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Subject: Submission on south-eastern South Island marine protected areas
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Please find attached a submission on the proposed south-eastern South Island marine protected areas made jointly by:

- The NZ Rock Lobster Industry Council (NZRLIC);
- The Pāua Industry Council (PIC); and
- Fisheries Inshore New Zealand (FINZ).

NZRLIC, PIC and FINZ are national representative bodies for the relevant sectors of the inshore fishing industry.

Best regards
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Submission on the proposed south-east marine protected areas

3 August 2020



NZ ROCK LOBSTER
INDUSTRY COUNCIL



PĀUA INDUSTRY
COUNCIL

FISHERIES
INSHORE NEW ZEALAND

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1. Introduction

1. This submission is made jointly by:
 - The NZ Rock Lobster Industry Council (NZRLIC);
 - The Pāua Industry Council (PIC); and
 - Fisheries Inshore New Zealand (FINZ).

2. NZRLIC, PIC and FINZ are national representative bodies for the relevant sectors of the inshore fishing industry. This submission is made on behalf of quota owners, fishers and affiliated seafood industry personnel in inshore shellfish and finfish fisheries. Collectively – and together with regional organisations the Otago Rock Lobster Industry Association Incorporated (ORLIA), PauaMAC 5 Incorporated and Southern Inshore Fisheries Management Company (SIFMC) – we directly represent all of the major inshore fisheries in the south-east of the South Island. The involvement of national representative industry organisations reflects the significance of the Forum’s proposals to the entire inshore fishing industry. For the purposes of this submission, the submitters are referred to as *‘the fishing industry’*.

2. Summary of industry position

3. The fishing industry supports the effective protection of marine biodiversity. However, we do not support the presumption that marine reserves or other forms of marine protected areas (MPAs) are the best way of achieving New Zealand’s marine biodiversity protection objectives. We consider that effective biodiversity protection requires careful definition of objectives and identification of threats, followed by selection of the least-cost tool for managing the identified threats and achieving the objectives. If fishing is posing a risk to marine biodiversity, measures implemented under the Fisheries Act 1996 or directly by fishing sector groups will usually be the most appropriate management response.

4. In the fishing industry’s experience, the process to establish MPAs in the south east region of the South Island (the SEMPA process) has been divisive and flawed to the extent that Ministers should not rely on it as a basis for making decisions about marine protection. The SEMPA proposals will have significant negative impacts on sustainable fisheries management, the fishing industry, and the wellbeing of local communities. These impacts will exacerbate the harsh economic circumstances of New Zealand’s COVID-19 recovery for individuals, businesses, and the south-east region. The benefits of the proposed MPAs are illusory and overstated and there are lesser-cost options available for achieving biodiversity protection objectives in the region. The proposed implementation mechanisms are not fit for purpose. It is widely accepted that New Zealand’s Marine Reserves Act 1971 (MRA) is well past its ‘use by’ date and was never intended to protect areas for biodiversity protection purposes. The Type 2 MPA proposals go far beyond measures that can legitimately be implemented to manage adverse effects of fishing under the Fisheries Act 1996.

5. The fishing industry therefore opposes the SEMPA Network 1 proposals in their entirety and objects to each individual Type 1 and Type 2 MPA and the kelp protection area. The primary grounds for our opposition to individual proposed MPAs can be summarised as follows.

Proposed MPA	Reasons for objection
Marine reserve B1 Waitaki	<ul style="list-style-type: none"> • MRA s.5(6)(e) contrary to the public interest
Marine reserve D1 Te Umu Koau	<ul style="list-style-type: none"> • MRA s.5(6)(c) undue interference with commercial fishing • MRA s.5(6)(d) undue interference with and adverse effects on recreational fishing • MRA s.5(6)(e) contrary to the public interest
Marine reserve H1 Papanui	<ul style="list-style-type: none"> • MRA s.5(6)(c) undue interference with commercial fishing • MRA s.5(6)(d) undue interference with and adverse effects on recreational fishing • MRA s.5(6)(e) contrary to the public interest
Marine reserve I1 Ōrau	<ul style="list-style-type: none"> • MRA s.5(6)(c) undue interference with commercial fishing • MRA s.5(6)(d) undue interference with and adverse effects on recreational fishing • MRA s.5(6)(e) contrary to the public interest
Marine reserve K1 Okaihae	<ul style="list-style-type: none"> • MRA s.5(6)(c) undue interference with commercial fishing • MRA s.5(6)(d) undue interference with and adverse effects on recreational fishing • MRA s.5(6)(e) contrary to the public interest
Marine reserve M1 Hākinikini	<ul style="list-style-type: none"> • MRA s.5(6)(d) undue interference with and adverse effects on recreational fishing • MRA s.5(6)(e) contrary to the public interest
Type 2 MPA A1 Tuhawaiki Type 2 MPA C1 Moko-tere-a-torehu Type 2 MPA E1 Kaimata Type 2 MPA L1 Whakatorea Type 2 MPA Q1 Tahakopa	<ul style="list-style-type: none"> • Inconsistent with purpose of Fisheries Act • No evidence of adverse effects of fishing • Unjustified restriction of utilisation of fisheries resources
Kelp Protection Area T1 Arai Te Uru	<ul style="list-style-type: none"> • Inconsistent with purpose of Fisheries Act • No evidence of adverse effects of fishing • Unjustified restriction of utilisation of fisheries resources

3. Marine reserve proposals

3.1 Objections to all proposed marine reserves: contrary to the public interest

6. An objection to a marine reserve must be upheld if the marine reserve is contrary to the public interest (MRA s.5(6)(e)). The fishing industry objects to each of the proposed marine reserves on the grounds that the marine reserves are individually and collectively contrary to the public interest because:
- a) The MRA is not fit for purpose;
 - b) The marine reserves are not justified in relation to the purpose of the MRA;
 - c) The marine reserves jeopardise sustainable fisheries management;
 - d) The costs of the marine reserves are significant and under-estimated;
 - e) The benefits are illusory and overstated;
 - f) The marine reserves will not achieve their intended purpose because numerous threats to marine biodiversity remain unmanaged;
 - g) The marine reserves are not necessary in order for New Zealand to meet its international obligations;
 - h) The costs imposed by the marine reserves are unnecessary and undue when lower-cost alternatives are available;
 - i) The marine reserves are inconsistent with the Minister of Fisheries' obligations under the Fisheries Settlement;
 - j) Each of the above concerns is exacerbated by a failure to consider cumulative impacts; and
 - k) The proposals are the outcome of a flawed and divisive process.
7. Each of these eleven grounds for objection is outlined in more detail below. First, however, we note that the issue of 'public interest' is not directly addressed in the application. The public interest is not (as implied in the application and consultation document) simply a bundling of the various interests of stakeholder groups.
8. Whether or not something is contrary to the public interest is a judgement call that is likely to change with time, as guided by societal values. The public interest in relation to marine reserves today is very different from the public interest when the MRA was first enacted – for example, Treaty considerations are a more widely recognised aspect of the public interest now than they were in 1971, and our understanding of the importance of biodiversity protection and sustainable fisheries management has evolved significantly.

9. The Office of the Ombudsman recently provided useful guidance about the ‘public interest’ test in the Official Information Act, some of which is relevant to the MRA. The Ombudsman advises:¹

*The public interest is broadly equivalent to the concept of **the public good**. It can cover a wide range of values and principles relating to the public good, or **what is in the best interests of society**...*

*Public interest **does not mean the entire population has to be affected, or even a significant section of it** (although the fact that a large number of people are affected may increase the public interest...). **The private interests of individuals can also reflect wider public interests.***

10. While – as noted in the application – submissions in support may be *relevant* to the public interest, it does not follow that a proposed marine reserve that has many supporters is *in the public interest*.² Furthermore, if a proposed marine reserve is considered to be contrary to the public interest, an objection must be upheld under MRA s.5(6)(e), so submissions in opposition are likely to be more relevant to a decision about whether or not to declare a marine reserve – a fact not mentioned in the application.
11. For the avoidance of doubt, the fishing industry agrees that it is in the public interest to protect marine biodiversity from identified threats, but we submit that the SEMPA marine reserve proposals collectively and individually are not in the public interest for the reasons outlined below.

3.1.1 Marine Reserves Act is not fit for purpose

12. The fishing industry considers that it is not in the public interest to seek to protect marine biodiversity using outdated legislation that is contentious, not fit for purpose (i.e., has a purpose unrelated to biodiversity protection), and does not directly recognise or give effect to the Treaty relationship. Agencies and Ministers are well aware of the failings of the MRA as it has been under review since 2000. The ‘unfitness’ of the Act is also apparent in the application, as the applicant – the Department of Conservation (DOC) – attempts to retrospectively justify the proposed marine reserves using language and concepts that are unrelated to the purposes for which the sites were identified by the Forum under the MPA Policy.
13. It is particularly contrary to the public interest to continue to use unfit legislation when alternative, more effective approaches for protecting marine biodiversity are currently available – for example, managing identified threats to marine biodiversity using fit-for-purpose legislation such as the Fisheries Act and Resource Management Act 1991 (RMA).

¹ Office of the Ombudsman (2019) Public interest. A guide to the public interest test in section 9(1) of the OIA and section 7(1) of the LGOIMA 22 Apr 2019. As for all the cited extracts of documents referred to in this submission, the emphasis is ours.

² Proposed southeast marine protected areas. Appendices to consultation document, page 57.

3.1.2 Proposals not justified in relation to purpose of Marine Reserves Act

14. It is not in the public interest to establish marine reserves that have not been, and cannot be, justified in relation to the purpose of the MRA. The purpose of the MRA is to [preserve] as *marine reserves for the scientific study of marine life, areas of New Zealand that contain underwater scenery, natural features, or marine life, of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest.*³

Scientific study of marine life

15. The application does not seek to justify the individual sites in relation to the statutory purpose of preserving areas *for the scientific study of marine life*, nor in relation to the more onerous requirement that declaring the marine reserve will be *in the best interests of scientific study.*⁴ The application does not identify particular research projects that would be undertaken in each reserve, nor consider practical matters such as the relative inaccessibility of many of the reserve sites for scientific study purposes due to adjacent private land ownership, limited road access, and prevailing harsh sea conditions. The absence of site-specific justification is not surprising as the sites were selected for reasons unrelated to scientific study.
16. Under the MRA, each marine reserve must be assessed on its merits, including its value in relation to the scientific study of marine life, and not as part of a network of representative areas. However, the only references to scientific study in the application are generic justifications for all six proposed sites.
17. The application states that *representation of the full range of habitats and ecosystems in marine reserves has high scientific value, contributing to the scientific purpose of the Act.* This is simply an assertion – the application contains no information to explain why it is necessary or in the best interests of scientific study to preserve representative habitats generally, or the proposed sites specifically.
18. While the application identifies a wide variety of scientific studies that could be undertaken in the proposed reserves, all of the suggested generic research projects could be undertaken irrespective of whether a marine reserve is established at a specific site. In particular, the suggested use of marine reserves as reference areas (i.e., without environmental pressures) is not valid as the sites are subject to a wide range of threats that will not be controlled by establishing a marine reserve (see [section 3.1.6](#) of this submission). Furthermore, even if all threats were able to be controlled, an MPA can only provide an effective ‘control’ site if it is large enough to capture the movement of all resident species. None of the proposed MPAs have been designed with this intent.

³ Marine Reserves Act, section 3.

⁴ Marine Reserves Act, section 5(9).

National interest

19. The 'national interest' justification in the application is also generic and formulaic rather than site-specific, and is not directly related to the 'scientific study' aspect of the Act's purpose.⁵ The assumption throughout the application is that the proposed marine reserves are in the national interest because they contribute to New Zealand's international obligations under the Convention on Biological Diversity (CBD) and implement government policy – i.e., the New Zealand Biodiversity Strategy (NZBS) and MPA Policy. While the CBD, NZBS and MPA Policy are valid 'national interest' considerations, the CBD and domestic policies enable a range of tools to be used to protect marine biodiversity. None of these obligations support a 'national interest' argument that assumes that a marine reserve is the only, or the best, tool to achieve New Zealand's marine biodiversity objectives (see [sections 3.1.5](#) and [3.1.7](#)).⁶
20. Alternative management responses are available that reflect the national interest in marine biodiversity protection more effectively – for example, identifying specific threats to marine biodiversity and implementing the most effective, least cost way of managing those threats.

3.1.3 Proposals jeopardise sustainable fisheries management

21. Under the Fisheries Act, New Zealand's fisheries must be managed to provide for utilisation while ensuring sustainability. It is not in the public interest to establish marine reserves which threaten the sustainability of fisheries.
22. It is now widely understood that displacement of fishing effort from inside marine reserves has a negative effect on the abundance of surrounding fish populations.⁷ Research shows that the negative impacts of displaced fishing effort are *more severe* in countries like New Zealand where fisheries are regulated by a Total Allowable Catch (TAC). Unless the TAC is reduced when a marine reserve is established, the same amount of catch will continue to be taken, effectively guaranteeing that fishing will become more intense outside the reserve.⁸ Therefore, in TAC-regulated fisheries such as rock lobster, pāua, eels and QMS finfish stocks, the implementation of the proposed marine reserves will:
 - Increase the risk of local depletion. For example, recreational pāua catch displaced from marine reserves at sites I1 and K1 will rapidly deplete the few remaining pāua reefs that are accessible to recreational fishers near Dunedin;

⁵ Proposed southeast marine protected areas. Appendices to consultation document, section 3.6.3.

⁶ We are aware that the MPA Policy requires that one example of each habitat type should be protected in a marine reserve, but we consider that this aspect of the MPA Policy is political in origin, not able to be justified on scientific grounds, and contradicts the principled approach that is promoted in much of the remainder of the Policy.

⁷ For example, see the review of relevant research in Hilborn, R., K. Stokes, J. Maguire, T. Smith, L. Botsford, M. Mangel, J. Orensanz, A. Parma, J. Rice, J. Bell, K. Cochrane, S. Garcia, S. Hall, G. Kirkwood, K. Sainsbury, G. Stefansson and C. Walters (2004). When can marine reserves improve fisheries management? *Ocean and Coastal Management* 47 (2004) 197-205.

⁸ Ovando, D. (2018). *Of Fish and Men: Using Human Behavior to Improve Marine Resource Management*. University of California Santa Barbara, Santa Barbara California.

- Slow down stock rebuilding rates. This effect has been observed in international studies⁹ and has been directly experienced in the pāua fishery PAU5D in response to displacement of commercial harvest from previously established mātaimai reserves;
 - Preclude anticipated future increases to TACs and Total Allowable Commercial Catches (TACCs). For example, modelling of the rock lobster fishery CRA7 shows the current stock in very good shape, with biomass well above Bmsy and fishing intensity well below the optimum. The displaced catch from the marine reserves will not only deplete the CRA7 biomass and reduce catch per unit effort (CPUE) – it will also require the industry to forego a significant TACC increase that otherwise would have arisen;¹⁰
 - Exacerbate spatial conflict between fishing sectors. Customary, recreational and commercial fishers will all be forced to operate in a reduced area, which will result in increased competition, particularly for species that are highly valued by all sectors and have a strong spatial dependence such as rock lobster, pāua, eels and blue cod; and
 - Increase the risk of a cascade of future controls on fishing. For example, hapū may choose to protect areas of importance for customary fishing from the impacts of displaced commercial and recreational catch by establishing new mātaimai reserves or implementing further controls on fishing within taiāpure or mātaimai reserves in the region. In turn, these measures will result in further displacement of fishing effort and additional threats to fisheries sustainability.
23. The negative effects on surrounding fisheries that are identified above will not be mitigated by ‘spillover’ benefits to fisheries from the proposed marine reserves. Studies in New Zealand and elsewhere show that while spillover effects outside a marine reserve may be detectable, they are confounded by environmental and management variables and often dissipate at distances greater than 1km from a reserve border.¹¹
24. More significantly, the detection of spillover near a reserve boundary does not equate to net increases in fish abundance at a regional scale. The theoretical literature consistently shows that marine reserves can benefit abundance outside reserves only when fishing pressure is very high and stocks are seriously over-exploited.¹² The same result is seen in empirical studies – for example, monitoring of southern Californian reserves showed that the estimated trend of abundance for targeted species increased within the reserves but *decreased* outside

⁹ Hilborn, R., F. Micheli, and G. A. De Leo. (2006). Integrating marine protected areas with catch regulation. *Canadian Journal of Fisheries and Aquatic Sciences* 63:642-649.

¹⁰ Breen Consulting. CRA7 surplus production modelling. 13 May 2020.

¹¹ Ovando, D. (2018). Full reference above.

¹² Hilborn et al (2004) and Ovando, D. (2018), full references above; Hilborn, R. (2017). Are MPAs effective? *ICES Journal of Marine Science*, doi:10.1093/icesjms/fsx068; Rassweiler, A., C. Costello, R. Hilborn, and D. A. Siegel. (2014). Integrating scientific guidance into marine spatial planning. *Proceedings of the Royal Society B-Biological Sciences* 281.

the reserves over a five year period.¹³ The fisheries in the SEMPA region are not over-exploited, and the proposed marine reserves have not been explicitly designed to reflect the adult and larval movement of the resident fish species. It is therefore not credible to suggest that the SEMPA marine reserves will benefit the fish populations in the south-east of the South Island.

25. In summary, if marine reserves are established without ‘rebalancing’ the affected fisheries,¹⁴ the marine reserves will jeopardise and be incompatible with sustainable fisheries management. Furthermore, threats to sustainability such as those noted above are inconsistent with Minister of Fisheries’ responsibilities under Fisheries Act and are therefore matters that the Minister should consider when exercising concurrence under the MRA.

3.1.4 Costs are significant and underestimated

26. It is not in the public interest to implement marine reserves that impose significant economic costs on individuals, businesses, local communities, the south-east region, and New Zealand as a whole, particularly when:

- Entire categories of cost have been omitted and are therefore unknown and not factored into the analysis;
- The economic costs are real and largely measurable while any benefits are purely speculative (see [section 3.1.5](#));
- The costs fall disproportionately on only a few sectors of society (primarily customary, commercial and recreational fishers in the Otago region), whereas the assumed benefits accrue primarily to other parties;
- Available mechanisms to mitigate some of the identified costs (i.e., by rebalancing affected fisheries using TAC reductions and compensating affected rights owners) were ignored by the Forum and are absent from the SEMPA proposals;
- The economies of Otago and Southland were severely impacted by COVID-19 restrictions and these two regions are predicted to have the slowest economic recovery in New Zealand ([section 6.2.5](#)); and
- Lower cost alternatives to achieve the Government’s biodiversity protection objectives are available ([section 3.1.8](#)).

27. The direct costs of the SEMPA network on the fishing industry are significant and have been understated in the application. For example:

¹³ Hamilton, S. L., J. E. Caselle, D. P. Malone, and M. H. Carr. (2010). Incorporating biogeography into evaluations of the Channel Islands marine reserve network. *Proceedings of the National Academy of Sciences of the United States of America* 107:18272-18277.

¹⁴ Rebalancing includes reducing the TAC, TACC and allowances, compensating affected commercial fishing rights owners, reducing recreational daily bag limits, and giving effect to customary fishing aspirations.

- The costs of the proposals for the rock lobster industry are considerably underestimated.¹⁵ The applicant estimates only a s9(2)(b)(ii) loss of export value, and does not identify or quantify any of the other costs that would be borne by the rock lobster industry, as detailed below and in the ORLIA submission;
 - The estimated costs for pāua are omitted entirely from the individual site descriptions and analysis, and appear only as percentage figures in a summary table, meaning that submitters are not provided with any indication of the importance of individual sites for the PAU 5D fishery;¹⁶
 - The estimated costs for the kina fishery are not mentioned at all in the application. The estimates in the consultation document grossly understate the impact on the kina industry as they are “based on the % of “fishable ground” in the QMA”¹⁷ and take no account of the presence or absence of healthy kina populations or whether the water conditions allow safe and reliable harvesting. The submission of the Kina Industry Council states that the entire SUR 3 kina fishery would be lost if areas D1 and K1 become marine reserves, because the poor economics of harvesting alternative lower-quality areas would render the fishery valueless;
 - The applicant estimates that MPA H1 Papanui would displace s9(2)(b) of finfish catch annually, whereas the analysis in the SIFMC submission estimates the displaced catch is worth over s9(2)(b) per annum; and
 - For all species, the gross level of economic analysis in the application and consultation document disguises the actual cost that is imposed as a result of disruption to the existing patterns of fishing activity (e.g., disruption of patterns of spatial distribution of CRA7 fishers in order to maintain a stable conflict-free fishery, disruption of fishing patterns driven by inter-annual variability of catch in sub-areas of the PAU 5D fishery; disruption of rotational harvesting of eels in estuaries around the region).
28. Entire categories of cost have been omitted from the analysis presented in the application and consultation document, including:
- Reductions in quota value, including the value of Settlement Quota – not only in the SEMPA region, but nationally as a result of policy uncertainty if marine reserves are established in a manner that is contrary to quota owners’ expectations of the statutory regime;
 - Significant economic impacts on individual fishers, their families and businesses caused by the proposed marine reserves (separately and cumulatively), including additional costs of fishing and reductions in profitability;

¹⁵ Proposed southeast marine protected areas. Appendices to consultation document, page 73.

¹⁶ Proposed southeast marine protected areas. Appendices to consultation document, page 73.

¹⁷ Joint agency advice on the South-East Marine Protection Forum recommendations. 19 October 2018. Released under the OIA.

- Flow-on economic and social costs in affected fishing ports including Timaru, Moeraki, Port Chalmers, Karitane and Taieri Mouth, including value-chain costs for businesses supplying affected commercial and recreational fishers (e.g., fuel, bait, boat supplies), and costs for seafood processors and marketers;
 - Costs associated with the need to reduce TACCs and recreational daily bag limits as a direct result of displacement of recreational and commercial fishing effort from the marine reserves;
 - The cost of foregone future utilisation opportunities that will arise as a result of slowing the rate of rebuild of PAU5 and precluding the legitimate expected harvest of rebuilt abundance in CRA7;
 - Costs associated with the loss of development rights for developing fisheries in the south-east region – for example, bladder kelp and kina. These fisheries are currently not fully utilised, but the loss of future utilisation opportunities has not been assessed or considered;
 - Costs associated with impacts on recreational fishing – the absence of reliable information on existing level of recreational fishing means impacts on recreational fishing are downplayed and have not been assessed at all; and
 - Cumulative costs of the proposals (as discussed in [section 3.1.10](#))
29. We note that the numerous references in the consultation document to the Forum’s attempts to minimise costs on existing users (e.g., by excluding certain areas from the proposed marine reserves or not progressing some of the MPAs initially put forward by the Forum) are irrelevant to the current assessment. The statutory assessment under the MRA relates only to the areas that have been proposed as marine reserves, not to sites or areas that are not included in the marine reserve proposals.

3.1.5 Benefits are illusory and overstated

30. It is not in the public interest to implement marine reserves for which the benefits are illusory and overstated. Each of the intended benefits of the marine reserves can be achieved (often more effectively) without establishing a marine reserve.
31. The application and consultation document provide no site-specific analysis of the benefits of the individual proposed marine reserves. Although the features of individual sites are described, the depiction of a site using MRA language – i.e., terms such as ‘underwater scenery’, ‘natural features’, ‘typical’, ‘beautiful’, or ‘unique’ – is of no more relevance than a pretty photograph: it does not explain why it would be beneficial to declare the site a marine reserve. After all, the described attributes of the sites are present now without the sites being marine reserves.
32. In place of a site-specific analysis of benefits, the consultation document provides a formulaic and generic statement of benefits, with the following identical conclusion repeated for each site: *By protecting a range of representative habitats and unique features, this site would*

contribute to New Zealand's international biodiversity commitments, protect significant biodiversity, and provide an important representative area for research and scientific study.

33. Each of these assertions is overstated. The proposed marine reserves:
- Cannot *protect a range of representative habitats and unique features or protect significant biodiversity* because the majority of threats to marine environments are not effectively managed in a marine reserve (see [section 3.1.6](#)) and any adverse effects of fishing – typically the only activity that is prohibited in a marine reserve – on the habitats or biodiversity of the site can be managed more effectively using fisheries legislation;
 - Are not necessary in order to meet New Zealand's international biodiversity commitments (see [section 3.1.7](#)); and
 - Are not necessary for the purposes of research or scientific study (see [section 3.1.2](#)).
34. In the absence of any site-specific benefits, the benefit analysis in the consultation document is highly reliant on the claimed benefits of the proposed *network* of MPAs.¹⁸ The analysis of network benefits in the consultation document contains numerous incorrect and unjustified statements, as follows.

Biodiversity conservation

- a) The *status quo* is falsely described as '*no protection provided*'. This is patently incorrect: there are currently numerous management measures that serve to protect marine biodiversity in the south east region of the South Island, including regulations and other management settings under the Fisheries Act, mātaihai reserves, marine mammal sanctuaries, and non-regulatory measures (see [section 3.1.10](#)). These measures, together with any future, targeted measures to manage identified threats, can ensure that marine biodiversity in the south east region is '*maintained and allowed to recover*'.
- b) Establishment of the MPA network is not necessary in order to meet New Zealand's international biodiversity commitments (see [section 3.1.7](#)).
- c) Neither is it necessary to meet the objectives of the NZBS or the MPA Policy:
 - The NZBS 2000 promotes the use of a range of tools to achieve biodiversity objectives and is currently in the process of being revised. The revised NZBS focuses on effective protection of biodiversity, not on the use of particular tools such as marine reserves. The proposed MPA network is therefore not necessary in order to meet the objectives of the current or revised NZBS; and
 - Aspects of the guidelines for implementing the MPA Policy have been described by the Office of the Auditor General as *not supporting the achievement of New*

¹⁸ Proposed southeast marine protected areas. Consultation document section 3.2, page 17.

Zealand's marine biodiversity objectives.¹⁹ The proposed MPA network therefore cannot be justified in relation to the MPA Policy, as the MPA Policy guidance itself does not support the achievement of New Zealand's marine biodiversity protection objectives.

- d) As far as we are aware, no-one is proposing that *ad hoc* MPAs should be established in the south east region, so the comparison between a network of MPAs and *ad hoc* MPAs is irrelevant. In any case:
- Network attributes such as spatial links and connectivity are concepts adopted from terrestrial protected area network design and are inappropriate in the marine environment where ecosystems are naturally connected through the aquatic medium; and
 - The claim that a network of MPAs can avoid risks to individual sites from localised disasters or climate change impacts lacks justification and defies logic – while a network of MPAs may help ensure that a damaged site is replicated elsewhere, a network cannot avoid localised risks to individual sites as claimed.

Reference areas for scientific study

- e) An MPA network is not necessary for the purposes of providing reference areas for scientific study or understanding the impacts of climate change (see [section 3.1.2](#)).

Social, cultural and economic impacts

- f) '*Well being and public enjoyment*' benefits such as tourism and educational activities can occur irrespective of whether an area is an MPA. However, these benefits rely on MPAs being accessible to the public. Public access to nearly all of the proposed sites is poor due to limited and remote road access and prevailing harsh weather and sea conditions.
- g) The proposed MPAs do not provide *potential fisheries benefits* – this statement is incorrect and not justified by evidence. MPAs are not fisheries management tools and will jeopardise sustainable fisheries management in the region (see [section 3.1.3](#)).

35. Irrespective of the above disputed benefits of the MPA network, under the MRA each proposed marine reserve must be justified on the basis of its individual merits in relation to criteria in the Act, and not in relation to purported attributes of an MPA network or the requirements of the MPA Policy. The applicant has not provided any such justification of public benefit.

3.1.6 Non-fishing threats are not managed in marine reserves

36. It is not in the public interest to impose costly marine reserves when the majority of threats to the values of the sites cannot be managed by establishing a marine reserve. The existence of pervasive unmanaged threats – as detailed in [section 3.2](#) of this submission for the individual

¹⁹ See [section 6.1.4](#).

marine sites – means that the sites cannot be preserved as far as possible in their natural state, as required under MRA s.3(2)(a).

37. A comprehensive assessment of anthropogenic threats to New Zealand’s marine habitats evaluated 65 threats to 62 marine habitat types and concluded that:²⁰
- The two top threats, 83% of the top six threats, and over half of the twenty-six top threats fully, or in part, stemmed from human activities external to the marine environment itself;
 - By a considerable margin, the highest scoring threat was ocean acidification, and the second highest overall scoring threat was rising sea temperatures resulting from global climate change. Seven other threats deriving from global climate change all ranked 19= or higher, indicating the importance of international threats to New Zealand’s marine ecosystems;
 - Threats deriving from human activities in catchments that discharge into the coastal marine environment were among the highest scoring threats. Increased sedimentation resulting from changes in land-use was the third equal highest ranked threat over all habitats and was the highest ranked threat for some coastal habitat types, including kelp forest; and
 - Seven of the threats to marine habitats ranking 19= or higher were directly related to human activities in the marine environment including fishing, invasive species, coastal engineering and aquaculture. Bottom trawling was the third equal highest ranking threat.
38. Of this wide range of potential threats to New Zealand’s marine habitats, the only potential threat to marine biodiversity that is typically prohibited by declaring a marine reserve is legal fishing. To the extent that illegal fishing activity occurs in an area, it is not prevented by the declaration of a marine reserve.
39. No other significant threats to biodiversity are prohibited by establishing a marine reserve.²¹ In particular, the highest ranking threats, ocean acidification and climate change, cannot be controlled by establishing a marine reserve.²² Neither can the large number of highly ranked

²⁰ MacDiarmid, A, A McKenzie, J Sturman, J Beaumont, S Mikaloff-Fletcher and J Dunne (2012). Assessment of anthropogenic threats to New Zealand marine habitats. New Zealand Aquatic Environment and Biodiversity Report No 93.

²¹ The MRA does not directly prohibit mining and petroleum exploration. Access restrictions to all marine reserves apply under Schedule 4 of the Crown Minerals Act 1991, but exceptions can be made under s.61(1A) of that Act.

²² We are aware that marine reserve advocates argue that MPAs are more resilient to climate change. No evidence has been provided to support this proposition. Furthermore, even if an area inside a marine reserve may be more resilient to climate change, utilisation pressures outside the marine reserve will increase when a marine reserve is established. While the net result is difficult to predict, it cannot be assumed that the overall resilience of the marine environment to climate change will increase. Marine reserves are therefore unlikely

threats deriving from terrestrial activities. A review of land based impacts on coastal fisheries and marine biodiversity throughout New Zealand (including the SEMPA region) concluded that the most important land-based stressor in marine environments is sedimentation, including suspended sediment, deposition effects, and associated decreases in water clarity. Riverine sediments can have adverse effects on marine ecosystems by causing direct physiological and physical effects on marine organisms, as well as behavioural responses, and sublethal and lethal effects. Heavy nutrient loading from river sediment plumes reduces oxygen availability and adversely affects benthic communities.²³ None of these impacts can be managed by declaring an area to be a marine reserve.

40. If the aim is to prohibit fishing (since this is all that a marine reserve can realistically achieve), then New Zealand's legislative framework has a far more effective, purpose-built statute that is already used for managing and, if necessary, prohibiting fishing – i.e., the Fisheries Act.

3.1.7 Proposals are not necessary for New Zealand's international obligations

41. It is not in the public interest to implement ineffective and costly marine reserves that are not necessary in order to meet New Zealand's international obligations.
42. The applicant seeks to justify the proposed marine reserves on the basis that they are necessary in order to contribute New Zealand's international obligations under the CBD. The application and consultation document contain numerous references to the CBD which are partial and misleading in relation to New Zealand's actual obligations under the Convention – for example:

*New Zealand signed the United Nations Convention on Biological Diversity in 1993, agreeing to the goal of establishing an effectively and equitably managed, ecologically representative, and well connected system of MPAs and other conservation-related measures covering at least 10% of its coastal and marine areas by 2020. New post-2020 international biodiversity targets are to be agreed in late 2020, and there is a push for more ambitious targets. These new targets will establish a yardstick by which New Zealand will be measured in the coming decade and beyond.*²⁴

43. The fishing industry emphasises that signing the CBD did not commit New Zealand to establishing MPAs over 10% of our coastal areas. Instead, the CBD – which does not mention marine biodiversity specifically – sets out a series of pragmatic, flexible, high-level obligations for parties with respect to biodiversity conservation. The Convention promotes the use of a variety of tools – including area-based and activity-based measures – to manage threats to biodiversity. Only one of the CBD's 42 Articles mentions protected areas, and nine of the

to reliably enhance the resilience of the marine environment at a regional scale, but effective broad-scale management of identified threats can reliably help achieve such an outcome.

²³ Morrison, M. A., Lowe, M. L., Parsons, D. M., Usmar, N. R., & McLeod, I. M. (2009). A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report*, 37, 100.

²⁴ Proposed southeast marine protected areas. Consultation document, page 7.

thirteen measures in that Article apply to management of biodiversity *outside* protected areas.²⁵ In relation to protected areas, the CBD provides parties with a choice of establishing either ‘a system of protected areas’ or ‘other areas’ where special measures are applied to conserve biodiversity.

44. Numerical targets for marine biodiversity protection are set out in the Aichi targets, which are part of the CBD Strategic Plan adopted in 2010. The numerical target for marine conservation – 10% of coastal and marine areas by 2020²⁶ – is one of 20 targets alongside others focusing on effective management of particular threats to biodiversity. The CBD Strategic Plan makes it clear that the targets are intended as ‘*a flexible framework for the establishment of national targets*’ and parties may set their own targets. Reflecting the Convention text, the Strategic Plan recognises that the 10% target can be met through ‘systems of protected areas’ and other effective *area-based conservation measures*.
45. The south east region of the South Island already has numerous area-based conservation measures that have been in place for many years, as well as broader-scale measures under the Fisheries Act to manage any risks of adverse effects of fishing on protected species and the aquatic environment (see [section 3.1.8](#)). These measures *already* contribute to New Zealand’s CBD obligations. If additional threats to marine biodiversity are identified or if particular areas require additional protection from threats, then this objective can readily be achieved without resorting to high-cost marine reserves, while still enabling New Zealand to contribute further to our obligations under the CBD.
46. We do not know what the post-2020 biodiversity targets will be, but we do know that they will be implemented within the pragmatic, flexible framework of the CBD itself, which enables countries to set their own targets in a manner that suits their circumstances. As noted above, the revised NZBS has moved away from objectives based on arbitrary percentages of the marine environment being set aside using particular tools, and focuses instead on the effective protection and management of biodiversity. The fishing industry supports this progressive move, and has recommended that New Zealand should advocate a threat-based approach in negotiations at the CBD. From what we have seen to date on the post-2020 CBD targets, it appears that this is precisely the direction that the parties to the CBD are taking. ‘Ambitious’ and inflexible future CBD targets for marine reserves are therefore not something that can or should be held over New Zealand like a stick, as is threatened by DOC and FNZ in the SEMPA consultation document.
47. Furthermore, the CBD is not New Zealand’s only international obligation that is relevant to the SEMPA proposals. The United Nations Convention on the Law of the Sea 1982, the United Nations Fish Stocks Agreement, and numerous regional fisheries management conventions and arrangements are equally relevant to New Zealand’s national interest, and obligations under these agreements must be weighed by both Ministers in relation to the proposed

²⁵ Article 8, In-situ conservation.

²⁶ Aichi target 11.

MPAs. We note that the Minister of Fisheries has a specific statutory obligation to act in a manner consistent with New Zealand's international obligations relating to *fishing*, as discussed in [section 4.1.5](#).²⁷

3.1.8 Proposals impose unnecessary costs when lower cost alternatives are available

48. It is not in the public interest to impose unnecessary and undue costs on New Zealanders when lower cost, more effective alternative management responses are available.

Best regulatory practice

49. The Treasury document *Government Expectations for Good Regulatory Practice* (2017) sets out guidance for the design of regulatory systems, including the requirement that regulation seeks to achieve its stated objectives '*in a least cost way, and with the least adverse impact on market competition, property rights, and individual autonomy and responsibility.*'²⁸
50. The proposed marine reserves are inconsistent with this requirement. The stated objectives of the marine reserves – whether these are defined in terms of protecting marine biodiversity or providing for scientific study – can quite clearly be met in ways that have less cost and considerably fewer adverse impacts on property rights.

The cost of ignoring existing management measures

51. The failure to take account of existing management measures when assessing the need for marine reserves is just one example of how the proposals impose unnecessarily high costs.²⁹ An extensive network of fisheries restrictions is already in place in the south east region, including sustainable catch limits for all commercially-harvested stocks, widespread prohibitions on Danish seining, trolling and set netting along the entire coast of the region, as well as smaller but nevertheless significant restrictions on commercial shellfish harvesting, trawling and purse seining. The industry has voluntarily closed additional areas, including numerous closures to commercial pāua harvesting and trawl bans in the bryozoan beds off the Otago peninsula and an area south of Timaru. Additional existing measures are detailed in [section 3.1.10](#).
52. Although these regulated and voluntary fisheries restrictions are not classified as MPAs, they are nonetheless *relevant* when assessing whether particular types of marine habitat or ecosystem already have a level of protection or may be threatened by the use of particular fishing methods. However, the application does not demonstrate whether or how these existing protections have been taken into account.

²⁷ Fisheries Act, section 5.

²⁸ Expectations for Good Regulatory Practice (2017) www.treasury.govt.nz/regulation/expectations

²⁹ The MPA Policy requires that existing protection of marine biodiversity in the region should be taken into account: In order to identify areas where MPAs are requiredan inventory will be taken of **existing marine areas that have some level of protection**, and the extent to which those areas cover representative habitats and ecosystems (MPA Policy page 6).

53. There are also seven mātaihai reserves in the south east region – i.e., Tuhawaiki, Waihoa, Moeraki, Waikouaiti, Otākou, Puna-wai-Toriki and Waikawa Harbour. Mātaihai reserves are recognised in NZBS Policy 3.6(a) as one of several tools that can be part of a network of areas to protect marine biodiversity, even though they are established for customary fishing purposes rather than for biodiversity protection. Mātaihai reserves prohibit all commercial fishing and achieve the MPA protection standard *in every substantive respect*. In addition, a large number of estuaries in the region are managed by DOC and closed to commercial eel fishing.³⁰ In spite of this, marine reserves are proposed for three estuarine areas (Stony Creek, Pleasant River, Akatore Estuary), replicating a subset of the habitat types already protected in mātaihai reserves and conservation estate estuaries. This is quite clearly not a least-cost approach to regulation.

Network 2 achieved similar protection outcomes at much lower cost

54. Network 2, which was put forward by the fishing industry during the Forum’s consultation process (with support from many other submitters), sought to apply a least-cost approach to marine biodiversity protection within the constraints of the MPA Policy. The number of habitats that would be protected in Network 2 (taking account of existing management measures) was the same as in the twenty MPAs originally proposed by the Forum, but with far less impact on marine user groups – including lower direct costs and fewer opportunities foregone. The Network 2 proposal demonstrates that it is possible to achieve the stated objectives of the SEMPA Network at considerably less cost than the current proposals.
55. The fishing industry acknowledges that Network 2 is not under consideration. We recommend that the regulatory approach that is most consistent with the *Government Expectations for Good Regulatory Practice* is to identify specific threats to marine biodiversity values in the south east region, and manage those threats using appropriate, fit-for-purpose legislation – in particular, the Fisheries Act for fishing-related threats, and the RMA for most other threats.

Using Fisheries Act tools as an alternative

56. The Fisheries Act is a purpose-built statute under which the activity of fishing can be regulated, including through prohibitions if necessary, in order to provide for the utilisation of fisheries resource while ensuring sustainability. The Act’s definition of ensuring sustainability includes *avoiding, remedying or mitigating any adverse effects of fishing on the aquatic environment*. Management measures that are available to avoid, remedy or mitigate adverse effects of fishing on marine biodiversity, protected species and aquatic ecosystems and habitats include:
- Setting catch limits to ensure the sustainability of harvested stocks, including requirements to have regard to the interdependence of stocks and to rebuild depleted stocks to sustainable levels (FA s.11, s.13);

³⁰ See submission of the South Island Eel Industry Association.

- Implementing fisheries plans for the bespoke management of fish stocks or areas, including managing at a scale that is finer than quota management areas (FA s.11A);
 - Avoiding, remedying, or mitigating any adverse effect of fishing on protected species such as marine mammals or seabirds, including by setting a limit on fishing-related mortality or promulgating regulations – for example, specifying gear or area restrictions (FA s.15); and
 - Giving effect to the Act’s environmental principles, which provide that *associated or dependent species should be maintained above a level that ensures their long-term viability; biological diversity of the aquatic environment should be maintained; and habitat of particular significance for fisheries management should be protected* (FA s.9). The Minister is able to implement a non-limiting list of measures to give effect to these principles, including controls on size, sex or biological state of fish that may be taken, area controls, fishing method controls, and fishing seasons (FA s.11).
57. The Fisheries Act also provides area-based tools to recognise and provide for Māori non-commercial customary fishing rights – i.e., mātaihai reserves, taiāpure, and temporary closures.³¹ Although established for customary fishing purposes, restrictions on fishing within these areas can also provide biodiversity protection benefits. For example, in mātaihai reserves, all commercial fishing is prohibited – which removes commercial fishing pressure from the area and, to the extent that particular fishing methods may have an adverse effect on marine biodiversity, also reduces that impact.
58. If fishing is not adversely affecting marine biodiversity in an area, no protection benefits will be gained by establishing a marine reserve. However, in situations where fishing activity is considered to have an adverse effect on marine biodiversity values, the Fisheries Act tools outlined above provide a more targeted, least-cost way of managing these risks and achieving genuine biodiversity protection benefits, than the establishment of marine reserves.

3.1.9 Inconsistent with the Minister of Fisheries’ obligations under Fisheries Settlement

59. It is not in the public interest to implement measures that are inconsistent with the Crown’s obligations under relevant Treaty settlements.
60. DOC’s administration of the MRA is subject to the obligation in the Conservation Act 1987 s.4 to interpret and administer the Act to give effect to the principles of the Treaty of Waitangi. The Minister of Fisheries has explicit Treaty obligations under Fisheries Act s.5(b), which requires the Minister to act in a manner consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (TOW(FC)S Act). The TOW(FC)S Act requires the Crown to further the agreements expressed in the Deed of Settlement, including a general obligation to reflect the special relationship between the Crown and Māori and provide Māori with the ability to directly engage on any matters of major concern. General principles of the

³¹ Implemented respectively under the customary fishing regulations promulgated under s.186 of the Act, Part 9 of the Act, and sections 186A and 186B.

Treaty of Waitangi require the Government to (among other things) uphold the integrity of existing settlements between the Government and Māori/Iwi including the Fisheries Settlement; and not extinguish, or substantively preclude the exercise of, the quota held under the Settlement without the informed consent of Iwi.

61. The fishing industry is not aware that Iwi have given their consent to the proposed marine reserves. The application notes three issues which, unless they are resolved, will cause Ngāi Tahu to oppose the proposed MPAs – i.e., rebalancing for any impacts the MPA network may have on Ngāi Tahu rights and interests; co-management of the MPA network by Ngāi Tahu and the Crown, and generational review of the MPA network. The fishing industry supports these three requirements. In particular, ‘rebalancing’ is a management response that has been collectively developed and promoted for many years by Ngāi Tahu, PIC and NZ RLIC.
62. More broadly, we consider that the adverse effects of the proposed marine reserves on the sustainable management of fisheries (see [section 3.1.3](#)) are relevant to the Treaty obligations of both Ministers. Displacement of fishing effort from the proposed marine reserves will result in an influx of fishing pressure into areas of importance for customary fishing, including the mātaihai reserves at Moeraki and Kaka Point. This in turn will incentivise the establishment of new bylaws in these mātaihai reserves, new regulations in the East Otago Taiāpure, and new applications for mātaihai reserves, further displacing recreational and commercial catch. The creation of a cascade of adverse effects on the sustainable utilisation of fisheries in the south east region will harm the rights and interests of all fisheries users including customary fishers and Māori commercial fishing rights protected under the Fisheries Settlement.
63. Furthermore, we consider that the fully utilised nature of some of the fisheries that are highly valued by customary fishers – for example pāua – will make it extremely difficult for applications for new mātaihai reserves to comply with the ‘prevent test’ in the customary fishing regulations.³² The establishment of new marine reserves which displace even a small amount of pāua catch will, in our view, prevent the Crown from giving effect its obligations to Ngāi Tahu under the Fisheries Settlement in relation to providing for areas of importance for customary food gathering for pāua. Similar constraints may also apply to establishing new mātaihai reserves for other fisheries with a high spatial dependency, such as rock lobster.
64. The Minister of Fisheries’ deliberations on the SEMPA proposals – in particular, the weight given to permissible relevant fisheries considerations such as TOW(FC)S Act obligations and sustainable fisheries management – will be precedent-setting. As such, the Minister’s decisions may have implications for the security and value of quota, including Settlement assets, far beyond Otago and Southland.

³² Fisheries (South Island Customary Fishing) Regulations 1999, regulation 20(1)(e)(ii): The Minister must be satisfied that a proposed mātaihai reserve will not “*prevent persons with a commercial interest in a species taking their quota entitlement or annual catch entitlement ... within the quota management area for that species*”.

3.1.10 Failure to consider cumulative impacts

65. The MRA requires that applications for marine reserves are assessed individually with no explicit consideration of cumulative impacts. The fishing industry considers that it is not in the public interest to implement individual marine reserves which, if implemented in totality, would have cumulative impacts that are both significant and undue. The cumulative impacts that are most contrary to the public interest include:

- a) Cumulative spatial displacement of all fishing – i.e., of commercial, customary and recreational harvest – from individual marine reserve sites;³³
- b) Cumulative spatial displacement from six proposed marine reserves of fishing for each affected stock, resulting in:
 - significant cumulative increases in fishing pressure outside the marine reserve boundaries;
 - increased risks of localised depletion and threats to fish stock sustainability;
 - increased risk to marine biodiversity values outside the marine reserve boundaries and potentially reduced resilience to other sources of environmental perturbation in the majority of the south east region’s marine area; and
 - increased potential for inter-sectoral spatial conflict;
- c) Cumulative impacts of the proposed marine reserves and Type 2 MPAs for finfish and eel fisheries;
- d) Cumulative economic impact for quota owners and fishers who operate in more than one of the affected areas, or who operate in more than one fishery (e.g., rock lobster and set netting); and
- e) Impacts arising from the six proposed marine reserves that are cumulative with impacts arising from existing closures (i.e., areas from which fishing effort has *already* been displaced). These areas include:
 - Seven mātaihai reserves which are closed to all forms of commercial fishing. Displacement from these closures has already been significant for some stocks – for example the mātaihai reserves at Moeraki, Waikouaiti, Punawaitoriki and Waikawa Harbour together displaced around 8-10 tonnes of pāua catch;
 - Numerous small areas in which all commercial shellfish harvesting, including for rock lobster, is prohibited by regulation;
 - Long-standing regulatory closures to the commercial harvesting of most shellfish species (apart from rock lobster) at Waikouaiti Bay, Seacliff, Otago Harbour, Otago Peninsula, Taieri River mouth, Tokomairiro River mouth, and Clutha River mouth;³⁴

³³ The MRA has separate tests for the impacts on these three rights holders and user groups in s.5(6)(c), s.5(6)(d) and s.5(6)(e).

³⁴ Areas closed to commercial shellfish harvesting in the 1960s for food safety reasons (freezing works, sewage outfalls etc), but remaining open for recreational harvest.

- Additional areas in which the commercial harvesting of kina is prohibited;
- Voluntary closures to commercial pāua harvesting at Shag Point, Catlins Coast, Mahaka Point, Long Point (west side), and Takakopa River bar;
- Regulatory closures to pāua harvesting in areas within the East Otago Taiāpure;
- A prohibition on trolling within 1 nm of the entire coastline;
- A prohibition on Danish seining within 3 nm of the entire coastline;
- A prohibition on commercial set netting within 4 nm of the entire coastline as well as restrictions on set net use within harbours, and new extended set-net closures out to 12 nm off the coast of Timaru;
- Prohibitions on purse seining, trolling and Danish seining in all estuaries and harbours;
- Voluntary trawl prohibitions south of Timaru and at the bryozoan beds; and
- A prohibition on trawlers larger than 46m in length within 12 nm of the entire coastline.

66. It is not in the public interest to ignore these existing closures when assessing the impact of the proposed marine reserves on existing fishing activity in the region and evaluating whether that impact is undue.

3.1.11 Proposals are the outcome of a flawed and divisive process

67. The fishing industry considers that it is not in the public interest to declare marine reserves that are the outcomes of a flawed and divisive process (see [section 6](#)). This is particularly the case given the high costs that the marine reserves would impose and the availability of lower cost, more effective alternative management approaches.

3.2 Objections in relation to individual marine reserves

3.2.1 MPA B1 Waitaki

Contrary to the public interest

68. The fishing industry objects to MPA B1 Waitaki under MRA s.5(6)(e). The proposed marine reserve is contrary to the public interest for all the reasons identified in [section 3.1](#), including in particular:
- a) There is no evidence that preserving the site is in the best interests of scientific study;
 - b) The identified attributes of the site do not support the conclusion that its preservation is in the national interest. For example, the presence of biogenic habitats is anecdotal only and shoals of juvenile squat lobster are a common throughout the east coast. To the extent that the site may be 'typical' of gravel habitats, it is of regional rather than national interest;
 - c) Lower cost, more effective ways of managing any fishing-related threats to the identified values of the site are available. For example, biogenic habitats (if present) can be protected using voluntary closed areas or fisheries regulations prohibiting bottom-impacting fishing methods. There is no evidence that the attributes of the site are at risk from other fishing methods. Management of fishing-related threats to

protected species such as penguins and shags is best achieved through means other than a marine reserve (i.e., measures implemented at broader spatial scales as part of a Threat Management Plan or National Plan of Action);

- d) Cumulative impacts on the set net fishery targeting rig and school shark will arise from MPA B1 Waitaki together with the adjacent proposed Type 2 MPA C1 Moko-tere-a-torehu, and together with existing and new closures to set netting on the east coast of the South Island ([section 3.1.10](#));
- e) The presence of threats that cannot be managed under the MRA means that the marine reserve cannot be '*preserved as far as possible in [its] natural state*'. The marine reserve will not improve or control the quality of freshwater entering the marine environment at the Waitaki River mouth,³⁵ and numerous other potential threats exist, including urban runoff from nearby Oamaru (e.g., contaminants in stormwater), discharges from the Alliance Pukeuri freezing works, and several resource consents for discharges (including sewage) into ocean waters adjacent to the proposed marine reserve. Habitat degradation is a far more significant threats to penguins than fishing,³⁶ but cannot be managed by establishing a marine reserve; and
- f) Poor public access means that the public will not be able to '*enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat*' – the majority of the coastline is inaccessible to the public, with no road access via adjacent private farmland. Access from the nearest road end requires either a 4WD vehicle or a long walk along a deep gravel beach.

Conclusion

- 69. The applicant has not demonstrated that declaring the area a marine reserve will be in the best interests of scientific study, and the marine reserve is contrary to the public interest. The application should therefore be declined.

3.2.2 MPA D1 Te Umu Koau (Bobby's Head)

Undue interference with commercial fishing

- 70. The fishing industry objects to MPA D1 Te Umu Koau under MRA s.5(6)(c) because the proposed marine reserve will interfere unduly with commercial fishing. The direct impacts on the CRA7 rock lobster fishery are significant and the marine reserve will have additional impacts on commercial fishing for pāua, kina, eels, blue cod and other finfish. FNZ estimates the export value of potentially displaced commercial catches from the site to be s9(2)(b)(ii) per

³⁵ In a 2005 press release from the Labour Party, the Otago MP at that time (Hon David Parker, now Minister for the Environment), when discussing the Waitaki, *expressed alarm at the seriousness of water quality in east coast rivers on the South Island*. <https://www.scoop.co.nz/stories/PA0506/S00655.htm>

³⁶ Trathan, P. N., García-Borboroglu, P., Boersma, D., Bost, C. A., Crawford, R. J., Crossin, G. T., ... & Ellenberg, U. (2015). Pollution, habitat loss, fishing, and climate change as critical threats to penguins. *Conservation Biology*, 29(1), 31-41.

year (for s9(2)(b)(ii) of catch).³⁷ As noted elsewhere in this submission, we consider this to significantly under-estimate the costs of the proposed marine reserve on commercial fishing. Interference with commercial fishing will be undue because the benefits of the marine reserve are overstated and it is contrary to the public interest (as discussed below).

71. **Rock lobster:** Site D1 is of critical importance for the rock lobster industry. The adverse effects of the proposed marine reserve on the rock lobster fishery and rock lobster industry are significantly underestimated in the application. As detailed in the ORLIA submission, the impact on the economics of the CRA7 fishery and on the fishers and their families and communities will be severe.
72. **Pāua:** Site D1 is a relatively small but important part of the PAU5D fishery. Although the average annual commercial pāua catch from the area is not large, in some years it has provided over s9 of PAU5D catch. Further information is provided in the submission of PauMAC 5 Incorporated.
73. **Kina:** Site D1 is highly significant for the future development of the kina industry because of the available resources and suitable water conditions for harvesting, as noted in the submission of the Kina Industry Council.
74. **Eels:** Eels are harvested commercially in the two estuaries included in MPA D1, as described in the submission of the South Island Eel Industry Association. Commercial eel fishers have very limited ability to take their shortfin eel catch elsewhere in the region as many other estuaries are already closed or restricted to commercial fishing activity (as noted in [section 3.1.8](#)).
75. **Finfish:** The site is important for trawl fisheries targeting gurnard and elephantfish, as detailed in the submission of Harbour Fish Limited.

Undue interference with and adverse effects on recreational fishing

76. The fishing industry objects to MPA D1 Te Umu Koau under MRA s.5(6)(d) because the proposed marine reserve will interfere unduly with and adversely affect recreational fishing in the area. In support of this objection we note that:
 - a) The applicant's conclusion that adverse effects on recreational opportunities will be low '*as other suitable locations are available nearby*' is contrary to MRA s.5(6)(d) which requires that an objection must be upheld if there are adverse effects on existing recreational usage *of the area*. The reported existence of other suitable locations nearby (which the applicant has not identified) is irrelevant to the consideration of whether there are adverse effects on existing recreational fishing *in the area* of the proposed marine reserve;
 - b) The application states that it is likely that the area is used for floundering, whitebaiting, trout fishing, collecting pāua and targeting reef fishes and rock lobster.

³⁷ Proposed southeast marine protected areas. Appendices to consultation document, page 89.

The proposed marine reserve clearly interferes with and adversely affects existing recreational usage of the area as all recreational fishing in the area will be prohibited; and

- c) Interference with and adverse effects on recreational fishing are undue because the public benefits of the proposed marine reserve are overstated and it is contrary to the public interest (as discussed below in relation to MRA s.5(6)(e)).
77. Furthermore, we consider that DOC, in its role as applicant, has failed to inform itself or adequately assess and describe the nature and extent of existing recreational fishing activity at site D1 and at each of the other proposed marine reserve sites. An absence of information on existing recreational fishing in the application hinders the ability of submitters to make informed submissions and will be a significant constraint on concurrence by the Minister of Fisheries under the MRA.
78. The Minister of Fisheries' obligations under the Fisheries Act are matters that the Minister can take into account when considering concurrence under the MRA. The Fisheries Act requires that decisions are based on the best available information, which *means the best information that, in the particular circumstances, is available without unreasonable cost, effort, or time.*³⁸ The fishing industry considers that DOC and FNZ could readily have obtained information on recreational fishing at the proposed marine reserve sites without unreasonable cost or effort in the four years since the MPA sites were first identified in 2016. However, the agencies have not taken steps to obtain this information, leaving the Minister of Fisheries to make decisions in relation to adverse effects on recreational fishing without access to the best available information. This is a generic concern relevant to the fishing industry's objections to each of the proposed marine reserves.

