire study area. Ground truth habitat types are arranged in columns and mapped habitat types are arranged in rows.

	Ground Truth					
	Sediment	RTB	Ecklonia	MixedWeed	Totals	User Acc.
Sediment	193	10	39	3	245	79%
RTB	9	109	8	28	154	71%
Ecklonia	13	47	260	41	361	72%
MixedWeed	2	14	3	38	57	67%
Totals	217	180	310	110	817	-
Producer Acc.	89%	61%	84%	35%	-	73%

Table 7: Accuracy assessment error matrix for the assessment regions shown in Figure 5.

Reserve	Ground Truth					
	Sediment	RTB	Ecklonia	MixedWeed	Totals	User Acc.
Sediment	45	0	10	1	56	80%
RTB	1	2	4	2	9	22%
Ecklonia	4	2	98	20	124	79%
MixedWeed	0	10	1	22	33	67%
Totals	50	14	113	45	222	-
Producer Acc.	90%	14%	87%	49%	-	75%
Eastern						
	Sediment	RTB	Ecklonia	MixedWeed	Totals	User Acc.
Sediment	119	1	1	1	122	98%
RTB	8	104	4	20	136	76%
Ecklonia	9	45	159	16	229	69%
MixedWeed	2	4	2	15	23	65%
Totals	138	154	166	52	510	-
Producer Acc.	86%	68%	96%	29%	-	78%
Cooks-Centre						
	Sediment	RTB	Ecklonia	MixedWeed	Totals	User Acc.
Sediment	29	9	28	1	67	43%
RTB	0	3	0	6	9	33%
Ecklonia	0	0	3	5	8	38%
MixedWeed	0	0	0	1	1	100%
Totals	29	12	31	13	85	-
Producer Acc.	100%	25%	10%	8%	-	42%

4 Discussion

An inexpensive drop-camera system (Figure 2) was used, over 3 days of fieldwork, to create a ground truth data set (Figure 3) comprising 1165 geotagged photos attributed with depth, bottom cover proportions, and dominant bottom cover. A subset of 817 photos were also attributed with broad scale habitat type (Table 1). Previously obtained lidar data were used to estimate depth throughout the study area (Figure 4), and this estimated bathymetry was used to produce a water column corrected WV2 multispectral image. The resulting image was classified to produce a habitat map of the study area (Figure 5), and mapping accuracy was assessed relative to the ground truth data set (Tables 6 and 7). The Reserve and Eastern assessment regions (Figure 5) were compared in terms of percent of reef coverage for 3 habitats (Table 5). Percent cover of Mixed Weed was consistent inside and outside the marine reserve (1% difference, Table 5), but the relative proportions of RTB and Ecklonia were markedly different. RTB represented 20% of the reef mapped outside the reserve in the Eastern region, but only 5% of the reef mapped in the Reserve region (Table 5). Ecklonia, conversely, represented a correspondingly larger proportion of reef in the Reserve region (85%) than in the Eastern region (69%) outside of the reserve (Table 5). This observation is consistent with previous findings that long-term protection from fishing can allow *Ecklonia radiata* kelp forests to spread into areas previously kept barren by an abundance of sea urchins (Shears and Babcock, 2003), and suggests that the Whanganui A Hei Marine Reserve is achieving the goal of ecosystem restoration and preservation.

It is notoriously difficult to compare the accuracy of habitat maps produced in different environments by different methods (Congalton and Green, 2008; Teixeira et al., 2016; Pontius and Millones, 2011), but studies utilizing optical remote sensing of submerged vegetation in coastal waters often report overall accuracies in the 70% - 90% range (Hoang et al., 2015; Sagawa et al., 2010; Reshitnyk et al., 2014; Uhl et al., 2016; Schweizer et al., 2005). The most directly comparable study, using the same habitat categories and nearly identical methods in New Zealand's Hauraki Gulf, reported an overall accuracy of 83% (Kibele, 2017). With a study area wide overall accuracy of 73% and regional overall accuracies of 75% and 78% in the Reserve and Eastern assessment regions, the present study is within the range of expected accuracy but lower than the 83% of the most directly comparable study. This reduction in accuracy is likely attributable to differences in the topography of the coastline and differences in the quality of the available WV2 imagery.

The steep coastline with numerous high cliffs combined with the low solar elevation (33.2°) of the imagery used in the present study resulted in shadows extending over the water on south facing portions of the coastline. Initial attempts to mask these shadowed areas proved problematic, so they were included despite the classification difficulties caused by the reduced solar irradiance. The steepness of the coast also made it difficult to get the boat into the shallowest areas to collect ground-truth points. These issues had an especially large deleterious effect on the accuracy of the Mixed Weed and RTB habitat categories that are associated with the shallowest near-shore waters (Shears et al., 2004). These habitat classes had the lowest user's and producer's accuracies in both the Reserve and Eastern assessment

regions (Table 7).