Contrary to the public interest

79. The fishing industry objects to MPA D1 Te Umu Koau under MRA s.5(6)(e). The proposed marine reserve is contrary to the public interest for all the reasons identified in [section 3.1](#), including in particular:
- a) There is no evidence that preserving the site is in the best interests of scientific study. While the application states that it is of scientific interest to study how rock lobster stock would respond to protection, there are alternative locations around New Zealand and in the south east region where unfished rock lobster populations can be studied (e.g., in marine reserves and other closed areas throughout New Zealand and, locally, in the portion of statistical area 922 that lies in CRA7 between Nugget Point and Long Point adjacent to the CRA8 boundary);
 - b) Lower cost, more effective ways of managing any fishing-related threats to the identified values of the site are available. The identified environmental features of the site relate only to benthic habitats and the biodiversity associated with these habitats

³⁸ Fisheries Act s.2.

could therefore be protected without prohibiting all fishing. Furthermore, Moeraki mātaimai contains marine habitats that are similar to those in MPA D1 and estuarine habitats are already protected in five mātaimai reserves in the region – i.e., Waihoa, Waikouaiti, Moeraki, Otakou and Waikawa Harbour;

- c) The displacement of existing fishing activity from MPA D1 is likely to result in localised depletion in other areas of the region, particularly in relation to rock lobster, pāua, blue cod and eels, all of which show a strong preference for particular habitat;
- d) The displacement of fishing from MPA D1 Te Umu Koau will be exacerbated by the cumulative displacement from existing management measures in the vicinity, including the Moeraki mātaimai reserve (in which all commercial fishing is prohibited) and the East Otago taiāpure. The taiāpure already contains some fisheries restrictions (e.g., areas closed to commercial pāua harvesting), and there is a risk that restrictions inside the taiāpure may become more extensive if MPA D1 displaces additional fishing effort into the taiāpure;
- e) The cumulative impacts of displacement on the CRA7 rock lobster fishery from proposed MPAs D1, I1 and K1 will be significant and undue. Eel fisheries have been subject to cumulative spatial displacement from existing closures, and the cumulative impacts of displacement of eel fisheries from proposed MPAs D1, L1 and Q1 will be significant and undue;
- f) The presence of threats that cannot be managed under the MRA means that the marine reserve cannot be '*preserved as far as possible in [its] natural state*'. For example, estuarine habitat threats are typically terrestrial in origin, yet no management measures are proposed in response to terrestrial threats. Several resource consents have been granted in the area of the Pleasant River estuary. The main threat to hoiho/yellow-eyed penguins is habitat degradation, which a marine reserve will not address.³⁹ Tourism has also been identified as a threat to hoiho, resulting in significantly lower breeding success and fledging weights.⁴⁰ As Bobby's Head is one of the few public access point to site D1, tourism-related threats to the breeding birds are likely to increase if a marine reserve is established; and
- g) Limited public access means that the public will not be able to '*enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat*'. Cliffs and private farmland restrict access to most of the shoreline aside from three road access points at Bobby's Head, Pleasant River, and Stony Creek (where entry without permission is prohibited).

³⁹ Trathan, P. N., García-Borboroglu, P., Boersma, D., Bost, C. A., Crawford, R. J., Crossin, G. T., ... & Ellenberg, U. (2015). Pollution, habitat loss, fishing, and climate change as critical threats to penguins. *Conservation Biology*, 29(1), 31-41.

⁴⁰ Ellenberg, U., Setiawan, A. N., Cree, A., Houston, D. M., & Seddon, P. J. (2007). Elevated hormonal stress response and reduced reproductive output in Yellow-eyed penguins exposed to unregulated tourism. *General and comparative endocrinology*, 152(1), 54-63.

Conclusion

80. The applicant has not demonstrated that declaring the area a marine reserve will be in the best interests of scientific study, the marine reserve interferes unduly with commercial fishing and existing recreational usage of the area and is contrary to the public interest. The application should therefore be declined.

3.2.3 MPA H1 Papanui

Undue interference with commercial fishing

81. The fishing industry objects to MPA H1 Papanui under MRA s.5(6)(c) because the proposed marine reserve will interfere unduly with commercial fishing for finfish species, as detailed in the submission of SIFMC. As noted elsewhere in this submission, we consider that the application significantly under-estimates the costs of the proposed marine reserve on commercial fishing. Interference with commercial fishing will be undue because the benefits of the marine reserve are overstated and it is contrary to the public interest (as discussed below).

Undue interference with and adverse effects on recreational fishing

82. The fishing industry objects to MPA H1 Papanui under MRA s.5(6)(d) because the proposed marine reserve will interfere unduly with and adversely affect recreational fishing in the area. In support of this objection we note that:
- a) The application and associated consultation document contain no information about recreational fishing at the site. The generic concern about lack of information on recreational fishing impacts in **section 3.2.2** applies to MPA H1;
 - b) The applicant's conclusion that *'the adverse effects on overall recreational opportunities would likely be minimal as the generally preferred recreational destination at Saunders Canyon would remain available'* is contrary to MRA s.5(6)(d) which requires that an objection must be upheld if there are adverse effects on existing recreational usage *of the area*. The alternative nearby destination of Saunders Canyon is irrelevant to the consideration of whether there are adverse effects on existing recreational fishing *in the area* of the proposed marine reserve;
 - c) The proposed marine reserve clearly interferes with and adversely affects existing recreational usage of the area as all recreational fishing in the area will be prohibited; and
 - d) Interference with and adverse effects on recreational fishing are undue because the public benefits of the proposed marine reserve are overstated and it is contrary to the public interest (as discussed below).

Contrary to the public interest

83. The fishing industry objects to MPA H1 Papanui under MRA s.5(6)(e). The proposed marine reserve is contrary to the public interest for all the reasons identified in **section 3.1**, including in particular:

- a) There is no evidence that preserving the site is in the best interests of scientific study;
- b) Lower cost, more effective ways of managing any fishing-related threats to the identified values of the site are available. The identified environmental features of the site (canyon habitats and bryozoan thicket habitats) relate only to benthic habitats and the biodiversity associated with these habitats could therefore be protected without prohibiting all fishing. Management of protected species such as seabirds, seals and whales is best achieved through means other than marine reserves (i.e., measures implemented at broader spatial scales as part of a Threat Management Plan or National Plan of Action);
- c) Cumulative impacts on affected finfish fisheries will arise from proposed MPA H1 Papanui and proposed Type 2 MPA E1 Kaimata, including cumulative impacts on set net fisheries for school shark and rig, line fisheries and cod potting. Small fishing vessels that operate out of Karitane and Dunedin will be significantly affected by the establishment of two adjacent MPAs, as these vessels have a limited range and therefore limited choices if they have to move to alternative fishing grounds;
- d) The presence of threats that cannot be managed under the MRA means that the marine reserve cannot be '*preserved as far as possible in [its] natural state*'. In particular, the disposal site for Otago Harbour dredging spoil is approximately 6km away from the proposed marine reserve. Evidence presented on behalf of Port Otago states that '*adverse effects on ecology from disposal of large volumes of spoil cannot be avoided*'. Although impacts are most serious at the disposal site, increased levels of suspended sediments and sedimentation will extend outwards '*for a few kilometres*', with potential adverse effects on fish and birdlife in the vicinity.⁴¹ In addition, elevated sedimentation from the Clutha and Taieri Rivers can extend up to 100km north, potentially affecting site H1.⁴² The risk arising from exotic marine pests that may be introduced from the nearby Port Otago (categorised by Biosecurity NZ as a "High Risk Site" for transmission of invasive non-indigenous marine species) will not be managed by establishing a marine reserve; and
- e) Limited public access means that the public will not be able to '*enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat*'. As the site is entirely offshore, only people with access to a boat will be able to visit the reserve.

Conclusion

84. The applicant has not demonstrated that declaring the area a marine reserve will be in the best interests of scientific study, the marine reserve interferes unduly with commercial fishing
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⁴¹ Statement of Evidence of Mark Richard James on behalf of Port Otago Limited. Before the Otago Regional Council. March 2011.

⁴² Morrison, M. A., Lowe, M. L., Parsons, D. M., Usmar, N. R., & McLeod, I. M. (2009). A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report*, 37, 100.

and existing recreational usage of the area and is contrary to the public interest. The application should therefore be declined.

3.2.4 MPA I1 Ōrau (Sandfly Bay)

Undue interference with commercial fishing

85. The fishing industry objects to MPA I1 Ōrau under MRA s.5(6)(c) because:
- The closure of the area would adversely affect the Otago rock lobster industry and the application significantly under-estimates the proportion of CRA7 rock lobster catch that is taken from the site. Further details are provided in the ORLIA submission; and
 - The displacement of recreational harvest of pāua at the site is so significant (see objection under MRA s.5(6)(d)) that displaced recreational pāua fishing will interfere with commercial pāua fishing for PAU5D, as described in this submission and in the submission of PauaMAC5.
86. In both cases interference with commercial fishing will be undue because the public benefits of the marine reserve are overstated and the marine reserve is contrary to the public interest (as discussed below).
87. The site of proposed MPA I1 is of major interest to recreational pāua divers because it is accessible, supports an abundant pāua population, and is close to Dunedin. If the Ōrau marine reserve is established, it will displace an unknown but potentially very significant amount of recreational fishing effort for pāua. Displaced recreational fishing will interfere with commercial pāua fishing by:
- a) **Increasing the risk of local and serial depletion** of adjacent pāua populations in PAU5D. Pāua are sedentary organisms with very specific habitat requirements and pāua populations are therefore susceptible to localised depletion. As discussed below, very limited areas of PAU5D will remain available for recreational diving near Dunedin and these areas will come under significant pressure and be rapidly depleted, resulting in a shift of fishing effort to other parts of the fishery (i.e., serial depletion);
 - b) **Threatening the rate of rebuild of PAU5D** and the ability to maintain the stock at its target level. The PAU5D fishery is currently fluctuating around its management target level of 40% Bo. The path to rebuilding the fishery to this level of abundance has been long and slow, and was achieved only by severely constraining commercial pāua harvest. Additional recreational fishing pressure displaced from the marine reserve will prevent quota owners from obtaining the benefits of increased stock abundance that they anticipated would arise from a 40% TACC reduction in 2002/2003 and an additional 30% ACE shelving that has been maintained for the last 6 years.
- Previously implemented restrictions on commercial fishing access in PAU5D (see below) have demonstrated that even relatively small amounts of displaced catch can have significant impacts on the abundance of the fishery, making it extremely vulnerable to any additional displacement;

- c) **Increasing the risk of additional commercial closures** if tangata whenua seek to protect areas of importance for customary fishing from recreational fishing effort displaced from Ōrau and other proposed marine reserves – for example by establishing further mātaimai reserves in PAU 5D or further restricting pāua harvest in the East Otago Taiāpure;⁴³
- d) **Exacerbating inter-sectoral spatial conflict** between commercial harvesters and recreational fishers as the few remaining accessible areas of PAU5D are reduced over time. The PAU5D fishery has a history of spatial conflict between recreational and commercial harvesters which gave rise to the *Pāua to the People* campaign in 2013. Site I1 was one of the key areas that recreational pāua divers sought to maintain as an exclusively non-commercial pāua fishery. Since that time, tensions have reduced, but establishing the Ōrau marine reserve is likely to reignite spatial conflict between the sectors; and
- e) **Interfering with the implementation of the PAU5 Fisheries Plan** prepared by PauaMAC5. The PAU5 Fisheries Plan is currently in draft form and is undergoing consultation with key stakeholders prior to being referred to the Minister of Fisheries for approval under s.11A of the Fisheries Act. The above impacts from displaced recreational catch are contrary to many of the objectives and strategies in the Fisheries Plan.

88. The fishing industry considers that the interference with commercial fishing that is described above is significant. If the sustainability of the PAU5D fishery is threatened by displaced recreational catch, the TACC may need to be reduced, with serious impacts on PAU5D quota owners and harvesters. These impacts are even more significant when assessed cumulatively with the displacement of recreational pāua catch from the nearby proposed marine reserves at sites K1 Okaikae and M1 Hākinikini.

Undue interference with and adverse effects on recreational fishing

89. The fishing industry objects to MPA I1 Ōrau under MRA s.5(6)(d) because the proposed marine reserve will interfere unduly with and adversely affect recreational fishing in the area. In support of this objection we note that:
- a) The application and associated consultation document contain very little information about recreational fishing at the site, aside from noting that it is valued by recreational fishers, particularly for pāua and blue cod. Our generic concern about lack of information on recreational fishing impacts in [section 3.2.2](#) applies to MPA I1;
 - b) The applicant's conclusion that *'while there would be an effect on some types of fishing (particularly shore-based fishing) the adverse effects on overall recreational*

⁴³ Note that elsewhere in this submission we have described how the displacement of pāua catch from the proposed marine reserves – in particular at site I1 – will make it extremely difficult, perhaps impossible, for new mātaimai applications to be approved.

opportunities would likely be moderated by the availability of other suitable locations nearby is contrary to MRA s.5(6)(d) which requires that an objection must be upheld if there are adverse effects on existing recreational usage *of the area*. The reported existence of other suitable locations nearby (which the applicant has not identified) is irrelevant to the consideration of whether there are adverse effects on existing recreational fishing in the area of MPA I1;

- c) When responding to the Forum's proposals, a large number of individual local submitters emphasised the high value of the site as the closest pāua fishery to Dunedin, its relative accessibility for recreational fishers and divers, and the absence of commercial pāua fishing as a result of long-standing regulatory closures;
- d) In 2013 when MPI consulted on removing regulatory closures to commercial pāua diving at the site of proposed MPA I1 and other locations, 2,740 submissions were received, indicating a very high level of public interest. The overwhelming majority of submitters opposed any change to the *status quo*. Although MPI did not have detailed recreational catch information to verify the actual level of recreational fishing activity, MPI:⁴⁴
- acknowledged that the closed areas adjacent to cities and towns (including the site of MPA I1), *were known by MPI to be popular with recreational and customary fishers*;
 - noted that *pāua is a key recreational and customary fishery in southern New Zealand and, therefore, it is important to ensure these benefits are retained*; and
 - declined to remove the regulatory closures to commercial pāua diving;
- e) Consultation by MPI in 2013 and by the Forum in 2018 demonstrates the very high value of the site for recreational diving for pāua. The applicant also acknowledges that *the establishment of a marine reserve at this site would be likely to have an impact on the recreational fishing sector*.⁴⁵ The proposed marine reserve clearly interferes with and adversely affects existing recreational usage of the area as all recreational fishing in the area, including for pāua, will be prohibited;
- f) One of the nearest equivalent sites for recreational fishing is the proposed Okaihae marine reserve. If proposed marine reserves I1 and K1 are declared, only a very small area of coast near Dunedin at Blackhead will remain available for recreational fishers, placing incredible pressure on this one spot and resulting in a cascade of serial depletion that will further reduce commercial and customary fishing opportunities (including the nearby mātaītai reserves at Moeraki and Kaka Point) as well as those for recreational fishers; and

⁴⁴ Ministry for Primary Industries (2013) Final Advice Paper <https://www.mpi.govt.nz/dmsdocument/7716-review-of-fisheries-regulatory-controls-for-1-october-2013-final-advice-papers>

⁴⁵ Proposed southeast marine protected areas. Appendices to consultation document, page 101.

- g) Interference with and adverse effects on recreational fishing are undue because the public benefits of the proposed marine reserve are overstated and it is contrary to the public interest (as discussed below).

Contrary to the public interest

90. The fishing industry objects to MPA I1 Ōrau under MRA s.5(6)(e). The proposed marine reserve is contrary to the public interest for all the reasons identified in [section 3.1](#), including in particular:

- a) There is no evidence that preserving the site is in the best interests of scientific study;
- b) The preservation of the site is not in the national interest under the MRA because many of its identified values are based on features above MHWS (exposed volcanic rock shorelines and cliffs, sandy and boulder beaches, rocky headlands, rock stacks and islands, and a *'beautiful and inspiring coastline'*) whereas the MRA applies only below MHWS;
- c) Lower cost, more effective ways of managing any fishing-related threats to the identified values of the site are available. All of the identified features (e.g., encrusting communities of sponges and ascidians) are benthic and can therefore be protected, if necessary, without prohibiting all fishing at the site. Management of fishing-related threats to protected species such as penguins, other seabirds, fur seals and sea lions is best achieved through means other than marine reserves (i.e., measures implemented at broader spatial scales as part of a Threat Management Plan or National Plan of Action);
- d) Cumulative effects are significant. The displacement of commercial rock lobster fishing from proposed MPA I1 Ōrau is exacerbated by the cumulative displacement from proposed MPAs D1 Te Umu Koau and K1 Okaihae. The cumulative displacement of recreational fishing for pāua from proposed MPAs D1, I1 and K1 is likely to be significant and undue; and
- e) The presence of many threats that cannot be managed under the MRA, including threats arising from the adjacent Dunedin suburbs and city population, means that the marine reserve cannot be *'preserved as far as possible in [its] natural state'*. For example, no management measures are proposed for known identified threats such as coastal structures and sewage and stormwater discharges on land and offshore within the proposed marine reserve. The main threat to penguins which live in the area is habitat degradation, which a marine reserve will not address.⁴⁶ The risk arising from exotic marine pests that may be introduced from the nearby Port Otago (categorised by Biosecurity NZ as a "High Risk Site" for transmission of invasive non-indigenous marine species) will not be managed by establishing a marine reserve. Elevated

⁴⁶ Trathan, P. N., García-Borboroglu, P., Boersma, D., Bost, C. A., Crawford, R. J., Crossin, G. T., ... & Ellenberg, U. (2015). Pollution, habitat loss, fishing, and climate change as critical threats to penguins. *Conservation Biology*, 29(1), 31-41.

sedimentation from the Clutha and Taieri Rivers can extend up to 100km north, potentially affecting site I1.⁴⁷

Conclusion

91. The applicant has not demonstrated that declaring the area a marine reserve will be in the best interests of scientific study, the marine reserve interferes unduly with commercial fishing and existing recreational usage of the area and is contrary to the public interest. The application should therefore be declined.

3.2.5 MPA K1 Okaihae (Green Island)

Undue interference with commercial fishing

92. The fishing industry objects to MPA K1 Okaihae under MRA s.5(6)(c) because the site is an important area for maintaining the stable and sustainable pattern of fishing effort in CRA7. Further details of adverse effects on commercial fishing are provided in the ORLIA submission. Although the amount of directly affected CRA7 catch is not large, interference with commercial fishing will be undue because the public benefits of the marine reserve are significantly overstated and the marine reserve is contrary to the public interest.

Undue interference with and adverse effects on recreational fishing

93. The fishing industry objects to MPA K1 Okaihae under MRA s.5(6)(d) because the proposed marine reserve will interfere unduly with and adversely affect recreational fishing in the area. In support of this objection we note that:
- a) The application and associated consultation document contain no information about recreational fishing at the site, even though it was identified as an important recreational fishing spot in earlier submissions. Our generic concern about lack of information on recreational fishing impacts in **section 3.2.2** applies to MPA K1 Okaihae;
 - b) The applicant's conclusion that '*while there would be an effect on [recreational] fishing, the adverse effects on overall recreational opportunities would likely be moderated by the availability of other suitable locations nearby*' is contrary to MRA s.5(6)(d) which requires that an objection must be upheld if there are adverse effects on existing recreational usage *of the area*. The reported existence of other suitable locations nearby (which the applicant has not identified) is irrelevant to the consideration of whether there are adverse effects on existing recreational fishing in the area of MPA K1;
 - c) The proposed marine reserve clearly interferes with and adversely affects existing recreational usage of the area as all recreational fishing in the area will be prohibited;

⁴⁷ Morrison, M. A., Lowe, M. L., Parsons, D. M., Usmar, N. R., & McLeod, I. M. (2009). A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report*, 37, 100.

- d) The nearest equivalent site for recreational fishing is the proposed Ōrau marine reserve. If proposed marine reserves I1 and K1 are declared, only a very small area of coast near Dunedin at Blackhead will remain available for recreational fishers, placing incredible pressure on this one spot and resulting in a cascade of serial depletion that will further reduce commercial and customary fishing opportunities as well as those for recreational fishers; and
- e) Interference with and adverse effects on recreational fishing are undue because the public benefits of the proposed marine reserve are overstated and it is contrary to the public interest (as discussed below).

Contrary to the public interest

94. The fishing industry objects to MPA K1 Okaihae under MRA s.5(6)(e). The proposed marine reserve is contrary to the public interest for all the reasons identified in [section 3.1](#), including in particular:
- a) There is no evidence that preserving the site is in the best interests of scientific study;
 - b) The preservation of the site is not in the national interest under the MRA because its identified values are based on features above MHWS (Green Island itself, which is described as unique and beautiful, the seabird species that live on the island, and the seals and sea lions that visit the island) whereas the MRA applies only below MHWS. The potential for Green Island to become an *iconic place* is an irrelevant consideration under the MRA;
 - c) The benefits of the marine reserve are grossly over-stated. The proposed reserve is too small to effectively protect biodiversity, its habitats are degraded, and the claim that the area could *act as a source of replenishment for invertebrates and fishes on the low-relief reefs* is an assertion that lacks any supporting evidence;
 - d) The MRA purpose is not to restore degraded habitats but to preserve high quality areas of marine life for the purposes of scientific study. Even if restoration were a relevant purpose under the MRA, the causes of the reported anecdotal decline in diversity and abundance have not been identified. There is therefore no reason to believe that establishing a marine reserve will reverse the reported decline;
 - e) The presence of many threats that cannot be managed under the MRA means that the marine reserve cannot be '*preserved as far as possible in [its] natural state*'. The outfall from the Green Island Wastewater Treatment Plant discharges effluent near the proposed site. Elevated sedimentation from the Clutha and Taieri Rivers can extend up to 100km north,⁴⁸ potentially affecting site K1. The declaration of a marine reserve will do nothing to protect the area from degraded freshwater entering the coastal marine area from these rivers or from the adjacent Kaikorai stream estuary; and

⁴⁸ Morrison, M. A., Lowe, M. L., Parsons, D. M., Usmar, N. R., & McLeod, I. M. (2009). A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report*, 37, 100.

- f) Limited public access means that the public will not be able to *'enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat'*. With no road access, only people with access to a boat will be able to visit the marine reserve.

Conclusion

95. The applicant has not demonstrated that declaring the area a marine reserve will be in the best interests of scientific study, the marine reserve interferes unduly with commercial fishing and adversely affects existing recreational usage of the area, and is contrary to the public interest. The application should therefore be declined.

3.2.6 MPA M1 Hākinikini (Akatore)

Undue interference with and adverse effects on recreational fishing

96. The fishing industry objects to MPA M1 Hākinikini under MRA s.5(6)(d) because the proposed marine reserve will interfere unduly with and adversely affect recreational fishing in the area. In support of this objection we note that:
- a) The application and associated consultation document contain very little information about recreational fishing at the site, aside from noting that it is used by recreational fishers, particularly for pāua. Our generic concern about lack of information on recreational fishing impacts in [section 3.2.2](#) applies to MPA M1;
 - b) The applicant's conclusion that *'while there would be an effect on some types of fishing, particularly shore-based fishing, the adverse effects on overall recreational opportunities would likely be moderated by the availability of other suitable locations nearby'* is contrary to MRA s.5(6)(d) which requires that an objection must be upheld if there are adverse effects on existing recreational usage *of the area*. The reported existence of other suitable locations nearby (which the applicant has not identified) is irrelevant to the consideration of whether there are adverse effects on existing recreational fishing in the area of MPA M1;
 - c) When the Forum was consulting, a large number of submitters who live locally or have cribs nearby commented on the value and importance of this site for recreational fishing, particularly for pāua, and associated family-based activities. The proposed marine reserve clearly interferes with and adversely affects existing recreational usage of the area as all recreational fishing in the area will be prohibited;
 - d) The nearest equivalent site for recreational pāua diving is Taieri Island, an area of known importance for customary fishing.⁴⁹ Taieri Island has a small reef area that would come under increasing pressure from recreational and commercial fishing effort

⁴⁹ The Forum's final report states that Te Rūnanga o Kāi Tahu oppose Site M1 due to the effect that the potential transfer of fishing effort to Moturata (Taieri Island) would have on customary commercial fishing rights and interests. The report also notes that Whānau Roopu have already proposed a mātaītai reserve for around Moturata (Taieri Island), but have not yet lodged an application.

displaced from MPA M1. Establishing a marine reserve at site M1 is therefore likely to cause a cascade of serial depletion of pāua populations in the south east region that will further reduce commercial and customary fishing opportunities as well as those for recreational fishers; and

- e) Interference with and adverse effects on recreational fishing are undue because the public benefits of the proposed marine reserve are overstated and it is contrary to the public interest (as discussed below).

Contrary to the public interest

97. The fishing industry objects to MPA M1 Hākinikini under MRA s.5(6)(e). The proposed marine reserve is contrary to the public interest for all the reasons identified in [section 3.1](#), including in particular:

- a) There is no evidence that preserving the site is in the best interests of scientific study;
- b) There is no evidence that the site contains underwater scenery, natural features, or marine life, of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest. The area was originally proposed simply to replicate and connect other proposed MPAs. MPA network design considerations such as replication and connectivity are not relevant considerations under the MRA as each marine reserve must be considered on its merits and justified in relation to the purpose of the Act;
- c) Maritime safety risks for commercial and recreational vessels operating out of the nearby port of Taieri Mouth will be increased. The fishing grounds at site M1 Hākinikini are favoured by vessels that harvest rock lobster and mixed trawl species because the area is accessible and relatively safe. However, the nature of the Taieri river mouth is such that vessels need to rapidly seek shelter in adverse weather. The removal of fishing grounds at site M1 will force small vessels to range further up and down the coast to make up for lost catch and any additional steaming time increases the hazard of re-entry at the river mouth;
- d) Establishment of a marine reserve is likely to displace catch to Moturata/Taieri Island, an area of significance for customary fishers;
- e) The presence of many threats that cannot be managed under the MRA means that the marine reserve cannot be '*preserved as far as possible in [its] natural state*'. For example, elevated sedimentation from the Clutha River can extend up to 100km north, potentially affecting site M1 Hākinikini.⁵⁰ Water quality and biodiversity in the Akatore estuary is likely to be heavily influenced by terrestrial activities that cannot be controlled by establishing a marine reserve. Future impacts on coastal water quality and biodiversity should also be anticipated from the harvesting of the extensive exotic

⁵⁰ Morrison, M. A., Lowe, M. L., Parsons, D. M., Usmar, N. R., & McLeod, I. M. (2009). A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report*, 37, 100.

forestry plantations in catchments adjacent to the proposed marine reserve; and

- f) Limited public access means that the public will not be able to '*enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat*'. The site has limited road access and is backed by private farm land.

Conclusion

98. The applicant has not demonstrated that declaring the area a marine reserve will be in the best interests of scientific study, the marine reserve interferes unduly with and adversely affects existing recreational usage of the area and is contrary to the public interest. The application should therefore be declined.

3.3 Proposed conditions

99. The fishing industry objects to each of the proposed marine reserves, but in the event that any marine reserves are established, our position in relation to the proposed conditions is as follows.

3.3.1 Proposed conditions supported

100. For each of the proposed marine reserves, we support the proposed conditions:
- To allow driving on the foreshore by the most direct formed route to launch or retrieve a vessel; and
 - To allow the anchoring of vessels.

101. Both these conditions help provide for public access and support the safety of vessel users.

3.3.2 Proposed conditions opposed

102. For each of the proposed marine reserves, we oppose the proposed condition to allow non-commercial gathering of beach stones from the foreshore as this may interfere with juvenile pāua habitat and have adverse effects on habitats of particular significance for fisheries management (i.e., juvenile pāua habitat).

4. Type 2 MPAs

4.1 Opposition to all proposed Type 2 MPAs

4.1.1 Proposals are inconsistent with the purpose of the Fisheries Act

103. The fishing industry considers that the Fisheries Act cannot be used for the purpose of protecting representative areas of marine biodiversity. The Minister does not have any power under the Act to close or restrict fishing in representative habitat types in the absence of a need to do so to ensure sustainability.
104. When implementing measures under the Fisheries Act, the Minister is required to act in a manner consistent with the purpose of the Act, which is to provide for utilisation while ensuring sustainability. The SEMPA proposals do not provide for utilisation, therefore – in order to be consistent with the purpose of the Act – they can be justified only on the basis of

being necessary in order to ‘ensure sustainability,’ which includes avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment.

105. If the best available information does not indicate any actual or potential adverse effects of fishing on the aquatic environment, measures cannot be imposed under the Fisheries Act to protect representative areas of habitat for the sake of protection alone. The SEMPA consultation document and associated background material (i.e., the Forum’s report and officials’ advice) contain no evidence of adverse effect of fishing on the biodiversity values of the sites (as discussed further below).
106. Even if actual or potential adverse effects of fishing were to be identified, the Minister of Fisheries must still weigh the Act’s requirement to provide for utilisation alongside the need to ensure sustainability. There is no indication in the consultation document or associated material that such an analysis has been undertaken.
107. The Type 2 SEMPA proposals are also inconsistent with the MPA Policy itself, which states, with respect to Fisheries Act tools that:⁵¹

*The Fisheries Act contains tools to manage the actual and potential adverse effects of fishing on the marine environment... All of these regulatory tools could be used to protect representative sites of marine biodiversity and therefore contribute to the MPA network – **provided the tools are used in a manner consistent with the Fisheries Act, i.e. to address either actual or potential adverse effects of fishing on the environment, and are implemented in a manner consistent with the statutory requirements.***

108. It is clear that the MPA Policy requires that Type 2 MPAs may be implemented only if they are consistent with the Fisheries Act. The fact that the non-statutory ‘MPA Protection Standard’ specifies that bottom trawling, Danish seining and dredging must be prohibited in an MPA is not in itself a justification for prohibiting these fishing methods in an area. It does not replace the mandatory statutory considerations under the Fisheries Act.

4.1.2 No evidence of actual adverse effects of fishing

109. The SEMPA Type 2 proposals involve the prohibition of a wide range of fishing methods, including bottom trawling, Danish seining, dredging, set netting, mid-water trawling, commercial long-lining, recreational line fishing with more than 5 hooks, purse seining, mechanical harvesting (including spades for collecting shellfish), and fyke net fishing. In order to legitimately prohibit these fishing methods under the Fisheries Act, decision-makers must be satisfied that each fishing method has actual or potential effects that are sufficiently ‘adverse’ that it is necessary to prohibit their use in each of the proposed sites in order to ensure sustainability.

⁵¹ MPA Policy and Implementation Plan, paragraphs 36-38.

Assessing adverse effects under the Fisheries Act

110. Whether an effect is *adverse* is a judgement call that must be guided by the provisions of the Act, in particular the environmental principles in section 9, which suggest that an effect may be adverse if the long-term viability of associated or dependent species is not maintained, habitat of particular significance for fisheries management is harmed, or the biological diversity of the aquatic environment is threatened.
111. The long-term viability of associated or dependent species is not directly relevant to the current assessment of adverse effects as: (1) associated and dependent species are managed under the Fisheries Act at scales much broader than the proposed MPAs; and (2) the MPA Policy provides that biodiversity protection must be *at the habitat and ecosystem level, not individual species (e.g. marine mammals)*.⁵² The protection of habitat of particular significance for fisheries management is also not relevant, as the proposed Type 2 MPAs have not been identified as habitat of particular significance for fisheries management – instead they are considered to be representative habitats.
112. Because the Type 2 MPAs are being proposed in order to protect habitats and ecosystems that are representative of the region’s habitats and ecosystems, it follows that an analysis of the adverse effects of fishing is required at the scale of regional habitats. A Type 2 MPA can be justified only if a fishing method has effects on a particular habitat type that are considered to be adverse *at a regional scale*. As noted in **section 4.2**, the best available information does not support the identification of adverse effects of fishing on habitats and ecosystems at a regional scale.

MPA Policy requirements regarding adverse effects

113. The need for management interventions to be justified on the basis of adverse effects of fishing is a requirement not only of the Act itself, but also of the MPA Policy. The MPA Policy includes a ‘protection standard’ to help identify what controls are necessary to achieve an ‘adequate level of biodiversity protection’ for a site. The management measures must provide for the maintenance and recovery at the site of two key matters – i.e., physical features and biogenic structures that support biodiversity; and ecological systems, natural species composition and trophic linkages.⁵³
114. The MPA Policy requires a case by case analysis to be undertaken to determine which fishing methods need to be prohibited in order to provide for these two matters.⁵⁴ No fishing methods are automatically excluded, although there is a ‘presumption’ that bottom trawling, dredging and Danish seining will not be permitted, and that purse seining, midwater trawling, midwater gillnetting and benthic netting ‘will probably not be permitted’.⁵⁵ The MPA Policy emphasises that ***these presumptions need to be checked and assessed on a case by case***

⁵² MPA Policy and Implementation Plan, page 11.

⁵³ Classification, Protection Standard and Implementation Guidelines, page 11.

⁵⁴ Classification, Protection Standard and Implementation Guidelines, page 12.

⁵⁵ Classification, Protection Standard and Implementation Guidelines, page 11.

basis because using fishing methods as a proxy for extraction from potential MPAs may not accurately reflect the actual extraction from a site, which depends on the frequency and intensity with which the method is used.

115. The Forum’s final report proposed the prohibition of a wide variety of fishing methods on the **presumption** that these methods prevent the maintenance and recovery of physical features, biogenic structures, ecological systems, natural species composition and trophic linkages. However, the Forum provided no evidence in support of the presumption, which is itself indicative of the absence of the necessary case by case analysis. This failing is repeated in the consultation document which contains no case by case justification for the proposed prohibition of a wide range of fishing methods in the Type 2 MPAs.
116. The maintenance and recovery of physical features and biogenic structures is a site-specific requirement and is discussed in more detail in [section 4.2](#).
117. The maintenance of ecological systems, natural species composition and trophic linkages under the Fisheries Act is achieved through management measures that apply at a *broad spatial scale* applicable to the relevant fish stocks. If fisheries management settings are appropriate, the ecological systems, natural species composition and trophic linkages within a proposed MPA should not be at risk from commercial fishing. It follows, therefore, that if these ecosystem attributes are considered to be threatened by the level of fisheries removals, the most effective and appropriate management response is to adjust the fisheries management settings (e.g., by reducing allowable levels of catch) rather than to establish an MPA. Type 2 MPAs of the scale proposed in the consultation document are highly unlikely to enable the maintenance and recovery of ecological systems, natural species composition and trophic linkages when those attributes are influenced primarily by systems and processes that occur – and should be managed – on a much larger spatial scale.

4.1.3 No evidence of potential adverse effects of fishing

118. The fishing industry is concerned that, in the absence of any evidence of actual effects of fishing on the aquatic environment, DOC and FNZ may seek to justify the establishment of Type 2 MPAs on the basis of ‘potential’ adverse effects of fishing.
119. This was the approach adopted by the agencies in 2015 when seeking to justify the establishment of Type 2 MPAs on the West Coast of the South Island. After observing that *there is little, if any, Danish seining, bottom trawling or dredging undertaken in the three areas* (and, therefore, presumably no actual adverse effects of fishing), the authors of the Regulatory Impact Statement concluded that *the maintenance of biodiversity in the proposed MPAs could be threatened if these fishing methods were used there*.⁵⁶

⁵⁶ Ministry for Primary Industries (2015). West Coast South Island: Proposed Marine Protected Areas (using fisheries regulations) Regulatory Impact Statement. July 2015.

120. This conclusion is contrary to the limited definition of ‘effect’ in the Fisheries Act, which includes potential effects only if they are (a) of high probability, or (b) of low probability with a high potential impact.⁵⁷ There are therefore four scenarios that may apply in relation to a fishing method not currently used at a site:

- If there is a *high probability* that a particular fishing method would be used at the site in future (i.e., fish stocks are present in commercial quantities that can be harvested efficiently using the method and there are no regulatory barriers to the use of the method) and the effects of that fishing method are adverse at a regional scale (as discussed above), then there may be a potential adverse effect of fishing;
- If there is a low-medium probability that a method would be used at the site but, if it were to occur, it would have a *high potential impact*, then there may be a potential adverse effect;
- If there is a low-medium probability that a method would be used at the site and the impact of that method is not ‘high’, then there is unlikely to be a potential adverse effect; or
- If there is zero or a negligible probability that a method could be used at the site (e.g., because it is technically or environmentally impractical or no fish stocks are present that can be taken by that method), then there is no potential adverse effect.

121. When prohibiting a fishing method because of its *potential* adverse effects, decision-makers must still act in a manner that is consistent with the purpose of the Fisheries Act, including the obligation to provide for utilisation, and with the requirements in section 10 relating to the use of the best available information. In summary, and as discussed further in [section 4.2](#), we consider that the proposed Type 2 closures cannot rationally be justified on the basis of the potential adverse effects of fishing unless the potential adverse effect is of high probability or high potential impact.

4.1.4 Contrary to Minister’s obligations under the Fisheries Settlement

122. As noted in [section 3.1.9](#), Fisheries Act s.5(b) requires the Minister of Fisheries to act in a manner consistent with the provisions of the TOW(FC)S Act.

123. The establishment of Type 2 MPAs in the absence of any evidence of actual or potential adverse effects from fishing is contrary to the Minister’s obligations under the TOW(FC)S Act as it constrains the utilisation of settlement assets for reasons that cannot be justified under the Fisheries Act. It is a misuse of the Fisheries Act that was not contemplated by the parties to the Settlement and sets a precedent that could undermine the value of all quota, including settlement quota, for New Zealand’s inshore fisheries.

⁵⁷ Fisheries Act section 2.

4.1.5 Inconsistent with New Zealand's international obligations

124. The Fisheries Act requires decision-makers to act in a manner that is consistent with New Zealand's international obligations relating to fishing.⁵⁸ New Zealand's primary international obligations relating to fishing are the United Nations Convention on the Law of the Sea 1982 (UNCLOS), the United Nations Fish Stocks Agreement, various regional fisheries management conventions and arrangements, and the CBD. The SEMPA consultation document refers to the CBD numerous times but does not mention UNCLOS or any other relevant fisheries management obligations.
125. The international context provided in the consultation document is therefore incomplete, unbalanced (for example, it fails to reference the sovereign right to exploit natural resources),⁵⁹ and inadequate for the requirements of Fisheries Act s.5(a). Furthermore, as noted in [section 3.1.7](#), the CBD does not require New Zealand to establish MPAs and instead recognises a very wide range of ways in which threats to biodiversity can be managed.

4.1.6 Inconsistent with Fisheries New Zealand advice

126. The fisheries restrictions proposed in the Type 2 MPAs are inconsistent with Fisheries New Zealand's advice to Ministers prior to the decision to proceed with Network 1. FNZ advised that:⁶⁰
- Modifications to the Type 2 MPAs are necessary to ensure they can be implemented in a manner that is consistent with the purpose and principles of the Fisheries Act;
 - There is no evidence to support prohibiting under the Fisheries Act commercial long-lining, mid-water trawling, purse seining, mechanical harvesting, fyke net fishing and line fishing with more than 5 hooks in the proposed Type 2 MPAs; and
 - In relation to set netting, it would be more appropriate to consider restrictions at a regional scale to align with the range of protected species that are impacted by set net use.
127. The fishing industry considers that it is irrational and irresponsible for the government to consult on proposed Type 2 MPAs when agencies are aware that the proposals are inconsistent with the legislation under which the measures are intended to be implemented.

4.2 Opposition to individual Type 2 MPAs

128. The generic reasons for opposing the Type 2 MPAs outlined in [section 4.1](#) of this submission apply to each of the individual Type 2 MPAs. In addition, the fishing industry opposes each of the individual Type 2 MPAs for the specific reasons set out below.

⁵⁸ Fisheries Act section 5(a).

⁵⁹ UNCLOS Article 193: *States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment.*

⁶⁰ Joint agency advice on the South-East Marine Protection Forum recommendations. 19 October 2018. Released under the OIA.

4.2.1 MPA A1 Tuhawaiki

Adverse effects of fishing

129. No commercial dredging occurs at site A1 so there are no actual adverse effects from this fishing method. There is no evidence to suggest that this fishing method will be used at the site in future and the likelihood of any potential adverse effect is therefore very low. Danish seining is already prohibited by regulation out to 3 nm (i.e., the majority of the area of site A1). There are therefore no actual or potential adverse effects of dredging or Danish seining at the site.
130. Bottom trawling does occur at the site but there is a voluntary trawl ban in place over part of the area within 1 nautical mile of the coast in order to protect school shark nursery areas and elephant fish spawning areas. No biogenic habitats have been identified at the site and the represented habitat types are extensive in the region. The habitat types are characterised by loose substrates that are unlikely to be adversely affected by the level of trawling intensity in the region or at the site. There is therefore no evidence to demonstrate that it is necessary to close site A1 to bottom-impacting fishing methods in order to avoid, remedy or mitigate any adverse effects of fishing on the identified habitat types or to provide for the maintenance and recovery of the site's physical features and biogenic structures.
131. Commercial set netting is already prohibited in much of the area. Mid-water trawling occurs outside the voluntary trawl ban and there is also some commercial long-lining. However, these three fishing methods have no adverse effects on the maintenance and recovery of physical features and biogenic structures at the site. Any fishing-related threats to dolphins and sea birds are more effectively addressed through broad scale management measures such as those required under Threat Management Plans and National Plans of Action. Therefore, there are no actual or potential adverse effects from set netting, mid-water trawling or longlining and no legitimate basis for prohibiting these methods under the Fisheries Act.
132. The intensity of commercial fishing for any species at the site is unlikely to prevent the maintenance and recovery of ecological systems, natural species composition and trophic linkages. If these matters were to become an issue in future, the appropriate management response would be to adjust the TAC and TACC for the species concerned.

Utilisation impacts

133. The area is important for commercial fishers who operate out of Timaru and target species such as gurnard, flatfish, rig and elephantfish using trawl and set net methods. Further details of these impacts are provided in the SIFMC submission.

Conclusion

134. MPA A1 cannot be justified under the Fisheries Act. Adverse effects of fishing have not been demonstrated and the imposition of MPA A1 would unnecessarily restrict the utilisation of commercial fisheries including gurnard, flatfish and elephantfish.

4.2.2 MPA C1 Moko-tere-a-torehu

Adverse effects of fishing

135. No commercial dredging occurs at site C1 so there are no actual adverse effects from this fishing method. There is no evidence to suggest that this fishing method will be used at the site in future and the likelihood of any potential adverse effect is therefore very low.
136. Bottom trawling does occur at the site, and Danish seining occurs in the seaward part of the area.⁶¹ Bottom trawling and Danish seining may have effects on biogenic habitats at the site, should these habitats exist.⁶² DOC and FNZ have not assessed (or, have not made available any assessment of) whether these effects are *adverse* in relation to the regional distribution of kelp and rhodolith beds. There is therefore no evidence to demonstrate that it is necessary to close site C1 to bottom-impacting fishing methods in order to avoid, remedy or mitigate any adverse effects of fishing on the region's kelp and rhodolith beds, or to provide for the maintenance and recovery of the site's physical features and biogenic structures.
137. Commercial set netting and mid-water trawling occur in parts of the area, but these two fishing methods have no adverse effects on the maintenance and recovery of physical features and biogenic structures at the site. Any fishing-related threats to dolphins and sea birds are more effectively addressed through broad scale management measures such as those required under Threat Management Plans and National Plans of Action. Therefore, there are no actual or potential adverse effects from set netting or mid-water trawling and no legitimate basis for prohibiting these methods under the Fisheries Act.
138. The intensity of commercial fishing for any species at the site is low and is unlikely to prevent the maintenance and recovery of ecological systems, natural species composition and trophic linkages. If these matters were to become an issue in future, the appropriate management response would be to adjust the TAC and TACC for the species concerned.

Utilisation impacts

139. The area is utilised by commercial set netters targeting school shark and rig. Utilisation impacts from proposed MPA C1 will be cumulative with those of the adjacent proposed marine reserve at site B1. Further details are provided in the SIFMC submission.

Conclusion

140. MPA C1 cannot be justified under the Fisheries Act. Adverse effects of fishing have not been demonstrated and the imposition of MPA C1 unnecessarily restricts the utilisation of commercial fisheries for school shark and rig.

⁶¹ Danish seining is prohibited by regulation out to 3 nm from the coast.

⁶² Evidence is anecdotal only.

4.2.3 MPA E1 Kaimata

Adverse effects of fishing

141. No commercial dredging or Danish seining occurs at site E1,⁶³ and there are no actual adverse effects from these fishing methods. There is no evidence to suggest that these two fishing methods are ever likely to be used at the site and the likelihood of any potential adverse effect is therefore very low.
142. A small amount of bottom trawling occurs in the northwest corner of proposed MPA E1, but a voluntary trawl ban is in place over part of the bryozoan beds at the site. As far as we are aware, DOC and FNZ have not assessed whether bottom trawling may have an *adverse* effect on habitat forming bryozoans at a regional scale. However, the protection currently provided by the voluntary closed area and the fishers' practice of avoiding all bryozoan beds outside the voluntary closure⁶⁴ indicates that it is unlikely that the bryozoan beds are experiencing adverse effects from bottom trawling. There is therefore no evidence to demonstrate that it is necessary to close site E1 to bottom-impacting fishing methods in order to avoid, remedy or mitigate any adverse effects of fishing on the region's bryozoan habitats, or to provide for the maintenance and recovery of physical features and biogenic structures.
143. Purse seining does not occur in the area. Commercial set netting and mid-water trawling occur at the site, but these three fishing methods have no adverse effects on the maintenance and recovery of physical features and biogenic structures at the site. Any fishing-related threats to sea lions and sea birds are more effectively addressed through broad scale management measures such as those required under Threat Management Plans and National Plans of Action. Therefore, there are no actual or potential adverse effects from purse seining, set netting or mid-water trawling and no legitimate basis for prohibiting these methods under the Fisheries Act.
144. The intensity of commercial fishing for any species at the site is unlikely to prevent the maintenance and recovery of ecological systems, natural species composition and trophic linkages. If these matters were to become an issue in future, the appropriate management response would be to adjust the TAC and TACC for the species concerned.

Utilisation impacts

145. Several commercial fishers utilise the area for setnetting and trawling, as described in the SIFMC submission.

⁶³ Danish seining is prohibited in part of the site.

⁶⁴ As noted in the submission of SIFMC.

Conclusion

146. MPA E1 cannot be justified under the Fisheries Act. Adverse effects of fishing have not been demonstrated and the imposition of MPA E1 unnecessarily restricts the utilisation of set net and trawl fisheries.

4.2.4 MPA L1 Whakatorea

Adverse effects of fishing

147. Bottom trawling and Danish seining are already prohibited at site L1 and there are therefore no actual or potential adverse effects from these two fishing methods. No dredging occurs at the site, nor is there any evidence to suggest that dredging is ever likely to occur (or is even physically possible) at the site. Therefore, there are no actual or potential adverse effects from dredging and no legitimate basis for prohibiting dredging under the Fisheries Act.
148. Commercial set netting and line fishing do not occur at the site, and there is no evidence to suggest that these fishing methods are ever likely to be used in the estuary. Even if they were to occur at the site in future, the use of these fishing methods has no adverse effects on the maintenance and recovery of physical features and biogenic structures at the site. Commercial harvesting of shellfish by mechanical means does not take place at the site, and it will never occur as the site would be unable to support a shellfish sanitation programme. There is therefore no legitimate basis for prohibiting the commercial use of these three fishing methods under the Fisheries Act.
149. While commercial eel fishing occurs in the site, the use of fyke nets has no adverse effects on the maintenance and recovery of physical features and biogenic structures at the site. Furthermore, prohibiting eel fishing at the site is likely to result in localised depletion in other areas of the eel fishery, particularly as many estuaries in the region are already closed to commercial eel fishing (or are proposed to be closed as MPAs).
150. The intensity of commercial fishing for any species at the site is unlikely to prevent the maintenance and recovery of ecological systems, natural species composition and trophic linkages. If these matters were to become an issue in future, the appropriate management response would be to adjust the TAC and TACC for the species concerned.

Utilisation impacts

151. Impacts on the commercial utilisation of eels are addressed in the submission of the South Island Eel Industry Association.

Conclusion

152. MPA L1 cannot be justified under the Fisheries Act. Sustainability is already ensured as there are no adverse effects of fishing on the site's identified values, and utilisation of the eel fishery would be needlessly prohibited.

4.2.5 MPA Q1 Tahakopa

Adverse effects of fishing

153. Bottom trawling and Danish seining are already prohibited at site Q1 and there are therefore no actual or potential adverse effects from these two fishing methods. No dredging occurs at the site, nor is there any evidence to suggest that dredging is ever likely to occur (or is even physically possible) at the site. Therefore, there are no actual or potential adverse effects from dredging and no legitimate basis for prohibiting dredging under the Fisheries Act.
154. Commercial set netting and line fishing do not occur at the site, and there is no evidence to suggest that these fishing methods are ever likely to occur in the estuary. Even if they were to occur at the site in future, the use of these fishing methods has no adverse effects on the maintenance and recovery of physical features and biogenic structures at the site. Commercial harvesting of shellfish by mechanical means does not take place at the site, and it will never occur as the estuary would be unable to support a shellfish sanitation programme. There is therefore no legitimate basis for prohibiting the commercial use of these three fishing methods under the Fisheries Act.
155. While commercial eel fishing occurs in the site, the use of fyke nets has no adverse effects on the maintenance and recovery of physical features and biogenic structures. Furthermore, prohibiting eel fishing at the site is likely to result in localised depletion in other areas of the eel fishery, particularly as many estuaries in the region are already closed to commercial eel fishing (or are proposed to be closed as MPAs).
156. The intensity of commercial fishing for any species at the site is unlikely to prevent the maintenance and recovery of ecological systems, natural species composition and trophic linkages. If these matters were to become an issue in future, the appropriate management response would be to adjust the TAC and TACC for the species concerned.

Utilisation impacts

157. Impacts on the commercial utilisation of eels are addressed in the submission of the South Island Eel Industry Association.

Conclusion

158. MPA Q1 cannot be justified under the Fisheries Act. Sustainability is already ensured as there are no adverse effects of fishing on the site's identified values, and utilisation of the eel fishery would be needlessly prohibited.

5. Opposition to proposed kelp protection area

159. The fishing industry recognises that kelp plays a vital ecological role and provides important biogenic habitat for a range of marine species, including species of commercial importance. However, we oppose the proposed T1 kelp protection area for the following reasons:
- a) The proposed management measure is not an MPA and therefore should not have been consulted on as part of the proposed SEMPA network;

- b) The kelp protection area is not consistent with the purpose of the Fisheries Act, which is to ensure sustainability while providing for utilisation. In particular:
- The proposed prohibition is not justified on the basis of risks to the sustainability of kelp, or the adverse effects of kelp harvesting on marine biodiversity or the aquatic environment, particularly as no commercial harvest of bladder kelp is currently taking place within the region; and
 - The proposal would have a significant impact on commercial property rights, including quota allocated under the Fisheries Settlement, and would severely restrict opportunities to sustainably utilise kelp, as outlined in the submission of the Giant Kelp 3G Quota Owner Group; and
- c) Other far more significant threats to kelp habitat (in particular, runoff of terrestrial sediment which has been recognised as the number one threat to kelp habitat)⁶⁵ are not effectively managed in the region.

160. We note that in advice provided to Ministers, FNZ opposed the proposed ban on commercial harvest of bladder kelp as it is unjustified. FNZ advised that rather than pre-emptively banning harvest and risking legal action from affected quota owners, a more appropriate course of action for addressing the Forum's concerns about sustainability of future harvest would be to review the TACC and other harvest controls that are in place.⁶⁶ The fishing industry concurs with this view. We consider that it is irrational and irresponsible for the government to consult on the proposed kelp protection area when agencies are aware that it is inconsistent with the Fisheries Act.

6. Process concerns

161. The fishing industry considers that it is not in the public interest to establish marine reserves that are the outcomes of a flawed and divisive process (see [section 3.1.11](#)) and we object to the proposed Type 2 MPAs for the same reasons.

162. We are concerned that the Government is now *relying* on the mandate and consultation undertaken by the South-East Marine Protection Forum (the Forum). The Ministers of Conservation and Fisheries informed Cabinet that *we decided to progress Network 1 in its entirety in order to respect the integrity of the Forum process*.⁶⁷ The Minister's reliance on the historic Forum process is also evidenced by the fact that DOC and FNZ have not undertaken any active consultation (i.e., public meetings and widespread education and publicity) on the current Government proposals. However, the Ministers' faith in the Forum process is misplaced as it has been apparent for several years that, in spite of the best will and efforts of the Forum's participants and chair, the outcomes of the Forum process did not have

⁶⁵ MacDiarmid et al (2012). Full reference above.

⁶⁶ Joint agency advice on the South-East Marine Protection Forum recommendations, 19 October 2018. Released under the OIA.

⁶⁷ Cabinet paper – South-East Marine Protected Area Network Recommendations Date: 14 March 2019 Author: Office of the Minister of Conservation, Office of the Minister of Fisheries.

integrity: no consensus was reached, differences in policy interpretation were never resolved, and four members withdrew their support before the final report was presented to Ministers. Two independent reviews identified significant procedural and policy flaws.

163. We consider that (a) the Government cannot rely on the integrity of the Forum process or the mandate and consultation undertaken by the Forum, and (b) in light of that, the current consultation by DOC and FNZ is patently inadequate to inform Ministerial decisions (as discussed in [section 6.2](#)).

6.1 Ministers should not rely on the Forum’s mandate and consultation process

6.1.1 Forum lacked mandate

164. While we respect and appreciate the dedication and huge amounts of time put into the Forum by its members and chair over many years, the fishing industry considers that the Forum lacked mandate for the following reasons:
- Forum members were not appointed by the sectors that they were intended to represent, but by government;
 - Not all representatives had good links with the sectors they were representing, and not all representatives had a formal mandate from their sectors;
 - Some fishing industry interests who were significantly affected by the Forum’s proposals were not directly represented on the Forum – for example, the pāua and eel fisheries; and
 - Because so much of the Forum’s work was in committee, there were limited opportunities for representatives to confer with the sectors they were supposedly representing.

165. In the absence of a strongly mandated membership, comprehensive sectoral representation, or opportunities to confer with the wider sector, the Forum cannot be regarded as a valid platform for making inter-sectoral tradeoffs. For Forum members who represented fishing sectors (commercial, recreational, customary), the expectation that tradeoffs would be made was particularly unfair as the livelihoods and wellbeing of fishers and fishing communities were directly at stake. For other sectoral representatives on the Forum – for example science or environmental representatives – this was not the case as the livelihoods of their colleagues would not be harmed and may even be enhanced by the establishment of MPAs.

6.1.2 Forum process inadequate

166. The Forum did not apply the MPA Policy in a structured manner, as set out in the 2016 fishing industry submission.⁶⁸ For example, no account was taken of existing habitat protection and

⁶⁸ *Fishing Industry Submission on Proposed Marine Protected Areas for the South Island South-East Coast* (20 December 2016).

MPAs were proposed for reasons outside the scope of the MPA Policy (e.g., to safeguard protected species such as yellow eyed penguins, or for fisheries management purposes).

167. The Forum had no clear mechanism for resolving differing interpretations of the MPA Policy and, as a result, Forum members continued to hold irreconcilable views about how the MPA Policy should be applied. This failing had a significant impact on the integrity of the Forum's work, and was highlighted in two independent reviews.
168. The Forum undertook the task of identifying a network of MPAs in isolation of the wider marine management regime. In particular, fishing industry Forum members felt that the Forum did not develop an adequate understanding of the fisheries management regime or the adverse effect that MPAs have on the sustainability of surrounding fisheries through displacement of fishing effort.
169. The large number of submissions received on the Forum's proposals resulted in a chaotic and inefficient process for summarising submissions involving numerous iterations and complex, difficult-to-access databases. As a result, we are not confident that all Forum members read and understood the full range of submissions on their proposals, or that they were able to take the submissions into account adequately in their final recommendations.⁶⁹
170. The boundaries of seven of the eleven MPAs in Network 1 were extended beyond those consulted on by the Forum, denying stakeholders the opportunity to submit on the new boundaries. Some of these extensions were very significant – for example, the offshore boundary of MPA D1 was extended from 6km to 10km, significantly increasing the impact of the marine reserve on rock lobster fishers. The Forum did not assess the impacts of the boundary changes on existing fishing activity and was not in a position to claim community support for Network 1 as the full proposal had never been consulted on.
171. The concerns listed above are not new, but were raised throughout the Forum process by industry members. However, attempts to resolve the concerns within the Forum were consistently rebuffed. The lack of any 'off-line' dispute resolution process was a significant failing of the SEMPA planning process and it resulted in disagreements being perpetuated rather than resolved.

6.1.3 Forum process resulted in division, not consensus

172. Because of the procedural failings described above, the Forum was unable to reach consensus and presented two options in its final recommendations – i.e., Network 1 and Network 2.
173. The fishing industry and industry Forum representatives were dismayed that the Forum's final report consistently misrepresented the industry's approach to biodiversity protection,

⁶⁹ More than 2,800 submissions were received, plus many additional "template" submissions. The summary of submissions was a massive 365 pages, plus a separate 70 page summary of "science submissions".

significantly understated the benefits of Network 2, overstated the benefits and support for Network 1, and used biased and emotive language to describe the two options.⁷⁰

174. Most critically, instead of resolving the different underlying interpretations of the MPA Policy that had arisen in the Forum's deliberations, a single interpretation was presented in the Forum's final report to Ministers – even though this interpretation was disputed by four of the Forum's members. As a result, the Forum's report concluded that Network 1 achieved the MPA Policy requirements and Network 2 fell short. The equally valid alternative conclusion – i.e., *that Network 2, in combination with existing management measures, protects the same number of habitats with around one third of the cost to commercial fishing and less impact on other existing users* – was not included, resulting in a biased presentation of the two networks and lack of balance in the Forum's report.
175. In an effort to clarify these differences before the Forum made its recommendations public, industry members of the Forum raised their concerns directly with the Forum and with Ministers, but the lack of balance in the report was not addressed. As a result, four members withdrew their support for the Forum's report. The reasons behind the withdrawal of support were misrepresented by DOC officials, who provided their Minister with the following 'key message' to use in the media and other communications:⁷¹

Fishers say the Forum's report was biased against the fishing industry, is that true? The Forum strived to take all views into account when determining what marine protection options would be recommended. The fishing industry was represented and fully involved in the Forum and had opportunity to present their opinions on the process. The fishing industry representatives and one recreational fishing representative are the proponents of one of the two Networks, and therefore their recommendation forms a key part of the Report.

176. The members did not claim that there was 'bias against the fishing industry', but instead objected to the unbalanced presentation and analysis of the two networks in the Forum's report – which was a direct consequence of the failure to resolve underlying differences in the interpretation of the MPA Policy. By mis-stating the fishers' concerns in this and in numerous other communications, officials once again avoided the need to address the substance of the industry members' complaints.
177. The concerns noted above have been perpetuated rather than rectified in subsequent Ministerial decisions. For example, in a March 2019 Cabinet paper the Ministers of

⁷⁰ These concerns are outlined in detail in a letter from four Forum members to the Ministers of Conservation, Fisheries and the Environment (19 February 2018).

⁷¹ Information released under the OIA by the Department of Conservation to Kate Hesson, Otago Rock Lobster Industry Association, 25 June 2020.

Conservation and Fisheries describe Network 2 as *encompassing three marine reserves and two Type 2 areas, covering 366 km² (4.1% of the Forum region)*⁷² – a description that:

- Ignores the existing measures that already help protect biodiversity in the region and that were integral to the design of Network 2; and
- Omits a critical component of Network 2 – i.e., that support for the Network was conditional upon the Forum recommending that the government take steps to ‘rebalance’ affected fisheries in order to manage the effects of displaced catch and ensure sustainability. The Forum did not make this recommendation in their final report (in spite of it being a key component of Network 2), and neither was it ever subsequently acknowledged by Ministers.

178. Ongoing misrepresentations of this nature caused the fishing industry lose faith in the integrity of the Forum process and reject its outcomes.

6.1.4 Two independent reviews identify serious policy and procedural flaws

179. Two independent reviews have endorsed the industry’s concerns about the SEMPA Forum and process, and point to serious procedural flaws.

Caravel ‘Lessons Learned’ Review

180. Independent reviewers were commissioned by DOC in 2018 to prepare the ‘Lessons Learned Report’.⁷³ The reviewers highlighted the inconsistencies in the MPA Policy and the challenges the Forum had in interpreting and applying it:

*Forum members found the policy and associated guidance difficult to follow and difficult to apply, particularly in the face of differing interpretations by agencies. Comments were that it was **unclear, contradictory in places, and insufficiently specific in places**. The consequence of the lack of clarity was that **differences of opinion were almost impossible to reconcile**, which affected the Forum over the entire process. This created a very long initial engagement while relationships were built, understandings clarified, and consensus sought, but ultimately the **fractures dominated** and the Forum was unable to agree on a single network.*

181. The reviewers noted that *consensus was not achieved, and it is unlikely that it will be achieved in any other MPA forum while meeting the requirements of [the MPA Policy]*. They recommended that:

MPA policy needs to be made much clearer if it is to be used in forums such as this. It needs to be very clear about what is in scope and what is not (eg marine protection tools); identify

⁷² Cabinet paper – South-East Marine Protected Area Network Recommendations Date: 14 March 2019
Author: Office of the Minister of Conservation, Office of the Minister of Fisheries.

⁷³ Lessons Learned Report: South-East Marine Protection Forum Department of Conservation July / October 2018. The review was completed by Pat Thorn, Caravel Group (NZ Ltd) and Sue Powell, Tregaskis Brown Ltd.

what minimum standards or bottom lines are; and clearly articulate expectations and expected benefits.

Auditor General's Review

182. The second review was published by the Office of the Auditor General (OAG) in 2019.⁷⁴ The OAG compared the processes adopted by the SEMPA Forum and Te Korowai o Te Tai o Marokura. In contrast to a positive review of Te Korowai, the reviewer identified many problems with the SEMPA Forum.

183. The OAG highlighted how *aspects of the guidelines for implementing the Marine Protected Areas policy are **not supporting the achievement of New Zealand's marine biodiversity objectives***. The OAG reviewer observed that:

*Some members of the South-East Forum did not feel that the process allowed them to adequately minimise the adverse effects on their stakeholders. In some instances, members proposed marine management tools that did not meet the protection standard in the implementation guidelines but would have addressed their concerns about the adverse effects on existing users of the marine environment... As a result, some of the South-East Forum members **did not feel that recommendations to the Ministers adequately addressed the concerns of the people they represented. This undermined their participation and confidence in the South-East Forum** and contributed to members forming into factions according to their different points of view. These different factions appeared to operate in an adversarial way at times.*

184. The OAG's main recommendation to DOC and FNZ was to *consider how any reform to marine biodiversity protection legislation, policy, or planning could support greater collaboration between parties, and ultimately provide more timely, appropriate, and sustainable protection for New Zealand's unique marine biodiversity.*

6.1.5 No regulatory impact assessment

185. In spite of the acknowledged short-comings of the process, no regulatory impact assessment was prepared prior to the Ministers making a decision on the Forum's recommendations. Ministers were therefore not able to accurately and transparently assess the costs and benefits or alternative approaches prior making a decision to proceed with and consult on Network 1.

6.2 Current consultation process is inadequate

6.2.1 Lack of timely access to relevant information

186. Throughout the SEMPA process the fishing industry's efforts to obtain information so as to understand what was being proposed and why, and the consequences for our members of the

⁷⁴ Using different processes to protect marine environments, Office of the Auditor General, June 2019.

proposals, has been frustrated and delayed by officials. In particular, responses to our requests under the Official Information Act 1982 (OIA):

- Have been denied without justification and responded to only once the scope of the original request has been repeatedly narrowed to very specific categories of information;
- Even then, have typically been provided well beyond the statutory timeframe to the extent that the requested information, once provided, is no longer useful. For example, a very specific request to the office of the Minister of Fisheries for “*Copies of emails (and their attachments) authored by, copied to, and/or received by [the Minister]... in relation to the proposed SEMPA Network*” lodged by ORLIA on 9 June 2020 should have been provided by 7 July. Instead, the deadline was extended to 31 July – which is of limited utility in light of the closing of submissions the following working day; and
- On occasion have attracted prohibitive charges. For example, in March 2017 in response to a request for copies of submissions, DOC sought to charge PauaMAC5 \$66,044.50 for a hard copy of the submissions or \$37,924.00 for an electronic copy. These charges effectively denied our access to the requested information, but without reference to the statutory criteria for declining to release information under the OIA. The situation was resolved only when PauaMAC 5 asked the Ombudsman to investigate.

187. We have noted elsewhere in this submission the failure of FNZ to gather and make available accurate information on recreational catch in the SEMPA region, even though there was ample opportunity to do so. The lack of timely access to fisheries information was also highlighted in the two independent reviews of the SEMPA process.

6.2.2 Consultation material is inappropriately leading

188. It is clear from the consultation material that DOC and FNZ are encouraging submitters to use the online consultation website in preference to other ways of making a submission. For example, under the heading *Consultation document and ways to make a submission* FNZ informs submitters that ‘*an external website has been developed where you can: find the consultation document... [and] make an online submission*’. Further down the page, submitters are advised ‘*while we would prefer to get online or email submissions, you can also post your feedback*’.⁷⁵ The questions asked on the online consultation site are therefore of critical importance, as they will inform the scope and content of the majority of submissions. This is unfortunate because the online website does not encourage submitters to independently assess the merits and costs of the proposed MPAs.

⁷⁵ <https://www.fisheries.govt.nz/news-and-resources/consultations/establishing-south-eastern-south-island-marine-protected-areas/>

189. Instead, the online consultation tool asks submitters whether or not they agree with the agencies' assessment of the proposals. Specifically, submitters are asked whether they agree with the 'initial analysis' of costs and benefits of the proposed SEMPA network in section 3.2 of the consultation document. As set out in [section 3.1.5](#) of this submission, the 'benefits' in the consultation document are overstated and/or speculative, even though they are presented as absolutes – for example, '*establishment of the proposed network would allow the marine biodiversity in the southeast of the South Island to be explicitly protected and maintained or allowed to recover*'. In contrast, the 'costs' – which are undoubtedly real – are presented as if they were somehow hypothetical or avoidable. For example, submitters are informed that the network would '*potentially be associated with*' negative cultural, social and economic impacts on affected fishers and would have '*potential*' impacts on Māori interests. Aside from a high-level and partial assessment of economic impacts on commercial fishing, no other costs are quantified or described in at any level of detail ([section 3.1.4](#)).
190. In relation to individual marine reserve proposals, submitters are first directed to consider and respond to the analysis of costs and benefits in the consultation document. Only after reading the applicant's own opinions are they asked what they think of the MPA proposals.
191. In relation to the network as a whole and the individual MPAs, the analysis that submitters are being directed to read and respond to is incomplete and partisan. We consider that this is a clear attempt to inappropriately influence the content of the submissions received rather than to seek submitters' genuine reactions to the proposals.

6.2.3 Boundaries of a notified marine reserve cannot be changed

192. The consultation document asks submitters in relation to each proposed marine reserve '*what changes to the site or activity restrictions would you like to see?*' – thereby actively encouraging submitters to make submissions on matters that are arguably not within the scope of Ministers' powers under the MRA. The marine reserves application also implies that Ministers are prepared to consider changes to the proposed marine reserves in order to 'balance' marine protection objectives and the concerns of Ngāi Tahu and affected fishers.⁷⁶ The consultation website explicitly indicates that '*decisions about the proposed network may include ...implement[ing] some or all of the proposed protection measures, with amendments and/or conditions*'. Submitters are then invited to say whether '*you oppose or support the site (or have suggested changes)*.'⁷⁷
193. The fishing industry has received legal advice that the Minister of Conservation does not have the power to adjust the boundaries of a notified marine reserve. As there is no legal basis for amending the boundaries, the information to the contrary in the consultation material potentially misleads submitters. Submitters who actually oppose a particular marine reserve

⁷⁶ *The Ministers of Conservation and Fisheries are interested in the views of submitters about how the marine reserve proposed for site D1... could be progressed to balance these concerns against marine protection objectives.* Proposed southeast marine protected areas. Appendices to consultation document, page 70.

⁷⁷ <https://survey.publicvoice.co.nz/s3/semp-consultation>

because of its adverse effects may have mistakenly supported it (with recommended amendments) on the belief that Ministers were prepared to consider boundary changes or other amendments to mitigate the adverse effects as part of the approval process.

194. It should be noted that the fishing industry's position as set out in this submission is a response only to the particular proposal currently being consulted on. If Ministers subsequently wish to consider a different proposal (for example, a marine reserve with different boundaries or with conditions that differ significantly from those consulted on), we would expect that (a) the new proposal would be formally notified and (b) the industry would have an opportunity to consider and provide our response at that time.

6.2.4 Type 2 MPAs inconsistent with case law on consultation

195. The SEMPA consultation document provides no information on how the proposed Type 2 MPAs proposals can be justified under the Fisheries Act, hindering submitters' ability to understand and submit on these proposals. In particular, the consultation document contains:
- No analysis of whether the proposals are consistent with the purpose and principles of the Act; and
 - No information on how the proposed regulations will be implemented, for example as sustainability measures under s.11/s.298 or under the general regulation making powers of s.297.
196. Several of the proposed Type 2 MPAs may have impacts on recreational fishing – but specific recreational controls cannot be readily determined from the consultation material, hindering submitters' ability to understand which activities will be prohibited in which areas. The most obvious example is in relation to site Q1 Tahakopa where the narrative description of the proposed prohibitions includes dredging, mechanical harvesting and fyke net fishing, but the accompanying Table 12 mentions only that recreational set netting will be prohibited. It is therefore unclear whether recreational dredging, mechanical harvesting and fyke net fishing will be prohibited at site Q1. Similar inconsistencies apply in the narrative descriptions and associated tables for each of the proposed Type 2 MPAs, with the result that it is unclear which recreational fishing methods will be prohibited at these sites.
197. Information on the impacts of the proposed Type 2 MPAs on customary fishing is also poor. For the majority of sites, the consultation material provides a description of customary fishing activity but no information on whether customary fishing would be prohibited at the site. We presume (although this is not stated), that customary fishing is unaffected by Type 2 MPAs as the customary fishing regulations prevail over other regulations made under the Fisheries Act. However, for the Tahakopa estuary MPA, Table 12 states that set net and fyke net prohibitions would affect the ability of tangata whenua to gather kaimoana using these methods. This is confusing and not consistent with our understanding of the customary fishing regulations.
198. The lack of explanatory material for the proposed Type 2 MPAs brings the quality of the consultation into question. Case law confirms that statutory consultation obligations cannot

be fulfilled simply by discussing something in generalised terms. Providing sufficient information to enable the person you are consulting with to be adequately informed so they are able to make intelligent and useful responses is a key element of consultation case law in New Zealand.

6.2.5 Impact of COVID-19

199. The COVID-19 pandemic has major implications for the progression of the SEMPA Network, but these implications have not been addressed or acknowledged – other than in a belated and half-hearted way – by DOC, FNZ or Ministers.

Fishing industry submitters disadvantaged and subject to unnecessary stress

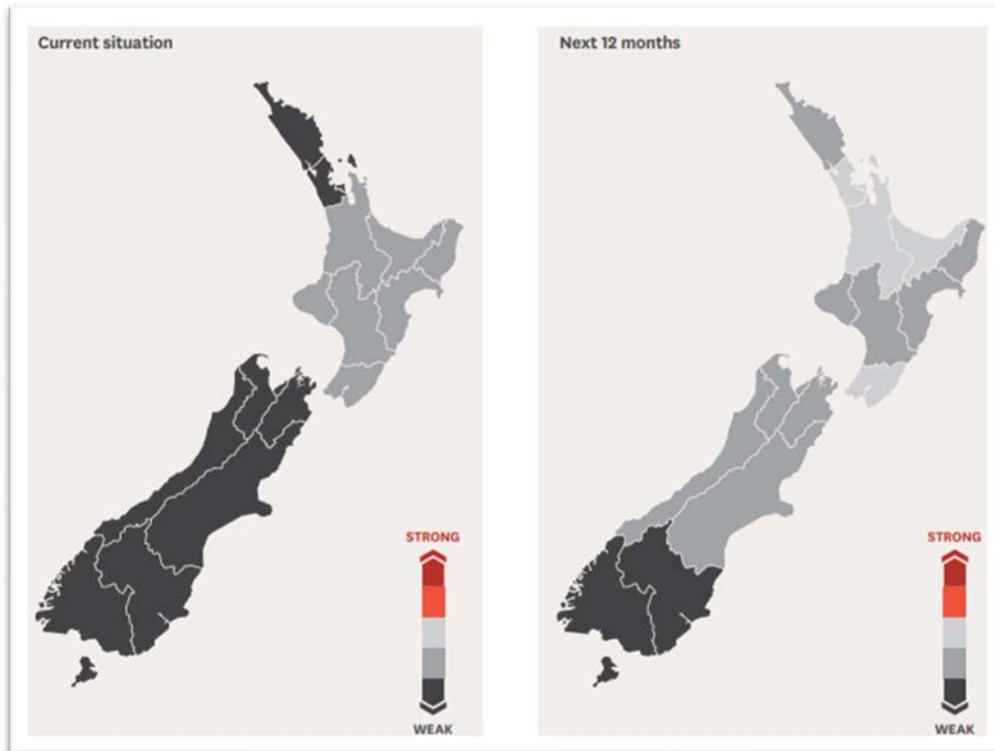
200. Submitters on the SEMPA proposals, including the fishing industry, were severely disadvantaged by the failure of the Government to act decisively to withdraw the notified marine reserves once it became apparent that the consultation obligations under the MRA could not be complied with. Submitting on a proposal comprising six marine reserves, five Type 2 MPAs and a kelp protection area is not a trivial task and affected parties had a reasonable expectation that agencies would act in a clear and in a timely manner.
201. It was apparent from early February 2020 that COVID-19 would cause significant disruption to New Zealand, well before the National State of Emergency was declared and Level 4 lockdown began on 25 March. However, in spite of numerous requests from the fishing industry – dating from as early as 18 February – to withdraw the SEMPA proposals, DOC did not halt consultation until 9 April, 51 days after officials were asked to act and just four working days prior to the original closing date for submissions (17 April). The delays and dithering caused unnecessary stress for fishers and fishing communities, many of who were struggling with significant uncertainty and other pressures as they sought to operate essential businesses providing food for New Zealanders during the lockdown.
202. Even once the decision to halt consultation was made, the announcement was unclear and confused. DOC and FNZ provided conflicting information about when consultation would re-start,⁷⁸ and provided no information (until requested under the OIA) on whether the notification had been withdrawn or ‘paused’ and, if paused, under what legal mechanism.

Implications for assessment of proposed MPAs

203. The fishing industry considers that once Ministers became aware of the significant and long-term social and economic impact of COVID-19 on New Zealand they should have immediately reconsidered their decision to proceed with Network 1.
204. The regional economies of Otago and Southland have declined dramatically in the wake of COVID-19 and the economic prospects for these two regions are particularly grim relative to the rest of New Zealand (see map below summarising current and future economic growth by

⁷⁸ DOC stated that consultation would be re-started *when COVID-19 restrictions have eased* and FNZ said it would be *once COVID-19 restrictions have been lifted*.

region over the next year).⁷⁹ The cost and benefit analysis (to the limited extent that this was undertaken) that informed the Ministers' decision to proceed with Network 1 is clearly no longer valid.



205. We note that while all of New Zealand will experience a deep recession and rising unemployment this year through to late 2021/early 2022, the scale of the impact and the speed of recovery is predicted to vary significantly across regions. Otago and Southland have been identified as having the weakest regional outlooks. A recent economic report notes that:⁸⁰

- In tourism-dependent Otago, economic activity has been badly affected by border closures and restrictions on domestic travel. Normally a top performer, Otago has already been among the hardest hit regions in New Zealand. The outlook for Otago is that economic activity will continue to be severely impacted by a ban on international tourists, making it **the hardest hit region** in the coming recession, and possibly **the slowest to recover**; and
- In Southland, economic activity has been hit hard by a loss of tourism, although this has been mitigated by the strong performance of the region's agricultural sector. However, the outlook is that Southland will experience a **severe recession** in coming quarters and is set for a **slow recovery** because of the region's heavy exposure to

⁷⁹ Westpac Regional Roundup, June 2020. <https://www.westpac.co.nz/assets/Business/Economic-Updates/2020/Bulletins-2020/Regional-Roundup-June-2020-Westpac-NZ.pdf>

⁸⁰ Westpac Regional Roundup, June 2020.

tourism. These impacts will be exacerbated by the effects of weaker prices for dairy, meat and aluminium – and further exacerbated by the recently-announced closure of the Tiwai Point smelter.

206. These current and future economic conditions will severely worsen the adverse financial impacts of the SEMPA proposals on individuals, businesses and regional communities. They also highlight a disconnect between the Government's recent policy responses to COVID-19 (actively trying to protect existing businesses) and the SEMPA proposals, which will harm commercial fishing businesses, perhaps even bankrupting some.
207. The fishing industry cannot comprehend the blinkered view that has led the Government to press ahead with such potentially harmful proposals at a time when sustainable primary production exports such as seafood are even more critical to New Zealand's economic survival and to the recovery and long-term wellbeing of the Otago and Southland regions.

6.3 Expectations of next steps

6.3.1 Additional analysis of fisheries impacts

208. Throughout this submission we have noted the lack of information on recreational fishing impacts, the extremely limited analysis of economic impacts on all fishing sectors, and the absence of evidence of adverse effects of fishing. We therefore expect FNZ to:
- Gather additional information on the location and scale of existing recreational fishing in the region, and the impacts of the proposed MPAs on non-commercial fishing;
 - Commission a comprehensive economic analysis, particularly in relation to commercial fishing, with the direct involvement of affected fishing enterprises and representative organisations; and
 - Analyse and provide evidence of the actual and potential adverse effects on the region's biodiversity of all fishing methods, particularly in relation to the proposed Type 2 MPAs.
209. This analysis must be completed prior to advising Ministers on any further decisions on the SEMPA network or on individual MPA proposals.

6.3.2 DOC response and independent report on objections to marine reserves

210. As DOC is the applicant for the proposed marine reserves, the fishing industry expects that DOC will answer each of the objections to the proposed marine reserves within one month of the closing date for submissions, as provided in MRA s.5(4).
211. We also expect that, consistent with its past practice and MRA s.5(6), DOC will commission an independent report to the Minister of Conservation on the objections prior to any decisions being made on the marine reserve proposals. We note that as the SEMPA process has been so polarising, it will be challenging to select a reviewer who has relevant expertise in marine

biodiversity protection and fisheries management and who is seen as ‘independent’ by all affected parties.

6.3.3 Concurrence

212. The Court of Appeal in the CRA3 decision describes the concurrence role of the Minister of Fisheries as requiring an independent assessment. The Minister must consider all of the relevant grounds for objection and the wider picture (including the public interest), while having regard to the particular expertise of his Ministry and his statutory functions. The Court observed that it was appropriate that the Minister considered his obligations under the Fisheries Act and the TOW(FC)S Act when deciding whether or not to concur.⁸¹
213. Throughout this submission we have identified – in a non-limiting way – a number of issues that we consider are relevant to the Minister of Fisheries’ concurrence role. In particular, we note that the utilisation of fisheries resources, ensuring sustainability, using the best available information, and obligations under the TOW(FC)S Act are all permissible relevant considerations that the Minister can take into account in making a wider determination about whether or not to concur with the proposed SEMPA marine reserves.

6.3.4 Regulatory impact assessment

214. The fishing industry expects agencies to prepare a formal Regulatory Impact Assessment (RIA) with a comprehensive and accurate costing of the costs and benefits of alternative approaches is prior to any further decisions to progress individual marine reserves or Type 2 MPAs. This is particularly important as no RIA was prepared prior to the Ministers’ decision to proceed with Network 1 or the release of the consultation document. Given the significant costs that the proposals will impose on individuals and on the Otago and Southland regions, we also expect the Treasury Regulatory Quality Team to undertake quality assurance of the RIA.
215. As noted elsewhere in this submission, a marine reserve or Type 2 MPA must be consistent with, and justified in relation to, the purposes of the statute under which it is implemented. It is not sufficient to justify establishing an MPA simply on the basis that it is consistent with the objectives or principles of the non-statutory MPA Policy – any such analysis would be circular, self-serving, and not open to the consideration of lesser-cost alternatives consistent with good regulatory practice. The RIA must therefore be undertaken in light of the objectives and purposes of the relevant legislation – i.e., the MRA for the marine reserves, and the Fisheries Act for the Type 2 MPAs – and the criteria for assessing options must also be directly consistent with the relevant statutes.

⁸¹ CRA3 Industry Association Inc v Minister of Fisheries [2001] 2 NZLR 345 (CA).

6.3.5 Further information

216. For further information in support of any matters raised in this submission, please do not hesitate to contact the identified representatives of the NZ Rock Lobster Industry Council, the Pāua Industry Council or Fisheries Inshore New Zealand.



Mark Edwards
CEO
NZ Rock Lobster Industry
Council



Storm Stanley
Chair
Pāua Industry Council



Laws Lawson
CEO
Fisheries Inshore New Zealand

From: [Stephanie Davies](#)
To: [SEMP](#)
Subject: FW: Otago Rock Lobster Industry Association - Submissions against SEMPA (20-6877)
Date: Monday, 3 August 2020 5:05:39 PM
Attachments: [ORLIA submissions on South East Marine Reserve Proposals.pdf](#)
[ORLIA economic effects report final 300720.pdf](#)
[SEMPA science review, Dr Goldstien Final.pdf](#)

FYI

From: Kate Hesson [mailto:s9(2)(a)]
Sent: Monday, 3 August 2020 11:06 AM
To: S Nash (MIN) <s9(2)(a)>
Cc: Kate Hesson <s9(2)(a)>
Subject: 20-6877 Otago Rock Lobster Industry Association - Submissions against SEMPA

Dear Mr Nash

As you will be aware submissions on the proposed South East Marine Protection Areas close today.

On behalf of the Otago Rock Lobster Industry Association (otherwise known as CRA7), I attach the following which have been filed against SEMPA:

- ORLIA submissions
- Supporting report - Economic effects review
- Supporting report - Scientific review

These submissions provide more in depth analysis than officials have done to date and highlight areas where further analysis needs to be done. Therefore, we ask that you read them in their entirety (various statutory declarations from affected individual fishers have also been filed but for the sake of brevity they are not attached here).

We also recommend that you pay particular attention to the submissions filed by Fiordland Lobster Company and jointly by SREs, including the New Zealand Rock Lobster Industry Council. The submissions of the Tautuku Fishing Club Dunedin and Haast Incorporated are also important. Such is our level of concern against SEMPA that we have worked closely with these organisations and others across the commercial and recreational fishing sectors. Although at times we have inconsistent views, here we are united in our concern with the process and substance of SEMPA.

If you require any further information, please contact me at the details below . (Please note that my email address s9(2)(a))

Many thanks

Kate Hesson
s9(2)(a)
s9(2)(a)
Executive Officer
Otago Rock Lobster Industry Association

Science Review to the Otago Rock
Lobster Industry Association:
South East Marine Protection Area

Science Review to the Otago Rock Lobster Industry Association: South East Marine Protection Area

Prepared by Dr Sharyn Goldstien, Marine Ecologist and Director KnowledgeAble Communities Ltd.

Background and Scope

1. Diverse and healthy environments support resilient ecosystems that can adapt to change and recover from impacts (Fujita et al. 2012). The application of tools to manage and/or protect marine ecosystems is controversial and polarising due primarily to the uncertainties in all aspects of marine management (Babcock 2003): baseline assumptions for fisheries (Pauly et al. 2013), network designs (Beech et al. 2008, Halpern et al. 2005, Parnell et al. 2006, Botsford 2003), the perceived need to protect or manage an area (Ruckelshaus 2008), costs to the community/fishers (Klein et al. 2012, Botsford 2003), and the contribution or effect of the applied tool (Willis et al. 2003, Huntington et al. 2010). Lessons from Pacific Island communities also highlight that resilient ecosystems must include resilient communities within an ecosystem-based adaptation model (McLeod et al. 2019), which includes all sectors and resource users (Klein et al. 2012).
2. A review by Huntington et al. (2010) highlighted that the rate of published empirical studies assessing marine reserve impacts globally lags behind the publication rate of theory and reviews, and suggest there is a danger of advocacy and model assumption not necessarily supported by science-based evidence (Huntington et al. 2010). For the numerous empirical studies they assessed as reporting an impact of reserve implementation, many did not fulfil good design criteria for comparative studies, including spatial and temporal replication and the non-random placement of reserves. The challenges in studying impacts were supported in a review by Halpern (2003), who also suggested replication of space and species is required for future assessments. Furthermore, Hilborn et al (2004) warned against implementation of marine reserves where fisheries are healthy and responsibly managed, as protection does not afford the same benefit as for over-exploited fisheries. Hilborn suggests that without case-by-case evaluation and appropriate monitoring of the reserves there is a risk of the marine reserves falling short of expectations and disenfranchising the community.
3. In the case of the South-East Marine Protection Area, documents supporting the forum network proposal and the most recent consultation documents do not include a review of the comprehensive science literature underpinning knowledge of the Otago region's oceanographic conditions, land-based influences, habitat health, and fisheries management assessments, nor the ecological connectivity, source-sink dynamics and environmental health requirements of *Jasus edwardsii* (southern rock lobster) that could inform best management practice or tool application.
4. The Forum and consultation documents do acknowledge the need for tools beyond the influence of the Marine Reserves Act 1971 and the Fisheries Act 1996, but they fail to rigorously assess whether these tools can address the issues facing the South East Marine Area without the need for alienating areas from fishing. For instance, neither of these documents provide evidence of exploited or declining fished species requiring attention; this is not the same as reporting the catch tonnage. Similarly, the documents attempt to assess the financial impact on the fishers when fishing areas are removed, without an assessment of the need for removing fishing and without an informed picture of spatial and temporal nuances of the stocks.

Ecosystem health and structure

5. Habitat protection is a key aspect of marine protected areas that has been acknowledged by the Forum and the consultation document. A more rigorous, evidence-based, assessment of the habitat quality and ramifications of poor coastal health highlight this as a primary area of concern.
6. Habitat needing protection in coastal waters includes the water-column; its water flow dynamics and quality, which are key components of habitat health and structure, and are further modified by associated biogenic habitats (Madsen 2001). Kelp forests form important biogenic habitat that supports multiple marine species along the Otago coast (Desmond forum review). The kelp forests are dependent on the availability of photosynthetically active radiation, nutrient accessibility, sea temperature, wave exposure and herbivory. Changes to these conditions will impact the settlement, recruitment, growth and expansion of the kelp forest populations and their associated communities; that is, biodiversity (Desmond review, Desmond 2015). There is no scientific evidence to suggest marine reserves mitigate water quality issues.
7. The global impacts of acidification and increased sea surface temperature are being reported for the Otago coast. For example, the Munida transect project ran for 7 years and shows a strong shift in the pH of the Otago waters (Currie 2011), suggesting ocean acidification is a reality for this region. Ocean acidification is a global issue that is not easily addressed at a local scale but one that will have complex implications for coastal reef systems on calcifying and non-calcifying macroalgae and their associated invertebrate and fish communities; that is biodiversity (Hepburn et al. 2011). Increased sea surface temperatures are also known to stress coastal kelps, and the Southern New Zealand coast has seen recent summer heatwaves with documented effects on the kelp. Bull kelp species *Durvillaea poha*, *D. antarctica*, and *D. willana* are common to the Southern New Zealand coastline (Fraser et al., 2012) and a recent study recorded a loss of up to 100% for *D. poha* in Lyttleton Harbour over the summer of 2017/18 (Schiel et al. 2019). This study warns that native seaweeds are likely to experience more heat-stress related mortality if summer heatwaves continue.
8. Acidification and temperature stress will have major impacts on the larval phase of all marine organisms, particularly those with a long period of development in the water column where growth and feeding occur, and for settlement onto substrate. A more local issue, equally as important for the survival of early phases of marine organisms, as well as adult health and survival is sedimentation.
9. Page 36 of the final consultation document supports the need to focus on water health as it states “There has been speculation that the water along this coastline was once clear enough to allow *Macrocystis* kelp beds to form offshore, which is supported by the presence of small, stunted *Macrocystis* in rock pools along the coast.” While protecting from the removal of *M. pyrifera* is an important component of protecting this ecosystem engineer, pg. 48 of the consultation document states, “The decline in kelp forests can be linked to increased sedimentation from land and other stressors,”. In addition, Morris et al. (2009) report multiple cascading lethal and sub-lethal impacts of sedimentation on all fisheries species.
10. The coastal waters off the Otago coast are strongly influenced by sedimentation from the Clutha and Taieri Rivers (Carter 1986) and by dredge spoil from the Port of Otago (Shears 2010). Additional research suggests sedimentation is a key stressor for Otago’s coastal ecosystems. Desmond et al (2015) showed the impact of land-based sediment on kelp forests in their study that measured light availability to shallow subtidal rocky reef habitats along a region of the East Otago coast adjacent to modified land. They compared these results to similar habitats on the northern coast of Stewart Island adjacent to forested land. They recorded twice the amount of light penetrating to 10 m of depth on Stewart Island. The kelp in Otago also showed reduced

biomass (3 - 6 times lower) and shallower depth range of shared seaweed species (approx. 1 - 2 m difference). The light penetration was the only variable that differed between sites; nutrient availability and seaweed density were relatively similar in both locations and grazing pressure was also similar and low at both sites. Within the Otago Coast, standing biomass of kelp and macroalgal density was greater in Aramoana than Karitāne at 10 m depth. While the correlation of modified land and light penetration was not confirmed as a causal relationship, it suggests more turbid water along the Otago coast resulting from increased sediment loading is impacting the growth of seaweed in these areas.

11. An additional consequence of sedimentation that has indirect effects on kelp-associated species is the invasion of non-native species. Fragmented patches or thinning of healthy native seaweed species allows the incursion and expansion of non-native seaweeds such as *Undaria pinnatifida*, as well as other invertebrate species. Scientific literature shows that *U. pinnatifida* does not readily invade a healthy native forest, but its rapid growth from spore banks in sediment give it an advantage to invade modified habitat where native seaweeds have been reduced or excluded (Valentine 2003). Desmond et al. (2015) recorded that 77% of the total macroalgal biomass at Aramoana in 2012 and 2013 was made up of *U. pinnatifida*. Similarly, Schiel et al. (2019) reported the replacement of *D. poha* by the invasive kelp *Undaria pinnatifida* as it declined due to increased sea surface temperatures.
12. The loss of the Otago kelp forests due to poor habitat health would create a habitat cascade, leaving the likes of mobile invertebrates and juvenile fish exposed to predation, as well as direct impacts on herbivorous species (Miller et al. 2018), ultimately creating a low diversity system.
13. Given the multiple environmental stressors experienced by coastal species in the Otago region, it is unreasonable to assume that marine reserve protection will provide the benefits to biodiversity suggested by the Forum report and consultation document. Morris et al. (2009) suggest that the focus on fished species in New Zealand continues to ignore the environmental impacts to changes on coastal habitats and ecosystems that are known to have occurred over the last 100 or more years. Ignoring these underlying habitat and directly lethal impacts on fisheries species inevitably impacts the underlying assumption of any population model, thereby reducing the efficacy of management tools. There is no scientific evidence to suggest marine reserves mitigate water quality issues.

Management or Protection for the Southern Rock Lobster Fishery?

14. The forum proposal and the final consultation document could have incorporated a strong body of science-based evidence to evaluate the merits of the current management of the southern rock lobster under the Fisheries Act 1996. In this case, science-based evidence can be used to determine if a marine reserve will mitigate or exacerbate current management efforts.
15. The science-based evidence for effective marine reserve design remains incomplete, despite decades of research on species connectivity and phylogeography (Ross et al. 2009, Goldstien et al. 2009), as well as marine reserve design and efficacy (Botsford 2003, Beech et al. 2008, Halpern et al. 2005, Parnell et al. 2006, Botsford 2003). In addition, Hilborn et al (2004) suggest that without case-by-case evaluation marine reserves can be ineffectual and reduce community buy-in. They also state the benefits of marine reserve implementation are low where good fisheries management practice is maintaining healthy stocks.
16. A shift to ecosystem-based tools recognises that management of a single species requires knowledge, management, and protection of the whole ecosystem (Ruckelshouse 2008), but a review by Halpern (2010) highlights that not all species will benefit from marine reserve protection, particularly where they are mobile, and depending on the intensity and types of

human impacts at a location. In addition, he warns that fishing may often be displaced, as opposed to reduced, by implementation of marine reserves. Unfortunately, collection of data for whole ecosystems and the multiple associated species is challenging and, in most cases, is not achievable. There are some species however that are well studied and where data can be used to determine best practice to maintain its biomass and population resilience.

17. The rock lobster supports major recreational, customary, and commercial fisheries around New Zealand. The commercial rock lobster fishery is responsibly managed with surveys and studies incorporating both adult and puerulus monitoring since 1979 (Booth et al. 2003), as well as stock assessments, regular CPUE assessment, growth from tag-release and return projects, and updated management procedures that allow for rapid response and adaptive management beyond stock assessment tools (Breen et al. 2016). Unlike most marine species, scientific studies and industry data collection provide a comprehensive picture of the distribution, abundance, and movement of the rock lobster among regions, and the key factors to be considered when managing this species.
18. The Otago Fishery Area (CRA 7) was one of the first to have comprehensive management procedures implemented and through these they have successfully rebuilt depleted stocks and continue to manage these volatile fisheries (Webber & Starr 2018). In addition, stock assessments show an increase in TACC is possible for CRA 7. These additional tools are particularly important where the fishery is known to be volatile due to migration events and variable catchability during moults.
19. The impacts of marine reserves on the rock lobster and associated fisheries around New Zealand have been reviewed through literature-based and empirical-based studies.
20. In 2003, Babcock did an extensive review of the science behind marine reserves in New Zealand. He initially highlighted large demonstrated increases in abundance and size of exploited species, including the rock lobster in New Zealand's marine reserves. However, he later unpacks this statement and instead shows that at best there are neutral results for lobster populations and the fisheries. As in his later publication, he shows a dramatic increase in lobster populations within the Leigh Marine Reserve, although the population has since declined to pre-reserve numbers (Babcock et al. 2010). Similarly, the populations within the Tawharanui Marine Park had increased over the 12 years since implementation, but in contrast, at Hahei Marine Reserve the numbers inside were no greater than outside the marine reserve. In other parts of the country, where recruitment of rock lobster was already high, the rate of increase after marine reserve implementation was even greater than the three northern reserves. Not all reserves have shown these increases. The Te Awaatu marine reserve in Fiordland did not show a significant increase in numbers 6-years post-implementation, suggesting a north-south difference in reserve efficacy. The southern rock lobster fisheries are known to be more volatile due to the natural differences in the southern rock lobster migratory behaviours and oceanographic influences, which may account for the neutral response in this southern fishery.
21. The displacement of fishing effort around New Zealand was highlighted as a concern by Babcock (2003) and he suggested an increased need for management outside of reserves to mitigate against undue pressure on fisheries and habitat because of fishing displacement. Spillover is often touted as negating displacement, but Babcock noted that for rock lobster fisheries in New Zealand, the yield is not enhanced outside the reserves, at best they are neutral to the change.
22. A more general review by Babcock et al. (2010) used decadal data from established marine reserves to assess long term changes in biodiversity. They concluded that initial and rapid recovery of target exploited species occurred within 5 years, usually the upper trophic level species. Beyond five years, and for species not considered exploited, the change was variable and

numerous species showed little to no recovery. In some exploited species, such as the abalone at Maria Island a decline in numbers was observed within the reserve due to increased predation by the now-protected lobster predators. In addition, some exploited species did not increase as strongly as expected, such as snapper populations at the Leigh Marine Reserve, which may have been related to declines of this species at fished sites – again cautioning against the separation of reserve and non-reserve data as is done in other studies. Similarly, at the Leigh reserve, rock lobster abundance was found to increase within the first 8 years, stabilised for 10 years, followed by reduction to the numbers recorded at the time of reserve implementation.

23. More recently Rojas-Nazar et al. (2019) used the fishery measure of CPUE to assess the difference pre- and post-marine reserve implementation, and inside and outside of two reserves on the Kāpiti and Wellington coasts. This study showed an increase in CPUE inside the reserves and a reduction in CPUE outside of the reserve. This is characteristic of reported effects from marine reserves implemented for habitat protection. Despite using a fisheries tool for this study, these changes in CPUE are not a true reflection of an assessment on the fishery. Studies such as these are incomplete in that they do not incorporate the proportional loss of catch, the proportion of productivity removed due to removal of a particular reef area, nor the seasonal or ontogenetic shifts in habitat use of the area. Therefore, the reduced CPUE outside of the marine protected area is not necessarily a true reflection of the impact the marine reserve is having on the fish populations, nor the fishery. This is particularly pronounced as the author's state they sampled parts of the Kāpiti reserve reported to have higher abundance of rock lobster and more complex reef structure. The research did include pre-reserve catch data supplied by fishers and the study design used the same methods as the fishers to avoid some of the issues Huntington et al. (2010) highlighted for previous marine reserve studies, although the extent of spatial overlap for the CPUE data from fishing areas (i.e., 915 and 934 within CRA4) and sampled sites is unclear.
24. Given the evidence available on the southern rock lobster fishery and the low impact of marine reserves on the rock lobster around New Zealand, there is no evidence that alienating areas from the well-managed southern rock lobster fishery will increase the rock lobster abundance or enhance biodiversity objectives set by the Forum or consultation documents.

Southern Rock lobster ecological considerations

25. The New Zealand southern rock lobster is a long-lived benthic mobile invertebrate that is known to migrate around southern New Zealand with multiple areas of origin and destination (McKoy 1983, Annala & Bycroft 1993), with documented examples of long-distance migration between Otago and Fiordland (Street 1969). Its extended larval phase also promotes dispersal and connectivity among populations around the country (Chiswell & Booth 2008). These factors create a more complex ecological system for the southern rock lobster than in more northern populations.
26. With a life span of more than 30 years, southern rock lobster adults reach sexual maturity between two and seven years of age. Reproduction occurs once per year and each female can produce up to half a million eggs per year (Annala & Bycroft 1987). Jacks (2009) demonstrated that habitat quality, prey availability, and the source of organic carbon to food webs supporting the rock lobster in Fiordland influenced its abundance and distribution, and the efficacy of marine protected areas to support the rock lobster's populations. Rock lobster moult to grow and during each moult the catchability is reduced (Street 1969). This influence on the fishery is exacerbated as immature females moult at a different time of year from mature females in southern New Zealand (Street 1969).
27. Multiple tagging studies from the 1970s and 1980s, whereby 3000 – 4500 individual lobster were tagged in reef environments and tags were recovered upon capture, provide data on the unique

phenomenon of long-distance migration in the southern region of New Zealand. Immature females and small male southern rock lobster generally travel less than 5 km from the reef to which they recruit until some proportion of these leave the reef completely and travel from 100 – 300 km south toward Fiordland before reproduction (Annala & Bycroft 1993, McKoy 1983, Street 1969, Street 1973). In this case, a seasonal reduction of biomass occurs in Otago with a corresponding increase in the peak commercial catch on the Fiordland coast (Street 1973, Annala & Bycroft 1993).

28. A key aspect of fisheries management is ensuring spawning biomass is large enough to keep the population in growth phase, which means individuals below legal size are protected from fishing pressure wherever they reside. Reproductive adults move off the reef to spawn and whether it be 1, 5 or 100 km, they march and congregate at a sandy spot where conditions allow mixing of eggs upon release and dispersal of larvae. At this point catchability is low. The resulting phyllosoma is a planktotrophic larval stage that spends 18 – 24 months in the water column before metamorphosing into a non-feeding puerulus that takes only days or a few weeks to find and settle onto a reef. It is the dispersal in the early stages of life that sets up complex source-sink dynamics for this species.
29. For most coastal species with short-lived larval stages, modelling of larval dispersal is in its infancy as nearshore hydrodynamics is challenging and is only recently being advanced by oceanographers. This makes it challenging to assess connectivity of populations within and among regions. However, rock lobsters prolonged phyllosoma stage is conducive to genetic and modelling studies and has been the species of focus for such research for many years. One of the latest studies by Chiswell & Booth (2008) highlights the complex source-sink dynamics of the southern rock lobster populations.
30. Lagrangian hydrodynamic models using satellite-derived ocean currents, including eddy entrainment points, and dispersal simulations with rock lobster specific parameters show the source-sink dynamics of rock lobster around New Zealand (Chiswell & Booth 2008). For southern New Zealand, simulations show that the Otago region (CRA 7) is a sink population to Fiordland (CRA8), with 98% of recruits in Otago originating from egg release in Fiordland. For the adults that release eggs in the Otago region, larval retention in Otago is low with almost 100% of phyllosomas hatched in Otago recruiting as far north as East Cape into fisheries areas CRA 3, 4, 5 and Chatham Islands (CRA 6). The Blue Skin Eddy in Otago is thought to retain larvae of other species, but for rock lobster, it is only the Wairarapa Eddy in the north that appears to have a discernible influence on local retention of phyllosoma (Chiswell & Booth 2008). This research provides invaluable information to underpin the management of the southern rock lobster fishery and suggests that recruitment into Otago is the primary driver for a thriving rock lobster population in this region.
31. Given the importance of the survival and successful metamorphosis of the phyllosomas and puerulus life-stages to the sustainability and expansion of rock lobster populations in Otago, the water column and settlement habitat are the key features of successful recruitment into the Otago fishery (CRA7). As discussed earlier, sea temperature, acidification, productivity, and predation are key drivers of successful phyllosoma and puerulus metamorphosis and survival in the water column. On the reef, algal health and structure are key to settlement, growth, and survival from early phases through to fishery recruitment (Hinojosa 15). In addition, there is no evidence of egg production issues for the rock lobster in New Zealand. Given these underlying factors, there is no evidence that a marine reserve in CRA7 will increase the rock lobster abundance in the Otago region.

Potential impacts of alienating fishery areas on the southern rock lobster fishery

32. Spillover is often stated as an expected outcome for species that respond positively to marine reserve implementation (Halpern et al. 2009), and that it offsets any alienation of fishing grounds. There is no evidence from New Zealand marine reserves of positive spillover effects on the rock lobster fisheries. Babcock (2003) stated a neutral outcome for fishers and other studies show a reduced CPUE outside of marine reserves (Rojas-Nazar et al. 2019). However, the studies fall short of assessing the full impact on the fisheries and they are likely reporting best case scenario for fishers.
33. Site D1 can be used as an example of how science and fisheries information can be better used to understand the impact of alienating this area of the southern rock lobster fishery. An average of 20.7% of the CRA7 catch was estimated by Fisheries New Zealand to fall within Site D1, as reported in the Forum documents, but this covers a large range for individual fishers. For example, mapped submissions of current fishing effort from two of the affected fishers, (stat declarations of Trevor Robert Allison and Damon Jon Cooper) shows the area removed varies between approximately s9(2) of total catch for one fisher and s9(2) of total catch for the other, but for both fishers the areas are split between seasons. So, these figures for total catch area more accurately represent about s9(2) and s9(2) of the area they fish most of the year. In addition, these fished areas within Site D1 represent the most productive areas of the fishery, which further increases the impact.
34. Productivity and seasonal effort outside of the D1 area indicates habitat limitations already exist for this species. In addition, seasonal movements and moults of the rock lobster reduces the productivity and increases the fishing effort required outside of this area. Therefore, removing one area of the fishery based on representative habitat for protection will likely increase the volatility of the fishery, rather than have a positive spillover effect. The displacement of fishing effort was highlighted as a concern by Babcock (2003) in his assessment of the impact of marine reserves in New Zealand. Given the biology and connectivity of the southern rock lobster, the displacement is likely to be greater than for the other fisheries as reported by Babcock (2003).
35. Breen (2020) reported on a study that fitted a simple model to catch and CPUE data for a 20-year forward projection of the CRA 7 fishery with several protection scenarios. This study lends further support to Babcock's suggestion of fishing effort displacement issues. Breen assumed that the protected areas would not contribute to the production available to the lobster fishery.
36. The model parameter of area removal was set at an average of 25% fished area based on aggregating fisher interviews, as well as DOC and MPI estimates, which they state may or may not be a fair removal of productivity. The report suggests that without protection the fishery can be managed sustainably with current TACC, or with an increased TACC of 25% over the next 20 years, although CPUE would decline by 8% with an increased TACC – sustainable fishery at higher cost to fishers. The no-protection scenarios resulted in a higher fish biomass (Bstart) than all protection-based scenarios. In summary, without protection the fish biomass is higher, the total catch can be increased and the cost to the fisherman is at 8% of catch rate.
37. With protection (25% alienated area), the lobster population biomass (Bstart) would also remain sustainable whether the TACC remains the same or is reduced (by 25%). There is no data in the report that shows the biomass would increase over 20 years in any protection scenario; rather, the biomass after 20 years of protection is lower than the no protection scenario by 36% without TACC reduction and by 26% with reduced TACC, despite only 25% alienated area. CPUE would be reduced by around 16% with or without a TACC reduction.

38. It is only if the TACC is increased (by 25%) with protection in place (25% alienated area) that the rock lobster fishery soft limits would be breached and the lobster population would decline (reduced Bstart), thereby making the fishery more volatile to fishing pressure.
39. It is stated in the report that there is no data to confirm that only 25% productivity (26% - 36% biomass) will be removed with the implementation of the proposed marine reserves, so this is likely to be best case scenario. As stated above, this average removal represents a range that includes loss of at least 30% to 60% of their fished areas. In addition, these fished areas within D1 are reported to represent the most productive areas of the fishery, which further increases the impact.
40. Breen's report also highlights that rock lobsters stay relatively local on reefs throughout their lives until they migrate for breeding. He suggests mitigation to loss of productivity might occur when lobsters migrate for breeding, which is also unique to CRA 7 and CRA 8, but this ignores southern rock lobster behaviour. Fishing for southern rock lobster in Otago can only occur on reef or rock structures. Lobster in CRA 7 largely gather on the reef structure within Site D1 before they migrate south. When moving across the sandy bottom of the ocean floor from there, the lobsters are vulnerable to predators (Hesse et al. 2016) and have no food source (stat. dec. Gavin Shane Heineman). Therefore, they do not stop on the sand to feed as reported in northern fisheries (Babcock 2003), preferring to move from reef to reef. It is nearly impossible to catch lobsters until they stop moving, when they are again on reef. Outside of Site D1, the actual areas where potting lobsters is possible within CRA 7 is minimal as there are limited reef or rock structures within the CRA 7 area.

Conclusion

41. It is my professional opinion that the Forum proposal and final consultation documents for the South-East Marine Protection Area have not rigorously assessed the science-based evidence available for the Otago coast and the southern rock lobster fishery, as presented in this review, which could have underpinned and informed decisions and solutions.
42. The primary area of assessment missing from these documents includes the ecological and fisheries status of fished species, such as the southern rock lobster presented here, as well as a deeper understanding of how marine reserves have impacted fished species in New Zealand to-date. As highlighted by other researchers (Hilborn 2004, Halpern 2003), superficial assessments of marine reserve impacts do not give the underlying assumptions of the impact studies, nor specifics of the impacts on the fished species or the fishery, including spillover and displacement. There is no evidence that fished species are over-exploited, but there is an abundance of evidence that sedimentation, sea surface temperature, acidification, and invasive species need attention in the Otago region for the habitat and associated species. As highlighted by Morris et al. (2009) these underlying environmental changes continue to have lethal, sub-lethal, indirect, and direct impacts on fished species and are in urgent need of attention. Marine reserves do not address these underlying effects and may contribute to downplaying the importance of them.

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The economic effects of the proposed southeast marine protected areas

A report for Otago Rock Lobster Industry Association

30 July 2020

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1. Introduction and executive summary


1. The Department of Conservation (DOC) and Fisheries New Zealand (FNZ) are consulting on a proposed network of marine protected areas (MPAs) off the southeast coast of the South Island of New Zealand.¹ Within some of the proposed MPAs, all commercial fishing will be banned, including the fishing of rock lobsters.
2. Members of the Otago Rock Lobster Industry Association (ORLIA) fish commercially for rock lobsters off the southeast coast of the South Island, in an area which includes the CRA7 quota management area (CRA7). We estimate in this report that approximately 25% of the ORLIA fishers' CRA7 rock lobster catch currently comes from within the proposed MPAs. The proposed MPAs will therefore have economic effects on the business of these fishers. We have been asked by ORLIA to analyse the economic effects of the proposed MPAs on the individual fishers and the CRA7 rock lobster fishery as a whole.
3. In particular, we quantified the effect of the proposed MPAs on the export revenue of the CRA7 fishery. We estimated that without the MPAs the fishery would generate \$191 million in export revenue (in present-day terms) over the next 25 years. However, with the proposed MPAs, that export revenue would be only \$153 million; resulting in foregone revenue of \$38 million.
4. As well as resulting in \$38 million of foregone export revenue, implementation of the proposed MPAs would increase the pressure on the fishery, requiring fishers to exert a greater effort to achieve their catch, as fishers attempt to catch rock lobsters within a smaller area. This can result in additional costs being incurred, such as additional fuel costs, from fishers moving to fish in areas outside the proposed MPAs, and increased maintenance costs arising from greater damage to equipment (we have not quantified these cost impacts).
5. Our estimate of the foregone export revenue is determined by calculating the difference in the export revenue from the commercial rock lobster catch with and without the proposed MPAs. The commercial catch is constrained by the total allowable commercial catch (TACC), which is the total amount of rock lobsters that can be caught in a given year. In the 2020-21 fishing year (from 1 April 2020 through to 31 March 2021) the TACC for the CRA7 rock lobster fishery is 106,200kg. We have been guided by scientific analysis undertaken for ORLIA which shows that:
 - a. Without the proposed MPAs, the TACC could be increased by 25% (to 132,750kg). We understand that this reflects the CRA7 fishery currently being in very good shape, allowing for an increased commercial catch without adversely affecting the sustainability of the fishery; and
 - b. With the proposed MPAs, the TACC could be left unchanged at its current level of 106,200kg. We understand that to leave the TACC unchanged would be sustainable. However, it would not be possible with the proposed MPAs in place to increase the TACC, as we understand that the fishery would not be sustainable under such a scenario.
6. As noted, and using an export price of \$113/kg, we estimate that \$191m in export revenue can be earned over 25 years from an annual commercial catch of 132,750kg without the proposed MPAs, and export revenue of \$153m over 25 years from an annual commercial catch of 106,200kg with the proposed MPAs. The \$38m difference can be thought of as foregone export revenue to the New Zealand economy, which will be lost as a result of implementation of the proposed MPAs.
7. To put this revenue loss in context, we note that while there will be some year-on-year variability in export revenue from the CRA7 fishery due to changes in the rock lobster catch and/or export price, annual decreases in the catch/price are often balanced out over time by annual increases. Indeed, in recent years the CRA7 catch has increased by, on average, 3% per annum, while the

¹ DOC and FNZ (2020), "Proposed southeast marine protected areas", Consultation document, June.

export price has increased by an average of 4% per annum. In contrast, the estimated foregone export revenue is persistent over the life of the proposed MPAs, and is not balanced out by increases in revenue. The catch and export revenue without the proposed MPAs are each 25% higher than they would be with the proposed MPAs, in each year over the 25-year period of our analysis. Such annual catch/revenue differences are nothing like what has been seen in the recent annual variability in catch or in the export price for the CRA7 fishery.

8. We also analysed the revenue effects of the proposed MPAs on individual fishers. Our results are reported in Table 1 (with anonymized fishers). We estimate revenue impacts for individual fishers at the port price, rather than the export price, as the former is what fishers receive from selling their fish. Each fisher is impacted in a similar way, by foregoing a 25% revenue increase that they might have otherwise received if the proposed MPAs were not put in place. The dollar revenue impact of this foregone revenue varies across the fishers, as shown in Table 1, depending on each fisher's relative revenue, and ranges from s9(2) to s9(2) in foregone revenue (in present-day terms, over 25 years).

s9(2)(b)(ii)



9. There will also be broader economic effects arising from the proposed MPAs. Since the proposed MPAs result in foregone revenue, they will also result in foregone value of quota held by quota owners (as quota value reflects the expected returns that can be earned from the CRA7 fishery). Quota are valuable property rights providing their owners with a perpetual right to a share of the rock lobster catch, and in which quota holders make a material investment. Implementation of the proposed MPAs therefore represents an expropriation of these property rights. When not compensated for, property rights expropriations undermine incentives for future investment, which can have significant adverse effects on New Zealand's long-term welfare and economic growth prospects.²
10. Individual fishers will experience lower revenue with the proposed MPAs relative to what they would have earned without the MPAs, along with increased costs arising from increased pressure on the fishery. Because the rock lobster price is set in international export markets, fishers will not be able to increase prices to offset these effects. This may undermine fishers' financial viability, which could likely lead to:
 - a. Difficulty servicing existing debt;

² We note that the foregone revenue and the lost quota value are different ways of expressing the same economic effect. It is important not to double count these two effects. However, the issue we discuss here (regarding the expropriation of property rights) is a dynamic effect that occurs in addition to the foregone revenue/quota value.