The RTB category within the Reserve area scored particularly poorly (14% producer's and 22% user's accuracy - Table 7). Of the 222 ground truth data points within the Reserve area, only 14 were confirmed as belonging to the RTB category. Of these 14 RTB points, 11 are concentrated in the northeastern corner of the Reserve area between Okorotere Island and Mahurangi Island. Four of the points are heavily shadowed by Okorotere Island and the remainder are on a shallow reef interspersed with bits of Mixed Weed. Of these 11 RTB points, 10 are misclassified as Mixed Weed. Given the scarcity of RTB ground truth points within the remainder of the Reserve assessment area, the misclassification of RTB in this one small (approx. 0.3 ha) area had a large impact on the accuracy of the RTB and Mixed Weed categories, and on the overall accuracy. The correct classification of this one area would bring the overall accuracy of the Reserve assessment area up to 84%.

The Mixed Weed category had poor producer's accuracy both within the Reserve (49%) and Eastern (29%) assessment areas. As with the RTB category, cliff shadows affected some of the shallow *Carpophyllum* forests (Shears et al., 2004) that make up this category (Table 1), but the inaccessibility of these areas may have had a larger impact. Due to the dangers inherent in driving a boat in very shallow water over rocky reef, particularly in the more wave exposed Eastern assessment region, the Mixed Weed ground truth points were not acquired from the low intertidal and very shallow subtidal depths where shallow *Carpophyllum* forests are extensive and homogenous. Instead, they were acquired from the deepest edges of the *Carpophyllum* forests and the Mixed Algae habitats (Shears et al., 2004) that tend to be patchy and transitional. With the spectral averaging employed as part of the image classification method, it is to be expected that accuracy in patchy areas will suffer, but the averaging was required to compensate for WCC induced image noise in deeper water. For future studies collection of ground-truth data could be collected from shallow water on snorkel using the BPS system(Kibele, 2016; Kibele, 2014).

Accuracy in the Cooks-Centre region was low enough (42% overall, Table 7) that habitat map for that region was deemed too unreliable for use in the calculation of habitat areas and reef cover percentages (Tables 4 and 5). The poor results in that region were likely due to decreased water clarity caused by outflow from the Whitianga and Purangi estuaries. WV2 imagery captured on a incoming, rather than outgoing, tide may provide better results but, as previously mentioned, the scene used was the best currently available in DigitalGlobe image catalog. It is clear that the methods used here are best suited to regions of open coast with high water clarity.

Despite the caveats discussed in relation to the accuracy of RTB and Mixed Weed in the Reserve and Eastern regions, it remains clear that RTB is much less common and Ecklonia is much more common in the reserve than outside of it (Table 5). This is evident, at least qualitatively, in the ground truth data independent of the WV2 image classification. Within the Reserve region, 8% of the reef ground truth points were RTB, 25% were Mixed Weed, and 66% were Ecklonia. In the Eastern region they were 41% RTB, 14% Mixed Weed, and 45% Ecklonia. These percentages can not be taken as representative of area proportions because sampling frequency

decreased with depth (because it was more difficult to haul the camera up and down and depth), and because extremely shallow areas were under sampled as previously discussed. The regional differences in Mixed Weed (25% vs 14%) are likely due the increased wave exposure and correspondingly decreased safe sampling access to the shallows in the Eastern region (i.e., it wasn't safe to take the boat as shallow). However, the differences in RTB (8% vs 41%) and Ecklonia (66% vs 45%) reflect the same general pattern seen in Table 5. Ecklonia covers more reef and RTB covers less within the reserve, where fishing is prohibited, compared to the Eastern region where fishing is allowed.

It is likely, based on previous work (Shears and Babcock, 2003), that the urchin barrens component of the RTB category makes up the bulk of the observed difference in RTB cover inside and outside of the reserve, but due to the spectral similarity of rock, barrens, and turfing algae as well as their tendency to be interspersed, it is not currently possible to distinguish them using optical remote sensing methods. However, a careful reexamination of the ground truth drop camera ground truth data could offer more specificity. For example, within the reserve areas of urchin barrens were only common near to the reserve boundary (Centre Is and western side of Mahurangi Is) where predator numbers are likely to be reduced by fishing on the boundary. Additionally, an *Ostreopsis* siamensis bloom (Shears and Ross, 2009) was visible in many of the drop camera photos, and the Benthic Photo Survey software could be used to assess the depths and habitats effected and estimate the extent of the bloom. These topics are beyond the scope of this study, but they serve as examples of the flexibility of the Benthic Photo Survey ground truth method and as possible subjects of future research.

This study has demonstrated the potential of optical remote sensing methods in general, and of MORE-MAPS in particular, as a tool for mapping broad-scale subtidal habitats. Using fast and cost effective field methods, an extensive and flexible ground truth data set was created by 2 people over 3 days of boat work with no diving required. Free and open source software was employed to scale these field data up into a spatially explicit map of habitat distribution accompanied by quantitative measures of mapping accuracy. The overall accuracy of the resulting map differed among the three regions examined being lowest (42%) in the more turbid Cooks-Centre Is area, but reasonable (75% and 78%) in the other two areas with better water clarity. The map also allowed assessment of differences in the distribution of habitats inside and outside the Whanganui-A-Hei Marine Reserve, which revealed differences consistent with expectations based on the effects of fishing on subtidal reefs in the region. The habitat map and ground-truth data collected provide a valuable baseline to detect large-scale changes in habitat distribution along this coast in the future. Furthermore, the methods illustrated here could be applied as an efficient and cost effective tool for monitoring and mapping broad-scale reef habitats elsewhere in New Zealand.

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