- b. The need to reduce the size of their workforce, resulting in some unemployment; and/or
 - c. At the extreme, some fishers may need to exit the industry.
11. There will also likely be economic effects across the broader vertical supply chain, such as in respect of processors, bait suppliers, providers of provedoring services, and boatyards. To the extent that these businesses are reliant on a considerable volume of their business from the CRA7 fishery, and are unable to substitute for the lost business or otherwise pass through the increased costs, then there will be similar adverse effects in terms of debt servicing difficulties, unemployment and industry exit.
 12. The analysis in this report is not intended to be a cost benefit analysis of the proposed MPAs. However, the results of our analysis would serve as an input into a cost benefit analysis. The analysis of costs and benefits in the DOC/FNZ consultation document considers the cost of the proposed MPAs in terms of the annual lost export revenue from the displaced (status quo) commercial catch, for which it estimates annual lost revenue of approximately \$2m.³ In annual terms, the foregone revenue we estimate in this report is \$3m, which differs from the DOC/FNZ figure due to a larger foregone catch amount and the use of more recent export price data.
 13. Moreover, the costs of the proposed MPAs go beyond just the foregone revenue, and include the increased costs and broader economic effects outlined above.
 14. The DOC/FNZ consultation document also refers to a number of benefits of the proposed MPAs which would not typically form part of a standard cost benefit analysis. For example, DOC/FNZ refer to as benefits that the MPAs will “contribute to New Zealand’s international biodiversity commitments” and “contribute to the objectives of the *New Zealand Biodiversity Strategy* and MPA policy”.⁴ As the New Zealand Treasury states in its “Guide to Social Cost Benefit Analysis”, benefits should be “[c]haracterised in terms of impacts on people, rather than on organisations or decision-makers” and should relate to the use of real resources.⁵ Contributing to a political objective or international commitment is unlikely to be a benefit in its own right; rather it is the direct impacts on people from any changes in real resource use that matter.
 15. We note that the analysis in this report is based on data from prior to the onset of the COVID-19 pandemic. The impact of the pandemic on the New Zealand economy is considered to be highly uncertain,⁶ and similarly it is difficult to know with certainty how the pandemic will impact on the rock lobster fishery. Nonetheless, it seems reasonable to infer that any economic downturn arising from the pandemic will have at least some adverse impact on the rock lobster fishery in the short-term. The negative economic effects arising from the proposed MPAs will therefore, in the short-term, be in addition to this potential adverse impact arising from the effects of COVID-19.
 16. The remainder of this report provides more detail on the results set out above. Our report is structured as follows:
 - a. Section 2 provides relevant background to the CRA7 fishery and proposed MPAs;
 - b. Section 3 sets out the methodology for the calculation of lost export revenue;
 - c. Section 4 sets out our results and sensitivity testing; and
 - d. Section 5 incorporates a qualitative discussion of other economic effects.

³ DOC and FNZ (2020), “Proposed southeast marine protected areas”, Consultation document, June, p.19.

⁴ DOC and FNZ (2020), “Proposed southeast marine protected areas”, Consultation document, June, p.18.

⁵ New Zealand Treasury (2015), “Guide to Social Cost Benefit Analysis”, July, paragraphs 23 and 24.

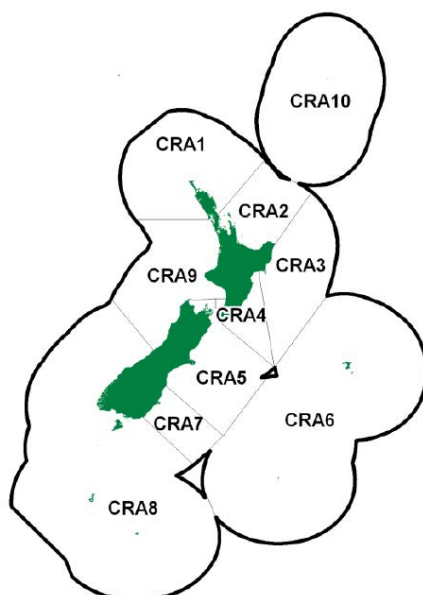
⁶ See New Zealand Treasury (2020), “Treasury Report T2020/973: Economic Scenarios”, 13 April, at p.2.

2. Background to the CRA7 fishery and proposed MPAs

2.1. The CRA7 rock lobster fishery

17. Commercial rock lobster fishing off the southeast coast of the South Island operates within the CRA7 quota management area. This is a defined geographic area in which the rock lobster fishing stock is managed through the setting of annual catch limits under the quota management system (QMS). Figure 1 illustrates the 10 current quota management areas for rock lobster, CRA1 through to CRA10 (although CRA10 is purely administrative, with no fishing occurring), with CRA7 located off the coast of Otago.

Figure 1: Rock lobster quota management areas



Source: https://fs.fish.govt.nz/Doc/24542/14-CRA_2017_FINAL.pdf.ashx

18. As with other fisheries that operate under the QMS, the CRA7 fishery is managed by the annual setting of a total allowable catch (TAC), specifying the sustainable catch for the fish stock. The TAC is shared between the different users of the fishery. After allowing for recreational and customary use, and illegal unreported removals, the total allowable commercial catch (TACC) is the amount available to be caught by commercial fishers.
19. In the CRA7 fishery, there have generally been 9 to 12 commercial fishing vessels operating in recent years.⁷ The TACC for the 2019-20 fishing season for the CRA7 fishery was set at 97,000 kg, and for the 2020-21 season has been set at 106,200kg.⁸ That is, commercial fishers on the CRA7 fishery can land, in total, 106,200kg of rock lobsters in the 2020-21 season. This TACC is apportioned between the owners of quota. A quota is a property right that provides its owner with

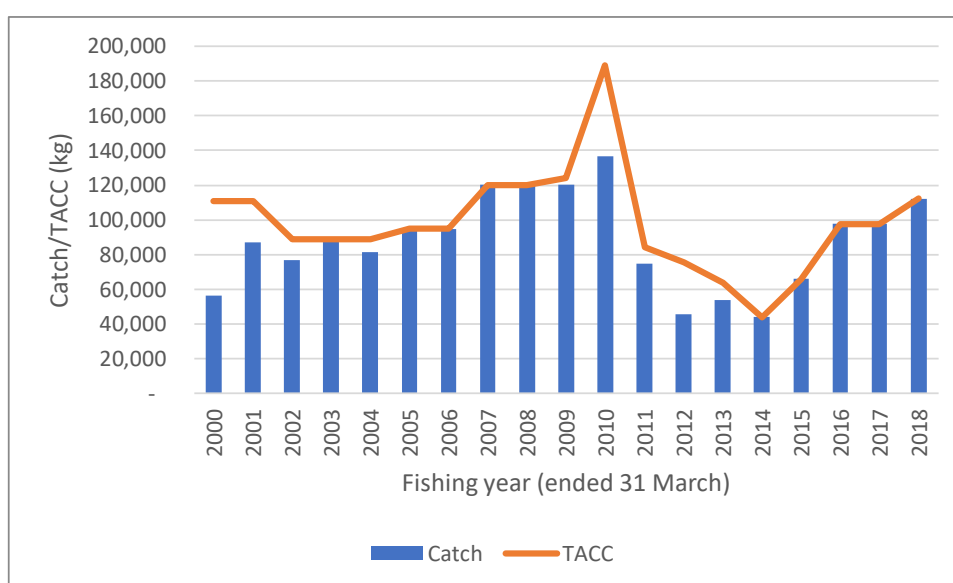
⁷ National Rock Lobster Management Group, “Review of Rock Lobster Sustainability Measures for 2020/21”, Discussion Document No: 2019/20, December, at paragraph 119.

⁸ FNZ, “Review of sustainability measures for 1 April 2020”, available at: <https://www.fisheries.govt.nz/news-and-resources/consultations/review-of-sustainability-measures-for-1-april-2020/>, accessed 31 March 2020.

a perpetual right to an annual share of the TACC. The annual share of the TACC is known as the annual catch entitlement (ACE).

20. In the CRA7 fishery, the TACC is determined periodically based on a stock assessment to establish the sustainable level of catch. In between these periodic stock assessments, adjustments to the TACC have been guided by a formulaic approach known as the “management procedure”, which utilises information on catch per unit effort (CPUE) and applies decision rule criteria to determine the TAC and hence the TACC in a way intended to manage the harvest and maintain healthy fish stocks.⁹ We understand that the next stock assessment for CRA7 will occur following the 2020-21 fishing season. Figure 2 shows the history of the TACC for the CRA7 fishery, and the resulting catch. We note that since the 2013-14 fishing season (the year ended 31 March 2014) the actual landed catch has been constrained to the TACC in each year.

Figure 2: TACC and catch for CRA7, 2000-2018

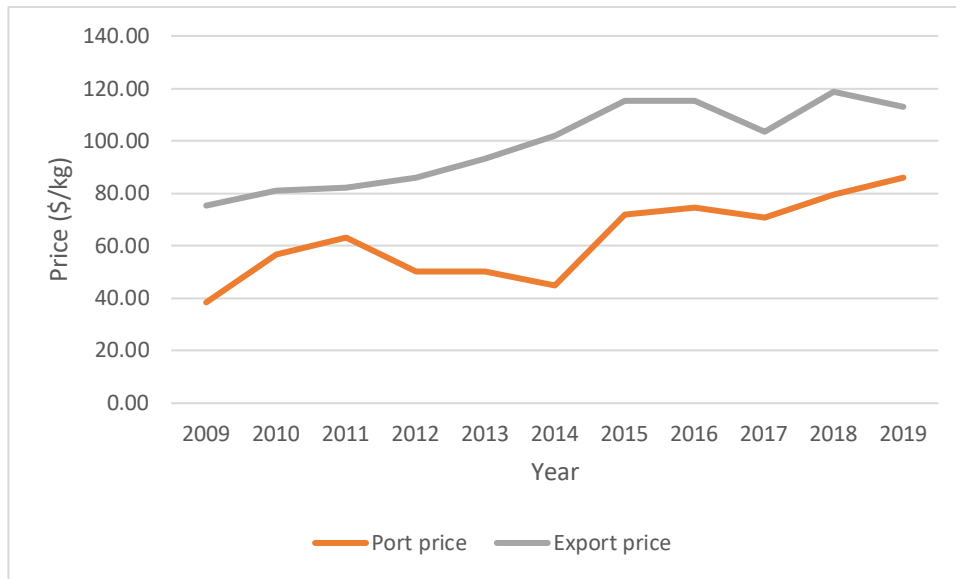


Source: NERA analysis, based on data available in P.J. Starr (2019), “Rock lobster catch and effort data: summaries and CPUE standardisations, 1979-80 to 2017-18”, New Zealand Fisheries Assessment Report 2019/17, April.

21. Prices received by fishers in the CRA7 fishery have generally been increasing in recent years. In Figure 3 we show the average “port price” (measured as \$/kg) for the CRA7 fishery, which is the average price paid by licensed fish receivers (LFRs) to fishers. This price has increased from approximately \$40/kg in 2009 to \$85/kg in 2019, with an annual average increase over this period of 11% per annum. Also shown in Figure 3 is the export price, which shows a similar upward trend to port prices, and has been increasing at an annual average rate of 4% per annum over 2009-2019. The export prices shown in Figure 3 are a measure of the average (free on board) value of all rock lobster exports (i.e., not just those from the CRA7 fishery) per kg exported. Export prices are higher than port prices, likely because the former take into account the additional costs (e.g., storage, transport and packaging) from when rock lobsters are landed through to when they are exported.

⁹ D.N. Webber and P.J. Starr (2018), “Operational management procedures for New Zealand rock lobster stocks (*Jasus edwardsii*) in 2018”, New Zealand Fisheries Assessment Report 2018/23, June.

Figure 3: CRA7 port prices and rock lobster export prices, 2009-2019

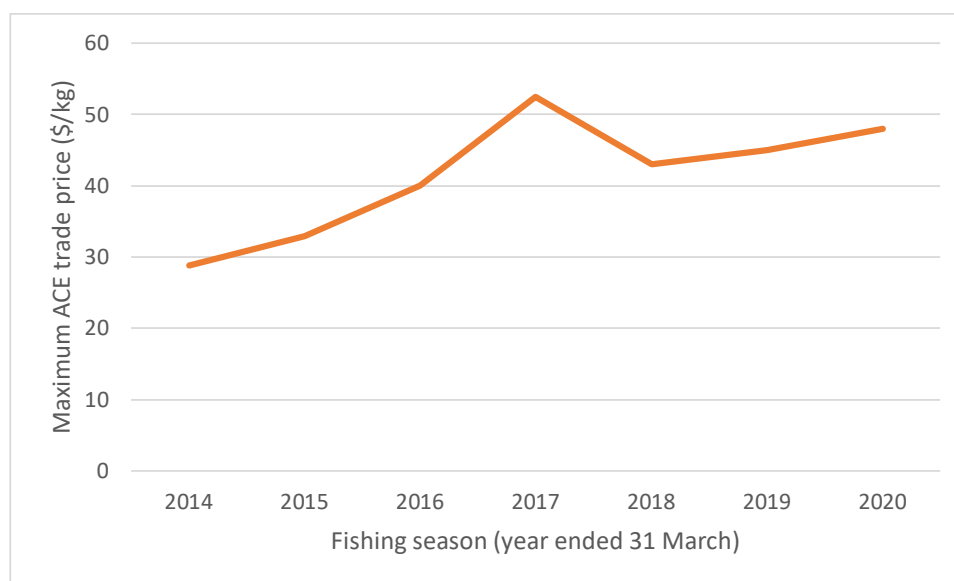


Source: NERA analysis of port price data obtained from FishServe (measured in March years) and export value and volume data from Seafood New Zealand (measured in calendar years).

22. As noted above, the TACC is apportioned between quota owners. Quota generate an amount of ACE at the start of each fishing season. ACE can either be used or traded, and many quota owners that receive ACE will not use it themselves but will trade it to a commercial fisher at an agreed price. From the 2013-14 to 2019-20 fishing season, there were, on average, 60 trades of ACE per annum in the CRA7 fishery.¹⁰
23. In Figure 4 we plot the maximum ACE trade price (per kg) by fishing year, from 2013-14 through to 2019-20. We report the maximum ACE trade price (rather than an average), because we understand that trades are often made between related entities at very small (e.g., \$1 or 1c) or even zero prices, which can skew the average ACE price towards a lower value. ACE trade prices have generally been increasing over this period, with an average increase of 10% per annum from 2013-14 through to 2019-20.

¹⁰ Determined by NERA analysis of ACE trade data obtained from FishServe.

Figure 4: Maximum ACE trade prices in the CRA7 fishery, 2014-2020



Source: NERA analysis based on ACE trade data obtained from FishServe

24. As a final general background comment, compared to other fisheries in New Zealand, the rock lobster fishery is relatively high value. A 2017 study by BERL estimated the average annual fish catch and value of that catch (based on port prices) across the 2010-2015 period, across all New Zealand commercially fished species.¹¹ The top 10 highest-value estimates are shown in Table 2. While the data underlying the study are relatively old, it can nonetheless be seen that, at the time of this study, rock lobster was second only to hoki in terms of total value of the catch, and second only to paua in terms of the value per kg of catch.

Table 2: BERL estimates of catch and value of deepwater commercial catch, top 10 highest value species

Fish species	Total commercial deepwater catch (average 2010-2015, 000 kg)	Estimated value of fish (average 2010-2015, \$ millions)	Unit value (\$/kg)
Hoki	137,672	145	1.05
Rock Lobster	2,839	132	46.50
Snapper	6,342	60	9.46
Paua	926	58	62.63
Ling	13,125	51	3.89
Arrow Squid	25,702	43	1.67
Blue Cod	2,232	36	16.13
Southern Blue Whiting	33,175	26	0.78
Tarakihi	5,701	23	4.03
Orange Roughy	6,603	22	3.33

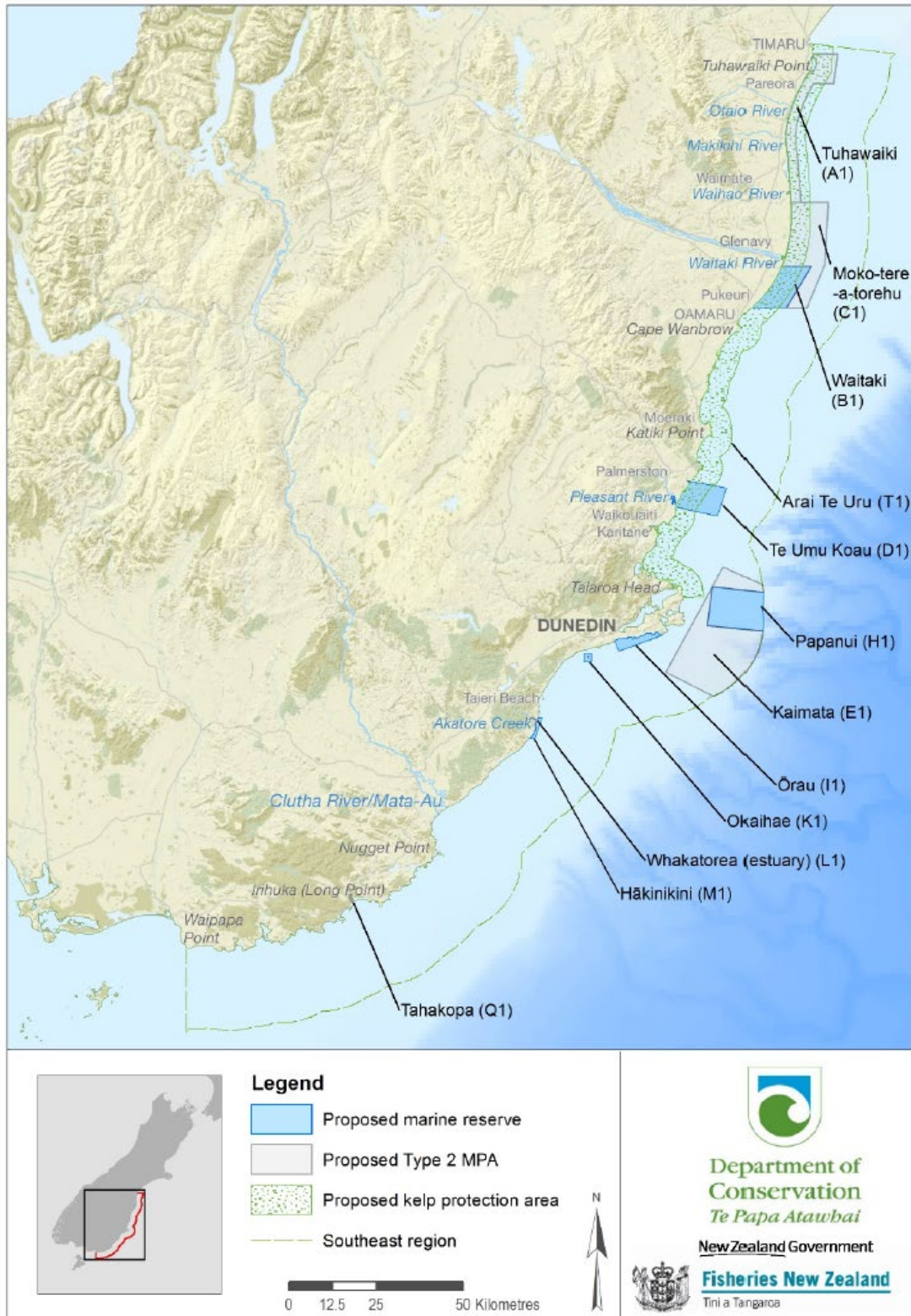
Source: NERA analysis based on data provided in BERL (2017), "The economic contribution of commercial fishing to the New Zealand economy", August.

¹¹ BERL (2017), "The economic contribution of commercial fishing to the New Zealand economy", August

2.2. The proposed MPAs

25. The proposal put forward in the DOC/FNZ consultation paper is for a network consisting of:
 - a. Six proposed marine reserves (Type 1 MPAs). These reserves are “no take” areas in which all commercial fishing is prohibited;
 - b. Five proposed Type 2 MPAs, which are areas where certain fishing methods are prohibited (bottom trawling, Danish seining, and commercial and recreational use of dredges); and
 - c. A proposed kelp protection area, which is an area that prohibits the harvesting of kelp.
26. Figure 5 shows the proposed locations of each of these areas.
27. In the remainder of our analysis we focus on the six proposed Type 1 MPAs, as these are where the most significant adverse effects are likely to be concentrated in respect of the CRA7 fishery. When we refer to the “proposed MPAs” in the remainder of this report, this should be taken to mean only the six proposed Type 1 MPAs.

Figure 5: Locations of the proposed Type 1 and Type 2 MPAs and proposed kelp protection area



Source: Figure 1 of DOC and FNZ (2020), "Proposed southeast marine protected areas", Consultation document, June.

3. Methodology for assessing lost export revenue

3.1. Overview

28. In this section we set out our methodology for quantifying the aggregate lost export revenue from the proposed MPAs for the CRA7 fishery overall. We discuss in section 4 our approach to quantifying lost revenue for individual fishers in CRA7.
29. The proposed MPAs will prohibit commercial fishing within the area defined by the MPAs' boundaries. As a result, any rock lobsters that would have otherwise been caught within these proposed MPAs will either no longer be caught, or will need to be caught elsewhere (outside of the proposed MPAs). This may, in turn, result in a loss of gross revenue that would have otherwise arisen from the CRA7 rock lobster fishery.
30. While there may be a loss of gross revenue, there may also be some costs that are avoided due to implementation of the proposed MPAs. For example, if a fisher's rock lobster catch falls, the fisher may avoid some costs related to fuel and bait that it would have otherwise incurred, or they may avoid some employment costs if they need to reduce their workforce. However, if fishers continue to operate, then many of their fixed costs (such as those related to vessel maintenance and insurance) will not be avoided. It is also likely that some costs will increase, such as additional fuel costs, if fishers move from fishing in the proposed MPAs to other areas in CRA7. Similarly, if there is increased fishing pressure in these other areas, then it could also result in increased costs, such as increased maintenance costs arising from greater damage to equipment, or increased bait costs due to a higher number of potlifts required.¹²
31. We did not have detailed data on fishers' costs in order to quantify how costs might change as a result of the proposed MPAs. Our approach in this report is therefore to focus on quantifying the loss of gross revenue. We do, however, discuss qualitatively later in this report how some costs may change as a result of the proposed MPAs.
32. Our approach to estimating the lost revenue is to do so on a forward-looking basis; that is, we estimate the effect on revenue arising from the proposed MPAs looking forward into the future. In determining the timeframe over which our analysis is conducted, we need to balance the use of a relatively long timeframe over which the proposed MPAs will be in place, against:
 - a. The uncertainty of forecasting out into the distant future; and
 - b. When dollar amounts are incurred far into the future, they have very little value when discounted back to present-day terms.
33. We note also that the DOC/FNZ consultation refers to the requirement to undertake a 25-yearly generational review of the proposed MPAs.¹³ To reflect this, and balance the above factors, we assume a timeframe for our analysis of 25 years (although we also report our results on an annual basis). In particular, we assume the proposed MPAs are put in place in the 2021-22 fishing season (commencing 1 April 2021), and we analyse how they will affect the revenue of the fishery on an annual basis through to the 2045-46 fishing season. Our analysis is also expressed in 'real' terms i.e., after accounting for the effects of inflation.
34. To quantify the lost revenue arising from the proposed MPAs, we also need to specify the 'factual' and 'counterfactual' scenarios. The factual is the state of the world with the proposed activity being assessed i.e., if the proposed MPAs were to go ahead. The counterfactual scenario is the situation that would exist if the activity does not go ahead i.e., where the proposed MPAs

¹² Rock lobster are caught in baited pots, which are lowered into the sea and later withdrawn (lifted) with their catch.

¹³ DOC and FNZ (2020), "Proposed southeast marine protected areas", Appendices to the consultation document, June, at p.70.

are not in place. As we discuss below, we base our factual and counterfactual scenarios off scientific analysis as to how the TACC may be adjusted (if at all) with and without the proposed MPAs, and thus how the resulting landed commercial catch changes.

35. Conceptualising our approach, if p represents the price received per kilogram of rock lobster, q represents the landed amount of rock lobsters (in kg), and the subscripts F and CF represent the factual and counterfactual respectively, the lost revenue would involve estimating the following equation:

$$\text{Lost revenue} = (p_{CF} \times q_{CF}) - (p_F \times q_F)$$

36. That is, the lost revenue is the difference between the gross revenue that the fishery would earn in the counterfactual and what it would earn in the factual.
37. We discuss in more detail in the following sections how we determine the values underlying this equation.

3.2. Rock lobster prices

38. One way to measure rock lobster prices (per kilogram) is to use data on the export price per kg of rock lobsters exported. Seafood New Zealand reports the free-on-board value and volume of New Zealand's rock lobster exports.¹⁴ From these data, an export price can be determined, where price is equal to value divided by volume. The most recent data we have on the export price is for the 2019 calendar year, in which the average export price for rock lobsters is \$113.03/kg (see also Figure 3 earlier in the report for a time series of these prices).
39. An alternative price measure is the port price, which is the average price paid by LFRs to CRA7 fishers. However, we use the export price as our base case measure of overall gross revenue per kg, as this reflects the gross revenue of rock lobsters to New Zealand more broadly, not just to fishers. That is, the export price reflects the revenue across the broader supply chain, including LFRs, processors and exporters. We nonetheless apply a sensitivity test where the lost revenue is calculated using the port price. We also assess impacts on individual fishers using the port price, as discussed later in our report.
40. We assume that the export price applies in both the factual and the counterfactual i.e., that $p_{CF} = p_F$ in the equation above. This is likely to be a reasonable assumption because the export price for rock lobsters is unlikely to be materially different between the factual and counterfactual. This is because rock lobsters are generally exported, so any reduction in CRA7 volumes due to the proposed MPAs is unlikely to have a material impact on world supply, and therefore will be unlikely to impact the export price.
41. As noted above, we apply the export price over the forward-looking 25-year period of our analysis. To do so, we assume that the annual export price remains unchanged (at \$113.03/kg) in real terms in each year of our analysis over the 25-year period.¹⁵ This is likely to be a conservative assumption: it amounts to assuming that the export price grows in nominal terms at approximately the rate of inflation, which in recent years has generally been between 1-2% per annum.¹⁶ As shown in section 2, export prices for rock lobsters have been growing at a faster rate than this, at approximately 4% per annum on average in the 10-year period from 2009 to 2019.

¹⁴ Data available at <https://www.seafood.org.nz/publications/export-information/>

¹⁵ It is possible that the COVID-19 pandemic will have an impact on rock lobster export prices. However, it seems likely that such effects will only be in the short-term, and could be considered an anomaly relative to longer term trends. It is therefore appropriate to use the 2019 export price as a more reasonable estimate of export prices over the longer-term 25-year period of our analysis.

¹⁶ See Statistics New Zealand, Consumers Price Index: <https://www.stats.govt.nz/indicators/consumers-price-index-cpi>, accessed 9 March 2020.

3.3. Rock lobster landed catch

3.3.1. Counterfactual and factual scenarios

42. Following the equation set out earlier, to determine the lost export revenue, we multiply the export price by the kilograms of rock lobsters caught in each of the factual and counterfactual.
43. To help inform these scenarios, we were provided with analysis undertaken by Dr. Paul Breen for ORLIA, regarding the sustainability of the CRA7 fishery under different TACC scenarios.¹⁷ Dr. Breen's analysis shows that, if the proposed MPAs did not proceed, the TACC could be increased by 25% from its current level, and the CRA7 fishery would remain sustainable.¹⁸ It is important to caveat that Dr. Breen's analysis involved conducting a number of "runs" of his model, and the results of individual runs are highly variable.¹⁹ To ensure that our economic analysis is tractable, we have utilized the average results from Dr. Breen's modelling. The reader is referred to Dr. Breen's report for a more detailed analysis of the assumptions made and the variation in the results.
44. It is relevant to note that the National Rock Lobster Management Group has stated that recent increases in the TACC in CRA7 is suggestive of an increase in abundance in the CRA7 fishery, and that there are no sustainability concerns with this fishery.²⁰
45. Based on Dr. Breen's analysis, we therefore assess a counterfactual scenario (i.e., without the proposed MPAs) in which the TACC is able to be increased by a one-off amount of 25%, from its current value of 106,200kg to 132,750kg. In our modelling this latter value is the value set for the TACC for the 2021-22 fishing year, and we assume in this counterfactual that it applies in each year over the period of our analysis from 2021-22 to 2045-46.
46. The 25% increase assumption in this counterfactual is based on our finding that approximately 25% of the total landed catch in CRA7 is caught within the area of the proposed MPAs. We set out in more detail in the next section how this figure was determined.
47. In the factual (i.e., with the proposed MPAs), fishers are no longer able to catch rock lobsters within the areas of the proposed MPAs. This may result in these fishers not catching rock lobsters at all, or it may result in fishers substituting their catch to areas outside the proposed MPAs (or a combination of both).
48. Dr. Breen's analysis showed that, with the proposed MPAs in place, fishers could substitute their catch to areas outside the proposed MPAs, such that the TACC could remain unchanged (from its current level of 106,200kg), and the fishery would be sustainable.²¹ In our factual scenario we therefore assume that the TACC remains at 106,200kg in each year over the period of our analysis from 2021-22 to 2045-46.
49. It is important to note that, if the proposed MPAs were implemented but the TACC was left unchanged, then fishers that currently catch rock lobsters within the areas of the proposed MPAs would need to substitute their fishing to other areas within the CRA7 fishery. In interviews with ORLIA, many fishers noted that the fishing grounds outside of the proposed MPAs are not large enough to accommodate an increase in fishers. Fishers noted that if there is increased competition

¹⁷ Dr. Paul A. Breen (2020), "CRA7 surplus-production modelling", 13 May (hereinafter cited as the "Breen Report").

¹⁸ Breen Report, at p.9.

¹⁹ As noted in the Breen Report, at p.1.

²⁰ National Rock Lobster Management Group, "Review of Rock Lobster Sustainability Measures for 2020/21", Discussion Document No: 2019/20, December, at paragraph 121.

²¹ Breen Report, at p.9.

in these areas, it would lead to more effort being required by fishers, as well as the possibility of safety concerns and damage to gear.

50. The increase in fishing effort in these areas would translate into a decrease in catch per unit effort (CPUE). CPUE for rock lobster fisheries is measured in kilograms of rock lobsters caught per potlift. For a given rock lobster catch, an increase in effort would require a greater number of potlifts, and therefore a reduction in CPUE. Dr. Breen shows that, in a scenario where the TACC is left unchanged, and the proposed MPAs are implemented, CPUE would fall by, on average, s9(2).²²
51. We understand from ORLIA that the reduction in CPUE may, in practice, be greater than this, because Dr. Breen's analysis effectively assumes that CPUE is uniform across CRA7. In particular, we understand that the fishing grounds outside the proposed MPAs tend to be relatively lower CPUE, such that additional effort will be required in these grounds relative to what would have otherwise been required for the catch substituting from within the proposed MPAs.
52. We note that one further possible factual scenario is one in which the proposed MPAs are implemented, and the factual TACC increases by s9(2) from its current amount. However, we have not included this scenario in our analysis, based on Dr. Breen's analysis showing that the CRA7 fishery would not be sustainable under this scenario.²³

3.3.2. Proportion of CRA7 catch in the proposed MPAs

53. To determine the proportion of the landed commercial rock lobster catch that is currently caught within the proposed MPAs, we utilised data filed by CRA7 fishers with FNZ on their landed commercial catch. The data that we had show, for each fisher and each month, the amount (in kg) of rock lobsters caught in the CRA7 fishery, from the 2012-13 fishing season (with the first recorded volumes in June 2012) through to November 2019 of the 2019-20 fishing season.
54. To determine which of these landed catch amounts were caught within the area of the proposed MPAs, we utilised information provided by ORLIA based on interviews with each fisher from the CRA7 fishery. Each fisher identified on a map the different areas where they have caught rock lobsters over the last five years. We recognise that this mapping approach relies on fishers' memories and correct identification of areas fished (and these areas can sometimes be quite wide). We also had to make some assumptions (noted below) to match this information with the landed catch data. Nonetheless, this was the best information we had to hand on the areas in which each fisher typically operates.
55. To determine whether the landed catch amounts for each fisher and each month were caught within the proposed MPAs, we applied the following approach:
 - a. Based on the maps provided by each fisher, we identified each contiguous area that each fisher identified as a location where they have caught rock lobsters;
 - b. We also determined the month in which rock lobsters were caught in each area, where this was identified by the fisher. Fishers would typically either provide a broad date range for where they fish (e.g., fish in *x* location from June to August, in *y* location from September to December, etc) or would fish in the same locations for the entire season; and
 - c. We then determined whether each contiguous location (and for the appropriate month) lay either partially or fully within the defined area (as set out in the DOC/FNZ consultation document) of any of the six proposed MPAs. In some cases, a fisher would fish multiple locations in a given month, with only some of these locations within a proposed MPA.

²² Breen Report, at p.9.

²³ Breen Report, at p.9.

Where this occurred, we assumed that rock lobsters were caught proportionately across the different locations. For example, if a fisher caught rock lobsters at three different locations in the month of June, and two of these locations were within the proposed MPAs, then we attributed two-thirds s9(2) of the fisher's June rock lobster landed catch amounts to be within the proposed MPAs, with the remaining one-third s9(2) outside the proposed MPA.²⁴

56. Based on this analysis, we determined, for each fisher and each month over the time period of the landed catch data, the fisher's landed catch amounts (in kg) that were caught within the proposed MPAs. Across the entire period of the landed catch data (June 2012 to November 2019), the total catch volume was approximately s9(2)(b)(ii) of which s9(2)(b)(ii) was caught within the proposed MPAs. That is, we estimate that approximately s9(2) of the total landed catch was caught within the proposed MPAs. The proportion of catch from within the proposed MPAs is also relatively consistent on a year-by-year basis, ranging from s9(2) in 2013-14 to s9(2) in 2015-16 and 2016-17.
57. The 25% figure is broadly in line with DOC/FNZ's estimate of 23% of the CRA7 catch being affected by the proposed MPAs.²⁵
58. We also asked each fisher for their qualitative views on the appropriateness of our findings on the proportion of their individual catch within the proposed MPAs. Of the nine fishers in the CRA7 fishery, five considered that our findings were correct for them, two considered that our findings likely underestimated the proportion of their catch in the proposed MPAs, and the remaining two considered our findings were likely an overestimate. If we were to make adjustments to the individual proportions within the proposed MPAs to reflect the fishers' views on under- or over-estimation, and recalculate the overall proportion of the CRA7 catch within the proposed MPAs (using catch amounts for the 2018-19 fishing season), we determine a figure of s9(2) as the overall catch within the proposed MPAs. On balance, therefore, we conclude that our original calculations (also yielding the s9(2) figure) are consistent with fishers' own qualitative views.

3.4. Other modelling assumptions

59. As discussed earlier, we assume a timeframe for our analysis of 25 years, and in each year we calculate the difference in export revenue that the fishery would earn in the factual scenario relative to the counterfactual scenario.
60. To ensure that all values are expressed in present value terms, we discount values that occur in the future using an appropriate discount rate. Discounting future values reflects the "time value of money" – that one dollar received today is worth more than one dollar received in the future, and ensures that monetary values at different points in time can be compared on a meaningful basis. We use a discount rate (expressed in real, pre-tax terms) of 6% per annum. This is currently the default discount rate recommended by the New Zealand Treasury for use in cost benefit analysis.²⁶
61. In Table 3 we summarise the various base case modelling assumptions that we have discussed throughout the above sections.

²⁴ In a few instances, a fisher identified areas where they would sometimes fish if other locations were not suitable. As we were not able to identify the precise times in which these locations were fished, we have excluded these locations from our analysis.

²⁵ See Table A1.2 of DOC and FNZ (2020), "Proposed southeast marine protected areas", Appendices to the consultation document, June.

²⁶ See <https://treasury.govt.nz/information-and-services/state-sector-leadership/guidance/financial-reporting-policies-and-guidance/discount-rates>, accessed 17 March 2020.

Table 3: Summary of base case modelling assumptions

Input	Value
Timeframe	25 years
Export price	\$113.03/kg
Factual landed commercial catch	106,200kg in each year for 25 years
Counterfactual landed commercial catch	132,750kg in each year for 25 years
Real pre-tax discount rate	6%

4. Lost revenue results

4.1. Base case results for lost export revenue

62. We apply the methodology set out in the previous section to determine the lost export revenue in the CRA7 fishery as a result from the proposed MPAs. In Table 4 we show the export revenue (i.e., landed commercial catch multiplied by export price) in the counterfactual and factual, along with the difference in export revenue. We show both the annual difference, and the present value difference calculated over the 25-year time period of our analysis. The present value is expressed as at the start of the 2021-22 fishing season, which we assume is the date of implementation of the proposed MPAs in the factual scenario.
63. Based on Table 4, we find that without the MPAs the CRA7 fishery would generate \$15m per annum (132,750kg of catch at an export price of \$113/kg) in export revenue. Over 25 years, and discounted to present-day terms, this amounts to approximately \$191m in export revenue. In contrast, with the proposed MPAs, that annual export revenue would be only \$12m per annum (106,200kg at an export price of \$113/kg), or \$153m over 25 years. The difference is the lost, or foregone, revenue that could have been achieved but for the proposed MPAs: \$3m per annum, or approximately \$38m in present-day terms over 25 years.

Table 4: Base case results for lost export revenue of CRA7 fishery

	Counterfactual export revenue (without MPAs)	Factual export revenue (with MPAs)	Foregone export revenue (counterfactual minus factual)
Annual value	\$15.0m	\$12.0m	\$3.0m
25-year present value	\$191.8m	\$153.4m	\$38.4m

Source: NERA analysis

64. To provide some context to this foregone revenue, we note that the TACC does vary from year-to-year, and as a result the revenue from the fishery can also vary. In recent years there have been some relatively large reductions in the TACC e.g., 55% in 2011 (from 189,000kg to 84,500kg) and 31% in 2014 (from 63,900kg to 44,000kg). However, these reductions have often been either preceded or followed by large increases in the TACC e.g., a 53% increase in 2010 (from 123,900kg to 189,000kg) and a 50% increase in 2015 (from 44,000kg to 66,000kg). The increases and decreases generally balance out, and on average the TACC has increased by a small amount (3% per annum) over the 2000-2019 period.²⁷
65. Similarly we note from Figure 3 earlier that export prices have been increasing in recent years, by on average 4% per annum over 2009-2019. The increasing average catch and export price in recent years suggests that export revenue has been increasing in the CRA7 fishery.
66. In contrast, the estimated lower catch with the proposed MPAs and resulting foregone export revenue is persistent over the life of the proposed MPAs, and not balanced out by increases in catch/revenue. The catch and export revenue without the proposed MPAs are each 25% higher than they would be with the proposed MPAs, in each year over the 25-year period of our analysis. Foregone catch and revenue, and particularly of this magnitude, is nothing like what has been seen in the recent variability in catch or the export price for the CRA7 fishery.
67. It is possible also that this estimate of foregone revenue is an understatement. We understand that rock lobsters caught within the proposed MPAs (particularly in the “D1” MPA identified earlier

²⁷ Based on data available in P.J. Starr (2019), “Rock lobster catch and effort data: summaries and CPUE standardisations, 1979-80 to 2017-18”, New Zealand Fisheries Assessment Report 2019/17, April.

in Figure 5) are typically larger and of higher value than those caught outside this area. If fishers are no longer able to catch these higher value rock lobsters, and substitute to a lower value catch outside the proposed MPAs, this will result in greater foregone revenue that we have calculated here.

68. The DOC/FNZ consultation document also estimates the annual lost export revenue from the displaced commercial catch, relative to the status quo, for which it estimates annual lost revenue of approximately \$2m.²⁸ This compares to the annual figure we report above in Table 4, of \$3m. The difference appears to be because:
 - a. DOC/FNZ estimates a lower proportion of the catch affected by the proposed MPAs, of 23.3%, which it appears to apply to the average catch across the 2007-08 to 2016-17 fishing years.²⁹ As a result, DOC estimates 19,949kg of catch foregone,³⁰ compared to our estimate of 26,550kg (the latter is the difference between 132,750kg in the counterfactual and 106,200kg in the factual); and
 - b. DOC/FNZ calculates the lost export value based on a 2017 export price of approximately \$103/kg. In contrast, we use a more recent export price for 2019 of \$113/kg.

4.2. Lost revenue for individual fishers

69. We also estimated the lost revenue for each fisher in the CRA7. To do this we:
 - a. Determined each fisher's landed catch in the 2018-19 fishing season (being the most recent season for which we have a full season of data) as a proportion of the total CRA7 landed commercial catch (based on the landed catch data);
 - b. Applied that proportion to the aggregate commercial catch of 106,200kg (in the factual) or 132,750kg (in the counterfactual) to give an estimate of each fisher's factual and counterfactual landed catch respectively;
 - c. Multiplied the difference between each fisher's counterfactual and factual landed catch amount in each year by the port price, to give an annual revenue loss. Note that we use the port price here, rather than the export price, because it is the former that fishers receive from selling their fish to LFRs; and
 - d. Calculated the present value of the annual revenue loss over the 25-year period of our analysis.
70. We note that this calculation approach amounts to assuming that the spread of ACE ownership (and the associated landed catch) looking forward over the 25-year period of our analysis reflects the ACE each fisher owned in 2018-19. We note that the spread of ACE ownership has been relatively consistent across the period for which we have landed commercial catch data, and therefore this assumption appears to be reasonable.
71. The implication of this assumption is that the proposed MPAs impact each fisher equivalently, in terms of the percentage of their catch being affected. For the CRA7 fishery as a whole, revenue in the counterfactual is 25% higher than revenue in the factual. Similarly the revenue for each fisher in the factual is 25% higher than their revenue in the counterfactual. It is possible that fishers will be differentially affected e.g., those that currently catch more rock lobsters in the proposed MPAs may experience a greater percentage revenue reduction than those that do not. However, to determine this would require assumptions to be made as to how ACE are traded

²⁸ DOC and FNZ (2020), "Proposed southeast marine protected areas", Consultation document, June, p.19.

²⁹ See Appendix 3 of DOC and FNZ (2020), "Proposed southeast marine protected areas", Appendices to consultation document, June.

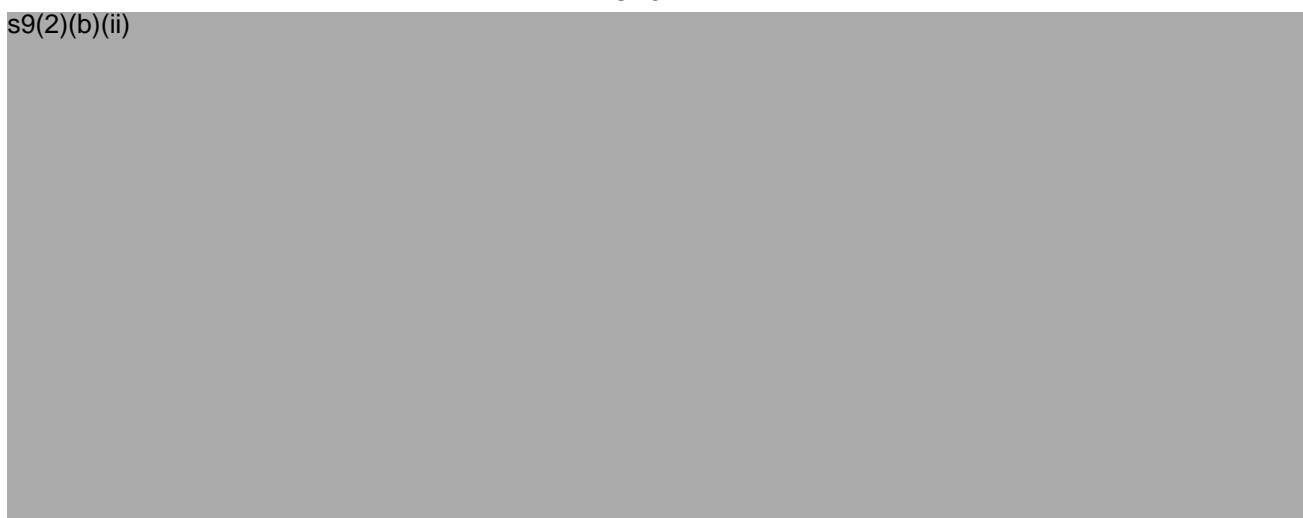
³⁰ See Table 1 of DOC and FNZ (2020), "Proposed southeast marine protected areas", Consultation document, June.

amongst fishers, and as noted above we assume that the spread of ACE ownership remains unchanged.

72. In Table 5 we report the present value results of this analysis (with anonymized fishers). The dollar revenue impact of this foregone revenue varies across the fishers, depending on each fisher's relative revenue, and ranges from \$1m to \$8m in foregone revenue (in present-day terms, over 25 years).

Table 5: Base case results for lost revenue (present value over 25 years) by CRA7 fisher

s9(2)(b)(ii)



4.3. Sensitivity testing of export revenue results

73. We tested the sensitivity of our export revenue results (for the entire CRA7 fishery i.e., from Table 4) to variation in some of the key parameters. In particular we tested the following:
- a. A higher (35%) and lower (15%) increase in the commercial catch in the counterfactual, to reflect that the proportion of the fishery within the proposed MPAs may differ from the 25% we have estimated;³¹ and
 - b. A higher (8%) and lower (4%) discount rate at which future values are discounted back to the present.
74. The results of these sensitivity tests are shown in Table 6. The model is sensitive to changes in some of the parameters tested; for example, the base case lost export revenue of \$38.4m falls by nearly half, to \$23.0m if the catch increase is 15% (compared to the base case of 25%), which translates to a 15% loss of revenue.
75. Nonetheless, even for the scenarios tested where the lost export revenue is relatively low (i.e., the 15% sensitivity and the 8% discount rate sensitivity), the foregone revenue is still material relative to recent variability in the CRA7 fishery. As noted above, on average the TACC has increased by a small amount (3% per annum) over the 2000-2019 period, and export prices have been increasing (see Figure 3), implying that ongoing foregone revenue of even 15% per annum would be a material loss relative to this recent history.

³¹ Although we note that Dr. Breen has not analysed whether a higher or lower commercial catch would be sustainable in the counterfactual.

Table 6: Sensitivity test results for lost export revenue of CRA7 fishery (present value over 25 years)

	Counterfactual export revenue (without MPAs)	Factual export revenue (with MPAs)	Foregone export revenue (counterfactual minus factual)
Base case	\$191.8m	\$153.4m	\$38.4m
Base case but with 35% increase in counterfactual catch	\$207.2m	\$153.4m	\$53.7m
Base case but with 15% increase in counterfactual catch	\$176.5m	\$153.4m	\$23.0m
Base case but with 8% discount rate	\$160.2m	\$128.1m	\$32.0m
Base case but with 4% discount rate	\$234.4m	\$187.5m	\$46.9m

Source: NERA analysis

76. We also undertook some sensitivity testing on the price used to calculate lost export revenue. In our base case we used the export price – as discussed earlier, this reflects the gross economic revenue of rock lobsters to New Zealand more broadly, not just to fishers. However, we also ran a sensitivity test by using the port price, which is the price that fishers receive directly from LFRs. For this we used a value for the 2018-19 fishing season (the most recent data available) for the CRA7 fishery of \$85.84/kg. Using the port price amounts to analysing the lost revenue to fishers in particular, rather than lost export revenue to New Zealand.

77. We also ran a sensitivity test where we used a measure of fishers’ profits, rather than revenue. Under this approach, we require an estimate of profits per kilogram in the factual and counterfactual. For this we utilise information on annual catch entitlements (ACE). ACE are tradable rights, which provide the fisher with a right to a share of the TACC in a given year. Given that ACE are tradable, we would expect the price paid for ACE to reflect the expected profits earned from the ACE over the year in which it is applied. As Newell, Sanchirico and Kerr (2005, pp.448-449) state:³²

In a competitive quota market, each fishing enterprise has an incentive to lease or trade quotas until it attains just enough quotas to cover a catch level that maximizes its expected profits. The price of a 1-year lease on the right to catch 1 ton of fish should therefore equal the marginal flow of profit or rent from that enterprise, that is, the price of fish minus the marginal cost of fishing.

Newell, Sanchirico and Kerr find empirical evidence that this relationship holds in New Zealand’s fisheries.

78. ORLIA provided us with historical data on the price at which ACE are traded at in the CRA7 fishery. These data gave the maximum price per kg at which ACE were traded in the 2019-20 fishing season as \$48/kg.

79. We understand that many ACE trades are between fishers and a quota holder to whom fishers will subsequently sell back their catch. This may result in ACE trading prices not necessarily being established on an arms-length basis. Indeed, in the ACE data we were provided there were

³² Richard G. Newell, James N. Sanchirico, and Suzi Kerr (2005), “Fishing quota markets”, *Journal of Environmental Economics and Management*, 49, 437-462.

numerous instances of trades occurring at a very small (e.g., \$1 or 1c) or even zero price, which may reflect these relationships. These low prices would skew the average ACE price towards a lower value. We therefore used the maximum price from the ACE data in our sensitivity test.

80. The results of the port price and ACE price sensitivity tests are shown in Table 7. As would be expected, a material drop in the per unit price results in a material drop in the lost revenue/profit over the 25-year period of our analysis.
81. We consider, however, that more weight should be placed on our base case results than either of these sensitivity tests, because:
- a. The port price only reflects the price paid to fishers, so does not reflect the foregone revenue across the broader rock lobster supply chain; and
 - b. The ACE price reflects how fishers' profitability may change as a result of the proposed MPAs, which again does not consider broader supply chain impacts. Use of the ACE price also implicitly assumes that costs remain unchanged – as discussed earlier in this report, there may be changes in costs as a result of the proposed MPAs.

Table 7: Sensitivity test results for lost revenue/profit of CRA7 fishery (present value over 25 years) using port price and maximum ACE price

	Counterfactual export revenue (without MPAs)	Factual export revenue (with MPAs)	Foregone export revenue (counterfactual minus factual)
Base case	\$191.8m	\$153.4m	\$38.4m
Base case but with port price	\$145.7m	\$116.5m	\$29.1m
Base case but with ACE price	\$81.5m	\$65.2m	\$16.3m


Source: NERA analysis

5. Other economic effects of the proposed MPAs

82. In addition to the quantified foregone export revenue assessed in the previous section, there may also be other economic effects of the proposed MPAs. While these are difficult to quantify (in monetary terms), we discuss them in this section on a qualitative basis.
83. First, the implementation of the proposed MPAs may result in an increase in costs for some fishers. In the factual (with the proposed MPAs), those fishers that catch a proportion of their existing rock lobster catch within the areas of the proposed MPAs will need to substitute their catch to alternative areas. In Table 8 below we show, for each fisher, the estimated proportion of their annual catch (based on 2018-19 catch volumes) within the area of the proposed MPAs. The TACC remains unchanged in the factual, and (as assumed earlier) fishers maintain the same share of that TACC based on their 2018-19 ACE holding. Therefore, to continue to catch that share, any fisher with a non-zero proportion of catch within the proposed MPAs would need to substitute to other areas (i.e., all but Fishers G and H in Table 8).

Table 8: Proportion of annual catch within the proposed MPAs, by fisher

s9(2)(b)(ii)



84. Substituting to areas outside the proposed MPAs would require fishers to change their existing fishing routes, resulting in increased time at sea, which in turn would increase costs such as those related to fuel, maintenance and potentially also labour. In addition, Dr. Breen's analysis found that CPUE would decrease in the factual by, on average, 13%.³³ As discussed earlier, a fall in CPUE requires a greater number of potlifts to achieve the same commercial catch, which would result in additional costs (e.g., for bait).
85. Moreover, the increased fishing pressure on areas outside the proposed MPAs in the factual scenario may lead to other cost increases. In interviews with ORLIA, many fishers noted that the fishing grounds outside of the proposed MPAs are not large enough to accommodate an increase in fishers. It was noted that this increased competition in these areas could lead to safety concerns and damage to gear, further increasing costs.
86. It may be, however, that fishers also incur additional costs in the counterfactual (without the proposed MPAs), because of the 25% increase in their commercial catch. There may be some costs that increase directly with the increase in catch, such as those related to bait. However, the

³³ Breen Report, at p.9.

following factors weigh against the increase in costs in the counterfactual being of the same extent as that in the factual:

- a. Fishers will not need to materially alter their fishing routes if the proposed MPAs are not put in place, so the increased costs that result from this in the factual will not be present in the counterfactual; and
- b. Without the MPAs, there are less likely to be concerns related to the limited size of fishing grounds, so cost increases that result from e.g., damage to gear in the factual will not be present in the counterfactual.

87. Second, any foregone revenue associated with the proposed MPAs also results in foregone value to quota holders' existing investments in quota, and this can have long-term (dynamic) economic implications.

88. Quota are considered to be a property right,³⁴ providing a right in perpetuity to a share of the TACC in each year. The investment in quota is material – the total quota value for the CRA7 fishery has been estimated at \$73 million³⁵ – and quota holders are likely to have made this investment based on expectations of a competitive return on this investment. While quota holders may expect some variations in their returns from year-to-year, our estimate that the CRA7 will forego a 25% increase in returns is relatively material. By way of comparison, on average the TACC has increased by 3% per annum over the 2000-2019 period,³⁶ and the export price has increased by, on average, 4% per annum from 2009-2019 (see Figure 3).

89. Any foregone revenue that results from the proposed MPAs will, in turn, result in quota holders foregoing an increase in the value of their quota, because the quota value will reflect the discounted expected profits that can be earned from the quota in perpetuity.³⁷ It is important not to double count these two effects: the lost export revenue discussed in section 4 of our report, and the lost quota value, are different ways of expressing the same economic effect.

90. However, the loss of quota value has further dynamic implications. There is an economics literature which finds that uncompensated reductions in the value of property rights can have significant adverse effects on the long-term efficiency of society.³⁸ In particular, such uncompensated impairment of property rights can undermine the incentives for future investment. Fishers (on both the CRA7 fishery and elsewhere in New Zealand) may, for example, be reluctant to invest in upgrading vessels or equipment, because the proposed MPAs create an expectation of future (uncompensated) appropriations in the value of their property rights. Such harm to investment incentives is generally found to be of particular concern to a country's long-term welfare and economic growth prospects.³⁹

³⁴ See, for example, Kelly Lock and Stefan Leslie (2007), "New Zealand's Quota Management System: A History of the First 20 Years", MOTU Working Paper 07-02, April; and the FishServe website, at <https://www.fishserve.co.nz/information/quota-shares>, accessed 24 March 2020.

³⁵ National Rock Lobster Management Group (2019), "Review of Rock Lobster Sustainability Measures for 2020/21", Discussion Document No: 2019/20, December, at paragraph 120.

³⁶ Based on data available in P.J. Starr (2019), "Rock lobster catch and effort data: summaries and CPUE standardisations, 1979-80 to 2017-18", New Zealand Fisheries Assessment Report 2019/17, April.

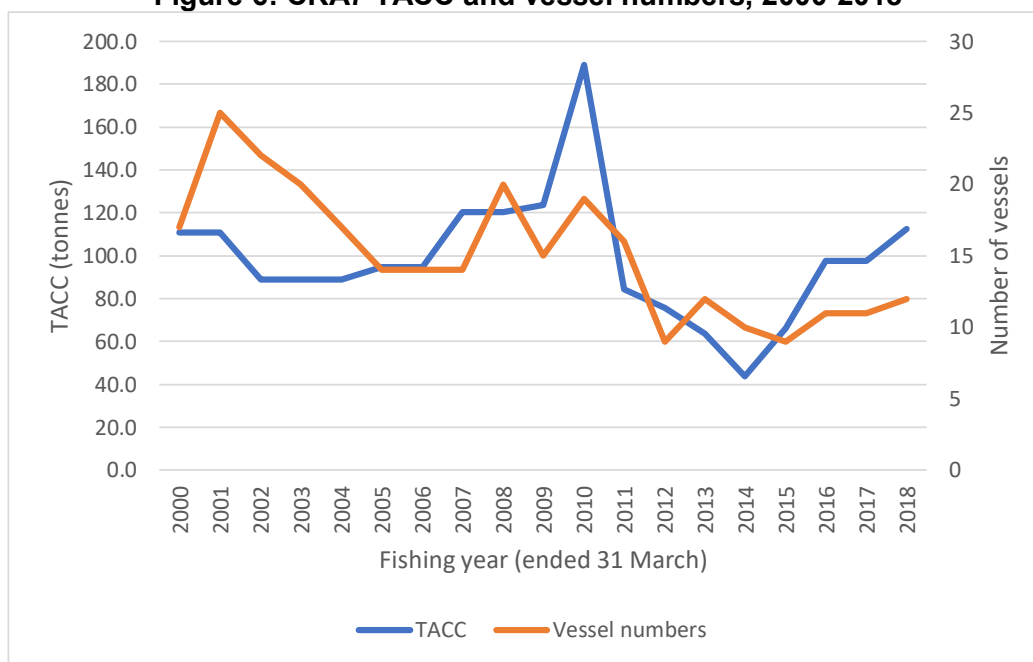
³⁷ See Richard G. Newell, James N. Sanchirico, and Suzi Kerr (2005), "Fishing quota markets", *Journal of Environmental Economics and Management*, 49, 437-462.

³⁸ See Lewis Evans, Neil Quigley, and Kevin Counsell (2009), "Protection of Private Property Rights and Just Compensation: An Economic Analysis of the Most Fundamental Human Right Not Provided in New Zealand", Institute for the Study of Competition and Regulation, Monograph Series No. 3, February, and references therein.

³⁹ For example, the classic work of Robert Solow showed that 87 percent of the source of economic growth in the United States in the first half of the 20th century could be explained by investments in research and development, rather than by increases in capital and labour. Robert Solow (1957), "Technical Change and the Aggregate Production Function", *Review of Economics and Statistics*, 39(3), 312-320.

91. Third, to the extent that costs increase as a result of the proposed MPAs, this could result in financial viability concerns for some fishers. This may be manifest in, for example, difficulties servicing debt and some fishers exiting the industry, or otherwise reducing the size of their workforce, both of which could lead to unemployment. It may also result in difficulties for fishers to recover any sunk investment costs. For example, we are aware of one fisher who has recently invested in refurbishing his fishing vessel – to the extent that this investment is specialized, a material revenue loss may and/or cost increase would make it difficult for this fisher to recover his investment costs. We understand also that quota are often used as security for debt, so any foregone quota value may make it harder for fishers to raise debt to fund ongoing investment.
92. As shown in Figure 6, the number of vessels operating in the CRA7 fishery in recent years has moved broadly in line with the TACC. We might therefore expect (all else equal) that a lower TACC arising from the proposed MPAs (relative to the counterfactual) could result in some fishers exiting the industry (or some fishers not entering, when they would have otherwise done so in the counterfactual). Indeed, we note that one fisher stated in the interviews with ORLIA that he was unsure if he would remain fishing if the proposed MPAs are implemented – this was also one of the fishers for whom a relatively large proportion of his existing catch occurs within the proposed MPAs.

Figure 6: CRA7 TACC and vessel numbers, 2000-2018



Source: NERA analysis, based on data available in P.J. Starr (2019), “Rock lobster catch and effort data: summaries and CPUE standardisations, 1979-80 to 2017-18”, New Zealand Fisheries Assessment Report 2019/17, April.

93. Rather than exiting the industry entirely, fishers may reduce the size of their workforce in response to the proposed MPAs. Based on information provided in ORLIA’s interviews with fishers, there are currently 9 fishers operating in the CRA7 fishery, with a total of 9 skippers and 12 crew (generally 1-2 crew members per boat). Some fishers also hire additional workers during the peak of the season.
94. It is unclear how many (if any) of these workers would be made unemployed due to the proposed MPAs. Nonetheless, we note that many of the fishers interviewed did express a concern for the ongoing employment of their crew members as a result of the proposed MPAs.

95. Lastly, there may be similar effects across the broader supply chain. A key relevant economic principle in this regard is that of indirect, or secondary market, impacts. This is where a direct impact on rock lobster fishers has an indirect impact on other interrelated sectors of the economy. The indirect impacts occur because people and businesses that interact with rock lobster fishers have their patterns of economic activity influenced by the direct economic effects on the fishers. The result is that the initial direct impact creates smaller secondary impacts in economic activity in other sectors of the economy.
96. For example, we understand that one LFR's operations depend entirely on rock lobsters sourced from the CRA7 fishery, so this LFR may be particularly at risk from such secondary impacts. There is also the potential for flow on effects to others in the supply chain, such as bait suppliers, engineering businesses, boatyards, etc. To the extent that these businesses are reliant on a considerable volume of their business from the CRA7 fishery, and are unable to substitute for the lost business or otherwise pass through the increased costs, then there will be similar adverse effects in terms of debt servicing difficulties, unemployment and industry exit.

Qualifications, assumptions and limiting conditions

Information furnished by others, upon which all or portions of this report are based, is believed to be reliable but has not been independently verified, unless otherwise expressly indicated. Public information and industry and statistical data are from sources we deem to be reliable; however, we make no representation as to the accuracy or completeness of such information. The findings contained in this report may contain predictions based on current data and historical trends. Any such predictions are subject to inherent risks and uncertainties. NERA Economic Consulting accepts no responsibility for actual results or future events.

The opinions expressed in this report are valid only for the purpose stated herein and as of the date of this report. No obligation is assumed to revise this report to reflect changes, events or conditions, which occur subsequent to the date hereof.

All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the client. This report does not represent investment advice nor does it provide an opinion regarding the fairness of any transaction to any and all parties.

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Submission of the Otago
Rock Lobster Industry
Association Incorporated
on the south-eastern
South Island marine
protected areas proposal

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Otago Rock Lobster Industry Association Incorporated

- 1.1 The Otago Rock Lobster Industry Association Incorporated (**ORLIA**) is a fully constituted and incorporated society which is recognised as the commercial stakeholder organisation representing the interests of the commercial kōura/rock lobster industry on the Otago Coast, the CRAMAC7 (**CRA7**) fishery.
- 1.2 ORLIA's membership consists of:
 - (a) CRA7 quota share owners, including those who are current fishers, former fishers and others engaged in the CRA7 kōura/rock lobster industry.
 - (b) Owners of Annual Catch Entitlements (**ACE**) in CRA7;
 - (c) Licensed processors of kōura/rock lobster from CRA7; and
 - (d) Ngāi Tahu interests, including those held individually by fishers with blood or other familial connections and those held commercially via settlement quota and additional quota subsequently purchased (noting that ORLIA does not purport to speak for Ngāi Tahu).
- 1.3 For ORLIA the focus of this submission will be the reserves that are proposed in the areas they currently fish, which are:
 - (a) Te Umu Koau (D1);
 - (b) Ōrau (I1);
 - (c) Okaihae (K1).
- 1.4 Of these proposed reserve areas, the proposed reserve called Te Umu Koau (D1) (also known to ORLIA members as Bobby's Head), is of significant concern and will have significant impacts.
- 1.5 ORLIA has prepared a substantial bundle of evidence and analysis to demonstrate the significant economic, social and other impacts this reserve network would have on its fishers and the Otago kōura/rock lobster industry.
- 1.6 ORLIA is a shareholder in the New Zealand Rock Lobster Industry Council (**NZRLIC**) and has a representative director on the board of NZRLIC. ORLIA also supports the submissions made by NZRLIC in respect of South East Marine Protected Areas (**SEMPA**).
- 1.7 ORLIA has interviewed all fishermen who fish for kōura/rock lobster in CRA7. Notes taken in these interviews were used to prepare statutory declarations from each fishermen. These declarations have been used as the basis for this submission.

Summary

2. Executive Summary

- 2.1 The ORLIA submission and evidence provided in support of this submission demonstrates that the proposed Network 1 reserve network will cause:
 - (a) Significant displacement effects on the CRA7 fishery, and these are displacement effects which cannot be alleviated due to the specific characteristics of the Otago environment.
 - (b) The displacement effects will create considerable additional input costs, due to:

- (i) The loss of a reliable fishing area known as the 'heartbeat' of CRA7 – this fishing area being close to key ports and processors¹; and
 - (ii) Any potential alternative areas are much further away from port, and much less reliable, meaning more time at sea will be required, with no guarantee of catching the same amounts or same size fish from these smaller, less productive grounds.
- (c) The displacement effects from the proposed reserve network will cause a considerable loss of equilibrium in the industry, with some fishers looking at a potential loss of more than 60% of their catch and associated revenue.
 - (d) The Network 1 proposal will result in significant economic impacts to the Otago kōura/rock lobster industry, including foregone annual export income of \$3m, modelled as a \$38m loss of revenue over 25 years. The impacts of this loss will not be evenly distributed across ORLIA fishers due to variance in their usual fishing areas. Some are likely to lose significantly more revenue than is sustainable.
 - (e) In the current economic climate, which includes continuing uncertainty for the kōura/rock lobster fishery as its key markets are subject to ongoing fluctuations, as well as significant impacts from COVID-19, the impacts of these proposals will be notably aggravated.
 - (f) The above impacts combined will mean a likely loss of employment for some workers in the kōura/rock lobster fishery, and also the potential for some fishers to permanently exit the industry.
 - (g) The loss of the most reliable fishing area and associated displacement impacts will reduce CPUE, which makes it more likely that the Total Allowable Commercial Catch (**TACC**) for CRA7 will be reduced. A reduction in TACC will further impact fishers, and will cause a reduction in the value of quota.
 - (h) All of the above is difficult to reconcile with the clear evidence that the kōura/rock lobster fishery off Otago is in strong health at present. This is demonstrated by the recent increase in the TACC under the sustainable fisheries management regime in the Fisheries Act 1996.
 - (i) Clear outcomes for each marine reserve and the full Network 1 network have not been identified in order to support the type of scientific analysis and justification that is contemplated by the Marine Reserves Act 1974 (**MRA**).
 - (j) There is inadequate scientific analysis to demonstrate a need for the marine reserve network in the form it has been proposed, and no rigorous analysis of an appropriate design of the parameters and conditions of each specific reserve to achieve any nominated outcome.
 - (k) Without a clear scientific basis it is difficult to carry out the overall assessment of the undue impacts of the reserve network as required by section 5 of the MRA. In the absence of any such scientific evidence ORLIA considers that the Ministers are obligated to weigh the ORLIA evidence of significant impacts of the reserve network carefully.
 - (l) Due to poor process the SEMPA Forum failed to engage with key stakeholders in order to properly appreciate the impacts of any particular reserves within Network 1. The information available to the Forum was inadequate and loosely framed, and not in accordance with the clear justifications contemplated and required by the MRA.

¹ Chris Cooper statutory declaration at [29].

- (m) The procedural issues and lack of important information at key stages of the process are of a nature that the SEMPA process must be reviewed and recommenced before any reserves are implemented.
- (n) The Marine Reserves Act 1974 has been identified as an outdated piece of legislation that is not fit for purpose. The legislative review process should be completed in order to ensure an optimal outcome, with a bespoke solution developed that will provide useful and appropriate marine protection for the south east coast area, without undue impacts on stakeholder groups such as ORLIA fishers.

Evidence of significant impacts of proposed reserves

3. Displacement effects

- 3.1 CRA7 is the geographic area of the Otago coast which is administratively managed through the setting of annual catch limits and the TACC specifying the sustainable catch for the fish stock under the quota management system. There are currently nine fishing vessels catching kōura/rock lobster in the CRA7 fishery. The TACC for the 2020-2021 season is set at 106,200 kg.²
- 3.2 ORLIA interviewed kōura/rock lobster fishermen holding quota within CRA7. The majority of these fishermen base their operations on ledges within the boundaries of the proposed marine reserve area Te Umu Koau (D1).
- 3.3 All of the fishers interviewed reported that the ledges, known as the East-West Ledge and Karitane Ledge, are key rock and reef areas where kōura/rock lobster accumulate to mature before migrating south through CRA7 into the CRAMAC8 boundaries (CRAMA8 begins at Long Point and runs round to Jackson Bay on the West Coast).³
- 3.4 These ledges within the proposed reserve area are the single reliable fishery with good access to ports and processing facilities in CRA7. One of the fishers reports that in his view 70% of the catch per unit effort (CPUE) in CRA7 is generated in this proposed reserve area. It is clear that all ORLIA fishermen view these reefs as 'the heartbeat' of CRA7.⁴
- 3.5 In order to appreciate the likely displacement effects of the proposed marine reserve it is crucial to understand that fishing for kōura/rock lobster can only reliably occur on reef or rock structures where lobsters gather before migrating south.
- 3.6 When moving across the sandy bottom of the ocean floor kōura/rock lobster are vulnerable to predators and have no food source, so kōura/rock lobster do not stop on the sand, preferring to move from reef to reef. It is impossible to catch kōura/rock lobster until they stop on a reef or rocky area.
- 3.7 As a result of lobster migration, the actual areas where potting kōura/rock lobster is possible within CRA7 are therefore confined to reef or rock structures within the CRA7 area. There are only limited reef or rock structures in CRA7, and there are very few patches of rock and reef that the fishermen have not already found. (In the late 1990's there was a lot of competition in CRA7 which has meant that there is very little uncharted or unsubscribed territory in this region.)
- 3.8 As a result of the above unique characteristics of the Otago CRA7 kōura/rock lobster fishery, the loss of any reef or rock currently used for fishing will have a very significant displacement

² NERA Economic Report page 2 at [6].

³ Allison statutory declaration, at [11(c)] and D Cooper statutory declaration at [23].

⁴ C Cooper statutory declaration at [22] and [29];

effect. This issue was recognised by Fisheries New Zealand in its analysis of sites D1 and D2 which recorded that kōura/rock lobster:

...exhibit a strong preference for a particular habitat, and therefore displaced fishing effort may cause more pressure to be placed on stocks in the area adjacent to the site.⁵

- 3.9 At present the fishing effort between ORLIA fishers is evenly spread,⁶ and there is an equilibrium within the CRA7 fishing grounds. Put another way, the fishers have relatively predictable runs over the rocks and reefs in the fishing ground, which provides some certainty in a business which is relatively unpredictable due to the impacts of such things as changes of season, tides, weather and intermittent mass migrations. This modicum of certainty also creates a basis for better relationships between industry figures.
- 3.10 In their interviews, the fishers indicated that there is a reason they all gather in the D1 area, it has the most reliable and abundant fish, and the area can handle fishing pressure. This is borne out by the recent increase in the TACC.
- 3.11 The most pressing concern all fishers had was the knowledge that there is nowhere that might be comparable to the Karitane and East/West Ledges, and so they would have nowhere to move their fishing efforts if the reserve proposals went ahead. The northern area is a stable fishery that currently supports the majority of vessels (upwards of 6 boats), each of which keep two to three crew in regular work, and also sustain a boat owner, quota owner and downstream businesses in sales and processing.
- 3.12 The evidence of the fishers shows that there are no alternative reefs that can support the level of fishing that is occurring in the northern fishing area. Heat maps of each fisher's activity in the 2019-2020 season are good indicators of where the reef is located as fishers move through the rest of CRA7 at speed.
- 3.13 The removal of a large portion of the stable northern fishery will push all of these fishers out into other CRA7 areas that are not currently fished. This is not a simple exercise of just moving on. There will not be spillover benefits because of the physical environment. Closing the ledges does not simply result in fishers concentrating their efforts on adjacent areas; they are limited to working where any reefs are.
- 3.14 The existence of any alternative fishing spots is limited, those that exist are easily fished out; are hard to access; or are already at the maximum capacity of vessels which can work the area. The southern reefs (which would be the only option available if the full Network 1 proposal was implemented) cannot handle more than a couple of boats at a time, and are much less reliable than the northern grounds.⁷
- 3.15 Any need to relocate fishing efforts to the south of CRA7 will create significant new competition over areas which will not be able to handle the additional fishing pressure.⁸ Thus any new areas that the displaced fishers will look to fill their quota will have little certainty of success.
- 3.16 The fact of this change, and the extent of displacement effect caused, is a significantly intimidating prospect in the current economic climate, particularly given the economic shocks which have already shaken this industry due to COVID-19.
- 3.17 Any displacement effects if Network 1 is implemented will also have implications for a potential reduction in the CPUE which is then likely to result in a decreased TACC for years to come. The magnitude of this decrease – which fishers are certain will occur if the reserves are put in

⁵ Joint agency advice on the south east marine protection Forum recommendations dated 19 October 2018 appendix 4: full site by site analysis, page 29 para 145

⁶ Olsen statutory declaration at [19].

⁷ D Cooper statutory declaration at [17].

⁸ D Cooper statutory declaration at [17]; Olsen statutory declaration at [21] and [22].

place – and the length of time over which any reduction would remain, is difficult to estimate due to the complexity of the CRA7 fishery.

- 3.18 Displacement from their current fishing grounds may have significant effects on the day to day life on the fishers. Fishers may be required to moor their boat at another port, increasing the distance they must travel to get to the boat each day.⁹ Additionally, if the marine reserves are implemented fishers may be required to travel further away from the port, fish processors and their home bases each day. This would result in significant additional input costs, time on the water, and increased fishing effort. A lower CPUE will mean substantially less profit for each fisher.¹⁰
- 3.19 Particularly concerning are the safety issues and competition between fishers which could occur if fishers were all displaced from the area they currently comfortably work in. At the moment, six vessels are able to work the ledges in the proposed marine reserve area, keeping a couple of metres between each fisher's pots on the edges of the reef to prevent working on top of each other and tangling their equipment together.¹¹
- 3.20 No other piece of reef in the CRA7 fishery would allow working in such close proximity. Displacement would result in safety issues, with pots being placed close together and becoming tangled. As one fisher stated, if another fisher based themselves at Cape Saunders there would be no more room and gear would likely get damaged; it would become an arms race to compete for fish which would be no good for the fish and the marine environment.¹²
- 3.21 The southern grounds are accessible from Port Chalmers and also by basing the boat in Taieri Mouth. One fisher raised concerns about using the Taieri River to access the grounds as it is a bar harbour with shallow sand bars which makes it difficult to navigate if unfamiliar with the harbour.¹³ If fishers with little experience of that type of harbour or the wrong type of boat moored in Taieri it would create a major safety concern.
- 3.22 The status quo is sustainable, including under the tests in the Fisheries Act 1996. All fishers have grounds they concentrate on and there is enough competition to keep everyone productive but not struggling to catch fish.

4. Economic impacts

- 4.1 ORLIA has commissioned NERA Economic Consulting to provide an economic impact assessment to support this submission. It has been necessary to do so, given that the process to date has had inadequate information about the economic impacts of the proposed marine reserves on the CRA7 fishery.
- 4.2 This economic analysis considers the impact of the proposed marine protected areas (**MPAs**) on both the revenue of individual fishers and the CRA7 fishery. It also reflects on the fact that the displacement effects of the proposed marine reserves will result in a very substantial loss to CRA7 operators by precluding an increase to the TACC for CRA7, and also, by increasing input costs for a reduced income.
- 4.3 NERA's conclusions include that:
 - (a) There will be a considerable reduction in revenue for the CRA7 fishery as a result of the introduction of the proposed marine protection areas;¹⁴

⁹ Allison statutory declaration at [20].

¹⁰ D Cooper statutory declaration at [22].

¹¹ C Cooper statutory declaration at [23].

¹² Heineman statutory declaration at [22].

¹³ Pile statutory declaration at [24].

¹⁴ NERA Economic Report page 3 at [8].

- (b) There will be increased costs arising from the displacement effects resulting from any MPAs;
- (c) Because the kōura/rock lobster prices are set by the international export markets, fishers have no ability to increase prices to offset these revenue reductions and increased costs.¹⁵
- (d) The extent of change brought about by the introduction of the proposed marine protection areas will be extremely difficult for fishers to absorb.¹⁶
- (e) The modelled revenue reductions for individual fishers will likely lead to:
 - (iii) Difficulties servicing debt;
 - (iv) Need to reduce workforce, and therefore some unemployment; and
 - (v) Potential for some fishers to have to exit the industry.¹⁷

4.4 The SEMPA consultation document uses an estimate of \$2m in total lost export revenue across the CRA7 kōura/rock lobster industry.¹⁸ This is an underestimate. The economic evidence commissioned by ORLIA shows a likely reduction in annual revenue of \$3m.¹⁹

4.5 It is essential to also appreciate that the impacts of this reduction in revenue will not be evenly spread across the ORLIA fishers. Some, who base at least 60% of their fishing effort in the areas which are proposed to become reserve, may have a reduced income in the order of \$8m over 25 years. For a single business this may represent more than 60% of present income. With this information ORLIA shows the extent of impacts that its fishers are facing directly as a result of the Network 1 proposals.

4.6 Overall, NERA's modelling identifies that the introduction of marine protection areas would likely result in a present value of foregone export revenue over 25 years (being the period before which any marine reserve might be reviewed) of over \$38 million.²⁰

4.7 To reiterate, this loss of revenue will not be evenly distributed, and for several individual fishers will be significant, and is likely to result in loss of employment and other permanent effects.

5. Business continuity

5.1 The kōura/rock lobster industry in CRA7, as well as at the national level, is dealing with unprecedented market uncertainty.²¹

5.2 The kōura/rock lobster fishing business experienced significant shocks early on as a result of COVID-19. In the period between February to April 2020 kōura/rock lobster export revenue was down 82 percent from the same period in 2019.²² The key Chinese market was lost for several months early on in the pandemic, and continues to be subject to changing conditions.

5.3 Monthly export data released by MPI shows kōura/rock lobster exports began to resume from April 2020. Nonetheless, the impact of COVID-19 on access to the industry's usual markets

¹⁵ NERA Economic Report, page 3 at [10].

¹⁶ NERA Economic Report, page 4 at [11].

¹⁷ NERA Economic Report page 3 at [10].

¹⁸ DoC and FNZ (2020) Proposed southeast marine protected areas, Consultation document, June page 19

¹⁹ NERA Economic Report page 4 at [12].

²⁰ NERA Economic Report, page 17 at [63].

²¹ NERA Economic Report page 4 at [15].

²² Economic Update for the Primary Industries June 2020 <https://www.mpi.govt.nz/dmsdocument/40808/direct>

remains volatile. For example, in mid-June 2020, Beijing authorities closed down important wet food markets due to a high number of positive COVID-19 test results there.

- 5.4 Also, the majority of exports by airfreight in NZ are carried by commercial passenger aircraft rather than cargo-only freight services so fewer passenger flights leaving NZ means freight capacity to get fresh rock lobster to China will reduce in direct proportion. Because kōura/rock lobster are freighted fresh, trying to re-route or search for alternative routes has a negative effect on product value even upon making it to the desired destination. Re-routing live goods via third party countries has the potential to reduce their shelf life and value; or require items to be shipped in frozen rather than fresh form at a reduced value.
- 5.5 At a time when the government is looking to rely on New Zealand's exports, and in particular, it's primary sector to help New Zealand recover from the impacts of COVID-19, the imposition of SEMPA on the CRA7 fishery is an untimely and unwanted hindrance on its ability to contribute to that recovery effort.

6. Social impacts

- 6.1 By way of background, ORLIA's members are commonly family businesses in the same way that you might find a farm has been in the same family for generations. Some fishers are following in their parents and grandparent's footsteps, and hope to pass on the generational knowledge passed through the family.²³
- 6.2 Many base themselves on the same pieces of reef that their family members frequented, the areas they fish are part of their family legacy.²⁴ Families are long-term business operators with plans to pass their boats and knowledge to their children.²⁵ Closing the key northern fishing areas within proposed marine reserve Te Umu Koau (D1) would be a generational loss.
- 6.3 In their interviews all ORLIA fishermen state they enjoy the lifestyle fishing provides. The Otago fishery stands apart from most others in the country in that the fishing grounds are close to the coast and allow fishers to fish during the day and return home early with live product. Kōura/rock lobsters are caught in the pots, landed and transported to the live export facility within hours.²⁶ This not only provides higher quality product but also a desirable lifestyle for the CRA7 fishers. If they were displaced from their current fishing spots they would be required to travel further to pot fish, impacting on their enjoyment of the job.
- 6.4 The industry is becoming harder for fishermen to make a living in as it is harder to break even than it used to be, they must take advantage of every peak in the price.²⁷
- 6.5 The consultation documents note that justification for marine reserves needs to be balanced against the impacts they will have on users. ORLIA knows that the economic impact on its members will be much larger than estimated by the government, with far ranging effects – on fishing families, the wider community and for future generations.
- 6.6 While the impact on the CRA7 fishery as a whole is significant (estimated to be 25% displacement), the NERA report highlights that the impact on individual fishers and therefore also on their families will be even more severe.²⁸
- 6.7 The majority of fishermen land rock kōura/rock lobsters as their primary catch and trawl for wet fish to supplement this. Roughly 85% of most fishers' business is from kōura/rock lobster. If they were no longer able to fish the ledges located in the proposed marine reserve D1, then their

²³ Heineman statutory declaration at [6]; Pile statutory declaration at [3]; Te Maihoroa statutory declaration at [3]; C Cooper statutory declaration at [3].

²⁴ C Cooper statutory declaration at [42] and Heineman statutory declaration at [16].

²⁵ C Cooper statutory declaration at [34].

²⁶ C Cooper statutory declaration at [21].

²⁷ C Cooper statutory declaration at [24].

²⁸ NERA Economic Report page 2 at [2].

businesses will suffer. At least one fisher does not have enough trawl ACE to keep their boat active all year around to make up for the loss of kōura/rock lobster ACE.²⁹

- 6.8 Using a representative example, based on the information collected in the statutory declarations and the economic analysis, we review the case of fisher X, who is estimated to land 59(2) of their total annual catch within the proposed marine protection area. For fisher X and fisher X's crew, the introduction of the proposed marine reserves is significant on a personal level, including:
- (a) Fisher X is most likely going to have to move his boat to another mooring closer to the new fishing areas. This will change his daily commute and family dynamic.
 - (b) Hours of work for Fisher X and the boat crew will likely change as the travel time to and from the fishing grounds will increase with the introduction of any reserves; it is almost certain that boats will need to be on the water for longer periods of time.
 - (c) Fisher X and 1-2 crew will need to fish for a longer proportion of the year to seek to maintain the same catch. The CPUE for that catch will drop (CPUE translates to more work less fish).
 - (d) Putting in additional fishing effort does not necessarily mean that fishers will be able to land the same quantity, and even if they do this will have a higher input cost. They will not be able to grade their catch as they currently do.
 - (e) Business input costs will increase, including labour costs of employing crew for longer hours.
- 6.9 Taking all of this together, what is currently an enjoyable lifestyle will be a much more difficult and stressful enterprise, with considerable pressure to maintain the business. There is a likelihood that fishers in a similar position will be impacted on a personal level by this change, and the job will become more difficult and stressful. Businesses may become much less sustainable. They feel their way of life is under attack.³⁰
- 6.10 With reduced reliability of fishing this will also have an impact on retaining crew, who will be looking at the possibility of reduced income or more work if the reserves are implemented. Crew on the boats are paid on a crew share, meaning their wage is directly related to how much the boat catches. Any fluctuation in how much the owner of the boat is required to pay in lease or running costs comes out of the profit from the overall catch which eats into the crew's pay. Crew members on each boat will be earning less as the fish become harder to find.
- 6.11 In the past there have been periods of high fishing pressure which often had undesirable consequences. Any closures of fishing areas risk the CRA7 fishery regressing to times of intense competition when roughly 20 boats worked in the same area where six boats currently operate in. When the industry operated that way the reefs were not as healthy – there was no chance during those times of the TACC increasing, as has been occurring in CRA7 in recent years.
- 6.12 The kōura/rock lobster fishery in Otago is one of the oldest in the country. The closures mandated by the marine reserve network will likely end that heritage for some families. More than one fisher will look at leaving the industry as a result. One fisher described the proposed changes as eroding CRA7's history.³¹
- 6.13 The current level of fishing which includes the reliable ledges within the northern fishery is sustainable, with every fisher having a settled place for fishing and practicing responsible fishing practices. These practices are maintaining healthy stock levels, and a dependable business

²⁹ Heineman statutory declaration at [23].

³⁰ Harris statutory declaration at [20].

³¹ McDonald statutory declaration at [25].

and employment for ORLIA fishers. This is a settled and healthy industry, supporting settled and healthy workplaces for fishers, their families and the community around them.

7. Impacts on quota, quota owners and fisheries management

- 7.1 There is no direct consideration of the impacts on the TACC and CRA7 quota in the SEMPA Forum documents and analysis.
- 7.2 Quota are a property right, providing a right in perpetuity to a share of the TACC in CRA7. The total value for the CRA7 fishery is estimated at \$73 million.³² s9(2) of this quota is held by s9(2) 10% of this quota was distributed to Ngāi Tahu under the 1992 Maori Fisheries (b)(ii) Settlement.
- 7.3 All quota holders have invested in their quota based on the expectations their holdings will be proportional to the TACC, which will generate ACE in each year. Any reduction in the commercial catch as a result of the proposed marine protection areas will lower the export revenue earned from the CRA7 fishery. This will lower the value of CRA7 quota, as the quota value reflects the expected profits that can be earned from the quota over time.
- 7.4 There are quota holders who have no other investment in the industry, and the MPAs will therefore lead to a reduction and/or loss of their income from that quota.
- 7.5 The fishers declarations make it clear that based on their experience fishing in CRA7, the introduction of the proposed marine reserves will result in a reduction in the TACC, and as a result there will be an impact on CRA7 quota. This will have the effect of undermining the sustainable management approach applied in the Fisheries Act 1996.
- 7.6 Applying the standards for stock management and assessment methodology derived from the Fisheries Act 1996, all evidence is that the CRA7 fishery is in good health and producing a consistent and increasing sustainable catch, with a current TACC of approximately 106,000kg.³³
- 7.7 This assessment of stock status, and the very low or negligible environmental impact of kōura/rock lobster potting does not sit comfortably and appears to conflict with a number of the marine reserve proposals, particularly Te Umu Koau (D1). There would appear to be no justification or rationale for closing extensive areas to kōura/rock lobster potting.
- 7.8 There is insufficient scientific evidence that the continuation of kōura/rock lobster potting could not co-exist with some of the other aims that the proponents of marine reserves are seeking. There are other tools, including under the Fisheries Act 1996, climate change legislation and the Resource Management Act 1991 to manage land uses affecting water quality, which will better achieve the aims that that proponents of network 1 believe it will achieve.

8. Value chain impacts

- 8.1 Only the effects on commercial fishers have been directly considered during the process to develop the SEMPA network 1 proposals. However the kōura/rock lobster industry comprises fishers, businesses supplying the fishers (e.g. fuel, bait, boat supplies, and maintenance), quota owners, and also processors, who market and sell high value, live lobster, to the local market and to the market in China.
- 8.2 The evidence prepared by ORLIA shows processors will be affected by any reduction in catch, and also by change to the location of catch that will result if the proposed marine protection areas proceed. These processors and their employees rely on present supply channels to be at

³² NERA Economic Report page 23 at [88].

³³ NERA Economic Report page 2 at [6].

a consistent and regular volume. It is extremely difficult to quantify the potential impacts on these businesses, however this is not a reason not to do so.

- 8.3 Where processors and other operators rely on a volume of their businesses from the CRA7 fishers, and would be unlikely to be able to substitute for the loss of this business, there are likely to be other downstream adverse effects on these businesses also e.g. debt servicing difficulties, unemployment and industry exit.³⁴
- 8.4 In ORLIA's view these impacts should have been properly investigated at an early stage of the process in order to ensure a proper evaluation of the impacts of the proposed reserves. These impacts are still not quantified, but all indications suggest there will be further considerable business interruption along the value chain.

9. Cumulative impacts

- 9.1 The evidence of ORLIA is that there are a number of distinct impacts on the kōura/rock lobster fishery which have not been properly evidenced in the SEMPA process to date, or have been badly underestimated. Taken together these cumulative effects are more than significant. The extent of change for this fishery will be difficult to absorb and create significant adverse effects, including economic impacts and displacement effects.
- 9.2 This is presently a settled and healthy industry, supporting stable and strong workplaces for fishers, their families and the community around them. The current number of boats in the fishery is sustainable and the fish are abundant.
- 9.3 Given the demonstrated extent of cumulative effects on the ORLIA fishers it is difficult to understand why the Ministers would see value in closing off access to essential areas of reef when there is no evidence of ill effects to demonstrate any need for this to occur.

Te Tiriti o Waitangi

10. Te Tiriti o Waitangi

- 10.1 The largest quota owner in CRA7 is s9(2)(b)(ii) a holder of s9(2) of the quota. 10% of this quota was distributed under the Māori Fisheries Settlement. Ngāi Tahu both sells ACE to its fishermen and processes, markets and sells fish. We believe there has been little advice from officials and Ministers on the impact of the proposal on treaty settlements.
- 10.2 ORLIA acknowledges the views and submissions of Ngāi Tahu as members of ORLIA who would be affected by the reserve network if it is implemented, noting again that ORLIA does not purport to speak for Ngāi Tahu.

Inadequate information and unreasonable process

11. Insufficient engagement with ORLIA fishers and lack of information about kōura/rock lobster fishery

- 11.1 Several of the documents developed in the course of the SEMPA process acknowledge that the kōura/rock lobster industry will be greatly impacted by the Network 1 reserves, but there has been little time or effort made to properly quantify this impact. Given that it was identified as a key impact of the Network 1 proposals, and in fact the kōura/rock lobster fishers will be the most

³⁴ NERA Economic Report page 24 at [91].

impacted industry, it is submitted that proper quantification and consideration of this impact should have been a key focus.

- 11.2 One of the reasons that the Network 1 reserves proposal was developed without this information, was due to the divisive process which occurred at the Forum stage. The final shape of the Network 1 proposal that is being consulted on was developed without input from the commercial fishers, and yet this perspective would have been essential to understand how each reserve would directly impact existing users, and thereby carry out an accurate evaluation of alternative options.
- 11.3 The Forum's recommendations report records that the division within the Forum that supported the network 1 proposal (made up of the representatives of the science, tourism, environmental and community sectors) had limited information on some aspects of the proposal.³⁵ For example this group considered that because kōura/rock lobsters are migratory the actual impacts on the kōura/rock lobster fishery would be considerably less than they had been told.³⁶
- 11.4 As outlined above, potting for kōura/rock lobster occurs in discrete areas on rocky reef structures. Kōura/rock lobster do not populate sandy sediment surfaces and mass migrations are sporadic. The migration can cause a reduction in catch, and it is unlikely that the fishers can easily find the fish when they are moving off reefs.
- 11.5 This is where the divisive process at the original development stage has resulted in critical gaps in essential information, and an inadequate understanding of the actual impacts of the proposed marine protection areas.
- 11.6 Further, the displacement effects of closing off areas to fishing has been acknowledged but not considered in detail by this division within the Forum. This should have been an essential exercise in order to provide a decision maker with an accurate understanding of the displacement impacts of the proposed marine protection areas, but also of the adverse impacts that can occur outside the reserves. If fishers cannot fish in reserve areas, they will be forced to fish elsewhere, and this will lead to pressures on the marine environment in non-reserve areas.
- 11.7 The Forum's assessments are a simplistic and erroneous interpretation of the minimal information they had received about this fishery. Their recommendations affecting this fishery cannot be relied on as being a reasonable evaluation of impacts, therefore this evaluation must be undertaken anew.
- 11.8 ORLIA considers that Fisheries New Zealand recognised that there was inadequate information and analysis on these issues available, and it was for this reason that Fisheries NZ was recommending alternatives to the proposed marine reserve area Te Umu Koau (D1). In the briefing to the Ministers prior to their decision on the reserve network proposals Fisheries New Zealand repeatedly suggested that the Minister of Conservation consider:

Direct[ing] officials to undertake further work to assess the options for reconfiguring the boundaries of site D1 to reduce the impacts on the kōura papatea (rock lobster) fishery, while also ensuring adequate habitat representation.³⁷

- 11.9 Because of the lack of information about impacts on their fishery, and the lack of opportunities to participate in the process, ORLIA members have become disconnected and discouraged. And yet the purpose for the Forum process was originally to ensure full engagement with all interested parties in order to seek an agreed outcome. Given the potential impacts on the

³⁵ Joint agency advice on the south east Marine protection Forum recommendations dated 19 October 2018, page 15 para 65

³⁶ Joint agency advice on the south east Marine protection Forum recommendations dated 19 October 2018, page 22 para 80

³⁷ Joint agency advice on the South East Marine protection Forum recommendations dated 19 October 2018, page 4 Recommendation 8, page 19 Table 2a, page 21 para 88, Appendix 4: full site by site analysis D1 & D2, page 23 para 113.

kōura/rock lobster industry the lack of information from, and engagement with ORLIA fishers, is a critical omission by the government departments involved. Without adequate consultation and consideration of impacts on the CRA7 fishery, the process becomes unreasonable.

- 11.10 For any business person the possibility that their business will need to be changed or redirected to the order of 25% is a difficult prospect even at the best of times. Such an extent of change is nothing like the annual variability of catch/revenue differences that the CRA7 fishery would usually absorb.³⁸ The way that the message of this potential change has been communicated to these significantly impacted fishers through the SEMPA process to date has been extremely inconsiderate and unreasonable.
- 11.11 No further business or industry supports have been offered to assist these businesses with understanding how a transition might be possible. If this had been done, it may have become clearer that there is no alternative reliable fishery that could replace the northern fishing areas.
- 11.12 To reiterate this point then, in the current economic climate, there are fishers who are currently contemplating the possibility of the CRA7 TACC and a loss of a significant and reliable fishing area for which they know of no potential replacement, if the proposed marine protection areas are confirmed in the current form. This prospect follows a process in which they have had little opportunity to participate directly, and there is no clear evidence that the impacts on them have been fully assessed or considered.

12. Inadequate scientific evidence

- 12.1 The Forum and consultation documents regarding Network 1 do not contain any level of scientific analysis to demonstrate a particular basis for the Network 1 marine reserve network in full, nor for specific areas proposed as part of Network 1.
- 12.2 There is no comprehensive review of the scientific literature relevant to the Otago region's oceanographic conditions, land-based influences, habitat health, fisheries management assessments, ecological connectivity, sourcing dynamics or environmental health requirements to underpin the Network 1 proposal.³⁹
- 12.3 It is particularly difficult for any party to make a comment where there is such a deficiency of information. There is nothing of any substance to rebut, or disagree with. There is no clear scientific basis to discuss or argue, the Forum report predominantly contains only broad statements and assumptions which in places only serve to demonstrate the misunderstandings on which they are based.
- 12.4 Because of this lack of scientific information, the process is even more difficult for the ORLIA fishers to understand and participate in. If there was a clear scientific rationale for imposing such a significant limit on the 'heartbeat' of their fishery then they would look to incorporate that information with their depth of knowledge of the fishery – but here – there is nothing of any substance for them to engage with.

13. Other recognised issues with the SEMPA Forum process

- 13.1 Although the Forum was lengthy and expensive, it has been independently criticized as an inadequate form of public consultation. Disagreement between Forum participants culminated in two very different Networks being advanced as options for the Otago coastline.
- 13.2 The report produced at the end of the Forum came out in 2018 noted several areas where further information needed to be obtained for the Ministers to make informed decisions on which Network to support. It also included areas which were not part of the original consultation undertaken in 2016. For example, the boundaries of proposed Site D1 were extended without

³⁸ NERA Economic Report page 3 at [7].

³⁹ Dr S Goldstein report page 1, para 3.

any input at all from commercial industry representatives. Those representatives identified this omission and raised their concerns and objections to the Forum's findings for the attention of the Ministers.⁴⁰

- 13.3 Following the SEMPA Forum process there have been two separate reviews conducted which have identified key aspects which contributed to the weaknesses of the SEMPA outcome.⁴¹ In spite of the fact that all parties have received clear reports identifying issues with the reasonableness of the process, no concrete further steps have been taken to seek to observe correct process and collect the information which is necessary to carry out the base analysis and evaluation required by the MRA.
- 13.4 At a point when most commercial parties were expecting at least some further consultation with the industry, and three weeks into the Covid-19 crisis in which ORLIA members' primary market closed (China), the DoC announced it was commencing a process to confirm the Network 1 reserve network. Only the minimum timeframe of 8 weeks was set for parties to object from 17 February 2020. That original 8 week timeframe also included a number of public holidays (Easter, Otago Anniversary Day and Southland Anniversary Day) and school holidays which added further limitations.
- 13.5 Given the lack of information gathered and analysis on Network 1 undertaken by the government, ORLIA was left rushing to seek to compile information on the issues that the Forum had omitted to consider in developing Network 1. As a small organization this was a large burden and ORLIA has ultimately incurred costs upwards of \$50,000 in ensuring the Ministers have correct information on the effects of ORLIA fishers and the CRA7 fishery.
- 13.6 As is made clear in this submission, the prospect of the proposed new reserve network is significant for ORLIA members. The possibility of ORLIA members not being able to properly demonstrate the extent of displacement effect, economic impact and other effects that would result from Network 1 was extremely concerning. Against this background the extra pressures for ORLIA members in trying to fully participate in the process resulting from COVID-19 implications became even more concentrated (on top of day to day fishing and business).
- 13.7 New Zealand went into Alert Level 2 lockdown on March 21st 2020 and then Alert 4 on 25 March 2020 putting in place a nationwide lockdown. This further limited ORLIA's ability to work together on it's submission and preparation of other essential supporting information. Despite extensive contact with DoC officials, officials from Fisheries New Zealand and the Office of the Minister of Conservation, it took until 9 April 2020 for the 8 week consultation period to be withdrawn. This was merely 4 working days before that period was due to end on 17 April 2020. This delay caused a huge amount of additional stress on ORLIA members and their families at a time when they should have been simply concentrating on keeping themselves safe and their livelihoods afloat.
- 13.8 In May 2019, the Ministers announced they would progress the Network 1 reserve network, again without obtaining any new information on the rationale for each reserve, for the scientific basis of the reserves, or on the economic and other undue impacts of the proposals.

14. Regulatory impact statement and best practice

- 14.1 A regulatory impact statement was not provided to the Ministers when preparing to issue their decision to proceed with any of the recommendations from the SEMPA Forum. This means that the essential economic analysis and other costs to current businesses such as those of the ORLIA fishers was again not made available or considered by decision makers during the SEMPA process. This approach does not accord with the Guide to Government Expectations for Good Regulatory Practice issued on 21 April 2017.

⁴⁰ Letter to Ministers dated 19 February 2018 from C Scott, A Heineman, S Gilmour and S Bennett

⁴¹ Lessons learned report SEMPA DoC July/October 2018 Caravel

- 14.2 Usual practice (in accordance with the above guide) would see a regulator take account of the costs of a proposal, the impacts on current markets and stakeholders, the impacts on property rights (such as quota), and on individuals and communities. This is necessary for a decision maker to evaluate the relative costs and benefits of alternatives available. For the kōura/rock lobster industry, none of these assessments have been properly carried out or made available to any of the decision makers.
- 14.3 The considerable omissions and errors at the Forum stage, lack of consultative processes to accumulate further information, later compounded by the lack of information available to the Ministers, means that the first part of the SEMPA process was ultimately flawed. The current proposal being consulted on (and the justifications for it) was created out of a flawed process and is based on undeveloped and imprecise information. This means that the proposed reserve network must be declined. ORLIA supports the submission of the Fiordland Lobster Company Limited including their summary of the difficult SEMPA process, and the issues and objections raised in respect of this consultation process.

Evaluation under MRA legislation

15. MRA legislation

- 15.1 It has been acknowledged that the MRA is old fashioned and not fit-for-purpose for contemporary biodiversity protection. This legislation is currently being reviewed, and ORLIA understands that new legislation with more diverse and appropriate management mechanisms is under development.
- 15.2 Given the difficult and inadequate process to date it seems ill considered to push ahead with the proposed reserve network, particularly when there is no imminent or demonstrated threat to the marine environment in the South East Coast.
- 15.3 It is submitted it is more appropriate to take a step-by-step approach with due process being observed for any steps which will have significant impacts on existing stakeholders.
- 15.4 The MRA was not enacted to create a type of 'national parks' legislation for the sea. If it is being used in this manner it is being applied incorrectly and unreasonably.
- 15.5 If a national park was proposed in this area the process for creating it would include considerably more checks and balances, particularly in respect of how the proposals might impact private rights and businesses.
- 15.6 It is essential for any proposals put forward under the MRA to be underpinned by robust understandings of economic impacts and the relationship of the proposals to private property rights. Without this information it is not possible for a decision-maker to adequately evaluate the merits of the proposal in the manner contemplated by section 5 of the MRA.

16. Lack of scientific basis demonstrating need for marine reserves as proposed

- 16.1 It has not yet been clearly demonstrated that the proposed network 1 marine reserves are necessary, what the key purpose of each reserve might be, and how the parameters and conditions placed on each reserve will be effective in achieving any particularised purpose. This is essential in order to carry out an accurate evaluation exercise as contemplated by the MRA.
- 16.2 Nor is there any comprehensive review of the scientific literature relevant to the Otago region's oceanographic conditions, land-based influences, habitat health, fisheries management

assessments, ecological connectivity, sourcing dynamics or environmental health requirements to underpin the Network 1 proposal.⁴²

- 16.3 The Forum and consultation documents failed to rigorously assess whether the tools available in the MRA and the Fisheries Act 1996 actually address the specific issues in local context without needing to alienate any specific areas from fishing.⁴³ The key issues for ecosystem health in this region are ocean acidification and temperature increase,⁴⁴ and sedimentation from the Clutha and Taieri Rivers.⁴⁵
- 16.4 The sedimentation and associated water clarity issues are well known, and can be traced back to land use activities, rather than fishing and other activities that might be excluded by the proposed reserves.
- 16.5 Another example of the lack of adequate information available to the Forum which proposed network 1 is evidenced in the comments relating to the supposed presence of seagrass within proposed marine reserve area Te Umu Koau (D1). The Forum observed that the presence of seagrass within this reserve necessitated protections over the Pleasant River estuary.⁴⁶ However elsewhere in the same document it is also noted that there is no information of the extent or quality of the seagrass present in this estuary.⁴⁷
- 16.6 The lack of understanding of the location and extent of seagrass is then compounded in the Joint Agency advice to the Ministers of Conservation and Fisheries, where this document seeks to rely on the loose assumption of the existence of seagrass in the Pleasant River estuary as being a reason to reject the Network 2 proposals.⁴⁸ It is unlikely that this type of issue would have arisen if the scientific basis for a proposed reserve had been clear in the first place.
- 16.7 It is possible to obtain science-based evidence to determine if a marine reserve will mitigate or exacerbate a stated management intent.⁴⁹ This type of study or scientific assessment has not been done for the network 1 reserve network, nor has the initial stage of a series of particularised purposes for each reserves and the full network been completed. This type of approach would have fit with the intent of the MRA and should be observed before any reserve network is contemplated for implementations.
- 16.8 Scientific studies have demonstrated that a specific and detailed case by case evaluation of marine reserves is necessary to ensure their efficacy, and original aims can be achieved.⁵⁰ This is particularly the case for species which are mobile, and where there are specific local characteristics and impacts which need to be properly assessed. In the case of the kōura/rock lobster fishery, and particularly the southern rock lobster population, the unique characteristics of CRA7 includes the specific locations of rock and reef structures on which fishing can occur, the intermittent migrations of fish, and the facts that the kōura/rock lobster fishery is currently in strong health.
- 16.9 The evidence prepared by ORLIA, and the recent increases in TACC in CRA7 support an assessment that the Otago kōura/rock lobster fishery is in extremely good health. This indicates that due consideration should have been – and should be – given to alternative management

⁴² Dr S Goldstein report page 1, para 3.

⁴³ Dr S Goldstein report page 1, para 4.

⁴⁴ Dr S Goldstein report page 2, para 7.

⁴⁵ Dr S Goldstein report page 3, para 8.

⁴⁶ Joint agency advice on the south east Marine protection Forum recommendations dated 19 October 2018, Appendix 3 Full network analysis, page 5 para 29

⁴⁷ Joint agency advice on the south east Marine protection Forum recommendations dated 19 October 2018, page 13 para 44 and footnote 14,

⁴⁸ Joint agency advice on the south east Marine protection Forum recommendations dated 19 October 2018, page 25 para 109

⁴⁹ Dr S Goldstein report page 4, para 14.

⁵⁰ Dr S Goldstein report page 4, para 15; referencing Hilborn et al (2004).

methods which might accommodate ongoing fishing for kōura/rock lobster within any reserve areas.

- 16.10 The evidence ORLIA has collected in support of this submission shows that there is no decline or pressure on the kōura/rock lobster fishery which might suggest a need for any limits. There has been no assessment of the need for or the merits of removing kōura/rock lobster fishing in any of the documentation supporting the network 1 proposals or in the consultation documents prepared at this stage of the SEMPA process.
- 16.11 As set out in the ORLIA evidence the Otago rock lobster fishery has specific local characteristics which need to be understood before the merits of a reserve can be properly assessed. In developing Network 1 the SEMPA Forum did not have any specific information about the way the kōura/rock lobster fishery operates off Otago. As a result they operated on the basis of a misunderstanding that a marine reserve established in one area of the coast would have spillover benefits for other areas of the coast. This proposition fails to take account of the key information which is made clear in the declarations put together by the ORLIA fishers.
- 16.12 The ORLIA evidence demonstrates that some parts of the coast are more essential than others to maintain an equilibrium in the CRA7 fishery. In particular there is one area of reef which is irreplaceable in this fishing region, and therefore any assumption of spillover benefits is wrong. In fact what can instead occur is increased volatility of the fishery.⁵¹ Displacement, spillover and consideration of impacts on highly mobile species must be made with reference to specific local conditions, not in a generalized manner of the kind that has been utilized to date.
- 16.13 Unfortunately it is at least in part due to this incorrect assumption made by one division of the SEMPA Forum representatives (none of whom had any experience or knowledge of kōura/rock lobster fishing), that they reached their own inadequately supported conclusions on the network 1 reserve network, and particularly the extension of the Te Umu Koau (D1) reserve.

17. Evaluation under MRA: need for reserves vs significant impacts

- 17.1 The Forum did not sufficiently particularise the aims or management goals for each of the proposed reserves, nor for Network 1 as a whole. The identification of an issue to manage, or an outcome to achieve, is essential to provide shape to the scientific analysis that should be conducted to identify the most appropriate method to achieve that outcome under the MRA.
- 17.2 Having identified the outcomes sought, it is then usually possible to obtain sufficient information to analyse firstly, whether a marine reserve will provide the outcome sought; and secondly what shape and conditions should be placed on any marine reserve to achieve the outcome sought, without undue impacts on stakeholders and the wider community.
- 17.3 The Forum and consultation documents failed to rigorously assess whether the tools available in the MRA and the Fisheries Act actually address the specific issues in local context without needing to alienate any specific areas from fishing.⁵² The key issues for ecosystem health in this region are ocean acidification and temperature increase,⁵³ and sedimentation from the Clutha and Taieri Rivers.⁵⁴ There is no clear scientific information that the Network 1 reserve network can address these issues.
- 17.4 Any rigorous scientific analysis commissioned by DoC should have also included evidence of exploited or declining fish species, and of any abundant fish species, the latter potentially then being able to be excluded from any restrictions within a reserve.
- 17.5 There is inadequate supporting scientific information available to demonstrate the need for the format of the proposed reserve network known as Network 1, and any information that is

⁵¹ Dr S Goldstein report page 8, para 34.

⁵² Dr S Goldstein report page 1, para 4.

⁵³ Dr S Goldstein report page 2, para 7.

⁵⁴ Dr S Goldstein report page 3, para 10.

available is not at the level of accuracy and clarity contemplated and required by the MRA. It is necessary, particularly for highly mobile species such as kōura/rock lobster, to carry out a proper scientific analysis of the potential benefits or adverse impacts of a reserve prior to implementation.

- 17.6 As a result of the above it is difficult to quantify any benefits of a marine reserve network as proposed, in order to then carry out the balancing exercise which must be conducted in accordance with section 5 of the MRA.
- 17.7 The most essential impact to understand in the context of the South East coast is the displacement effect of creating a reserve over an essential area of reef which constitutes the centre of the kōura/rock lobster fishery in CRA7. Some of the key evidence on displacement effects set out earlier in this submission includes:
- (a) More than half of the ORLIA fishers rely on the rock and reef structures within the proposed Te Umu Koau (D1) reserve for a consistent and reliable supply of fish;
 - (b) There are no comparable areas of reef elsewhere along the Otago coast and within the CRA7 area that could offer a similar level of reliability of supply;
 - (c) Due to the particular environment of this fishery there will be no spillover effects from the proposed marine reserve network, in fact, it will increase volatility of the fishery;
 - (d) The settled and predictable runs of the ORLIA fishers will be significantly disrupted by the proposed network 1, which will result in increased competition between fishers as they seek to rely on small reefs elsewhere along the coast;
 - (e) ORLIA's evidence shows the other small reefs elsewhere along the coast offer a sustainable fishery for only 1-2 boats at present, not the full fleet;
 - (f) A number of the fishers who presently rely heavily on the reefs within the proposed Te Umu Koau (D1) reserve area, some for upwards of 60% of their catch, will likely consider exiting the industry if the network is implemented.
- 17.8 We note again here that it is difficult for the ORLIA fishers to understand why this level of effect is being contemplated given the most recent increase in TACC shows an abundance of fish, and all fishers report that the kōura/rock lobster fishery is currently in extremely good health.
- 17.9 ORLIA has also outlined the clear impacts from the proposed reserve network on quota owners. Their quota are a recognised property right and impacts on property rights must be carefully considered, particularly where the owners will have made personal financial decisions in reliance on the forecast income (including the TACC increase) from this investment.
- 17.10 ORLIA considers that there would need to be significant concerns about the kōura/rock lobster fishery in order to justify such a great financial impact on this fishery.
- 17.11 Instead what is actually occurring is that there is clear evidence the kōura/rock lobster fishery off Otago is in strong health, such that the TACC has recently been increased. Any marine reserve proposal would therefore appear to contradict the management regime put in place by the Fisheries Act for ensuring sustainable fisheries.
- 17.12 It has been clearly quantified in the evidence prepared in support this ORLIA submission that the substantial displacement effects in particular, combined with a considerable loss of annual revenue, will result in significant impacts on all ORLIA fishers, their crew, their families, their businesses, downstream processors and other businesses that support the Otago kōura/rock lobster industry will cause an undue impact which must be taken into account under section 5 of the MRA.

17.13 For some ORLIA fishers the impacts may be more than significant, the loss of revenue may cause a permanent end to fishing.

18. Changes sought to Te Umu o Koau (D1) reserve

18.1 The SEMPA consultation document⁵⁵ includes a number of comments such as this one:

*Any final decisions on the application will be subject to the submissions received as part of the consultation process. Therefore, aspects of the application may be changed and any or all parts of the application may not be pursued.*⁵⁶

18.2 And more specifically in respect of Te Umu Koau:

*The Ministers of Conservation and Fisheries are interested in the views of submitters about how the marine reserves proposed for site D1 (Te Umu Koau Marine Reserve) could be progressed to balance [Kāi Tahu] concerns against marine protection objectives.*⁵⁷

18.3 In this submission ORLIA has sought to provide information to assist the Ministers to clearly understand the impacts of the proposed Te Umu Koau (D1) Reserve on ORLIA fishers.

18.4 ORLIA's position as set out in these submissions is based on, and sensitive to, the particular proposal being consulted on. That position may differ if the proposal (or any part of it) changes, including the boundaries of any proposed marine reserves.

18.5 The impacts on ORLIA fishers are more than significant. The evidence prepared in support of this submission makes this clear. In order to prevent these significant effects on ORLIA fishers the proposed reserve Te Umu Koau (D1) must be removed from the application.

Conclusion

19. Concluding remarks

19.1 The displacement of kōura/rock lobster catch from the proposed marine reserves at sites D1, I1 and K1 will be significant, for the individual sites and cumulatively. Displaced catch from the marine reserves will increase the risk of localised depletion and threaten the sustainability of the CRA7 fishery. TACC increases may be foregone (as modelled by Dr Breen's report) and the TACC could be reduced (as predicted by fishers), with serious impacts on CRA7 quota owners (including Settlement Quota) and ACE owners.

19.2 Displaced catch will also exacerbate spatial conflict between fishing sectors. If proposed marine reserves D1, I1 and K1 are established, only a very small area of coast near Dunedin will remain available for recreational fishers. It is highly likely that, in response to increased recreational and commercial fishing pressure, tangata whenua will seek to protect areas of importance for customary fishing by establishing further mātaimai reserves in CRA7 or further restricting kōura/rock lobster fishing in the East Otago Taiāpure. Additional spatial closures will further exacerbate the risk of localised depletion and further jeopardise access of fisherman to stock in CRA7.

19.3 For the reasons outlined in this submission, ORLIA:

- (a) **Objects** to MPA D1 under Marine Reserves Act sections 5(6)(c) and 5(6)(d)

⁵⁵ DoC and FNZ Proposed southeast marine protected areas, Consultation document, June 2020.

⁵⁶ DoC and FNZ Proposed southeast marine protected areas, Consultation document, June 2020, page 9

⁵⁷ DoC and FNZ Proposed southeast marine protected areas, Consultation document, June 2020, page 13.

- (b) **Objects** to MPA I1 under Marine Reserves Act sections 5(6)(c) and 5(6)(d)
- (c) **Objects** to MPA K1 under Marine Reserves Act sections 5(6)(c) and 5(6)(d)
- (d) **Objects** to all the SEMPA marine reserves under Marine Reserves Act section 5(6)(e) because they will not achieve their intended purpose (whether to provide for scientific study or to protect marine biodiversity) and will impose significant unnecessary costs on existing users.

- 19.4 Irrespective of its eventual outcomes, the SEMPA process has had a discouraging effect on the kōura/rock lobster industry. It has not only led ORLIA to oppose these proposals, but ORLIA believes it has set a negative precedent for future MPA processes in other regions of New Zealand. As a result of our experience with SEMPA, ORLIA has limited faith in other similar MPA planning exercises and we will be wary of engaging with these processes in the future.
- 19.5 We believe that the marine environment is extremely important and concerns communities as a whole. Therefore its protection should be approached with genuinely constructive and collaborative processes that consider the creation of marine reserves as one of a suite of objectives determined by local communities, where a range of management tools and approaches can be used to achieve community objectives, while respecting the rights and interests of all parties. Processes such as the marine guardians programmes established elsewhere in the country are good examples.
- 19.6 Before the current proposals were released for consultation officials should have undertaken more investigation and analysis given the criticism the Forum received and the questions that remained to be answered. Instead the onus has been put on a small group of fishermen to defend their livelihood and way of life at great expense, all at a time when they should have been able to focus maintaining their own businesses and thereby helping to rebuild the New Zealand economy. The negative impact on them is huge, particularly when weighed against the uncertainty of any benefits that marine reserves may or may not have. ORLIA submits that the South East Marine Proposals will unduly interfere with commercial fishing and are contrary to the public interest.

From: [Stan and Marion Rutherford](#)
To: [SEMP](#)
Cc: [Marion Rutherford](#)
Subject: submission
Date: Monday, 3 August 2020 5:58:20 PM

Proposed south east marine protection network.

Mr. Stanley Rutherford

s9(2)(a)

Phones s9(2)(a) email.

s9(2)(a)

My submission has firstly, some general observations and points, and subsequently, specific reference to 3.3.6 Hakinikini Marine Reserve. (M 1 in the forum document). P refers to page in the consultation document.

General point 1. The document refers to Marine reserves, Marine protected areas (MPA type 1) and MPA type 2. I found it somewhat confusing for a start to detect what the differences and special features there might be encompassed by these terms. Why can you not stick to a CLEAR and CONSISTENT use of terminology throughout the document???? It simply could have been MR for Marine Reserve, and MPA for the Marine Protected Area type 2 . Not rocket science in my opinion !!!

Point 2 . Re 3.2 on P 17. Option 1, and P 18, option 2. I am assuming that the decision will be most likely for option 2 or a modification of it so will only suggest under option 1 that scientific study could be done whether there is a reserve or not. It is essential to have a measured base of species/ population/ distribution etc to allow for future comparisons and assessments of the dynamics on this coastline to be meaningful.

Point 3 On P 18 - Paragraph titled “Biodiversity Conservation”, 3rd dot point. this sentence reads- “Allow the marine biodiversity in the southeast of the South Island to be explicitly protected and maintained or allowed to recover.”

This clause makes certain assumptions that suggest: 1) the areas are under threat of harm or attack, 2) that the status quo is unstable or decaying, and 3) that it has already been harmed and therefore needs to recover. Are you going to get someone in to shoot all the seals because the fish they might be eating need protection, or the sea lions because they eat penguins? To say “explicitly protected” is a grandiose claim to make for these proposals.

Where is the information that needs to be presented as supporting evidence (scientifically researched and verified) to prevent people such as me concluding this is “unfounded spin” and therefore dismissing it as just that?

Also in this paragraph under the 5th dot point I cannot help but point out the same credibility issues with “avoiding any risks to individual sites from localised disasters, climate change impacts, etc”. Again spin and scaremongering!!! They could be named “Risk free Zones” It would be much more credible to say the connectivity of the reserves would contribute to the lessening of the impact of such local disasters as are envisioned. I agree with the connectivity concept being presented with credible wording.

Take home point from the above.

THERE NEEDS TO BE ROBUST SCIENCE from the outset of any reserve being established so relevant comprehensive ongoing data is acquired to allow future assessments to be made to prove or disprove that such reserves are worthwhile and achieving a meaningful and beneficial outcome.

Re Hakinikini Marine Reserve. (M 1 in the document)

P 18 (Bottom paragraph) Social, cultural and economic impacts.

The proposal acknowledges here the impact of pressure on other locations from displaced fishers, and also the negative impact of that displacement on those denied their existing fishing activity. The report presents data on the effect on commercial fishing. Water craft including recreational boats can simply motor to a nearby patch of sea or go further out to an offshore site. We only fish with a line and a bamboo rod from the rocky shore in channels and only take 2 or 3 Wrasse (considered rubbish by some of our friends), for a small meal of fresh fish if we are successful. This has been a family custom for over 150 years in this location. If the proposal is implemented in its present form, this longstanding tradition will be forever gone. It certainly is not a simple matter to merely relocate. Private access to the sea and suitable fishing sites is not granted by landowners beyond the reserve area and will not be granted in the future. We do not have boating equipment or expertise so shore based is our only option. Locally this Marine reserve and the others nearby will create greater pressure on iconic readily accessible places like Taieri Island and will speed the demise of the ecology there. You should have reserved / preserved that place and Nugget Point as iconic tourism, snorkelling, educational destinations, offered as resources of national and international significance to showcase and share the marine ecology in accessible locations which are otherwise under ever-increasing threat of destruction - lest we end up wringing our hands in grief 20 years from now shamefacedly telling the next generation how wonderful it was but now??? "Sorry".

P36 Item 3.3.6 Hakinikini. (M 1)

The information presented needs to be accurate. The seal rookery is not only at Quoin Point. There are at times over 200 seals along that coastline from Watson's Beach to Akatore Creek comprising at least 3 birthing sites and additional batchelor haul outs. Recently over 50 seal pups were counted by us at the 2 sites north of Quoin Point. The rock pools here have become fouled lifeless relics of what they once were, when 60 years ago there might have been 2 or 3 seals sighted in a year! Itinerant sea lions appear occasionally and recently have appeared more frequently at Watson's Beach just beyond the southern boundary of the proposed Hakinikini reserve area. Up to 8 males at certain times of the year.

We have been blessed with the privilege of locating and observing over each of the last 4 years, a sea lion with a new pup in the proposed reserve area and have been involved in the tagging and monitoring of them till they depart. Our observations have also included watching as one of these "pups" at 2 years old returned and grew fat and sleek on a diet which included seal pups at his birth site. Additionally we have observed and photographed a very rare leucistic seal pup at the same place. We are fond of this piece of coast and treasure its rich contribution to our appreciation of our coastal heritage.

WE FEEL TOTALLY AND UNFAIRLY TARGETED by this proposal and would therefore like to appeal for permission to continue with this "customary activity" which has been an essential part of our family for over 150 years through family owned farmland adjoining this proposed reserve area. In perspective this activity consists of 4 to 5 times a year only when time tide and weather align, and we take 2 maybe 3 wrasse for a feed of fresh fish. This is hardly a major contributor to the decline of marine life there compared with the impact that the ever increasing seal population and offshore boating must be having on the resource.

To be denied the right to catch a few fish from the rocks along with encouraging and educating our grandchildren on the special features and wildlife here is truly a savage "BODY BLOW", and just not fair. The tonnage taken by fishing boats makes our request a minute peanut in comparison. You are clobbering us with a **SLEDGEHAMMER!!!**

In the event the proposed reserve is established I believe that Kai Tiaki should also agree to encompass the complete prohibition of taking kai and so give a credible example of their willingness to accept a level playing field in this area of conservation.

We do not believe that our fishing has any affect on the schist wave cut rocks nor on the suggested beauty and ruggedness of the coastline. The biggest impact on the kelp must

surely be from the wave action of storms going by the amount that washes up on the beaches nearby - some with pieces of rock attached to the holdfasts.

P 36 *Macrocystis* kelp. "Speculation" is not evidence. We are aware of the preconceived view of a researcher on this topic and require more robust evidence than "speculation" for it worthy of inclusion for consideration in this document. Perhaps instead of the sediment from rivers it could well be that Kina have chewed this seaweed down, as has happened in the Marlborough Sounds after the blue cod were so severely depleted that the Kina population "exploded" and devoured the *Macrocystis*.

It appears that MPI struggle to monitor and cope with compliance issues for existing activity. There is nothing in the document to address the policing of the proposed reserve sites.

Thank you for taking the time to read this. It has taken all day to compose. I trust it will be considered as a valid submission and not consigned to the bin. I am happy to be contacted for any reason re this submission.

Stan Rutherford

From: s9(2)(a)
To: [SEMP](#)
Subject: Proposed South-East Coast Marine Reserve
Date: Monday, 3 August 2020 6:53:01 PM

Proposed South-East Coast Marine Reserve

I do not appose Marine reserves but these have to be made in a place that least effects the general public .

I have been married to a commercial fisherman for 48 years and he has worked very hard to provide for me and his family in this time .We have strived to keep to the regulations and policies set out by MPI and feel that we have been unfairly hard done by with the proposals that have been put forward.

The Te Uma Koau proposal is going to effect not only the commercial sector but also the recreational fishers greatly and this is not what reserves are set out to do .

I therefore strongly object to the proposed reserves especially Te Uma Koau proposal

Yours Sincerley

Colleen Heineman

s9(2)(a)

Submission on Proposed Southeast Protected Areas

Name of submitter or contact person:	Damon Cooper submitted by Chanel Gardner on his behalf
Organisations	Southern Fantastic
Email:	s9(2)(a)
Telephone number	s9(2)(a)
Your preferred option as detailed in consultation document	1

Introduction

1. This submission is provided by Damon Jon Cooper in the capacity as a fisherman, quota owner and quota lessee in response to the proposed southeast marine protected areas Consultation Document February 2020.
2. I have viewed the submissions from NZ Rock Lobster Industry Council (NZRLIC), the Paua Industry Council (PIC), Fisheries Inshore New Zealand (FINZ) and Southern Inshore Fisheries (SIF) (the fishing industry) which directly represent all the major inshore fisheries of the south-east of the South Island and I endorse the contents of those submissions entirely.
3. My personal position is that the introduction of the proposed marine protection network would result in no winners due to an interruption to abundant marine health, lack of accurate economic impact analysis, unnecessary restrictions of fishing that does not adversely impact biodiversity and the cumulative effects of COVID-19 on our local economy.
4. I believe that the marine environment doesn't need "protection" but rather that it needs inclusive and collaborative management by user groups.

Personal Background

5. I have active, on-water experience in excess of thirty years. I own the vessels Lady Bridget and Daisy Mae which fish the Otago southeast coast out of s9(2)(b)(ii) from the s9(2)(b)(ii). The primary fishing activities are Rock Lobster potting, setnetting and long lining.
6. I am 47 years old with a stay-at-home partner and four children aged 18, 9, 7 and 3.
7. I have fished since 1990 working for other operators and then on my own account until I purchased the Solitaire in 1999 having obtained my coastal launch master certification in 1995. Two years later I purchased the Lady Bridget a 43 ft vessel which predominantly crayfishes and setnets in the summer. I expanded my business in 2015 by purchasing the 63ft Daisy Mae which is strictly a pot vessel. I have such confidence in the health of the marine

environment that last year I contracted a boat builder in Christchurch to assemble a vessel due for completion at the end of 2020.

8. I have 6 crew working for me and an office administrator. s9(2) is a married homeowner with 2 children. s9(2) has a partner and a house with one child. s9(2) is married with two houses and two children. s9(2) has two children in a de-facto relationship. s9(2) is single. s9(2) has a house and two dependent children. s9(2)(a) is a married homeowner.
9. A day fishing for me means a 4.30am departure and not returning home until 6pm at night on all days that the weather permits. We crayfish from the north to the south of the Otago Peninsula in the winter and setnet anywhere between the Waitaki River mouth and Long Point in the summer. The Lady Bridget targets crayfish in winter/spring and gillnets for the other seven months catching mainly rig and shark, hapuka, warehou and ling. The crayfish catch is around s9(2)(b)(ii) and we would catch s9(2)(b) of rig and shark plus bycatch. We would harvest s9(2)(b)(ii) by codpot. I estimate that the Lady Bridget would spend 250 days at sea each year and the Daisy Mae 200 days.
10. I have invested extensively in this industry and own a s9(2) holding in CRA7 being the maximum allowed. I spend in excess of s9(2)(b)(ii) in leased quota per annum to quota holders. My investment in other quota parcels exceeds s9(2)(b).
11. Approximately s9(2) of my fishing activity occurs in the area of the proposed marine reserves; particularly D1, H1 and E1. Therefore the introduction of the proposed marine reserve would result in a halving of my current business model.

Marine Health and Fishing Abundance

12. I support the conservation of marine biodiversity and evolving sustainable marine management and I acknowledge the long-term benefits of sensible protection measures for the wellbeing of all who interact with the ocean resources.
13. I consider myself a careful custodian of the ocean and believe that my fishing practices have not had a degrading effect on the coastal environment or the marine life that inhabit it. I have confidence in the QMS system and as a professional who works on the water I can attest to the health and volumes of fish available for harvest. This is a key reason why I support the maintenance of the status quo. I do not believe that the proposals as put forward are necessary to achieve the stated objectives.
14. I have observed fish abundance increasing across species and the management by Fisheries New Zealand largely results in what I view as entirely sustainable stocks. In fact, due to ocean temperatures warming we are experiencing an influx of fish that have not previously appeared this far south.
15. I do not think the fishing methods I employ are harmful to the environment or biodiversity. I have had extremely limited negative interactions with protected species and have carried observers for 500 days I have participated in focus groups to attempt to minimise any catch

impact on dolphins, penguins and other sea birds and view our impact on these creatures as minimal.

16. My position is that the most detrimental impact on the coastal marine environment are from climate change, pollution and sedimentation run-off from land. Clearly, the commercial fishing fleet is an easy “variable” to address but the economic and community impact has been undervalued and under-represented in the consultation document.
17. As a participant in the early parts of the Forum process, fishers acknowledged the purpose and function of areas such as the Bryzoan beds and other features. However, the scale of the network is well above and beyond what was previously consulted on and poses a significant economic restriction on our ability to fish. We as fishers supported the introduction of marine protected areas in the forum period, however, the final network proposals are vastly and unnecessarily extensive. I feel this was not in good faith given the objective and spirit of what all marine users were trying to achieve.

Economic Evaluation Not Fit For Purpose

18. I view the economic analysis in the proposal as in no way fit-for-purpose. I have struggled to get data from Fisheries New Zealand (FNZ) to try and calculate how my business would be affected were any or all area of the network to be allowed. There appears to be a lack of fine scale data available and I have not been able to get definitive data (which I assume would be given more weight than my anecdotal reports) from FNZ. My vessels are electronically monitored and yet I was not given heatmaps or catch data to go from with this submission.
19. I of course know where I fish, however, I don't have a record of all the exact positions in relation to the proposed marine reserves and Type 2 areas. I would have liked full data disclosure prior to the formation of a proposal document. I see it as baffling that the Ministry department charged with monitoring (and supposedly supporting) our fisheries cannot put forward accurate catch and location figures for consideration by the fishermen themselves.
20. As a fisher, I can give an estimation of my time, effort and landings from proposed marine protection areas but the flow on effect of my estimates to gauging value impact with the LFR creates a ridiculously burdensome situation. FNZ ought to have this science and data available and I question with such enormous and even calamitous repercussions from this extensive network, why has the economic impact analysis been so poor?
21. The consultation document does not give accurate figures for decision makers to weigh up the real impact on commercial fishers, the LFRs or the end consumer.

Existing Fishing Does Not Adversely Impact Biodiversity

22. The south east coast supports a productive and diverse range of valuable inshore fisheries. The setnet and trawl fishery are particularly productive and yield a substantial volume of fish

that are supplied to consumers. The setnet fishery has already been subject to significant spatial displacement as a result of earlier regulations and, as addressed in industry submissions, the further displacement due to the TMP and marine network areas will have a substantial impact.

23. I consider it highly unlikely that any displaced catch can be taken elsewhere in the fishery without additional cost to fishing operators and without resulting in localised changes to the distribution and abundance of commercially harvested species. I also consider the cumulative effects of spatial displacement, particularly from the proposals in the TMP and other initiatives may restrict the flexibility of some fishers to respond to additional displacement. This will place an unintentional and unrepresented pressure on areas outside the network. The status quo would continue to allow the objective first proposed by the Forum.
24. I would not be able to catch some of our key species if the proposed network proceeds. The D1 area has been discussed at length in the ORLIC submission, but for my business it represents s9(2) of my annual catch in a very high catch per unit of effort area. D1 is currently experiencing its highest abundance of record providing historical CPUE data for the season just finished: s9(2)(b)(ii)
25. The closure of this area would have an immediate effect of a loss of s9(2)(b)(ii) turnover annually and trigger substantial ACE reduction into the future with a loss of peak CPUE grounds. My business has already offered historical foul ground areas of Green Island, White Island and Pleasant River. This would remove grounds where we would take s9(2) of our annual catch.
26. If all these proposed closures go ahead it would remove s9(2) of my regular cray catch.
27. In terms of my other fishing activities, I would have to expend effort to attempt to catch fish in different and less productive areas which has an obvious increase in running costs across the business. Some species are only caught in specific areas by a specific method, such as shark and rig with a setnet. The result is the inability to exercise access to areas to realise the value of the quota. No mention of compensation has been addressed in relation to quota value, assets or other property rights adversely affected by the proposed marine network.

COVID-19

28. Due to Covid-19 the markets that our industry generally supply, particularly in terms of crayfish, have been severely interrupted since January. The proposed marine network has layered an additional layer of stress in operating a business in the Covid-19 environment. As a Director of a substantial LFR in the area, Harbour Fish, I can see first-hand the chain of impact from Covid-19 alone as well as from a fisher perspective.
29. The cumulative effect of the pandemic and a marine network will be catastrophic and jobs will be lost. I estimate by business will be halved, therefore, half my crew will be forced to find other work in an industry where everybody has been adversely affected. I have stated above the financial and family obligations that my small amount of crew have. When this impact is

multiplied across the south east coast fleet the consequences must seriously be considered when weighed against whatever small benefit is being posited in the consultation document.

30. I do not believe that the network should be front-of-mind for Government at this time. To proceed with the implementation of a radical and untested model is insensitive and negligent when the primary objective currently ought to be job security and consumer confidence in the continued supply of affordable options with which to feed their families.

Other Specific Impacts On Fishing

31. The proposed marine network is not the only restriction facing our coastal fleet. As mentioned above, displacement from TMP measures on Timaru and fishers and fishers in Te Waewae Bay are a concern as to pressure on our region from effort from those operators.
32. Sanford has applied for two salmon farm locations off the coast which, if allowed, further interrupt available fishing grounds and could further impact the ecological balance in the area.
33. Legasea initiated Court injunction applications in the United States which could impact our ability to export product there.
34. The recreational fishers are not regulated in any real sense and displacement of their unmonitored efforts will affect marine health. Although we do not experience the volume of recreational fishers as seen in the Hauraki Gulf, the lack of reporting and enforcement of the recreational sector leaves much to be desired. A whole class of users exercises unfettered harvesting as opposed to commercial interests that are intensively monitored.
35. Developing regional plans are looking to enforce management strategies to protect biodiversity from the terrestrial to the coastal environment. This has not been put out for consideration by key sectors as yet, however, the Minister has directed that a plan be notified by November which places extreme time pressure on any real consultation about proposals. If the regional and local councils via a District Plan move to “protect” significant marine areas of interest this will further interrupt our ability to harvest seafood.

No Change

36. Myself and my family have invested millions of dollars and thousands of hours building a substantial and sustainable fishing business. I am passionate about my business and consider myself a professional in the marine environment; I have in-depth knowledge of my workplace and how to manage the resource that are there. Such is my belief in the well-being of the fisheries I undertook a substantial outlay for a new vessel. I am firmly committed to the sustainability of all fish stocks and further development of best practice across the industry.
37. I have serious concerns that the proposed southeast marine protected areas are not the best way of achieving New Zealand’s marine biodiversity objectives.

38. I have great confidence in the health of the southeast coast marine system as it currently is and existing fisheries management implementation for the future health of our coast. I have no confidence in the mechanisms that drove this proposal process and emphasise that significant economic and community harm will result should the marine network be imposed.

39. The way forward is to listen to the active experienced water user rather than the opinion dominated minority groups that don't have the qualifications to support their accusations and beliefs

From: [Our Seas Our Future Info](#)
To: [SEMP; semp@doc.govt.nz](mailto:semp@doc.govt.nz)
Subject: Proposed south-east marine protection network - OSOF Submission
Date: Monday, 3 August 2020 7:32:23 PM
Attachments: [OSOF Submission - Proposed southeast marine protection network.pdf](#)

Kia ora

Please find attached the "Our Seas Our Future" submission on the Proposed south-east marine protection network.

Kind Regards,
Noel Jhinku, Trustee - Our Seas Our Future
Cell: s9(2)(a) [REDACTED]
Email: s9(2)(a) [REDACTED]

Proposed south-east marine protection network
Department of Conservation
PO Box 10420
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6143
Email: southeast.marine@publicvoice.co.nz
Date: 03 August 2020



Introduction

Thank you for the opportunity to submit this consultation on the proposed South East Marine Protected Areas Network (SEMP).

OSOF is a not-for-profit-marine conservation organisation that aims to protect New Zealand's coastal and marine ecosystems through advocacy, education, and environmental stewardship, ensuring that they are managed sustainably and protected for future generations[1].

In this submission, **we express support for the adoption of the MPA network and recommend two additional measures** that will provide increased protections in areas important for ecotourism, promote connectivity throughout the network, and ensure larval supply in the future.

Recommendations for MPA network

We recommend that additional protections be implemented in and around Otago Harbour.

The Otago peninsula is home to many iconic and endemic New Zealand species, including marine mammals such as the New Zealand Sea Lion and Hector's Dolphin. This region is particularly significant for New Zealand Sea Lions because of the small breeding population developing on the Otago Coast [2], which may represent an important subsidiary to breeding populations in the subantarctic island who face higher pressure from squid fisheries[3]. For seabirds like the Northern Royal Albatross and the endangered Yellow-eyed Penguin, the peninsula also houses rare breeding colonies— the Northern Royal Albatross colony at Taiaroa Head is the only one in Mainland New Zealand [4]. The health of these taonga species' populations help support a thriving ecotourism industry in and around Otago Harbour [4-7]. However, dangerous fishing methods such as set netting, trolling, purse seining, and longlining pose threats to these culturally and ecologically important mega-fauna [3, 8]. We therefore recommend that the proposed Kaimata Type 2 MPA (E1) be extended to include the waters surrounding the Otago Peninsula.

We also recommend that an MPA be established in the southern region of the forum area.

In the proposed network, the Hākiniki MPA (M1) is the southernmost form of protection in rocky reef or open ocean habitats. Not only does this exclude areas that are important for ecotourism, notably the Catlin's, but **due to the prevailing northward flow of the Southland Current** [9], these **southern habitats likely serve as source populations for downstream sites in the north**. Figure 1 shows an example output of oceanographic models in the area, courtesy of the Moana Project [10].

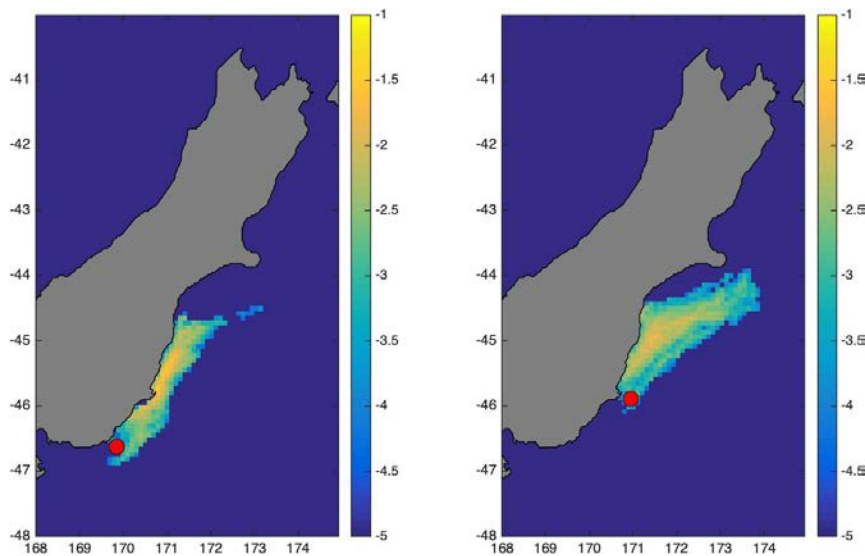


Figure 1. A simulation larval dispersal events from two points along the Otago Coast. Due to the northward flow of the Southland Current, populations to the south likely make up a large portion of larval supply in the forum area. All models are available on the Moana Project's website [10].

For many important invertebrate species whose adult stage is largely sessile (paua, kina, mussels, etc.), their primary opportunity for dispersal occurs during a pelagic larval stage [11-12]. While some planktonic larvae have exhibited the ability to regulate vertical position through the water column, slow-swimming larvae are carried passively by horizontal flow [13]. This leads to asymmetric gene flow, with upstream populations driving population structure [14]. The health of these upstream source populations are crucial for ensuring ongoing recruitment in downstream populations; consequently, these larval sources should be made conservation priorities in order to protect the system for future generations [15-16]. Inversely, a marine reserve network that fails to include source populations may result in increased harvesting pressure in these excluded areas, which can be dangerous for the system as a whole by threatening larval supply [17].

These combined considerations lead us to recommend an additional MPA is the south of the forum area, and **recommend the Catlin coast as a potential site**. We note the initial proposal for an MPA at Irihuka/Long Point (O1) that was excluded due to opposition

from Kāi Tahu because of its cultural and economic significance as a fishing site; we then suggest that if establishing an MPA is not possible, a mātaītai reserve in this area could serve a similar purpose. Figure 2-7 of the 2018 forum report indicates a region of high catch intensity in trawling fisheries running from Long Point past the Clutha River [18]. If included in the SEMP network, a reserve on the Catlin coast has the clear potential to provide a healthy source population feeding these harvesting sites to the north, promoting genetic connectivity throughout the reserve, as well as supplying larvae to the other downstream reserves in the network.

Conclusion

In closing, we would like to comment on the Forum’s assessment of costs and benefits of implementing the reserve network, as presented in section 3.2 of the consultation document. Under “Social, cultural, and economic impacts”, the Forum suggests that maintaining the status quo would have “no economic impacts on existing fisheries”, “no impacts on customary fisheries and Kāi Tahu’s ability to exercise their noncommercial fishing rights”, and “no impacts on recreational fishing”. We argue that while there may be no *immediate* effects observed if the proposed MPA network is rejected, the long term social, cultural, and economic effects of a failure to properly protect marine resources could be catastrophic and irreversible.

We therefore again wish to express our full support for the implementation of the Southeast Marine Protected Area network with the included recommendations for increased protections around the Otago Peninsula and an additional reserve in the south of the forum area.

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From: [Nick Shears](#)
To: [SEMP](#)
Cc: s9(2)(a)
Subject: Submission from NZMSS
Date: Monday, 3 August 2020 9:14:25 PM
Attachments: [NZMSS_Submission_SEMPA_20200803_final.pdf](#)

Please find attached a submission on the "Proposed southeast marine protected areas consultation" from the New Zealand Marine Sciences Society (NZMSS).

Regards,
Nick Shears

President
New Zealand Marine Sciences Society (NZMSS)



3rd August 2020

Email: southeast.marine@publicvoice.co.nz

Submission: Proposed southeast marine protected areas consultation

The New Zealand Marine Sciences Society (NZMSS) is a professional society affiliated to the Royal Society of New Zealand. NZMSS has approximately 200 members. We are a non-profit organisation that provides access to, and within, the marine science community, and we identify emerging issues through annual conferences, annual reviews, a list serve and a website www.nzmss.org.nz. NZMSS membership covers all aspects of scientific interest in the marine environment and extends to the uptake of science in marine policy, resource management, the environment and the marine business sector. We speak for members of the society and we engage with other scientific societies as appropriate.

In general, NZMSS supports the proposed marine reserves, Type 2 marine protected areas and kelp protection zone identified in this consultation document. However, NZMSS believes that, collectively, the MPAs fall far short of what is required to enable a functioning MPA network for the southeast region. We also note that some of the proposed MPAs do not meet basic MPA design guidelines that are outlined in New Zealand's MPA Policy. We provide a number of suggestions in our submission below that would help to improve the effectiveness of individual MPAs for biodiversity protection and strengthen the proposed network as whole. In addition, we provide comment on the individual MPAs and kelp zone and we address a number of questions posed in the consultation document.

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

Dr Nick Shears

s9(2)(a)

President
New Zealand Marine Sciences Society

Address for service:

Email: s9(2)(a)

Submission: Proposed southeast marine protected areas

NZMSS congratulates the New Zealand government on proposing marine protected areas (MPAs) for the southeast region, recognising that there are currently no MPAs between Banks Peninsula and Stewart Island. We also note that of the two options presented by the Southeast Marine Protection Forum, the government has decided to consult on Network 1. NZMSS agrees that Network 1 is the better option for helping to meet goals for marine protection in New Zealand.

NZMSS generally supports the designation of all six marine reserves, five Type 2 MPAs, and the kelp protection zone, for the reasons we outlined below. **Therefore, NZMSS generally supports Option 2 in the consultation document: *Establishing the proposed network.***

However, we also note, and detail below, that the proposed network falls short of meeting IUCN goals of protecting 30% of each marine habitat from extractive activities by 2030¹, and doesn't meet established design principles for an effective network of MPAs. We consider that the current proposal is the absolute minimum requirement for marine protection in the southeast region, and that the number of MPAs (including no take marine reserves) and their size should be increased, if possible.

1. General comments

The proposed southeast MPA network

- New Zealand's MPA policy objective is to "protect marine biodiversity by establishing a network of MPAs that is comprehensive and representative of New Zealand's marine habitats and ecosystems" (Marine Protected Areas Policy & Implementation Plan, paragraph 13). There are currently no MPAs between Banks Peninsula and Stewart Island. To meet the policy objective, the outcome of the southeast MPA process must comprise multiple MPAs in the southeast region.
- New Zealand's Biodiversity Strategy includes an action (3.6b) to achieve a target of protecting 10% of New Zealand's marine environment by 2020. These targets have yet to be achieved². In 2016, the IUCN's World Conservation Congress encouraged IUCN State and Government Agency Members to designate and implement at least 30% of each marine habitat in a network of highly protected MPAs, with the ultimate aim of creating a fully sustainable ocean at least 30% of which has no extractive activities (res. 050). The proposed MPAs for the southeast region include, at most, only 4.6% of the area in non-extractive marine reserves, with an additional 11.7% of the area in Type 2 MPAs which allow some form of extractive activity. Therefore, even if all the proposals were accepted, the IUCN recommendation would not be met. To meet the IUCN target, the southeast MPA network should include additional marine reserves that add to the proposed network, or, enlarge the existing proposed marine reserves.
- New Zealand's MPA policy states that "a marine reserve will be established to protect at least one sample of each habitat or ecosystem type in the network" (Marine Protected Areas Policy & Implementation Plan, paragraph 93). The network of marine reserves that has resulted from the southeast MPA process must meet this goal. Decision makers should bear this in mind when considering opposition to the proposed marine reserves.

¹ https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2016_RES_050_EN.pdf

² <https://www.doc.govt.nz/nature/biodiversity/nz-biodiversity-strategy-and-action-plan/new-zealand-biodiversity-action-plan/cbd-strategic-goals-and-aichi-biodiversity-targets/>

If there is no replication of a particular habitat within the proposed network, then each proposed reserve must be accepted.

- The conservation benefits of marine reserves generally increase with size (Halpern 2003; Edgar et al. 2014). Marine reserves that are several to tens of kilometres in alongshore length and extend offshore to encompass the depth-related movements of the adults of key species should be sufficient to protect much of the diversity of nearshore species (Gaines et al. 2010). A recent review of literature concluded that conservation benefits were greatest for marine reserves larger than 100 km² (Edgar et al. 2014). Only the proposed Waitaki and Papanui reserves exceed this threshold in the southeast MPA network. The network design guidelines should be used to consider the merits of modifying the current proposals for MPAs that do not meet the area threshold proposed by Edgar et al (2014).
- For very wide-ranging species, such as many top predators, MPAs need to be much larger to be effective. Nonetheless, large coastal MPAs can still be beneficial for seabirds and cetaceans, either through enhancing prey availability (e.g. Pichegru et al. 2010), or reducing fisheries related mortality (e.g. Gormley et al. 2012).
- The spacing of reserves in a network is also an important consideration. Inter-reserve distances from tens to about 100 km can enhance both conservation and fishery benefits, because they approach without exceeding the mean larval dispersal distances estimated for many fished coastal marine species (Gaines et al. 2010). The proposed southeast MPA network potentially meets these guidelines, provided that all the coastal marine reserves are designated.
- There are no proposals for marine reserves south of Hākinikini, meaning that approximately 130km of the southeast region's coastline would have no Type 1 (marine reserve) protection. Consideration should be given to including additional marine reserves in the south of the region, such as the reserve originally proposed at Long Point. This additional marine reserve would enhance the representativeness and connectedness of the network.
- The southeast region is home to some of New Zealand's most endangered endemic marine species, including yellow-eyed penguins (Darby & Dawson 2000), Hector's dolphin (MacKenzie & Clement, 2014; Turek et al., 2013) and New Zealand sea lion (Auge et al. 2012). Yellow-eyed penguins have declined on the mainland from an estimated 580 nesting pairs in 2008 to 168 pairs in 2019. It is likely that marine impacts, including depletion of food resources and bycatch in setnets and trawl fisheries, are factors in their decline. Hector's dolphins have declined to an estimated 27% of their abundance in 1970, due to fisheries mortality (Slooten & Dawson, 2010). Nationally, New Zealand sea lions have declined by approximately 50% since 1998 and are vulnerable to bycatch in trawl and setnet fisheries (Robertson & Chilvers 2011). Exclusion of the least selective forms of fishing, i.e. set netting and trawling, from large areas of the region should therefore be a priority, in addition to the establishment of large MPAs.
- The proposed southeast MPA network should be resilient to the likely future impacts of climate change in the region, in particular, increased water temperatures and rising sea levels. NZMSS considers that the proposed kelp protection zone may provide some protection against future shocks to southern kelp-dominated ecosystems caused by warming seas. For example, Tasmania is experiencing alarming rates of kelp die-off,

likely the result of increasing sea temperatures³. Given high rates of warming in southern New Zealand (Shears and Bowen, 2017), consideration should be given to extending the kelp protection zone even further south to help protect against losses of kelp forest due to increasing sea temperatures in future years.

Co-management and wider community management forums

- We support co-management between Kai Tahu and the Crown and agree with the establishment of statutory advisory committees to enable management oversight of the individual MPAs and the network. From a science perspective, we believe this will provide opportunities for matauranga Maori. We endorse the concept of community management forums which include scientists to help raise awareness and understanding of the marine reserves and involve community-based science activities.

Twenty-five yearly generational review

- NZMSS generally agrees with the 25-yearly generational review of the MPA network to recognise the mana and engagement of Kai Tahu. However, we request that the review include consideration of meeting global biodiversity targets to help Aotearoa – New Zealand contribute towards protecting the marine realm, globally. This would likely include increasing the area and number of MPAs in the southeast regional network.
- We also consider it important that the MPA network be reviewed on a 5 – 10-year time frame and in line with international biodiversity protection and sustainability commitments.

Research and monitoring

- NZMSS would like to see research and monitoring highlighted as critical activities in the MPA network. We see Matauranga maori as an important part of understanding the network's marine biodiversity. The MPA network will provide new research opportunities and it is likely that many of our members will be interested and seek funds from a range of sources, accordingly.
- We consider that monitoring the individual MPAs and the effectiveness of the MPA network should be undertaken as a priority. Monitoring of the MPAs should focus on biodiversity, recovery of harvested species, physical parameters such as sea temperature changes and social and cultural changes as a result of the MPAs. The MPA network should be monitored for effectiveness.

2. Comments on the proposed marine reserves

Waitaki Marine Reserve

Support, with the recommendation that the reserve be significantly larger.

- The marine reserve would protect the biodiversity associated with shallow gravel habitats, the only reserve in the proposal to do so.
- The area is likely an important region for primary productivity, due to the riverine input and habitat type.
- The area is known foraging habitat for protected species including Hector's dolphins, yellow-eyed penguins, little blue penguins and Otago shags. Bycatch of yellow-eyed

³ <https://e360.yale.edu/features/as-oceans-warm-the-worlds-giant-kelp-forests-begin-to-disappear>

penguins in setnets is known to have occurred in this area. A much larger marine reserve than is proposed would protect these species from fisheries impacts.

- The estimated value of displaced commercial fisheries catch is relatively low, therefore protecting the maximum area possible is sensible.

Te Umu Koau Marine Reserve

Support, with the recommendation that the take of rock lobster is not permitted.

- The reserve would protect multiple habitat types, including the only deep reef site within the proposed network, and a nationally significant area of *Macrocystis* kelp forest.
- The area includes an important bird area at Bobby's Head, a known breeding site for yellow-eyed penguins.
- It is an important area for scientific research, particularly by staff and students from Otago University. Protection would facilitate valuable comparisons with similar but unprotected areas.
- Concerns have been raised by Kai Tahu that the proposed marine reserve will impact on current commercial rock lobster fishing and community livelihoods. We urge that solutions be found to ensure that the biodiversity of this proposed marine reserve is not compromised by allowing the take of rock lobster from this reserve. Rock lobster are one of the dominant predators inhabiting subtidal reef ecosystems in New Zealand. They play an important role in controlling kina populations and thereby help to maintain healthy kelp forests (Shears and Babcock, 2002). This species has been shown to respond positively to protection throughout New Zealand (Freeman et al., 2011), and rock lobster from within reserves have been shown to support surrounding fisheries (Kelly et al 2002).

Papanui Marine Reserve

Support.

- Submarine canyon habitats are hotspots of marine biodiversity. The Otago Canyons are known to be important habitats for benthic invertebrates and demersal fish. The region is one of only two places in the southeast region where canyon habitats are present within the territorial sea.
- Recent research by University of Otago scientists has revealed that the Otago Canyons are year-round habitat for sperm whales, and home to a diverse array of other cetacean species.
- The proposal would also protect bryozoan thicket habitat, the only reserve in the network to do so. Bryozoan thickets are important biogenic habitats that support a diverse community of invertebrates and fish.

Ōrau Marine Reserve

Support, with the recommendation that the reserve's eastern boundary is extended offshore.

- The proposed area includes excellent examples of exposed rocky reef and beach habitats, home to a range of macroalgae, reef fish and invertebrates. It would protect the nearshore habitat of endangered, endemic species such as New Zealand sea lions.
- The proposal includes Boulder Beach, which has the largest yellow-eyed penguin colony on the Otago Peninsula.
- The proximity to Dunedin city means that the marine reserve would be accessible to a large number of people, and therefore has the potential to play an important educational and advocacy role.
- Although some recreational and commercial fishing will be displaced, similar coastal sites will still be accessible to the east and west of the proposed reserve.
- The eastern boundary is not in accordance with MPA Policy guidelines and international best-practice. It is overly complicated and due to its close proximity to shore it will have

no protection value for Gull Rocks and Sandfly Bay, due to edge effects. We recommend the eastern boundary be extended offshore ~3km, similar to the western boundary. In general, the rationale for the proposed boundaries of this MPA is unclear based on MPA guidelines or science.

Okaihae Marine Reserve

Support, with the recommendation that the reserve is enlarged.

- The proposed area contains valuable rocky reef habitats and the island itself is an important nesting site for seabirds, including yellow-eyed penguins.
- Together with the Ōrau reserve, the site will allow for valuable scientific research into the effects of protection on a stretch of urban coastline.
- At 5km², the proposed area is very small. We recommend that the proposed reserve area be increased to account for edge effects and improve the likelihood that benefits will accrue. To avoid impinging on the wahi tapu of Kai Tahu, the reserve should be extended westwards and offshore.

Hākinikini Marine Reserve

Support, with the recommendation that the reserve is extended offshore.

- The coastline within the proposed reserve is a rare example of schist rock, which provides excellent habitat for rock lobster.
- A reserve at this location would provide an important connection with vulnerable reef habitats further to the south.
- Although the proposed reserve contains a reasonable length of coastline, the fact that it only extends 1km offshore means its area is very small (5.9km²), and its effectiveness will potentially be compromised by significant edge effects. We recommend the reserve should be extended offshore, at least to the 50m isobath. Decades of research and DOC funded monitoring in existing marine reserves in New Zealand have clearly demonstrated that boundaries need to extend further offshore to encompass offshore movements of important species such as rock lobster (Kelly et al 2002, Freeman et al 2009). In northern New Zealand there are proposals in place to extend existing reserve boundaries (currently only 800 m offshore) further offshore to encompass such movements. Any reserve proposal in 2020 would clearly be expected to take this into consideration and the MPA Policy has clear guidelines around this.

3. Comments on proposed type 2 MPAs

Tuhawaiki

Support.

- The proposed area contains a range of sediment types and is a known nurse area for coastal elasmobranchs.
- It is an important foraging area for protected species including Hector's dolphins and yellow-eyed penguins.
- We are pleased to note that the proposed MPA is significantly larger than the original proposal in the 2016 consultation document. The larger area of this proposal means that benefits of protection are more likely to accrue.

Moko-tere-a-torehu

Support.

- Along with the Waitaki marine reserve, the proposal would provide additional protection for the biodiversity associated with shallow gravel habitats.

- The area is likely an important region for primary productivity, due to the riverine input and habitat type.
- The area is known foraging habitat for protected species including Hector's dolphins, yellow-eyed penguins, little blue penguins and Otago shags. Bycatch of yellow-eyed penguins in setnets is known to have occurred in this area. This large MPA would help protect these species from fisheries impacts.

Kaimata

Support.

- Along with the Papanui marine reserve, this proposal would confer protection for important bryozoan thickets. The thickets are an important feature themselves, as well as being a biogenic habitat potentially important as a nursery area for several fish species.
- The area also provides foraging opportunities for yellow-eyed penguins and New Zealand sea lions.
- The importance of this habitat, and the rarity within NZ's territorial limits warrants the large protected area offered by the Papanui and Kaimata proposals. This Kaimata MPA also confers some protection for the head of Saunder's Canyon, which would complement the marine reserve proposal for Papanui Canyon.

Whakatorea

Support.

- The proposed area incorporates important estuarine habitat including a significant area of saltmarsh.
- The protection of habitat surrounding the estuary means it is less likely to be impacted than other estuaries, and offers a good opportunity to link terrestrial and marine management.
- The proposal to also protect coastal and offshore habitat adjacent to the estuary means that benefits will be more likely to accrue.

Tahakopa

Support.

- The proposed area contains valuable saltmarsh habitat and is important for wading birds and estuarine fish.
- We are pleased to note that the proposed MPA is larger than the area originally proposed in the 2016 document. Incorporating the whole estuary will make compliance and enforcement easier, and mean that benefits will be more likely to accrue.

Arai Te Uru

Support.

- Kelp forests are very important primary producers in the coastal zone and provide habitat for a diverse range of species.
- Kelp forests are threatened by sedimentation, rising sea temperatures, the indirect effects of fishing and commercial harvesting. Globally and nationally they are declining.
- We are pleased to note that the proposal states that all commercial kelp harvesting of the bladder kelp, *Macrocystis pyrifera*, will be prohibited. We consider that other species of kelp and seaweeds should also be prohibited from harvesting, with the exception of the invasive kelp, *Undaria pinnatifida* (Asian kelp/wakame), where this species is found.

NZMSS thanks the Department of Conservation and Fisheries New Zealand for this opportunity to provide comments on the proposed southeast MPA network. We would be very willing to contribute further to discussions on the proposed MPAs and the network design.

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From: [Allyn and Sandra Shaw](#)
To: [SEMP](#)
Subject: Southeast Marine reserve
Date: Monday, 3 August 2020 9:50:21 PM

I am Allyn Shaw, owner of Fore Shaw Farms LTD. Our farm boundaries the proposed Hakinikini site. I have been on this farm for nearly 60 years which we own 3-4 km of coastline, 800m north of Quoin Point to 800m south of Watson's Beach.

My family and I believe that protecting this area has no benefit because the area is a natural reserve. Reasons for believing this are - the coastline has very rough seas with strong southerly, easterly and north-easterly rolls that batter the coastline. The rolls stir up a lot of sand and dirt that make the water dirty and murky. The water is shallow just off the rocks which makes it easy to stir up. 80 percent of the time you wouldn't be able to see your hand in front of your face. For an example between September 2019 until present we have only been able to go diving around the rocks 3 times because of how rough and dirty the waters have been.

-there is no direct access points to the coastline. Not many people can get along the coastline unless they know us or other farmers along the coastline. This means the paua and fish around the rocks do not get hammered like other areas around the country.

- the fish that people do catch off the rocks are mostly the Banded Wrasse which are not usually eaten, and are put back more often than not

- people do not recreational fish offshore in this site because there are no reefs. It is sand.

- commercial fishing rarely happens in this zone. We see the trawlers of Taieri Mouth and have watched them closely for years. They generally trawl outside 1488 m where the proposed boundary for the site is.

- the proposed site talks about protecting the schist rock and kelp.

But what is harming this anyway? The answer is nothing. The kelp has been the same for the last 50 years and will continue to be the same.

Details about the commercial activities in the area suggests the estimated catches from the this site to around \$239,300. Where is the proof for this? It would be interesting to see the proof because from what we see every day very rarely do trawlers fish the area. The reason the commercial fisherman want this site to go ahead is because it wont affect them if there is a ban here.

We think if they want to get real about protecting fish and the habitats, then other areas around the country that get fished out would benefit more. Also places that could benefit tourism by having sheltered reefs and easy access like Kaka Point would be a good spot. Then tourists and locals would have the opportunity to explore and see the wildlife thrive.

The dirty, sandy waters and sea floor is not going to change if this site is protected. This is because the dirt an silt that flows down the Clutha and Taieri rivers and Akatore estuary is not going to stop with the amount of run off from farms and de-forestation that is happening.

It talks about protecting kelp, but the amount of kelp around the area has not changed in 50 years of living here and it will not change if it becomes a reserve. Easterly rolls fill a lot of guts and crevices

with sand at different times during the year.

We think cutting quotas will do just as good a job as making the whole area a reserve without the need to punish the locals that get the opportunity to come through the farmers land to teach their young family to fish and dive.

I have always believed the fish and sea life was a more abundant before the international squid boats starting fishing on the horizon. Over the years they have fished the area intensely. At there peak in the 70s I used to count at least 180 squid boats at night. Then during the day smaller vessels would be buzzing around all over the ocean and then back to the main squid boats. That is when fish became less abundant. This year 10 larger fishing vessels were there out there for months. This happens every year. Surely this had and still has an affect on the biodiversity of the whole region at sea. Including the rocky shore.

The only way the habitats will thrive with life again is if all quotas are cut back. Cutting quotas will also be better because by plonking this reserve in this area then the locals who ask to come a long to this area to go for paua dive are going to fish out north and south of the proposed area. Bull Creek will continued to get hammered, and more people will go between Watson's Beach and Bull Creek. More people will go between Akatore Creek and Taieri mouth. It is better the way it is and having an even spread of coastline for people to go to. Only so many people will be let through the farmers property anyway. Including our farm. People should only be allowed to take 5 paua and when fishing at sea should only be allowed 10 blue cod. The quotas are a ridiculous amount.

I am against the proposed site at Akatore Estuary also. This is because of the same main reasons we are against the Akatore coastal site. It will not change anything. There has never been an abundance of fish there. It is naturally protected. The reasons it has been a proposed site is because not many people will be against it. Why do the fisheries not want to put the reserves in a place that is highly populated that gets fished out or out at sea where the commercial and recreational boats fish it out? It is because too many people will be against it and they will plonk one where it is not even needed. We think this is an opportunity to save some marine life and their habitats. But these two proposed sites will be a waste of an opportunity because nothing will change.

In conclusion me and my family believe that this proposed site is going to be plonked here because there ins't the opposition that likes of Bull Creek and Kaka Point for example. Those places are the ones that would benefit from being a reserve. They get fished a lot more and actually have decent reefs for the animal populations to thrive. Akatore already is a reserve and it will not change much if it officially becomes one. But it will be easier for the authorities to make it one and that is the main reason it is a proposed site. I may not be a scientist but this is my home and i know this coast as good as anyone. I invite officials to come have a observe and talk with me before they consider this site any further.

Thank you.

Regards Allyn Shaw and the Shaw Family

From: [Dugald MacTavish](#)
To: [SEMP](#)
Subject: Wise Response Submission to the SE Marine Protection Areas
Date: Monday, 3 August 2020 10:11:43 PM
Attachments: [SEMPA submission from Wise Response Society Final 030820.pdf](#)

Please find attached the Wise Response Society submission to the SE South Island Marine Protected Area Network Proposal.

Please can you confirm safe receipt.

Yours sincerely, Dugald MacTavish (Secretary of the Wise Response Society Inc)

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Dugald MacTavish, s9(2)(a)

Submission on the

**Proposed South-Eastern South Island Marine
Protected Network
from the
Wise Response Society Inc.**

to

**Department of Conservation and Fisheries New
Zealand**

3 August 2020

**Sir Alan Mark,
Chair, Wise Response Society Inc.,
205 Wakari Rd.,
Helensburgh,
Dunedin.**

Ph. s9(2)(a) Mob. s9(2)(a)
s9(2)(a)

Submission

1. New Zealand's Marine Protected Area (MPA) policy objective is to "protect marine biodiversity by establishing a network of MPAs that is comprehensive and representative of New Zealand's marine habitats and ecosystems" (Marine Protected Areas Policy & Implementation Plan, paragraph 13). There are currently no MPAs between Banks Peninsula and Stewart Island. To meet the policy objective, the outcome of the SEMPf process must be multiple new MPAs in the south east region.

Area for marine reserve

2. New Zealand's Biodiversity Strategy includes an action (3.6b) to protect 10% of New Zealand's marine environment – this is the goal for 2020 under Sustainable Development Target 14.5 and Biodiversity Convention Aichi Target 11. In 2016, the IUCN's World Conservation Congress encouraged IUCN Member Nations (including New Zealand) to designate and implement at least 30% of each marine habitat in a network of highly protected MPAs. The aim is a fully sustainable ocean, at least 30% of which has no extractive activities (IUCN motion 53).
3. The proposed network of MPAs for the south east region includes less than 5 % of the area in non-extractive marine reserves, with an additional 12 % or so in lower-level 'type 2 MPA' protection. Therefore, even if all the proposals were accepted, this falls well short of the previous IUCN target and is meaningless in comparison to the current IUCN recommendation. The percentages above are based on the offshore extent of the SEMPf process, being 12 nautical miles offshore – the 'territorial waters' boundary. The proposals are a much smaller proportion of New Zealand's EEZ waters.
4. The SEMPf process should therefore add further MPAs to the proposed network and/or enlarge existing proposed sites. The proposals that did not make it through the SEMPf process (e.g. Long Beach Marine Reserve) should be added first, followed by additional MPAs until the 30% IUCN target is met for territorial waters. Reserves on the shore should go to the high tide line.

Habitat type

5. New Zealand's MPA policy states that "a marine reserve will be established to protect at least one sample of each habitat or ecosystem type in the network" (Marine Protected Areas Policy & Implementation Plan, paragraph 93). The network of marine reserves that is designated as a result of the SEMPf process must meet this goal. Therefore, if there is no replication of a particular habitat within the proposed network, then each proposed reserve must be accepted.

Reserve size

6. It is now accepted that marine reserves can result in recovery of previously exploited species (see reviews by Halpern 2003; Willis 2013). However, the effect of marine reserves is largely site-specific and species-specific and dependent on appropriate design.

7. The conservation benefits of marine reserves generally increase with size (Halpern 2003; Edgar et al. 2014). Moderately sized reserves that are several to tens of kilometres in alongshore length and extend offshore to encompass depth-related movements to contain adult movement for much of the diversity of nearshore species (Gaines et al. 2010). A recent review of literature concluded that conservation benefits were greatest for marine reserves larger than 100 km² (Edgar et al. 2014). In line with this scientific evidence, we recommend that each of the existing proposals be extended to at least 100 km² by extending these protected areas north, south and offshore.
8. For wide-ranging species, such as marine mammals, seabirds, sharks and other top predators, MPAs need to be much larger to be effective. Sufficiently large coastal MPAs can be beneficial for seabirds and cetaceans, either through enhancing prey availability (e.g. Pichegru et al. 2010), or reducing fisheries related mortality (e.g. Gormley et al. 2012). However, the MPAs proposed for south-east Otago would need to be enlarged substantially to provide these benefits.

Endangered species

9. The South East region is home to some of New Zealand's most endangered endemic marine species, including yellow-eyed penguins (Darby & Dawson 2000), Hector's dolphin (MacKenzie & Clement 2014; Turek et al. 2013) and New Zealand sea lion (Auge et al. 20102).
 - **Yellow-eyed penguins** have declined on the mainland from an estimated 580 nesting pairs in 2008 to 216 pairs in 2015. Marine impacts, including depletion of food resources and bycatch in setnets and trawl fisheries, are important drivers in these population declines.
 - **Hector's dolphins** have declined to an estimated 27% of their abundance in 1970, due to fisheries mortality (Slooten & Dawson 2010).
 - **New Zealand sea lions** have declined nationally by approximately 50% since 1998 and are vulnerable to bycatch in trawl and setnet fisheries (Robertson & Chilvers 2011; Meyer et al. 2015).
10. Exclusion of the least selective forms of fishing, i.e. set-netting and trawling, from large areas of the region, should therefore be a priority.
11. Inshore fishers need to make the transition to selective, sustainable fishing methods, to avoid impacts of these highly damaging fishing methods on protected species such as marine mammals and seabirds, and the wider marine environment.

Submarine canyons

12. Submarine canyons are among the most productive deep-sea habitats yet described, supporting exceptional biomass of benthic invertebrates, demersal fish and top predators, including marine birds, pinnipeds and cetaceans (De Leo et al. 2010; Santora & Reiss 2011). The South East region is one of only two places in New Zealand where submarine canyons extend inside territorial waters and can therefore be protected within a marine reserve network.

13. Although the mechanisms by which canyons enhance productivity are not fully understood, it is likely a combination of complex bathymetry and interaction with the local hydrology (De Leo et al. 2010; Santora & Reiss 2011).
14. Therefore, for conservation of marine biodiversity, the best option proposed by the SEMP is site F, because the Saunders Canyon has the steepest and most complex bathymetry inside the territorial limits. The current policy only allows MPAs to be designated within territorial waters, while fishing effort can occur anywhere. In this case therefore, it would be sensible to rank the biodiversity value of the Saunders canyon above the value to fisheries.

Resilience

15. MPA's don't exist in isolation and their context should be included in spatial management.
16. Most MPAs appropriately focus on the exclusion of extractive and disturbing activities. Thought should be given to activities that may enhance the lifeforces, integrity and functionality of an MPA. For example, appropriate control measures of invasive species, such as *Undaria Pinnatifida*, could be beneficial for indigenous biodiversity in an MPA. Marine reserves with higher populations of rock lobster and blue cod will help to reduce "kina barrens".
17. Understanding ecological flows to increase MPAs toward the initial 30% goal should be actively made visible and encouraged, especially in relation to extractive industries that ultimately depends on well-functioning MPAs.

Key recommendations

18. As a minimum and first step we support the full network of reserves for protection but (~1200 km²) with more robustness built in to address the concerns raised above. Key amongst these are:
 - i. It is important to employ an **ecosystem-based approach** for the network and its relationship with adjacent non-reserve areas so that ecosystem function and marine biodiversity is secured in the first instance.
 - ii. The location, size, relationship and habitat characteristic of each reserve needs to take into account the pending changes in ocean temperature and chemistry with **climate change** and the need for species to migrate and adapt (e.g. increased predation).
 - iii. Climate change and other stresses, such as land and sea-sourced pollution, past overfishing and the use of destructive fishing methods means that the **precautionary principle** needs to be front and centre in reserve network design
 - iv. The overall downward trend in fish catch and the **threatened status** of key marine fish and bird species needs to be taken into account
 - v. Best outcomes are likely with the establishment of **dedicated management committees** established for the reserves that reflect local community interests.
19. Thank you for the opportunity to submit on this important proposal. Background to our Society and its purpose is provided in Appendix A below. If there is the opportunity, we would like to be heard on this submission.

20. The preparation of this submission has involved a number of people with links to the Society. We wish to acknowledge the particular assistance of the following people in its preparation. Their assistance does not imply that each agrees with all parts of this submission.

Professor Liz Slooten
Dr Marjan van den Belt
Associate Professor Hamish Rennie
Dugald MacTavish, QSM

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Appendix A: Background to the Wise Response Society

1. Wise Response is an Otago-based but New Zealand-wide, non-partisan Society, launched in 2013 with the purpose of persuading the New Zealand Parliament, Government and New Zealand society in general, to confront and respond effectively to any confirmed threats arising from the question:

"As demand for growth exceeds earth's physical limits causing unprecedented risks, what knowledge and changes do we need to secure New Zealand's future wellbeing?"

2. Chairperson Sir Alan Mark conducted a nation-wide tour that year with 11 public meetings from Auckland to Invercargill to explain the Society's purpose and strategy, and gain support. The Society's strength is in the wide range of supporters who participate in online discussions around the "limits" theme, many being experts in their professional fields are able to provide multidisciplinary input into our initiatives. Our Patron is Sir Geoffrey Palmer QC.

3. In April 2014, we presented our 5,000-signature petition to Parliament, recommending that they undertake a Risk Assessment of New Zealand, in five subjects as follows:

- i **Financial security:** the risk of a sudden, deepening, or prolonged global financial crisis.
- ii **Energy and climate security:** the risk of continuing our heavy dependence on fossil fuels.
- iii **Business continuity:** the risk exposure of all New Zealand business, including farming, to a lower carbon economy.
- iv **Ecological/Environmental security:** the risks associated with failing to genuinely protect both land-based and marine ecosystems and their natural processes.
- v **Genuine well-being:** the risk of persisting with a subsidised, debt-based economy, preoccupied with maximising consumption and GDP and increasing inequality.

4. The Appeal sought a commitment to a quantitative, cross-party risk assessment of how and exactly where New Zealand is exposed, as a rational, integrated basis for planning a more secure future. The petition was referred to the Finance and Expenditure Select Committee, with a hearing on July 1, 2015. The majority response was negative, claiming Government was adequately addressing the issues of concern, but the three minority parties (Labour, NZ First, Greens) offered strong endorsement.

Other submissions

5. Our Society also makes regular submission on a range of policy change issues. Examples include the Emissions Trading Scheme, the Resource Legislation Amendment Bill, Regional Policy Statement of the Otago Regional Council (and mediation with Dr Royden Somerville QC and Will Anglin as Counsel which has since been appealed to the Environment and High Courts), New Zealand Energy Efficiency and Conservation Strategy, the Productivity Commission, the Child Poverty Reduction Bill and the Tax Review Group, and most recently, the Zero Carbon Bill with particular focus on methane, the NPS-FM, the ETS Amendment and the review of the Crown Minerals Act.

From: [Barry Weber](#)
To: [SEM](#)
Cc: [eco.offic](#)
Subject: ECO Submission on South East Marine Protected Areas
Date: Monday, 3 August 2020 11:26:07 PM
Attachments: [ECO Submission on South East MPA Proposals.pdf](#)

Please find attached the ECO submission on the South East Marine Protected Areas proposal.

Barry Weber
ECO Co-Chairperson

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Barry Weber
Phone:  
Skype:  

--

This email has been checked for viruses by AVG.
<https://api01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.avg.com%2F&data=01%7C01%7Csoutheast.marine%40publicvoice.co.nz%7Cb1461da310fb48d5766608379f07b2%7Cc57eb3b0e714413f858f11e484847a45%7C0&data=FY3gF9ZLkrqDR2eOjVknZeeoai9CXASNiHpVP3Hm1Y%3D&reserved=0>



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2 August 2020

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Proposed south-east marine protection network

Department of Conservation

Conservation House

PO Box 10420

Wellington 6143

Submission on Consultation on south-eastern South Island marine protected areas

1.0 Introduction

The Environment and Conservation Organisations of NZ (ECO) is the national alliance of 49 groups with a concern for the environment and conservation. We were established in 1971-72. Some of our member bodies are themselves federations or multiple groups. Many are area-based, some are focused on specific species or activities or impacts, some are not actually environmental groups but share our concerns.

ECO has followed issues of conservation and environmental management and practice, law and policy since its formation in 1971-2. We have member groups from all around New Zealand.

We support Te Tiriti o Waitangi, and ensuring that the “voice” of the environment is heard.

This submission was prepared jointly by ECO’s Biodiversity, Biosecurity and Conservation Working Group and our Marine and Fisheries working group on behalf of ECO.

2.0 Key Points

ECO supports establishing the proposed South East Marine Protected Areas network in full, as well as additional protection for marine life in Otago.

ECO consider the current proposed network is inadequate as it is not representative of all the habitats in the South-East Area and does not meet either international or domestic targets for marine reserves and marine protected areas.

3.0 International Obligations

New Zealand has international obligations to expand marine protection.

This includes:

1. 10th Conference of Parties to the Convention on Biological Diversity (CBD COP10, Aichi, 2010) set Aichi Biodiversity Target 11:

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.

The Convention on Biodiversity delayed COP15 is working to negotiate a new updated target in 2021

2. **SDG Target 14.5:**

By 2020 conserve at least 10 percent of the coastal and marine area and consistent with national and international law and based on best available scientific information.

In addition, the IUCN World Conservation Union commitments:

- World Parks Congress (Sydney, 2014) recommendation to "urgently increase the ocean area that is effectively and equitably managed..." ultimately creating "a fully sustainable ocean, at least 30% of which has no-extractive activities";
- World Conservation Congress resolution (WCC-2016-Res-050-EN) Calls on States to "committing to work towards designating and effectively implementing at least 30% of their national waters as MPAs and other effective area-based conservation measures, as provided for in IUCN's Protected Areas Management Categories and Governance types, by 2030;"

Further that scientists and strong scientific evidence support full protection (Sciberras *et al.*, 2013) of at least 30% of the ocean (O'Leary *et al.*, 2016) to reverse existing adverse impacts, increase resilience to climate change, and sustain long-term ocean health.

4.0 Co-benefits for threatened species and protected species

The proposals have co-benefits for protected and threatened species. In addition to Hector's dolphins, other marine mammals (both cetaceans and pinnipeds) and seabirds (eg penguins and shags) benefit from fully-protected marine reserves and additional controls on set nets and trawling. Fewer marine mammals and seabirds will be killed, injured or captured in New Zealand waters by these proposals.

For example, the latest CSP Annual report 2017-18 observer year lists a range of threatened and protected species caught in observed inshore trawl and set nets.

Inshore observed trawl: *“Seabird interactions increased greatly to 55 in 2017/18 in comparison to four interactions observed in 2016/17 (Hjorvarsdottir & Isaacs 2018). Five marine mammal captures occurred in 2017/18 in comparison to only one capture in 2016/17 (Hjorvarsdottir & Isaacs 2018).”*

Set Nets observed: *“Overall, the total amount of protected species interactions and life status of the animals are relatively similar to the 2016/17 observer year (Hjorvarsdottir & Isaacs, 2018). 64% of protected species interactions in 2017/18 resulted in the mortality of the species involved. White-chinned petrels comprised 54% of seabird interactions with 50% of these resulting in mortality. Two species of nationally vulnerable penguins were caught in the 2017/18 observer year, **three yellow-eyed penguins were caught on three separate trips in the SEC and SOU FMAs and one Fiordland crested penguin in the SOU FMA, all instances resulted in mortalities.** Twice the amount of fur seal captures occurred in 2017/18 in comparison to the 2016/17 observer year (Hjorvarsdottir & Isaacs, 2018).”*

Observer coverage is notoriously low on commercial inshore vessel with:

Inshore trawl: *“Coverage increased slightly in 2017/18 observer year, with an overall coverage of 5.9%, in comparison to 4.3% in the 2016/17 observer year (Hjorvarsdottir & Isaacs, 2018).”*

Set nets: Overall coverage was 3.1% in 2017/18.

A problem with the piecemeal nature of threatened and protected species management in the marine environment mean Minister’s and officials often do not consider or are not advised on these wider co-benefits. An environmental assessment and strategic environmental assessment approach to fishing methods would recognise these co-benefits.

5.0 Marine Protected Area Proposals

The IUCN defines a protected area as: *“A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.”*

Dan Laffoley, Principal Advisor on Marine Science and Conservation for IUCN's Global Marine and Polar Programme and Marine Vice-Chair for the World Commission on Protected Areas, reinforced the interpretation for this IUCN definition with his statement: *“If marine areas involve extraction and have no defined long-term goals of conservation and ocean recovery, they are not MPAs.”*

The 2019 Guidelines¹ further emphasised the requirements:

¹ Day, J., Dudley, N., Hockings, M., Holmes, G., Laffoley, D., Stolton, S., Wells, S. and Wenzel, L. (eds.) (2019). *Guidelines for applying the IUCN protected area management categories to marine protected areas*. Second edition. Gland, Switzerland: IUCN.

*“By definition therefore only those sites where the **main goal or outcome is conserving nature** should be considered MPAs. It should be noted in so doing that this will include sites with other goals as well, at the same level, such as cultural or spiritual, but in the case of conflict nature conservation has to be the priority. It also follows from the definition that unsustainable extractive activities, particularly those on the industrial scale, temporary management measures, single species protections, or bans on damaging gear will not lead to the long-term conservation of the whole ecosystem and therefore do not qualify as MPAs.”*

Further the report emphasised:

*Spatial areas which may incidentally deliver nature conservation but **DO NOT HAVE STATED** nature conservation objectives should **NOT** automatically be classified as MPAs. Such areas include:*

- *Fishery management areas with no **wider stated conservation aims***
 - *Community areas managed **primarily** for sustainable extraction of marine products (e.g. coral, fish, shells, etc.)*
 - *Marine and coastal management systems managed **primarily** for tourism, which also include areas of conservation interest*
- [etc]*

Further the guidelines note:

Protected areas should be managed in perpetuity and not as short-term or a temporary management strategy.

It is critical that the areas proposed that are not marine reserves have clear nature conservation objectives.

6.0 Conservation Statement of General Policy

The Conservation Statement of General Policy requires:

4.4 (e) The Department should work with other agencies and interests to promote and develop a marine protected areas network, including marine reserves, wildlife reserves, sanctuaries and other protective mechanisms.

4.4 (f) Marine protected species should be managed for their long-term viability and recovery throughout their natural range.

And

4.4 (j) Human interactions with marine mammals and other marine protected species should be managed to avoid or minimise adverse effects on populations and individuals.

These are relevant legal considerations for the Department.

7.0 Set Netting

Set netting should be prohibited in all marine protected areas to:

- protect threatened species, such as endangered yellow-eyed penguins, sea lions and Hector's dolphin.
- restore the natural habitats and communities including retention of top predators.

8.0 Protection Proposals

8.1 Kelp protection area

ECO supports the controls in Arai Te Uru to protect and important kelp area.

- [Arai Te Uru kelp protection area](#)

8.2 “Type 2” Marine Protected Area Proposals

ECO supports the addition of the additional marine protected areas provided they have a clear focus on biodiversity conservation and have clear conservation objectives so they meet the IUCN criteria of marine protected areas -

- [Kaimata Type 2 Marine Protected Area](#)
- [Moko-tere-a-torehu Type 2 Marine Protected Area](#)
B Including better dolphin and little blue penguin habitat and unrepresented sea tulip habitats by extending Moko-tere-atorehu C1 southwards and offshore to 12 nautical miles.
- [Tahakopa Type 2 Marine Protected Area](#)
- [Tuhawaiki Type 2 Marine Protected Area](#)
- [Whakatoea Type 2 Marine Protected Area](#)

8.3 Marine Reserves Proposals

ECO supports the proposed marine reserves with the following comments:

- [Hākinikini Marine Reserve](#)
- [Okaihae Marine Reserve](#)
- [Ōrau Marine Reserve](#)
Extending the proposal to include Tow Rock which is a critical high current biodiversity area in the region. .

- [Papanui Marine Reserve](#)
- [Te Umu Koau Marine Reserve](#)
It is important that this proposal protects sea caves and the entirety of deepwater reefs at Te Umu Koau near Palmerston.
- [Waitaki Marine Reserve](#)
Including better dolphin and little blue penguin habitat and unrepresented sea tulip habitats by extending Waitaki B1 Marine Reserve southwards and offshore to 12 nautical miles.

8.4 South Catlins Area

The marine reserve network should be extended to include representative areas of the Catlins habitats with protection either at Long Point or the Nuggets, preferably both.

9.0 Summary of Compatible Activities

Activities that should be excluded from all types of marine protected areas are:

- Gravel and sand mining;
- Petroleum mineral exploration and production;
- Construction projects;
- Ports and marinas;
- Renewable energy generation sites;
- Harbour dredging and spoil disposal sites;
- Aquaculture activity;
- Large impact scientific research;
- Bottom trawling, bottom pair trawling, dredging, and Danish Seining;
- Bulk fishing methods (such as purse seining, Danish seining, mid-water trawling, mid-water gillnetting and benthic netting) would not be acceptable (para 153);
- Benthic long-lining, potting, pelagic longlining, and hook and line fishing in all areas.

Activity that should be compatible with Marine Protected Areas are:

- Marine mammal watching;
- Diving;
- Yachting, canoeing, etc;
- Swimming, surfing, etc;
- Vessel movements;
- Marine education.
- Low impact scientific research;

Yours sincerely,

Barry Weeber
Co-Chairperson
Environment and Conservation Organisations



Canterbury Aoraki Conservation Board Te Rūnanga Papa Atawhai o Waitaha me Aoraki

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Email: canterburyaorakiboard@doc.govt.nz

3 August 2020

South-East Marine Protection Forum
southeast.marine@publicvoice.co.nz

Proposed marine protection measures for south-eastern South Island

Submission from:

Canterbury Aoraki Conservation Board Te Rūnanga Papa Atawhai o Waitaha me Aoraki

Thank you for this opportunity to comment on the proposed south-eastern South Island marine protected areas.

Key Submission Points

The key points of this submission are that the Board:

- Support further protection for the Coastal Land and Marine/Ki Tai Place as described in the Canterbury/Waitaha Conservation Management Strategy and proposed by the south-eastern South Island Marine Protected Areas.
- Express full support for the proposals developed by the South-East Marine Protection Forum (the Forum), recognising the nearly four years of robust collaborative process the Forum undertook in providing their recommendations to the Minister of Conservation and the Minister of Fisheries. We believe this option will create the best protection for important habitats found in the South Island's south-eastern coastal area including foraging areas for marine mammals, birds, fish and invertebrates.
- Support the signalled further consultation by the Department of Conservation (DOC) and Fisheries New Zealand (FNZ) with Treaty partner Ngāi Tahu and ngā Papatipu Rūnanga about the proposed network and their aspirations for their rohe moana, and the best management and implementation approaches to achieve this.

The Role of the Board

Canterbury Aoraki Conservation Board Te Rūnanga Te Papa Atawhai o Waitaha me Aoraki (the Board) is an independent body established by the Conservation Act 1987. Made up of twelve appointed members, including four iwi appointees, the Board represents the community of interest not only in the work of the Department of Conservation (the Department) but also in conservation in general throughout Canterbury.

The Board's main responsibility is to work with the Department to develop a conservation management strategy (CMS) for our area and to oversee its implementation. The CMS is developed in partnership with Ngāi Tahu and follows a statutory process involving consultation with the whole community. It sets out objectives and policies for the work of the Department of Conservation in Canterbury over its ten-year life. The CMS became operative on 1 September 2016.

The Conservation Management Strategy

The CMS describes a vision for Canterbury (Waitaha) in 2066, for the Coastal environment:

“The Department and the community are working to protect Hector’s dolphins/tūpoupou and improve protection of the marine environment. Whales and other marine mammals are regularly seen and mainland-nesting seabird populations are a feature of the coast.”

And

“Canterbury’s ‘flourishing kete’ supports a range of opportunities for hunting and gathering activities that are important to the ongoing expression of Ngāi Tahu and the community’s identity.”

Action is required in order to secure this vision for the future. The CMS recognises:

“Canterbury (Waitaha) has few currently well-protected areas within its coastal land and marine environment, relying instead on a mix of statutory (e.g. fisheries controls), management (e.g. attempted vehicle control) and physical (e.g. remoteness) measures. The coastal environment has wide variety in its landforms and coastal processes, ecosystems and habitats, and indigenous species, including priority ecosystem units such as Kaitorete Spit and threatened species such as basking shark/mangō reremai. Marine mammal populations are in some cases recovering (e.g. New Zealand fur seals/kekeno and whales), but Hector’s dolphins/tūpoupou are threatened. Connections between land, freshwater and marine ecosystems are not always well recognised for their ecological and economic importance.”

It is important therefore the proposed south-eastern South Island marine protected areas takes steps to improve this situation.

The Natural Heritage objectives of the Canterbury Waitaha CMS is aligned with the Departments national objectives for indigenous biodiversity and seeks that:

“the diversity of New Zealand’s natural heritage is maintained and restored with priority given to:

- a) conserving the full range of New Zealand’s ecosystems to a healthy functioning state,...*
- b) supporting the work of others to maintain and restore ecosystem types...,*
- c) conserving threatened and at-risk species to ensure persistence,...*
- d) maintaining or restoring populations of nationally iconic species that occur locally,...(p.31)*

The Department work with others to manage or avoid threats to marine mammals and seabirds, particularly Hector’s dolphins, to ensure their recovery and protection. (p.32)”

Submission Points

The Board supports the proposed south-eastern South Island marine protected areas in that they align with the objectives and the outcome the Coastal Land and Marine/Ki Tai Place as described in the CMS (p.125 – 126). It is key for the Board that improvements to the marine ecosystems occur, population of marine mammals rebuild, and that birds/seabirds within the rohe thrive. Without protection the vision as set out in the CMS is unlikely to come to fruition.

The Board expresses full support for the proposals as developed through the South-East Marine Protection Forum (the Forum). We believe that the proposals developed through the near four years of collaborative work will achieve the best protection for important habitats found in the South Island's south-eastern coastal area including foraging areas for marine mammals, birds, fish and invertebrates, whilst balancing other users and beneficiaries of this environment in a way that reflects sustainable management. The Board feel the Forum did an effective job to bring together the differing and occasionally conflicting views to develop the most robust proposals for recommendation to the to the Minister of Conservation and the Minister of Fisheries. We now as a Board support the proposal chosen by the Ministers. The Board wish to thank those who participated in the Forum and the Forum chair for their work. We value the lessons learned from this process and hope these will be reflected in future processes.

The Board recognises the important connection that ngā Papatipu Rūnanga have with the coastal environment for the accessing mahinga kai resources, and the important role the hapū have in the management, monitoring and protection of their coastline. The Board support the further signalled consultation with ngā Papatipu Rūnanga and believe this will be crucial to ensure that collaborative solutions are developed to make use of the best marine management practices in conjunction with the role of hapū as kaitiaki.

Further Points

Effective protection for marine ecosystems is urgently needed in Northern Canterbury and other places around the South Island. We urgently need a similar survey process to take place in Northern Canterbury to identify, in partnership with iwi, areas which need some kind of protection, and to work out what kind of protection would work best for everyone, so that the full range of marine species and ecosystems survive in perpetuity. We believe this could include more traditional management practices such as: taipure (an area of the coastline temporarily restricted), mātaimai (a particular taonga temporarily restricted) or a rāhui; which allows a region or area to be temporarily restricted due to a spillage in the waters polluting taonga or when there has been an incident resulting in a loss of human life. This is consistent with kaitiakitanga practices of sustainable management over an area or resource and should therefore be considered alongside marine protected areas under the Fisheries Act (1996) and the Marine Reserves Act (1971).

Again, thank you for the opportunity to submit and the Board welcomes the continued support for the full implementation of the CMS, and the continued work for the protection and maintenance of indigenous biodiversity values throughout Canterbury Waitaha.

s9(2)(a)

Paula Smith

Chairperson

Canterbury Aoraki Conservation Board

Te Rūnanga Papa Atawhai o Waitaha me Aoraki

From: [Kim Drummond](#)
To: [SEMP](#)
Subject: FW: Te Ohu Kaimoana response to SEMPA proposals
Date: Tuesday, 4 August 2020 12:39:30 PM
Attachments: [Te Ohu Kaimoana"s Response to SEMPA Proposal.docx](#)

Kia ora

We may have got the official email address wrong in trying to send this yesterday – hence my message below.

Ngā mihi

Kim

From: Kim Drummond
Sent: Monday, 3 August 2020 4:50 PM
To: s9(2)(a)
Cc: Blake Abernethy (Blake) s9(2)(a) David Scranney
s9(2)(a)
Subject: Te Ohu Kaimoana response to SEMPA proposals

Tēnā koe Mike

My team advise that they could not get the email on the DOC website to work so I am sending our response on the SEMPA proposals to you directly.

Ngā mihi

Kim

Kim Drummond

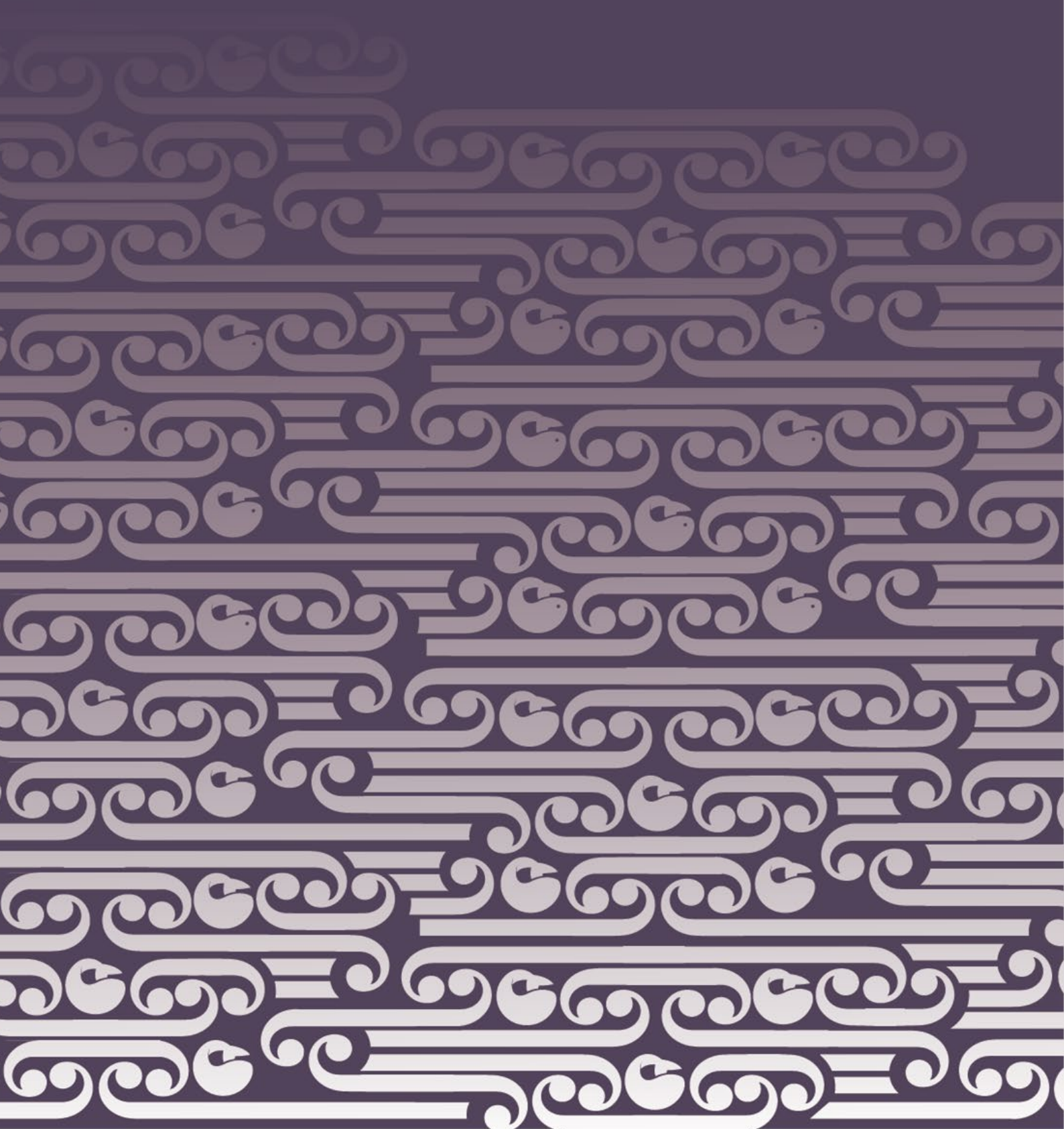
Kūrae Moana | Policy Manager (Fisheries & Aquaculture)

PO Box 3277, Level 4, Woolstore Professional Centre,
158 The Terrace, Wellington, New Zealand

P: s9(2)(a) M: s9(2)(a) W: teohu.maori.nz



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Insert title of response here

Te Ohu
Kaimoana


Introduction

1. This document provides Te Ohu Kaimoana’s response to the proposed South East Marine Protected Areas (SEMPA). Our interest in the matter relates to our responsibility to protect the rights and interests of Iwi in the Deed of Settlement and assist the Crown to discharge its obligations under the Deed of Settlement 1992 and Te Tiriti o Waitangi.¹ To achieve our purpose, we are guided by the principles of *Te Hā o Tangaroa kia ora ai tāua*.
2. We work on behalf of 58 Mandated Iwi Organisations (MIOs), who represent Iwi throughout Aotearoa. Asset Holding Companies (AHCs) hold Fisheries Settlement Assets on behalf of their MIOs. The assets include Individual Transferable Quota (ITQ) and shares in Aotearoa Fisheries Limited which, in turn, owns 50% of the Sealord Group.
3. In addition to our statutory mandate, MIOs have approved our Māori Fisheries Strategy and three-year strategic plan, which has as its goal “that MIOs collectively lead the development of Aotearoa’s marine and environmental policy affecting fisheries management through Te Ohu Kaimoana as their mandated agent”. We play a key role in assisting MIOs to achieve that goal.
4. As is the case with all of our responses to the Government, we do not intend for this response to derogate from or override any response or feedback provided independently by Iwi, through their MIOs² and/or AHCs. In this case we wish to acknowledge that given the location of the proposals the Government should work in partnership with Ngāi Tahu when making any final decisions on next steps.

Te Hā o Tangaroa kia ora ai tāua

5. Iwi/Māori have a unique and lasting connection with the environment. Our challenge is to ensure that this connection is maintained. *Te Hā o Tangaroa kia ora ai tāua* (the breath of Tangaroa sustains us) is an expression of a Māori World View. It contains the principles we use to analyse modern fisheries policy, and other policies that may affect the rights of Iwi under the Deed of Settlement.
6. In essence, *Te Hā o Tangaroa kia ora ai tāua* highlights the importance of humanity’s interdependent relationship with Tangaroa to ensure our mutual health and wellbeing.
7. The Fisheries Settlement is an important and relevant part of modern fisheries management for Aotearoa. As a result, Māori rights in fisheries can be expressed as a share of the productive potential of all aquatic life in Aotearoa/New Zealand waters. Māori rights are not just a right to harvest, but also to use the resource in a way that provides for their social, cultural and economic wellbeing.

¹ Our purpose, set out in section 32 of the Maori Fisheries Act, is to “advance the interests of iwi, individually and collectively, primarily in the development of fisheries, fishing and fisheries-related activities, in order to:

- (a) Ultimately benefit the members of iwi and Maori generally; and
- (b) Further the agreements made in the Deed of Settlement; and
- (c) Assist the Crown to discharge its obligations under the Deed of Settlement and the Treaty of Waitangi; and
- (d) Contribute to the achievement of an enduring settlement of the claims and grievances referred to in the Deed of Settlement.”

² MIO as referred to in The Maori Fisheries Act 2004: in relation to an iwi, means an organisation recognised by Te Ohu Kai Moana Trustee Limited under section 13(1) as the representative organisation of that iwi under this Act, and a reference to a mandated iwi organisation includes a reference to a recognised iwi organisation to the extent provided for by section 27

8. The Fisheries Act complements and supports *Te Hā o Tangaroa kia ora ai tāua*. Our ability to maintain a reciprocal relationship with Tangaroa depends in part upon appropriate implementation of the Act, including maintaining the viability of associated and dependent species such as seabirds (s 9(a)). This should be the underlying driver of any marine protection initiative.
9. *Te Hā o Tangaroa kia ora ai tāua* does not mean that Māori have a right to use fisheries resources to the detriment of other children of Tangaroa. It speaks to striking an appropriate balance between people and those we share the environment with. When viewing human interactions with the environment, there are no absolutes in Te Ao Māori. Approaches that seek 100% utilisation or 100% human exclusion do not align with kaitiakitanga.
10. Kaitiakitanga relates to the management of resources – including use and protection. Effectively it refers to sustainable management and the utilisation of resources in a way and at a rate as to ensure that they are not diminished. This aligns with our legislation, The Maori Fisheries Act 2004, and the principles of the Settlement.

Our response

11. The key question from Te Ohu Kaimoana’s perspective is: “how do we better protect the marine environment from different pressures, so we can continue to access our fisheries resources in a way that protects our relationship with Tangaroa?” Our perspectives are based on Te Āo Māori and the concept *Te hā o Tangaroa kia ora ai tāua*, which explains the way Māori manage their relationship with the marine environment. This approach is enshrined in Te Tiriti o Waitangi and the Deed of Settlement entered into between the Crown and Māori.
12. Under this view, conservation and protection measures are part of “sustainable use”. They are carried out to use resources for the benefit of current and future generations and act as a check on our extractive use. In relation to managing fisheries and the effects of fishing on biodiversity, the purpose and principles of the Fisheries Act 1996 echo *Te hā o Tangaroa kia ora ai tāua*.

What is the rationale for the SEMPA proposal?

13. The consultation document on the South East Marine Protected Areas (SEMPA) identifies several pressures facing the marine environment that are causing a decline in marine biodiversity, including “activities on land and in the sea and climate change”. According to the document, these pressures “have led to a decline in biodiversity and in the condition of marine habitats, and their cumulative effects amplify the threat to biodiversity in our marine environment and make it less resilient”. The proposed network is intended to “provide a safeguard for the marine environment, allowing it to cope with future pressures, such as climate change”.
14. These proposals are based on the Government’s existing Marine Protected Areas (MPA) Policy. The purpose of the Policy is to: “protect marine biodiversity by establishing a network of MPAs that is comprehensive and representative of Aotearoa/New Zealand’s marine habitats and ecosystems”.
15. Te Ohu Kaimoana continues to question the rationale for establishing a network of MPAs under the current MPA policy and consequently under the SEMPA proposals: what is biodiversity being protected from, and for what purpose? It is necessary to establish what we are to protect the marine environment from, and why.

Identifying the right tool for the job

16. The starting point for any discussion about the management of environmental pressures should begin by identifying the tools needed to manage them, and lastly, any gaps that may need to be addressed.
17. For example, responses to the risks of fishing pressure must focus on what needs to be done under the Fisheries Act in light of the Deed of Settlement Aotearoa/New Zealand has a comprehensive, science-based and well-developed fisheries management system that encompasses all of the main commercial and non-target species. Further the Fisheries Act requires that any adverse effects of fishing on the aquatic environment to be avoided, remedied, or mitigated. If the effects of fishing are of concern, they can be addressed through the Act using other tools including catch limits, gear technology, mitigation approaches and so on.
18. If an MPA implements fishing restrictions greater than what is required to ensure sustainability under the Fisheries Act, agreement of Iwi should be required.
19. Pressures from land need to be addressed through the Resource Management Act. A network of MPAs will not address land-based pressures. Nor will it provide resilience against climate change. In all decision-making, adapting to the effects of climate change needs to be considered.

MPAs can have adverse consequences for existing management regimes

20. Marine protected areas and in particular no-take areas displace fishing effort and jeopardise sustainable fisheries management. Displaced fishing effort can:
 - a. increase the risk of local depletion
 - b. negatively impact the abundance of surrounding fish stocks
 - c. slow down stock rebuild rates where relevant
 - d. preclude future TAC increases which goes against the purpose of the Fisheries Act for sustainable utilisation
 - e. increase the risk of spatial conflict between fisheries sectors by forcing them to operate in a reduced area.
21. The proposal as it stands also undermines the future use of customary tools such as mātaimai. Before the Minister of Fisheries can declare a mātaimai reserve, he/she must be satisfied of a number of things, including that the reserve will not “prevent persons with a commercial interest in a species taking their quota entitlement or annual catch entitlement (where applicable) within the quota management area for that species”. Due to the closures proposed in the consultation document this ‘prevent test’ is likely to always be triggered, reducing or removing Ngāi Tahu’s ability to establish mātaimai.

The Crown should implement its international obligations in light of its obligations under Section 4 of the Conservation Act and Te Tiriti o Waitangi

22. Aotearoa’s international obligations are set out on page 7 of the consultation document. The Crown’s obligations to Māori are set out on page 10. We are concerned that the Crown does not consider options for meeting its international obligations in light of its obligations under Section 4 of the Conservation Act and Te Tiriti o Waitangi.
23. The obligations of signatories to the Convention on Biological Diversity can be met in different ways by individual countries, depending upon:
 - a. their commitments to indigenous peoples
 - b. the risks they are managing
 - c. the status of information on biodiversity and ecosystems in their jurisdictions

- d. their economies and cultural and social values
 - e. the management frameworks they already have in place that may already achieve the obligations of the Convention
24. Te Tiriti o Waitangi and settlements arising from te Tiriti have a unique global context in that te Tiriti not only provides a legal framework for recognition of indigenous rights to own and use natural resources but also carries with it an obligation on the State to protect those rights into the future. Māori rights to use marine resources in accordance with their world view and associated customs is supported by the United Nations Declaration on the Rights of Indigenous Peoples and international agreements and practice for social cultural and economic development. The Declaration includes the right to use and develop lands, territories and resources, the right to fair treatment and redress and the right to the conservation and protection of the environment and its production capacity³.
25. It is important therefore that marine protection and the development of strategies and mechanisms for protecting biodiversity within the marine environment are implemented in a manner that properly recognises and protects those interests. It is not only in the best interests of Māori to pursue such action but also an obligation of the New Zealand Government to follow such a path.
26. Further Aotearoa/New Zealand's fisheries management system and associated legislation provides a management framework that delivers biodiversity outcomes. It is essential that the context of marine resource management in Aotearoa/New Zealand accounts for the Treaty partnership obligations as well as the existing management regime.

The lack of a clear rationale for the MPA policy has made it difficult to implement for the South East Marine Protection Forum to implement marine protection proposals

27. Two independent reviews⁴ of the South East Marine Protected Area Forum process highlighted inconsistencies and difficulties faced by the Forum in understanding and applying the MPA policy. This lack of clarity divided the Forum. Members were unable to resolve their different interpretation of the Policy, evident in the final recommendations for two options: Network 1 and Network 2.
28. This highlights how unfit the current MPA policy is in its current form. Te Ohu Kaimoana has promoted its concerns on MPA policy through its responses to proposals over the years and has been engaging with the Department of Conservation on its review of Aotearoa/New Zealand's approach to Marine Protection. We think it would be more appropriate to fully review the Government's approach to marine protection first, rather than using outdated legislation such as the Marine Reserves Act 1971 that is not fit for purpose to rush through a flawed process.

The Crown must recognise Ngāi Tahu's concerns

29. We have outlined our concerns with the MPA Policy as a whole. However, we acknowledge that the SEMPA proposals are in Ngāi Tahu's rohe – so the Crown must work in partnership with Ngāi Tahu.
30. Key issues Ngāi Tahu has raised in response to the consultation document include the need for:
- co-management of the proposed MPAs between Ngāi Tahu and the Crown
 - regular review to determine that the proposed network is an appropriate tool for management

³http://www.un.org/en/genocideprevention/documents/atrocities-crimes/Doc.18_declaration%20rights%20indigenous%20peoples.pdf

⁴ Lessons Learned Report: South-East Marine Protection Forum Department of Conservation July / October 2018. The review was completed by Pat Thorn, Caravel Group (NZ Ltd) and Sue Powell, Tregaskis Brown Ltd. Using different processes to protect marine environments, Office of the Auditor General, June 2019.


- generational review of the proposed MPA network
 - ensuring Ngāi Tahu rangers to manage the network of MPAs.
31. These issues highlight the importance to Ngāi Tahu of retaining their rangatiratanga over their rohe moana as the consultation document does not speak to the partnership that should exist between the Crown and Māori. Until all of Ngāi Tahu's concerns are addressed this consultation should not progress.
32. Ngai Tahu's concerns include the effects of the proposed MPA 'D1 Te Umu Koau' on their rights and interests. We recommend that the D1 proposal in its current state should be declined for the following reasons:
- a. The displacement of fishing from D1 is likely to cause localised depletion in the surrounding areas particularly for species which show a strong preference for particular habitat – rock lobster, pāua, blue cod and eels. In the case of these stocks, fishers will be forced to move into different fishing grounds.
 - b. D1 is a site of critical importance to the rock lobster fishery and the economic impacts which will severely effect fishers and their families are greatly underestimated in the consultation document.
 - c. The consultation document does not take into consideration the financial consequences that will be felt following the economic implications of COVID-19. This is concerning as the regional economies of Otago and Southland have declined dramatically in the wake of COVID-19. The economic prospects for these two regions have been identified as having the weakest regional outlooks.
 - d. There is no evidence to support D1 being an appropriate site for scientific study. Moeraki mātaītai contains marine habitats that are similar to those in D1 which would offer the opportunity to study unfished rock lobster populations.

Overall conclusion

33. The consultation document fails to prioritise the Crown’s obligation under Te Tiriti o Waitangi, provide adequate rationale for the proposal, articulate the benefits of a network in light of cumulative impacts on the marine environment, nor fully comprehend the impacts MPA’s have on the existing fisheries management regime in Aotearoa. In our view, current MPA legislation and associated policy is not fit for purpose, which has been highlighted in the South East Marine Protection Forum process. Hence, the South East MPA proposals lacks a legislative and policy grounding.

Nāki noa, nā

s9(2)(a)

A large grey rectangular box redacting the signature of Dion Tuuta.

Dion Tuuta
Chief Executive

Te Ohu
Kaimoana



From: [Jared Bothwell](#)
To: [SEMP](#)
Subject: FW: SEMPF submission - Te Rūnanga o Ōtākou
Date: Tuesday, 4 August 2020 9:21:44 AM
Attachments: [SEMPF submission Te Rūnanga o Ōtākou.pdf](#)

From: SEMPF <semp@doc.govt.nz>
Sent: Tuesday, 4 August 2020 9:19 am
To: Jared Bothwell s9(2)(a)
Subject: FW: SEMPF submission - Te Rūnanga o Ōtākou

Submission from Te Rūnanga o Ōtākou.

Lauren

From: Rebecca Bird s9(2)(a)
Sent: Tuesday, 4 August 2020 7:58 AM
To: Lauren Bland s9(2)(a) Lesley Douglas s9(2)(a)
Subject: FW: SEMPF submission - Te Rūnanga o Ōtākou

From: Edward Ellison s9(2)(a)
Sent: Monday, 3 August 2020 5:44 PM
To: Rebecca Bird s9(2)(a)
Cc: Te Tuanui Paki s9(2)(a) Komiti Coordinator s9(2)(a)
Subject: FW: SEMPF submission - Te Rūnanga o Ōtākou

From: Komiti Coordinator s9(2)(a)
Sent: Monday, 3 August 2020 1:23 pm
To: southeast.marine@publicvoice.co.nz
Cc: s9(2)(a) Edward Ellison s9(2)(a) Manager
s9(2)(a)
Subject: SEMPF submission - Te Rūnanga o Ōtākou

Kia ora,

Please see the attached submission from Te Rūnanga o Ōtākou.

Ka mihi nui,

SJ

Sarah-Jane Cuthers
Komiti Coordinator

Te Rūnanga o Ōtākou | 45 Tamatea Road RD2 Ōtākou | Otago Peninsula 9077
E: komiti@tro.org.nz | Ph: 03 4780352 | M: s9(2)(a)



Whakatauki:

Tuku aroha ki mua, Tuku aroha ki muri, Kia tū te aroha o naianei
Send love to the past; Send love to the future, Be love today.

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.



Tēnā koe,

Ki te ū tonu ki te kawa o Takaroa, koha mai, poipoi au ki te iwi ka huhua kā tini o te moana nui

If we adhere to the rules laid down by Takaroa and maintain the practice of gathering and sharing seafood, the multitude of fishes in the ocean should remain abundant.

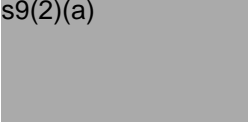
Submission for the South-Eastern South Island marine protected areas

1. Te Rūnanga o Ōtākou (TRO) welcome the opportunity to submit on the proposed marine protected areas, and acknowledge the extensive work undertaken by the South-East Marine Protection Forum in putting forward the recommended network that is currently up for submission.
2. The rohe moana of TRO extends from Pūrehurehu (Heyward's Point) in the north, to the Mata-āu (Clutha River) to the south. As such, some of the most significant of the proposed marine reserves sit inside our takiwā.
3. TRO would like to make explicitly clear that they have made a considered approach to the Marine Protected Area (MPA) network, and as such, assert that the proposed MPA within their rohe moana is the at the maximum extent to which it can agree to. TRO will not accept any further extensions to any of the proposed reserves within their rohe moana.
4. TRO seek to be well represented in the governance of the MPA's within its rohe moana. A particular focus of the rūnanga is on achieving the integrated and holistic management of the MPA's with the Otago Harbour Mātaaitai and other customary fishing areas.
5. TRO expect that co-management of the MPA's within their rohe moana will be undertaken in the spirit of partnership, co-design, and informed decision-making.
6. It is TRO's expectation that regular monitoring, utilising collaborative processes, will be established to assess the impacts and benefits that may arise from the implementation of the MPA's. It is expected that data and information gathered from periodic monitoring will inform generational reviews of the MPA network.
7. TRO consider an interval of 20 – 25 years between generational reviews to be appropriate. This will avoid an almost continuous cycle of review and administrative exercise.
8. The transfer of mātauraka / customary knowledge is an important principle for Ōtākou whānau. TRO seek the ability to take and use resources from MPA's within their rohe moana for the purpose of wānaka that will be specifically held for the learning and transfer of mātauraka associated with customary purposes.

9. TRO require the right to retrieve Kōiwi Tāngata, Taoka Tūturu, and/or other cultural materials, including marine mammal and other taoka species remains, from any MPA within their rohe moana if they are exposed or uncovered by sea or weather action, or, in the case of cultural materials, are found washed up or deceased within an MPA.
10. TRO seeks preferential access to commercial development opportunities within any MPA within their rohe moana, such as harvesting of *Undaria spp.* for example.
11. Lastly, TRO would like to make the point that by their very nature, MPA's, particularly the no-take reserves, have the potential for inter-generational alienation and displacement of the customary and commercial rights of manawhenua. For this reason, TRO stress the above points, and make the reminder that the current proposed network within its rohe moana should not increase in any shape, way, or form.

Ngā mihi,

s9(2)(a)



Rachel Wesley
Chair
Te Rūnanga o Ōtākou

From: [Info](#)
To: [SEMP](#)
Subject: Fish Mainland submission on the Southeast MPA proposal
Date: Monday, 3 August 2020 4:59:35 PM
Attachments: [Fish Mainland submission on the Southeast MPA proposal 3 Aug 2020.docx](#)

Good evening,

On behalf of the Chair of the Board, I attach the submission by Fish Mainland Inc on the South Island Southeast MPA proposal.

Regards,
Dr Randall Bess

3 August 2020



Hon Eugenie Sage
Minister of Conservation

Hon Stuart Nash
Minister of Fisheries
southeast.marine@publicvoice.co.nz

Submission on the proposed South Island Southeast Coast Marine Protected Areas

Dear Ministers,

Introduction

This submission is by Fish Mainland, a recently incorporated not-for-profit organisation designed by South Islanders and Stewart Islanders. They designed Fish Mainland to be a fully functioning professional organisation that coordinates, represents and promotes the diverse interests of the 100,000+ fishers who fish in South Island marine waters, and works to restore and sustain fisheries resources to maximise fishers' experiences and opportunities.

In the absence of any government policy, those who designed Fish Mainland developed the South Island Marine Recreational Fisheries Policy <https://www.fishmainland.nz/south-island-recreational-fisheries-policy>

This Policy sets out, amongst other things, key principles for managing South Island recreational fisheries. These principles highlight healthy marine habitats and ecosystems being fundamental to sustainable fisheries resources and recreational fishing, and calls for the recreational fishing sector to partner with the Crown, Iwi, other fishing sectors and interests, to resolve shared problems that threaten the health of marine habitats and ecosystems.

In so doing, we highlight the point that recreational fishers often perceive factors other than fishing as posing greater threats to the health of the marine environment, including human activities that intensify sedimentation and nutrient loading in rivers and nearshore environments, urban development, invasion of marine pest species and climate change. It is for this reason that Fish Mainland encourages recreational fishers to engage constructively on these factors while working to demonstrate their own environmental credentials.

Submission

Fish Mainland was instrumental in drafting the submission by the Dunedin-based Tautuku Fishing Club Inc. Fish Mainland fully supports this submission, as it provides a valued account of the cultural, social and economic impacts the proposed Type 1 Marine Protected Areas (MPAs) would have on recreational fishing along the Southeast coastal area, including warranted concerns about safety and exacerbated conflicts with commercial fishers.

Fish Mainland also opposes all proposed Type 1 MPAs but supports the five Type 2 MPAs proposed at Tuhawaiki, Moko-tere-a-torehu, Kaimata, Whakatorea and Tahakopa and the establishment of Type 2 MPAs at Ōrau, Okaihae and Hākinikini instead of the proposed Type 1 MPAs.

Those involved with Fish Mainland have considerable knowledge and experience across the fishing sectors and MPA forum processes. We have observed the West Coast MPA forum and now the Southeast forum

become prolonged and expensive processes, with both failing to resolve differences between the various interests. On that basis, we cannot support the Southeast MPA proposal as it stands, nor its process.

Fish Mainland has read Laurel Teirney's suggestions regarding a better process that could reach the same outcomes for protection of the marine environment. As you are aware, Laurel facilitated the Fiordland Marine Guardians in following an inclusive planning process that led to enactment of legislation for managing the Fiordland Marine Area and assigning management responsibilities to the Guardians together with central and regional government.

Protection of the Southeast coastal area will require consideration of all current adverse impacts. And, recreational, customary and commercial fishing is only one activity that impacts the marine environment, and the extent of that impact may not be as significant as some of the others.

Nonetheless, the Southeast MPA proposal includes six Type 1 MPAs that would prohibit all fishing, based on simple and misleading assertions about the limited impact caused by recreational fishing, as set out in the Tautuku Club's submission.

Fish Mainland also questions whether a prohibition on fishing by establishing Type 1 MPAs is the best way to protect the marine environment. The Fisheries Act 1996 already has provisions to manage and prohibit fishing when required for the recovery or sustainability of fisheries resources.

An alternative approach to the Type 1 MPA that could achieve the desired benefits to the marine environment (e.g. long-term prohibition on harvesting flora and fauna) is through amendment of the Fisheries Act. The aim of this amendment would be to select areas for protection based on sound biological criteria rather than the current seemingly arbitrary selection, that appears to be based on opinion or trade-offs that are often made for political expediency. As well, it could avoid locking up areas in perpetuity, which is perhaps the most contentious provision of the Marine Reserves Act 1971.

An amendment to the Fisheries Act could forego use of the Marine Reserves Act that, now almost 50 years old, is well acknowledged as inadequate and in dire need of replacement with statute that at least:

- 1) recognises the role of tangata whenua because of Treaty settlements,
- 2) accommodates the importance of protecting marine biodiversity per se, and
- 3) provides for a greater range of protection of the marine environment.

The 2005 MPA Policy and Implementation Plan does not adequately fill the gaps in the Marine Reserves Act. Also, there is the widespread perception from recreational and commercial fishers alike that the Department of Conservation influenced this Policy to constrain harvesting, where possible. Regardless of the validity of this perception, it has created negative mental attitudes that resist proposals under this Policy approach.

For example, the Policy narrowly defines MPAs (Type 1 and 2 only) and, therefore, does not recognise the protection available within customary fishing areas established under fisheries legislation and regulations. This Policy is out of step with increasing interest worldwide in alternatives to locking up areas in perpetuity, and instead using a range of biodiversity protection and management measures, such as the protected area categories developed by the International Union for the Conservation of Nature <https://www.iucn.org/theme/protected-areas/about/protected-area-categories>

We believe that you and your respective agencies would garner considerably more support for marine biodiversity protection if the MPA forum process:

- 1) considers a fuller range of protection measures,
- 2) addresses all current adverse impacts, not just impacts of fishing, and
- 3) adopts an approach like that of the Fiordland and Kaikoura Marine Guardians, as noted below.

The Marine Guardian approach is truly a local community process for change, and therefore far more likely to result in sustainable, long-term community support for decisions that emerge from it. It is the antithesis

to the MPA forum that follows a government-led agenda with government appointed forum members and facilitator who are constrained in their communication and engagement by this process, and unable to explain developments and seek input from others in the local community, outside formal consultation. This results in Ministers deciding the placement and type of protection and without any clear guidance by community interests.

This approach invariably impedes development of solutions that community interests can comprehend and broadly agree to support. This begs the question, what real benefit does this approach provide for the time and money spent?

In contrast, the principles of the Marine Guardians approach comprise an inclusive, integrated working group based on each community interest selecting their own representatives according to set criteria, which government can then approve. This way, Iwi, recreational and commercial fishers and environmental interests are better placed to work together to resolve their common concerns.

The Marine Guardians have shown the ability to agree on their vision and share information about the history and trends observed in their coastal areas. They succeeded by inviting others to join them in identifying issues, negotiating solutions, compiling draft strategies, consulting with the wider community, finalising and delivering the strategy to Ministers whose agencies implemented the strategies together with Iwi and all other interests.

In our view, the fact that both West Coast and Southeast MPA forum processes have failed to achieve consensus whereas Fiordland and Kaikoura processes have succeeded, highlights the Marine Guardians' approach works, provided the fundamental principles and success factors are adhered to.

We are confident such an approach could be adopted at this time to produce a community-supported, evidence-based plan for managing the Southeast coastal area, or at least pragmatic components within the area, in a reasonable period and without significant additional expenditure.

Yours sincerely,

s9(2)(a)

James Crossland
Chair of the Board

s9(2)(a)

From: [Jennifer Miller](#)
To: [SEMP](#)
Cc: [s9\(2\)\(a\)](#)
Subject: Royal Forest and Bird Protection Society Submission to Proposed Southeast Marine Protected Areas 2020
Date: Monday, 3 August 2020 4:37:31 PM
Attachments: [Forest and Bird SEMPA submission.pdf](#)

Please find attached Forest & Bird's submission to the Proposed Southeast Marine Protected Areas 2020.

Thank you for the opportunity to comment.

If you have any queries please do not hesitate to contact the writer.

Jen Miller

Royal Forest and Bird Protection
Society of New Zealand Inc.
National Office:
PO Box 631, Wellington 6140
New Zealand
P: +64 4 385 7374
www.forestandbird.org.nz



3 August 2020

Royal Forest and Bird Protection Society Submission to Proposed Southeast Marine Protected Areas 2020

Introduction to Forest and Bird

The Royal Forest & Bird Protection Society of New Zealand Inc. (Forest & Bird) is New Zealand's largest and oldest conservation organisation with 50 branches across New Zealand. Forest & Bird constitutional purpose is to "take all reasonable steps within the power of the Society for the preservation and protection of the indigenous flora and fauna and the natural features of New Zealand."

Forest and Bird made a substantive submission to the 2016 consultation in which we sought significant additions to the marine reserves in order to ensure the network was fully representative of all habitats.

There were a total of 2,803 submissions received and it is likely that many of these submitters will consider they have already made their views known and these should be taken into account as part of the current consultation round. Many people have said that your online form was time consuming and difficult to use.

Proposed Southeast Marine Protect Areas Consultation 2020

This submission is based on the online submission format and answers the questions sought for each of the proposed marine reserves and marine protected areas.

Forest and Bird is pleased that the Ministers have chosen to put forward the areas for protection as recommended by network one rather than the smaller network two proposals.

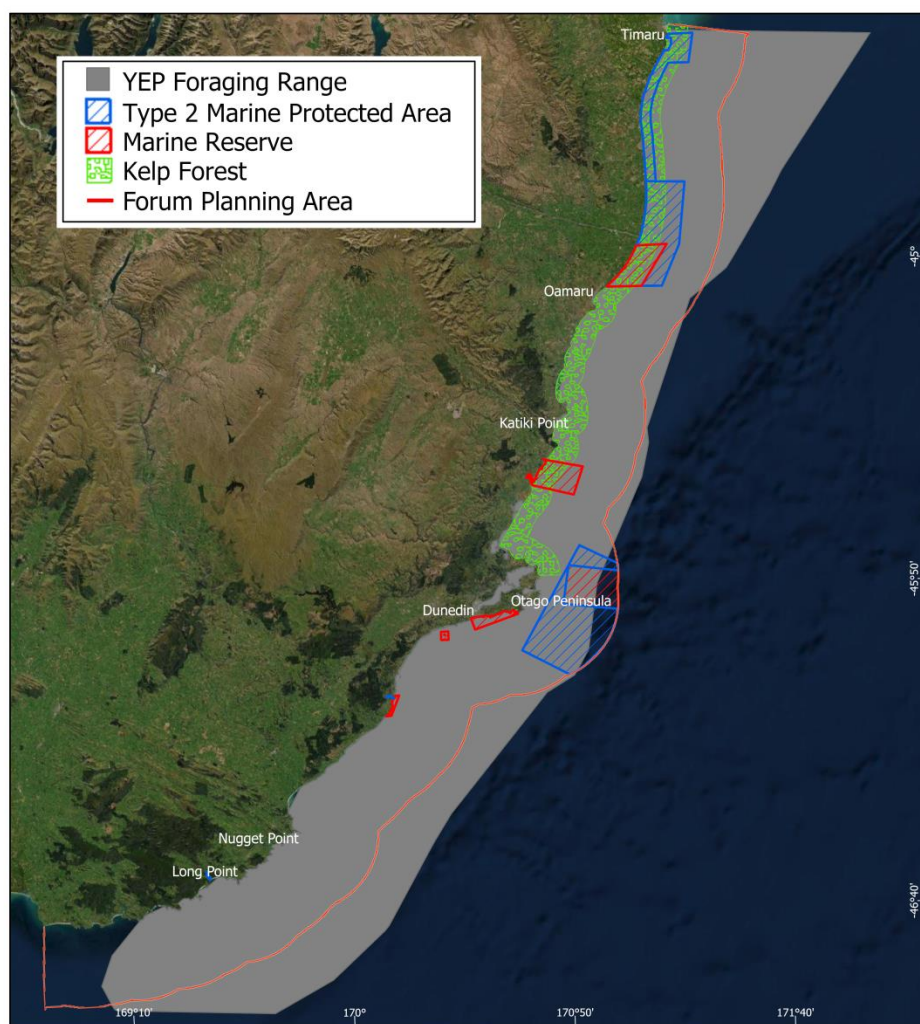
Forest and Bird wishes to see the proposed reserves and protection measures in the MPA's implemented in full. The jewels of the proposed network, Te Umu Koau, Papanui and Ōrau have the potential to become outstanding marine reserves.

The proposed network is however a bare minimum as it fails to meet the MPA policy and New Zealand's international obligations, as they do not adequately represent the full range of habitats found in the SEMPF Area, nor do they include adequate representation of the rare and distinctive foraging habitats of hoiho – yellow-eyed penguin as shown below. Forest and Bird is also disappointed that none of proposed reserves extend from the shore to 12nm boundary.

The six marine proposed reserves protect only 4.05% of the entire SEMF area. Of the 21 habitat types represented in marine reserves, ten habitats are under-represented - less than <10% of the region and 14 habitat types are not replicated in a marine reserve. There are no marine reserves

proposed for the Catlins region, four habitats have no protection and the ten poorly represented, habitats are those most heavily fished, especially, deep reef, moderate intertidal reef, moderate shallow and deep sand. There are no marine reserves proposed for the significant biogenic habitats associated with the Hay Paddock off Oamaru.

The proposed marine reserves fail to adequately represent the unique biodiversity associated with hoiho, or whakahao foraging grounds, especially in the Catlins. The map over the page shows that there is some overlap of protected areas with hoiho foraging grounds however of the 75 adults that were tracked, all foraged outside of the proposed MPAs at some point during their foraging trips. Only 28 of the 75 individuals actually foraged within one of the MPAs (Te Umu Koau, Papanui, Waitaki, and Ōrau marine reserves and the Kaimata Type 2 MPAs).¹



Yellow-eyed penguin/hoiho (YEP) foraging range overlap with proposed Marine Protected Areas (MPAs)

Overlap between the South-East Marine Protection Forum's proposed marine reserves and type 2 marine protected areas and the breeding/premoult/winter foraging range of breeding yellow-eyed penguins/hoiho (Hickcox et al., data unpublished). See <https://survey.publicvoice.co.nz/s3/semf-consultation> for more details about the public consultation process for the proposed network (Department of Conservation (DOC), Fisheries New Zealand).

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Department of Conservation - Te Papa Atawhai

¹ Rachel Hickcox – YEP Symposium 2020

New Zealand once a leader in protection is falling behind. “In 2016, the IUCN called for 30% of each marine habitat to be set aside by 2030 in “highly protected MPAs” and other effective area-based conservation measures, aiming to cover at least 30% of the global ocean, with no extractive activities permitted.” based conservation measures, aiming to cover at least 30% of the global ocean, with no extractive activities permitted.”

“The UK has pledged its support for the “30by30” call through the launch of the Global Ocean Alliance, signed by 10 countries (Belgium, Belize, Costa Rica, Finland, Gabon, Kenya, Seychelles, Palau, Portugal and Vanuatu), and recently joined by Sweden and Germany”.²

The summary of Scientific submissions noted that more experienced and locally knowledgeable scientists reluctantly supported the proposals as they viewed the proposed 20 sites as inadequate less than required by the MPA, NZ Biodiversity Strategy and international best practices and obligations.³

Biodiversity Concessions

The final recommendations are clearly the culmination of decisions made by the Forum to avoid adversely affect existing customary, commercial and recreational use, this is despite the MPA Policy

The forum process considered more than 100 sites and variations put forward by various sectors. These sites were progressively eliminated and a selection of 20 sites was made as part of a gifts and gains approach, for the first round of consultation.⁴ These were further reduced to 9 in the Network One recommendations to further reduce the impact of the network on customary, commercial and recreational fishing. As part of these gifts and gains A1 Tuhawaiki, and D1 Te Umu Koau were made larger in the Recommendations Report.

In recognition of their significance to their customary owners the following sites, which Forest and Bird and many submitters favoured were eliminated

- Irihuka – Long Point
- Cape Saunders
- Papanui Inlet
- Tokoata – Nuggets
- Matakaea -Shag Point
- Haldane Estuary
- Tautuku Estuary

It is clear that concessions were made to the following proposed marine reserves in order to minimise the impact on customary, commercial and recreational fishing:

- The Waitaki River mouth and north side of the Waitaki River were excluded from the marine reserve – Most of the science submitters supported the northern extension and many sought the reserve be extended to 12Nm., as did many individual submitters and the 1,231 pro forma conservation submitters.

² <https://www.woi.economist.com/the-need-to-protect-at-least-30-of-the-ocean-by-2030/>

³ SEMPf 2017 Summary of Science Submissions

⁴ SEMPf 2018 Recommendations to the Minister of Conservation and the Minister of Fisheries

- D1 Te Umu Koau – Danger reef and adjacent reefs were excluded from the marine reserve. Most of the science submissions supported enlarging Site D and many sought that it extend to the 12 Nm.
- Papanui Canyon was recommended despite considerable support for the alternative larger Saunders Canyon. The proposed Saunders Canyon marine reserve in the 2016 Consultation document was preferred by most of the science submissions 54% of those that submitted on this proposal supported it.
- I1 Ōrau proposed marine reserve – the Tow Rock extension option was eliminated. The extension was supported by the majority of science submissions. Many submitters sought that this reserve be extended to include Hoopers Inlet and Harakeke Point, or be extended to 12Nm.
- The reef around White Island in Ōrau is cut in half in recognition of their value for recreational fishing.
- Okaihae was designed to exclude other popular nearby reefs.

Implementation

Forest and Bird acknowledges and recognises Kāi Tahu’s connection to and kaitiaki role with the coastal marine area of the SEMP area, and of their special connection to particular places and taonga species. Forest and Bird welcomes and notes that *“giving effect to the Kāi Tahu Kaitiakitaka (was) an active and conscious component of the Forums focus.”*

Forest and Bird supports the development of co-management arrangements for each marine reserve which could be modelled on the very successful governance model of the East Otago Taiapure with inclusion of representatives of the Department of Conservation, the Otago Conservation Board and a local environmental representative.

There is strong scientific evidence that biodiversity recovers faster, and fish and invertebrate sizes and abundance are improved over the long term, where there is no take. No take marine reserves are our strong preference however Forest and Bird recognises the importance of wānaka and accept the importance of providing for the sampling and strategic take of marine life for cultural purposes.

Forest and Bird supports a 25 year generational review and as recommended by the Forum any significant changes to the management regime or proposed boundaries as a result of any review should follow a consultative and legal process.

The Full Network

Forest and Bird wants the full network as presented in the consultation document implemented as soon as possible as the network as a whole has the potential to improve biodiversity conservation and provide important reference areas for scientific study and enable public enjoyment.

Forest and Bird further submits that the boundaries of some proposed reserves and MPA’s be adjusted and extra sites be added as outlined in this submission. Forest and Bird presents these areas to indicate how the network should be improved to more fully represent the habitats that are poorly represented or not represented. Some of the proposed boundary changes have already been consulted on and may be further considered as part of this process, others are more significant. Forest and Bird does not wish to see further extended consultation on the more significant additions as part of the current process. We put them forward in this submission, so that they may be considered during future processes.

Costs and Benefits of the overall network

Option 1 Maintaining the status quo

Forest and Bird agrees in part with the analysis on biodiversity except that there is an additional loss to biodiversity as failure of this process will decrease the likelihood of achieving marine reserves and marine protection for another decade or more.

Forest and Bird disagrees with analysis of not establishing the network as it fails to consider the following potential social, cultural and economic impacts:

- The increased economic benefit to fisheries gained through enhanced reputation of New Zealand's fisheries and ocean management particularly for value added market tracing of fish to plate.
- The potential loss/ decline of the social licence to continue fishing.
- Risk of undermining nature based tourism through losing more iconic species or reducing their populations.

Option 2 Establishing the proposed network

Forest and Bird agrees with the initial analysis of the benefits of establishing the network

Costs

Evidence is needed to show whether or not the proposed marine reserves would interfere unduly with commercial fishing.

The costs presented assume that the entire catch of fishers currently using the proposed areas will be displaced, although it is recognised that some but not all of the catch could be taken elsewhere.

The assessment of impacts needs to consider the proportion of catch consistently caught within the proposed area by each potentially impacted fisher.

Costs also need to consider what proportion of catch for the relevant QMA and any relevant statistical area occurs within the proposed protected area. This is inconsistently reported.

Forest and Bird assumes that the method takes account of existing prohibitions – as there should be no intersections with fishing events, however the scale may not be fine enough to realistically enable this and adjustments may have been needed?

The method used to determine costs does not examine the ability of the existing individual fishers to transfer effort across species, method and geographical location which makes the extent of possible interference difficult to reliably estimate.

Despite there being at least 44 marine reserves in New Zealand we have been unable to find studies that have tested the predicted impacts and identified the actual impacts on catch, revenue and effort levels of fishers following the establishment of these marine reserves. The industry response to the 2003 set net restrictions for Maui dolphin was studied by Stewart and Callagher (2013) who found that the short term effects of the set netting closure had little impact on the catch and effort levels of fishers, and that trends in ACE prices appeared not to have been affected. Catches of school shark declined immediately following closure but subsequently recovered. Yellowbelly flounder landings declined. The study of 100 set netters found that fishers developed strategies in

response to the closure to successfully maintain landing levels and the closures appeared not to have a major impact on exit decisions.⁵

The Marine Reserve Applications

Waitaki

Benefits

Forest and Bird agrees with all the benefits listed except that the benefits list the waters around the mouth of the Waitaki River. The boundaries of the reserve exclude the river mouth and the reserve will be beyond the majority of the freshwater influences as the predominant current is northerly and travelling at an average of 0.5knots.⁶

The following benefits need to be recognised.

- Some foraging habitat for pahu Hector's dolphins- (SEMPF 2018) though most of this is north beyond the river mouth.
- Supports part of an area of the highest measured foraging density for kororā little penguins (SEMPF 2018).
- Foraging habitat for hoiho Yellow eyed penguins – particularly juveniles from Otago Peninsula.⁷

Costs

The proposed set net restrictions to protect Hector's dolphins will impact on this reserve. As noted in the 2020 Consultation document there is little recreational or commercial displacement expected, due to the existing restrictions.

The potential economic and ecosystem benefits of protecting the nursery grounds for school sharks and pupping area for elephant fish need to be recognised.

Forest and Bird submits that the benefits for the public interest and science would outweigh the costs.

Site Proposal- Waitaki

Forest and Bird wants this marine reserve implemented. Further concessions would compromise the biodiversity values of this area.

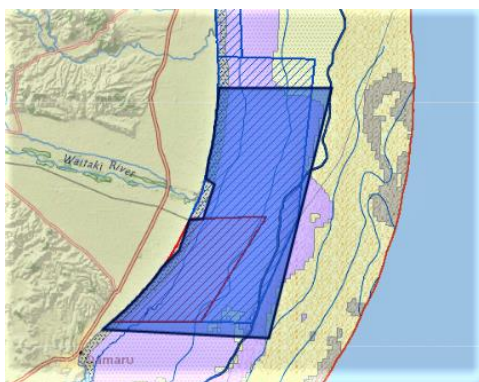
However the reserve would be improved by amending the boundaries as indicated in blue below to:

- Capture the mixing zones and freshwater fronts of the Waitaki River
- Represent the following severely underrepresented habitats; exposed shallow gravel, (only 3.5% of this habitat is included in the Network in Ōrau), deep gravel (only 2% of this habitat is included in the proposed marine reserve network at Papanui and Ōrau and moderate shallow sand (less than 1% of this habitat is included in network).
- Include more foraging habitat for dolphins and penguins

⁵ Stewart J, Callagher p, 2013. Industry response to the 2003 set net restrictions for protection of Maui's dolphin. Marine Policy 42 210-222.

⁶ Marine Chart Number NZ 64

⁷ 2 yellow eyed penguins were caught in set nets in 2008



Forest and Bird's proposed extension to the reserve northwards and beyond the 3Nm Dainish Seine and 4Nm set net prohibitions would have an impact but it would not be expected to be large – A small area around the river mouth is excluded to provide for recreational fishing. Most of the salmon fishing occurs within the river mouth on the landward side. (SEMPF 2018). Part of this area was considered for consultation in 2016 as a Type 2.

D Te Umu Koau Marine reserve

Benefits

Forest and Bird agrees with the benefits listed however the following additional benefits need to be recognised:

- Breeding colonies of spotted shags occur on the volcanic and sandstone cliff ledges between Stony Creek and the south side of Bobbys Head (Tavora).
- The reserve includes pelagic foraging grounds for spotted shags, benthic feeding grounds for Otago shags, kororā/little penguins and hoiho/yellow-eyed penguins. Surface feeders include three species of gulls; threatened red-billed, black-billed gulls and three species of threatened terns; white-fronted, black-fronted and Caspian terns.
- Bobbys headland shelves and the rocky coastline is a haul out for kekeno/fur seals.
- The sandy beach is a haul out for threatened Whakahao/sealions.
- The *Macrocystis* forests provide nesting material for shags and roosting habitat for gulls and terns.
- Representation of a partially closed estuary (Stony Creek) although a common habitat type within the SEMPf region this is the only one of its kind in the proposed network.
- Stony Creek provides feeding habitat for gulls, terns and little shags, spoon bills, and large numbers of estuarine waterfowl and waders.
- Te Umu Koau including both estuaries is publicly accessible by road and is within easy small boat access from Shag Point and Karitane, and within larger boat access from Moeraki and Dunedin.
- Te Umu Koau with its many different habitats across a range of depths and biodiversity is likely to have high value for research.
- The prohibition on discharging fire arms will benefit the biodiversity by reducing plastic and other litter and vehicle transgressions that are currently obvious at the lagoons.
- Te Umu Koau provides the opportunity to benefit the cray fishery by protecting an entire large reef which may enable cray fish to become larger, more abundant with greater egg production per unit area as well as partially protecting a reef which is likely to facilitate movement outside the reserve as has been shown at Te Tapuwae o Rongokako Marine Reserve.⁸
- Te Umu Koau will provide an excellent opportunity to study the behavioural response of the Otago Crayfish to a reserve which given the poorly understood life history and migration patterns of Crayfish between Otago, Southland, Rakiura and Fiordland could be an additional

⁸ Debbie J. Freeman, Alison B. MacDiarmid, Richard B. Taylor; 2009. Habitat patches that cross marine reserve boundaries: consequences for the lobster *Jasus edwardsii*, MARINE ECOLOGY PROGRESS SERIES Mar Ecol Prog Ser Vol. 388: 159–167,

benefit to the fishery. Considering this is the most valuable fishery in the region it is extraordinary there is so little research and data gathering.

- It will also enable better understanding of the impacts of the ‘Karitane concession’ which allows the commercial fishers to operate with a small MLS of 127mm. This allowance to take small crayfish has been in place since the 1960’s as it was assumed that the Karitane stock recruits from outside the area.. It was reviewed by A D Dick, in 1971.⁹ The Dick Report however noted that tagging tests established that the Cray do grow larger at Karitane and that the small size of rock lobsters taken in the fisheries “can be explained in terms of the fishing pressure being so high that they simply do not survive long enough to increase much in size”. The Dick report recommended that the tail size be increased to the NZ standard 152mm size in two stages. Only one stage was ever completed increasing from the 108mm in 1971 to the current, 127mm.

Costs - Te Umu Koau Marine reserve

It is clear that those commercial fishers who rely on catching a significant proportion of their catch from this area will be impacted. SEMPf (2018) reported that six fishers have catches of 2,000kg or more from within the wider statistical area, affecting between 2.1%- 11.3% of their catch. There are between 9-11 cray fishing vessels that fish Cray 7 of which D is a tiny proportion.¹⁰

Fisheries NZ estimates 20.7% of the rock lobster catch in CRA 7 occurs within the proposed marine reserve. Assuming that cray habitat is best represented in sea sketch by moderate and exposed shallow reef and deep reef which makes up 287.4km² of the SEMPf area then D represents around 12.6% of potential cray habitat. It may be that the CPUE is particularly high for D given its accessibility, but it suggests that the impact estimates are likely to be coarse and should be used with caution.

The catch estimation is based on average annual catches over 10 years (2007/8-2016/17). These years cover the highest consecutive CPUE (kg/potlift) since 1979, with 7 out of the 10 years exceeding 1.0kg. Only 3 years recorded a lower CPUE of between 0.678-0.802. Prior to 2004 the CPUE was consistently much lower with 14/25 years of CPUE below 0.500. There have been some earlier years when the TACC has not been fully caught. According to the Sustainability Measure there are no sustainability concerns for the CRA 7. Te Ohu Kaimoana reported that CPUE in CRA7 increased from 2.595 kg per pot lift in 2018 to 3.217 kg per pot lift in 2019¹¹. The TACC has just been increased by 9.5%, (9.2 tonnes) to 106.2 tonnes for this year.¹²¹³ The 9.2 tonne TACC increase has the potential to result in an increase of annual revenue to the catching sector alone of approximately \$790K.¹⁴ This suggests that it is unlikely that the loss of access to D will require catch limits to be reduced, and the estimated costs of the reserve may be over estimated. The extent of interference with commercial fishing is likely to be confined to the displacement of effort rather than loss of catch.

The 2020 consultation document notes that the impact is likely to be most strongly felt by members of the Moeraki, Otakou and Puketeraki Runaka. Consideration may need to be given to a transition package, e.g an interest free loan, with a proportion repayable depending on the degree of change

⁹ Dick, A.D 1961. Appendices to the Journals of the House of Representatives of NZ. 1971 vol4

Report of the Fishing industry Cttee-Rock lobster Paragraphs 105-126

¹⁰ CRA 7 2020 Sustainability measures <https://www.fisheries.govt.nz/dmsdocument/38996/direct>

¹¹ <https://www.fisheries.govt.nz/dmsdocument/40043-final-submission-doc-other-stock-pdf>

¹² Review of Rock Lobster Sustainability Measures for 2020/21 <https://www.fisheries.govt.nz/dmsdocument/40049-april-2020-sustainability-round-rock-lobster-decision-document-final-signed-pdf>

¹³ <https://www.fisheries.govt.nz/dmsdocument/40055-b20-0163-sustainability-measures-ministers-decision-letter-pdf>

¹⁴ Review of Rock Lobster Sustainability Measures for 2020/21 <https://www.fisheries.govt.nz/dmsdocument/40049-april-2020-sustainability-round-rock-lobster-decision-document-final-signed-pdf>

in the CPUE and any extra costs for fishers attributable to the reserve. This will require careful monitoring of the CPUE.

The majority of rock lobster caught in CRA 7 are believed to be migratory and randomly migrate south where they become available to be caught in Cray 8. While potentially lost to the fishers at D in CRA 7 they are unlikely to be lost to the New Zealand economy unless they get caught by trawlers. The amount, frequency and location of cray discarded from trawl nets is not known.

It will be difficult to weigh up the potential benefits to the overall cray fishery as there may be benefits from the recruitment of more exported larvae as well as spill over of adults to adjacent fishing grounds.

The MPA policy Planning Principle 5 provides:

“Where there is a choice of several sites, which if protected would add a similar ecosystem or habitat to the MPA network, the site(s) chosen should minimise adverse impacts on existing users and Treaty settlement obligations.”

The reserve deliberately leaves out the majority of deep reef in this area, allowing fishing to continue on the reefs nearby. Alternative options were considered around Shag Point however that would have potentially displaced the paua fishery which was considered by the Forum to be more susceptible to displacement. (SEMPF 2016).

Forest and Bird submits that given the small proportion of cray fishing habitat included, the proposed reserve is unlikely to interfere unduly with commercial or recreational fishing over the extent of CRA 7 and the SEMPf region, or impact on the overall catch and export of Crayfish.

Forest and Bird submits that the marine reserve as proposed and preferably with some minor tweaking to go just over 6km offshore to better protect hoiho foraging areas would be in the best interests of scientific study and that the long term benefits for the public and biodiversity will outweigh the costs.

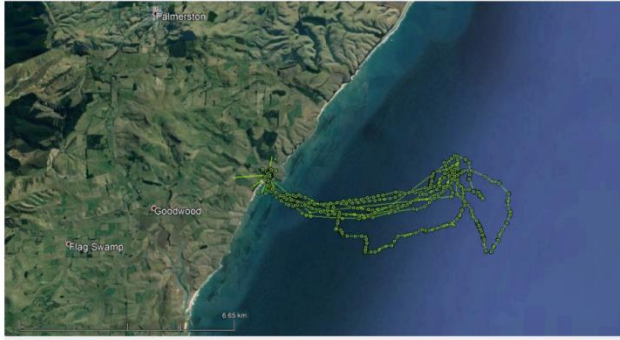
Further concessions would compromise the biodiversity values of this area. There are no viable alternatives for either moderate shallow or deep reefs that would be likely to have less impact as Network 1 has been designed to limit negative impacts on important commercial fisheries. (SEMPf 2018).

Site Proposal - Te Umu Koau Marine reserve

Forest and Bird supports the proposal and is strongly opposed to any reduction in the size of the reserve. A transitional package needs to be developed to assist fishers, rather than reduce the biodiversity values of this reserve.

In addition to being the only reserve to represent deep reef it also encompasses the foraging grounds of hnesting at Bobbys Head, during their chick guarding stage. Recent tracking data (December 2019) of a male and female hoiho during chick guard stage is included below¹⁵. This information was not available at the time the Forum were developing their proposals. It shows that the penguins go out to 6km. The proposed northern boundary is just under 6km and should be extended. Protecting this area would be in the best interests of scientific study as well as assisting in the preservation of marine life that is unique and distinctive feature of Otago such that its preservation is in the national interest.

¹⁵ <https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/marine-conservation-services/reports/final-reports/pop2018-02-monthly-report-january-2020.pdf>



Bobby's Head/Tavora, North Otago Male –
On all trips it foraged about 6 km due east of Bobby's Head.
Dive depths never exceeded 40 m.



Bobby's Head/Tavora, North Otago female.

To help preserve this unique wildlife persisting at this site the reserve needs to include the full range of foraging habitats of at least the guard stage of hoiho. International research on the South African penguin found that breeding success and chick fledging rates increased with increases in local food availability¹⁶. A further study related to trial marine protected areas around breeding colonies of the African penguin showed an increase in productivity (penguin fledging) at colonies where fisheries competition was eliminated.¹⁷ This meant that there was more food available close to breeding areas so that parents were able to feed close by.

Extra Conditions Needed

- Provision for culling Canada geese and feral geese as these introduced species can increase in numbers and cause problems in the estuary.

Papanui Marine Reserve

Benefits

Forest and Bird agrees with the benefits listed however the following additional benefits need to be recognised:

- Inclusion of the plateau between the canyons represents the only reported example of queen scallop beds in the proposed network. (SEMPF 2018, P 151).
- Papanui reserve is the only reserve to be influenced by the Southland current and up wellings that likely occur from deeper waters through the Canyons. This provides particularly rich feeding grounds for more than 53 species of seabirds ,including eight threatened species, three of which are nationally critical. (SEMPF 2018, p 151).
- Dolomite chimneys some 33,000 years old and between 20-90cm in length occur on the slope of the southern ridge of Papanui canyon at longitude $171^{\circ} 2.115'e$ $45^{\circ} 53.075'$.¹⁸ These appear to be just inside the reserve.
- The bivalve *Maorithyas* sp., a New Zealand endemic that is a specialist confined to deep water chemical vent sites is found in the head of Papanui Canyon.¹⁹

¹⁶ 2 Sherley, Richard B. 2013: Influence of local and regional prey availability on breeding performance of African penguins. Marine Ecology Progress Series vol. 473: 291-301

¹⁷ Sherley, Richard B. 2018: Bayesian inference reveals positive but subtle effects of experimental fishery closures on marine predator demographics. Proceedings of the Royal Society B 285.

¹⁸ Orpin A.R.,1997. Dolomite chimneys as possible evidence of coastal fluid expulsion, uppermost Otago continental slope, southern New Zealand. Marine Geology 138, 51-67.

¹⁹ Orpin A.R.,1997. Dolomite chimneys as possible evidence of coastal fluid expulsion, uppermost Otago continental slope, southern New Zealand. Marine Geology 138, 51-67.

This canyon reserve will have outstanding importance as

“The eastern margin of the Otago shelf is distinct from the rest of the eastern South Island continental shelf because of a high concentration of submarine canyons, five adjacent to Otago Peninsula alone---. It is also distinctive that these five canyons have not formed adjacent to major rivers.”²⁰

Costs Papanui Marine Reserve

The estimated displacement of 3.2 tonnes of blue cod represents less than 2% of the TACC for Blue Cod 3. The bulk of the Blue Cod 3 catch comes from statistical areas 024 and 026 in Otago and Southland. The CPUE has increased since a low in 2008 and was increasing as of 2014. The landings have exceeded TACC in 8 of 10 years 2008/9- 2017/18.²¹

The estimated displacement for the affected fisheries show that this reserve does not unduly interfere with Commercial fishing.

Benefits outweigh costs

The MPA policy Planning Principle 5 provides:

“Where there is a choice of several sites, which if protected would add a similar ecosystem or habitat to the MPA network, the site(s) chosen should minimise adverse impacts on existing users and Treaty settlement obligations.”

There is a choice of several canyon sites in this area and the Papanui Canyon was put forward by Forum members as a compromise recommendation due to commercial, recreational and Kai Tahu fishing interests, (p149 Recommendations).

Forest and Bird and more than 54% of submitters supported the alternative consultation proposal for a marine reserve over the larger Saunders Canyon as did the science submissions. Reasons included representing greater extent of the deep gravel habitats used by foraging hoiho and marine mammals, and that Saunders Canyon extends further inshore and the greater area allows for greater complexity of topography, hydrographic features and habitats, and would represent the very deepest water habitats found within the region. It is likely that these features generate more complex currents and up-wellings, so enhancing both pelagic and benthic productivity as well as biodiversity.

Site Proposal- Papanui Marine Reserve

Forest and Bird submits that the marine reserve as proposed and preferably with some boundary adjustments would be in the best interests of scientific study and that the long term benefits for the public and biodiversity will significantly outweigh the costs.

Further concessions would compromise the biodiversity values of this area and risk damaging rich biogenic habitats.

The boundary needs to be amended to:

- Provide for greater representation of the queen scallop beds of the plateau, ensure the unique chimney features are included and add deep water gravels. This reserve is the only

²⁰ Ibid.

²¹ <https://www.mpi.govt.nz/dmsdocument/34956-plenary-may-2019-stock-assessments-and-stock-status-volume-1-introductory-section-and-alfonsino-to-groper>

reserve which protects a meaningful area of deep water gravels however only 2% of the available deep gravel habitat in the region is represented in proposed marine reserves.

The proposed boundary splits the plateau as a concession to the commercial fishers who wished to retain access even though the scallops were no longer harvested from this area. (P156 Recommendations Report). Since deliberations Fisheries NZ has published the results of field surveys during which key biogenic areas were sampled and mapped across the plateau. This found that live queen scallops were distributed across the area, but not at consistently high densities (e.g., >1 m⁻²)²² See maps below. This suggests that the fishery is unlikely to be valuable. The stock assessment for QC3 shows that reported landings are less than a quarter of the TACC and have generally been declining since 2002–03. It is a small trawl fishery.²³

Otago Shelf queen scallop grounds (Sites 26 and 27)

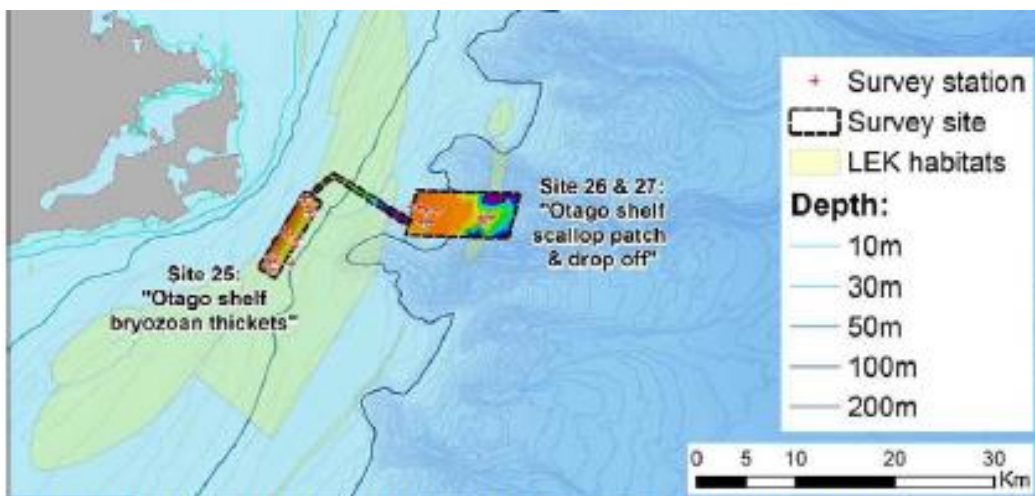
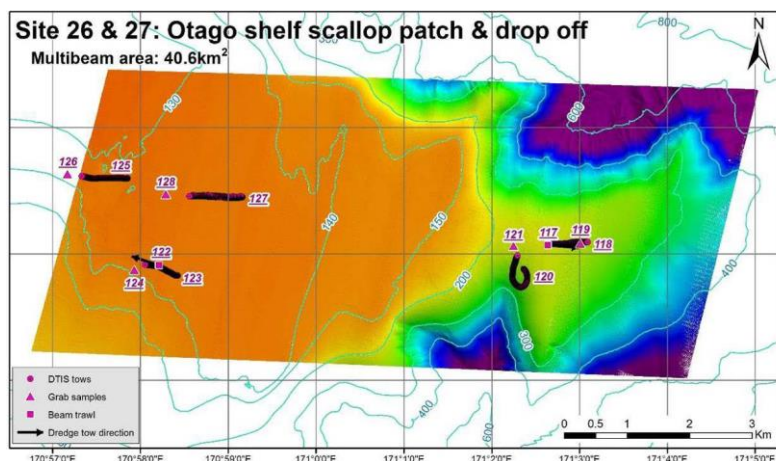


Figure 41: Otago Shelf region. Fisher-drawn areas (LEK habitats) are shown as light yellow polygons.

Figure 51: Mid Otago Shelf – queen scallop fishery ground, and deeper water sponge habitat. 5 DTIS, 2 beam trawl, 5 sediment samples – see table below for description



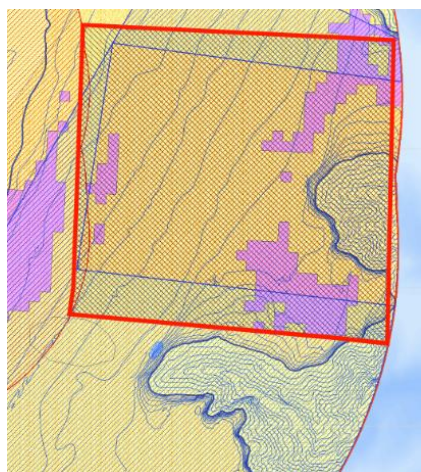
²² Jones, E.G. et al., 2018 Biogenic habitats on New Zealand's continental shelf. Part II: National field survey and analysis https://www.researchgate.net/publication/327920783_Biogenic_habitats_on_New_Zealand's_continental_shelf_Part_II_National_field_survey_and_analysis

²³ <https://www.mpi.govt.nz/dmsdocument/34953-plenary-may-2019-stock-assessments-and-stock-status-volume-3-pipi-to-yellow-eyed-mullet>

Table 20: DTIS stations for the queen scallop fishery grounds, mid Otago Shelf.

Stn	Time (min)	Images	Depth (m)	General habitat
118	31	121	198	Sand/mud, shell hash, small bryozoan clumps, unid. yellow fragments
120	33	129	220	Sand/mud, shell hash, small bryozoan clumps, sponge
123	31	126	133	Sand / shell hash/gravel, sponge, scallops, asteroids, bryozoans, echinoids
125	32	127	128	Sand / shell hash/gravel, sponge, scallops, asteroids, bryozoans, anemones
127	33	135	130	Sand / shell hash/gravel, sponge, scallops, asteroids, bryozoans, crabs

Forest and Bird Suggested boundary adjustment - Papanui Marine Reserve – shown in red



Site I – Ōrau Marine Reserve

Forest and Bird agrees with the benefits listed however the following additional benefits need to be recognised:

- At least 3 significant colonies of Kekeno /fur seals breed along this coast.
- Smails Beach is a favoured whakahao/sea lion pupping beach.
- Easily accessible rock pools and platforms at the east end of Sandfly Bay, Telfers Cove and Bird Island.
- Underwater caves and arches on Lion Rock and Cat Rock provide beautiful scenery.
- Sea caves in the volcanic cliffs at Maori Head
- The west side of Lawyers Head provides the only easily accessible sheltered rocky reef and boulder fields rich in paua in clear water in the proposed network.
- A special feature of this reserve is the inclusion of two islands with offshore exposed rocky reef habitat.
- White Island creates mixing eddies which lead to fish and bird work ups.

Benefits out weigh costs- Ōrau Marine Reserve

The MPA policy Planning Principle 5 provides:

“Where there is a choice of several sites, which if protected would add a similar ecosystem or habitat to the MPA network, the site(s) chosen should minimise adverse impacts on existing users and Treaty settlement obligations.”

The proposed boundary excludes two reef areas including deep reef at Tow Rock and shallow exposed reef at White Island. Tow Rock was excluded due to impacts on commercial and recreational fishing. Forest and Bird and the majority of science submitters supported the extension to include Tow Rock. White Island is little used by commercial fishers (SEMPA 2018) but is used by recreational small boat fishers.

These exclusions compromise the reserve design as it splits a reef and means there is no effective buffer to protect the included reefs from the edge effects of fishing.

Tow Rock is a unique habitat with high biodiversity values and should be included within the reserve.

- Rich foraging habitat for whakahao/sealions
- An opportunity to include deep reef habitat which is poorly represented in the proposed network
- Tow rock has high biodiversity values due to the high water clarity and strong currents

White Island is composed of columnar basalt and on its west corner there is a spectacular underwater amphitheatre of columns, as if Blackhead was underwater. This is unique scenery that is not replicated elsewhere in Otago and warrants inclusion in the marine reserve. It is not certain that this has been included within the reserve and it would be beneficial to shift the boundary westwards. It is unlikely this would have undue impacts on recreational fishing as there are better reefs starting 400m to the west which are more heavily fished commercially and recreationally.

Forest and Bird submits that the benefits for the public interest science would outweigh the costs of both the proposed reserve and the inclusions proposed by Forest and Bird. There are few alternative volcanic andesite deep reef sites along the Otago Peninsula that can be represented in a marine reserve.

Okaihae Marine Reserve

Forest and Bird supports the implementation of this marine reserve.

Benefits

Forest and Bird agrees with the benefits listed however the following additional benefits need to be recognised:

- Easily accessible by small boat and kayak will enable scientific study and wider public enjoyment.
- The island is a kekeno (fur seal) colony and the rock pools provide sheltered play grounds for Kekenos pups.
- The surrounding reefs are foraging habitat for whakahao (sealions)
- The site also protects a boulder beach habitat in the south facing cove.
- Beautiful underwater landscapes of cliffs and slots make snorkelling and diving here interesting.

Costs

Forest and Bird agrees that the adverse effects on recreational users are moderated by the availability of other reefs nearby. Most recreational fishing occurs on reefs west of the island. (SEMPF 2016).

Benefits outweigh the costs

Forest and Bird submits that the benefits to science and public enjoyment of this significant site outweigh the impacts on recreational, customary and commercial fishing.

Hākinikini Marine Reserve

Forest and Bird supports the implementation of this marine reserve but would like to see a boundary adjustment so that the surf zone at the mouth of Akatore Estuary is wholly included in the reserve as these coastal processes and their habitats are more associated with the seaward side than the estuary.



- North Side 170 11.231e 46 6.648s 1382635 4889795
- South Bank 170 11.196e 46 6.723s 1382595 488965

Benefits

Forest and Bird agrees with the benefits listed. The tow-in surfing site 'Lobsters' on the headland reefs should be recognised.

Costs

Forest and Bird agrees that the adverse effects on recreational users are moderated by the availability of other reefs nearby. (SEMPF 2016). The proposed boundaries were amended following the first round of consultation to exclude the publicly accessible Watsons Beach and also the area between this reserve and the original proposed MPA at N was not recommended in order to avoid impacting on the trawl fishery and recreational and commercial use of the Akatore reef. Further concessions would compromise the biodiversity values of this area.

The addition proposed by Forest and Bird could have a small impact on recreational fishing however the popular kahawai fish may still be caught within the Estuary.

A special condition to provide for customary gathering of shell fish may be needed.

Benefits outweigh the costs

Forest and Bird submits that the benefits to science and public enjoyment of this significant site outweigh the impacts on recreational, customary and commercial fishing.

Type 2 Marine Protected Areas

Tuhawaiki

Forest and Bird supports the implementation of the marine protection measures in full but notes that they add little extra protection. There is already an existing 4Nm set net ban, and a prohibition on Danish seining and trawling unless a low headline-height trawl net is used. The proposed set net ban for Hector's dolphin will be extra protection.

The prohibitions need to include all types of trawling and set netting as these methods are capable of causing large scale ecosystem effects by capturing large quantities of fish and a diversity of non-target species, including top predators such as penguins and dolphins and disturbing biogenic habitats and mobilising silt. These methods can impact on natural species composition including all life history stages and disrupt trophic linkages. Such impacts can retard or prevent the maintenance and recovery of the ecological system. A precautionary approach should be applied as there is inadequate information to provide assurance that trawling and set netting either do or do-not have an ecosystem impacts at this site.

Costs/impacts

It is not clear that the estimated displacement takes into account the existing bans and prohibitions on Danish Seining and trawling and it will not take account of the proposed set net ban for Hector's dolphin.

C 1 Moko-tere-a-torehu

Forest and Bird supports the benefits as described.

Forest and Bird supports the proposed prohibitions provided they include all forms of trawling.

These proposals are consistent with the information principles in Section 10 of the Fisheries Act, the precautionary principle and the protection standard in particular the MPA Planning Principle 2 b and 2 c.

To meet the protection standard, a management tool must enable the maintenance or recovery of the site's biological diversity at the habitat and ecosystem level to a healthy functioning state. In particular, the management regime must provide for the maintenance and recovery at the site of: a) physical features and biogenic structures that support biodiversity; b) ecological systems, natural species composition (including all life-history stages), and trophic linkages; c) potential for the biodiversity to adapt and recover in response to perturbation.

Maintenance and recovery include, where feasible, the avoidance of change from human induced pollution, sedimentation, fishing, tourism or visitor-based disturbance, undersea or seafloor commercial activities, or scientific/research activities. The selection of tools for the management regime will require assessing their ability to address such human-related threats and activities.

The MPA policy provides that biodiversity protection will be at the habitat and ecosystem level, not individual species (e.g. marine mammals). However, where measures protecting particular species have the effect of achieving biodiversity protection at the habitat and ecosystem level, they could be included as part of the MPA network.

Set netting, trawling and Danish seining extracts large quantities of fish over short periods, are non selective and catch top predators such as rig and school shark, and set netting in particular can catch

dolphins and penguins. These methods in the proposed MPA are estimated to remove around 34.5 or 60 tonnes of school shark, red gurnard and rig. (P40 Consultation report is not clear). Other bottom dwellers such as ling, red cod, and common warehou are also caught. These species all play an important role in maintaining the food chain and trophic linkages. Bulk fishing methods can result in the over simplification of food webs and result in more stable communities.²⁴ Sharks are especially important in driving fish work ups that provide important feeding opportunities for seabirds.

The numbers of hoiho and Hector's caught are not well known due to very low observer coverage. However given that these species are in serious trouble, every possible effort must be taken to prevent their catch. These species are not being maintained at a level that ensures their long-term viability. There are no known mitigations to avoid this bycatch other than spatial bans. Prohibiting set nets here will help achieve biodiversity protection at the ecosystem level. (SEMPA 2018). The recent set net bans proposed for the protection of Hector's dolphins do not encompass the whole area of this MPA and exclude areas and habitats known to be utilised by Hector's dolphin.

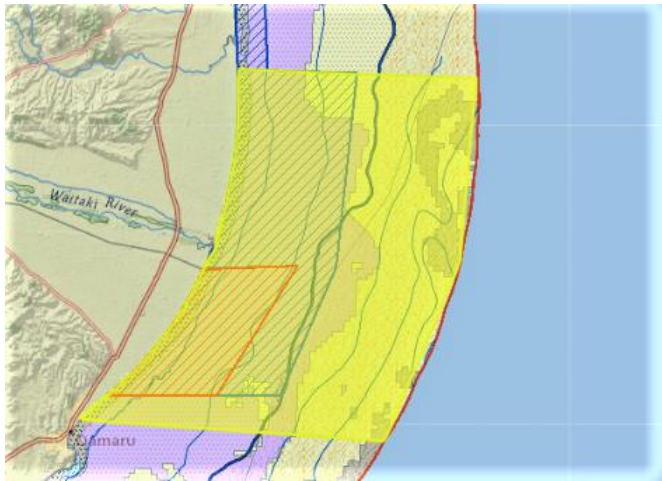
The prohibitions need to include all types of trawling and set netting as these methods are capable of causing large scale ecosystem effects by capturing large quantities of fish and a diversity of non-target species, including top predators such as penguins and dolphins, disturbing biogenic habitats and mobilising silt. These methods can impact on natural species composition including all life history stages and disrupt trophic linkages. Such impacts can retard or prevent the maintenance and recovery of the ecological system. A precautionary approach should be applied as there is inadequate information to provide assurance that trawling and set netting either do or do-not have an ecosystem impacts at this site. Banning set netting will assist in addressing either actual or potential adverse effects of fishing on the environment.

All forms of trawling need to be specified, including those using a low headline-height trawl net. The prohibitions are also needed to protect nursery grounds for school sharks and a spawning area for elephant fish.

Site Proposal - Moko-tere-a-torehu

Forest and Bird supports the proposed site and wishes it to be implemented. However the proposed network does not replicate representation of deep mud habitats. Less than 10% of deep mud habitat is represented in a reserve and this is all in Te Umu Koau. This gap should be rectified by expanding Moko-tere-a-torehu to embrace the offshore deep mud habitats as shown below.

²⁴ Wing, S.R, and L Jack. 2013. Marine reserve networks conserve biodiversity by stabilizing communities and maintaining food web structure.

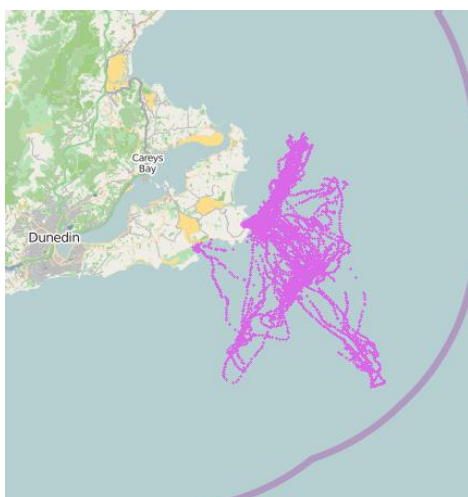


Kaimata

Benefits

Forest and Bird agrees with the benefits listed however the following additional benefits need to be recognised:

- Saunders Canyon is the largest area of a submarine canyon ecosystem to occur in the SEMP area.
- Saunders Canyon has more high relief and the greatest depth range 120m to 900m compared with Papanui canyon 130 -650m.
- Kaimata is the only proposal within the network to encompass a significant area of foraging habitat for hoiho, as shown on the map below.
- The bryozoan beds are habitat for many fish and invertebrate species including juvenile blue cod, they are considered as a source for the inshore blue cod fishery and should be protected as a habitat of particular significance for blue cod.²⁵
- The bryozoan beds are also of particular foraging significance for whakahao/sea lions and hoiho.



Yellow-eyed penguin at-sea distribution 2018 2020 Thomas Mattern²⁶

²⁵ Steve Wing – Otago University pers comm.

²⁶ https://www.movebank.org/cms/webapp?gwt_fragment=page=search_map_linked_studyIds=610046035*,lat=-46.062104317728874,lon=169.60296549999987,z=8

The foraging paths of tracked breeding yellow eyed penguins show the importance of the Kaimata MPA

Prohibitions - Kaimata

Forest and Bird agrees with the proposed prohibitions provided they prohibit all forms of trawling including trawling using a low headline-height trawl net

These proposals are consistent with the information principles in Section 10 of the Fisheries Act, the precautionary principle and the protection standard in particular the MPA Planning Principle 2 b and 2 c as discussed above for C 1 Moko-tere-a-torehu.

Set netting and trawling extract large quantities of fish over short periods, are non-selective and catch top predators such as rig and school shark, and set netting in particular can catch dolphins and penguins. These methods in the proposed MPA are estimated to remove around 18 tonnes of school shark, rig and flat fish. Other bottom dwellers such as ling, red cod, and common warehou are also caught. These species all play an important role in maintaining the food chain and trophic linkages. The numbers of hoiho caught are not well known due to low observer coverage. However given that this species is seriously threatened, with now less than 171 mainland pairs in 2019/20. (YEPT pers com). every possible effort must be taken to prevent their catch as hoiho are not being maintained above a level that ensures their long term viability. There are no known mitigations to avoid this bycatch other than spatial bans.

These methods proposed for prohibition can impact on natural species composition including all life history stages and disrupt trophic linkages. Such impacts can retard or prevent the maintenance and recovery of the ecological system. A precautionary approach should be applied as there is inadequate information to enable certainty that trawling and set netting either do or do-not have ecosystem impacts at this site.

Prohibiting set nets here will help achieve biodiversity protection at the ecosystem level. (SEMPA 2018).

A study into the response of large fishes to the removal of gill nets from a near shore area in Southern California found that the ban lead to the recovery of the collapsed white seabass fishery and four large predator fish increased in abundance.²⁷ This suggests that removal of set net fishing could assist in maintaining and restoring trophic levels.

Whakatorea – L1

Forest and Bird agrees with the listed benefits and costs and the proposed prohibitions.

Forest and Bird would like to see a slight change to the seaward/river mouth boundary as described below (and shown in photo above) to ensure that the transition zone is fully within the marine reserve, as these coastal processes and habitats are more associated with the seaward side than the estuary.

²⁷ Daniel J. Pondella II and Larry G. Allen 2008. The decline and recovery of four predatory fishes from the Southern California Bight Marine Biology, Volume 154, Number 2, Pages 307-313

Recreational fishers would still be able to catch kahawai subject to the type two reserve conditions proposed for the rest of the estuary.

Adjust the Akatore Creek boundary to ensure that all of the surf zone and true right sandspit is within the marine reserve.

- North Side 170 11.231e 46 6.648s 1382635 4889795
- South Bank 170 11.196e 46 6.723s 1382595 488965

Tahakopa – Q1

Forest and Bird agrees with the benefits with the addition of;

- A significant portion of Tahakopa Estuary is surrounded by Scenic Reserves and QE II reserve.
- Tahakopa is a relatively pristine estuary with significant ecological and cultural values.

Special provision should be made to recognise and provide for continuing use by whanau for mahinga kai, education and passing on intergenerational māturaka.

Kelp Site T1

Forest and Bird agrees with the benefits of prohibiting the harvesting of bladder kelp as the most effective way of managing this habitat which is of particular significance for fisheries management and its extent, density and health needs to be maintained in order to maintain the biological diversity of the aquatic environment. (Section 9 NZ Fisheries Act 1996). Kelp is an ecosystem engineer, and these kelp forests are critical for rock lobster, as they enhance the settlement of pelagic larvae and the survivorship of settled juveniles and individuals. Recent research also shows that the *Macrosystis* provides the majority of food for paua. (SEMPF 2018).

Thank you for the opportunity to comment and we look forward to the final establishment of all of the marine reserves and marine protected areas.

Yours sincerely

s9(2)(a)

Jen Miller

Group Manager Advocacy

Royal Forest and Bird Protection Society of New Zealand Inc.

PO Box 2516. Christchurch. New Zealand

Mobile s9(2)(a)

From: [Tom Clark](#)
To: [SEMP](#)
Cc: s9(2)(a)
Subject: Submission Southern Inshore Fisheries Management Limited
Date: Monday, 3 August 2020 10:52:51 PM
Attachments: [SIFMC Submission South East Marine Protection.pdf](#)

Please find attached a submission on the proposed south-eastern South Island marine protected areas.

Tom Clark
Fisheries Inshore Policy Manager
s9(2)(a)
Mobile s9(2)(a)

3 August 2020

Proposed South-east Marine Protection Network
Department of Conservation
Conservation House
PO Box 10420
Wellington 6143

Email: southeast.marine@publicvoice.co.nz

Submission on the Proposed South-east Marine Protection Network

1. This submission is made on behalf of shareholders of Southern Inshore Fisheries Management Company (Southern Inshore).
2. Southern Inshore represents 110 inshore fishstocks (41 species) throughout the Fisheries Management Areas 3,5,7 & 8, and provides representation and advocacy for the property rights of shareholders. In addition, Southern Inshore is a member of Fisheries Inshore New Zealand that represents national inshore commercial fisheries interests.
3. Southern Inshore supports the joint submission made by the industry representative organisations – Fisheries Inshore New Zealand, Rock Lobster Industry Council and Paua Industry Council - in respect of proposed marine protection network for the south-east of the South Island (SEMPA), which should be read alongside these submissions.
4. Southern Inshore also supports the submissions made by industry parties in respect of the proposed marine protection measures. These include inter alia Harbourfish, Giant Kelp 3G, Otago Rock Lobster and submissions by individual fishers.

IMPORTANT NOTICE – CONFIDENTIAL INFORMATION

5. This submission contains significant, sensitive commercial and personal information as to the impacts of the measures on individual fishers. The confidentiality of that information must be preserved under all circumstances. The sections with the impact statements found under each proposed area discussion must be redacted in full in any publication of, presentation of or transmittal of the submission beyond those who have an immediate need to consider the material. Any request to provide the submission under an OIA or any other process must have the approval of Carol Scott, Chief Executive of Southern Inshore, prior to any release.

PART 1 SUMMARY OF SUBMISSION

6. Southern Inshore's focus in this submission will be the issues that directly relate to the assertions in the consultation documents that:
- The Minister for Fisheries has the power to make decisions under the Fisheries Act 1996 for the establishment of Type 2 Marine Protected Areas;
 - That trawling and setnetting have enduring adverse effects on energy, loose sediment habitats and their ecosystems; and
 - The selection of the proposed reserves:
 - Tuhawaiki (A1)
 - Waitaki (B1) and Moko-tere-a-torehu (C1)
 - Papanui (H1)
 - Kaimata (E)1
 - Arai Te Uru (T1)
- in which Southern Inshore stakeholders currently fish will directly impact unnecessarily, unlawfully and to varying degrees of significance on those Southern Inshore fishers and indirectly other Southern Inshore stakeholders.
7. Southern Inshore **supports** Option 1 – retention of the Status Quo. Southern Inshore **does not support** Option 2 which is based on the proposal of the South East Marine Protection Forum, previously known as Network 1.
8. Neither the Marine Reserves Act 1971 nor the Fisheries Act 1996 provide a legal framework for the establishment of measures for the protection of the marine biodiversity at risk.
- The the purpose of the Marine Reserves Act is to provide habitats for research, not for the protection of marine biodiversity per se. As such, the justification of marine reserves needs to be in terms of that scientific value, not its biodiversity protection value.
 - There is no provision in the Fisheries Act 1996 which enables the Minister to establish fishing prohibitions in order to create a Type 2 Marine Protected Area, unless it can be demonstrated that fishing constitutes an adverse effect on the stocks or the aquatic environment in the area. For this consultation, the issue to be considered by the Minister is whether the degree of trawling and setnetting is so intense across the whole region that the Minister needs to impose prohibitions on the fishing activity to ensure the long term viability of an ecosystem habitat.
9. The Government has requested a comprehensive review of marine protection be undertaken. That review will be presented shortly for public consultation. We see no reason why the proposals for the south east South Island should be progressed in advance of that review.
10. Southern Inshore does not agree that fishing activity poses an adverse effect on the aquatic environment of the south east South Island in that:
- trawling uses light gear, is undertaken on loose gravel, sand and mud seabed sediment and does not have an extensive spatial footprint in the region; and
 - setnetting has no benthic impact, focuses on mobile fish species and has only small spatial footprint in the region.

11. In addition to the legal considerations raised as to the legal application of the Marine Reserves Act 1971 and the Fisheries Act 1996, Southern Inshore **opposes** the marine reserves and the MPAs on the basis that:

- The ecosystems and habitats in the areas are not unique nor fragile for which protection is critical;
- The ecosystems and habitats are widely common throughout the South Canterbury-Otago region;
- There are no protected species present which warrant additional protection
- The impacts on fishers who operate in the reserves and MPAs are significant and will impose unnecessary hardship and, in some instances, unnecessarily and inappropriately force fishers from the industry.

12. More specifically, Southern Inshore submits that in respect of the:

Tuhawaiki Type 2 marine protection area

- The area is clearly identified as being an area of particular importance to the coastal fishing sector;
- Closure of the area will have significant and unnecessary effects on the fishers who operate in that area, many of whom have already been seriously impacted by the Dolphin Threat Management Plan closures;
- Biodiversity protection is not a mechanism to restrict access to commercial fishing to enhance customary fishing;
- The recommendation to close the area is in poor faith. The area consulted on was significantly smaller and had less impact. The Forum arbitrarily increased the scope of the area for reasons not justified but which appear to deliberately target commercial fishing.

Waitaki Marine Reserve and Moko-tere-a-torehu Type 2 marine protection area

- The area proposed to be a marine reserve is effectively devoid of any attributes that would be conducive to a habitat or ecosystem targeted research interest;
- The inability of the regional council to control the influx of excess agricultural nutrients and waste from the Waitaki River precludes the ability to preserve the natural state of the area as a marine reserve;
- Commercial fishing activity levels are low and do not pose an adverse effect to the ecosystems and habitat in the area

Papanui Marine Reserve and Kaimata Type 2 marine protection area

- The bryozoan ecosystems and habitats in the area are already protected by a voluntary industry agreement and a compliant fishing community;
- The areas proposed are effectively mirrors of each other and encompass the Forum's total complement of bryozoan beds and canyon heads

Arai Te Uru kelp protection area:

- The Minister has no power to prohibit fishing in such areas without justifiable cause;
- The vast majority of the area is not suitable habitat for the growth of giant kelp and kelp is not known to have grown historically on the gravel and sand base.
- Kelp harvesting is a sustainable form of harvesting, managed by the Quota Management System.

PART II BACKGROUND

Statement on Marine Protection

13. Southern Inshore strongly supports the effective protection of marine biodiversity. The health of the marine biodiversity is the source of our activity in New Zealand waters. We support the planning for the protection of marine biodiversity being science-based, using a consistent approach to habitat and ecosystem classification and an inventory of sensitive marine biodiversity areas.
14. Fundamentally, we believe that the principles and practices of the Fisheries Act 1996 (FA96) are the primary tools for the protection of the marine biodiversity from fishing activities. The environmental principles of the FA96 and the sustainability provisions ensure that in general marine biodiversity is protected, albeit simultaneously utilised. Provisions exist under the FA96 for enhanced protection to be provided to areas of sensitive and rare ecosystems.
15. The Resource Management Act 1991 (RMA91) serves to protect marine biodiversity from the impact of other direct marine activities (eg discharges of pollution) and can enable the protection of marine biodiversity from indirect terrestrial threats, albeit councils have historically not provided such protections, and non-fishing based threats in the marine space.
16. The Marine Reserves Act 1971 (MRA71) exists to set aside areas for scientific research purposes so that we may better understand marine biodiversity and marine ecosystems.
17. We see the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 could effectively provide the same oversight and management of threats to marine biodiversity in the Exclusive Economic Zone as the Resource Management Act does in the territorial sea.
18. We welcome the development of a comprehensive, objective based, informed marine biodiversity protection policy that would integrate the regulatory frameworks into a consistent effective protection framework.
19. We do not consider the current approach, framework, mechanisms, objectives or processes constitute a satisfactory or legal framework in which the protection of marine biodiversity should be considered. While we consider the MRA71 nor the FA96 are fit for the purpose of protecting marine biodiversity, neither are appropriate or adequate to achieve the level/ standard of protection of use the government is trying to achieve in the name of protecting biodiversity. We comment on this in a later section. We cannot accept that government policy for the protection of marine biodiversity should be structured to achieve an arbitrary international benchmark of 10% or more of marine biodiversity in MPAs.
20. We do not accept that the current process to identify and establish the areas of non-use will result in effective protection of marine biodiversity. The process resembles more of a regional allocation of water space by a community-led process based on using spatial management tools to achieve that allocation rather than a scientific assessment of needs, risks and threats.
21. We are under no illusions that the current processes will not result in more effective protection of our marine biodiversity. Instead they will be used by different advocacy groups to allocate marine space in line with their biases, not with protecting marine biodiversity habitats from risk.

The Regulatory Framework

22. Neither the Marine Reserves Act nor the Fisheries Act provide a legal framework for the establishment of measures for the protection of the marine biodiversity at risk.

The Marine Reserves Act 1971

23. The purpose of the MRA71 is “to provide for the setting up and management of areas of the sea and foreshore as marine reserves for the purpose of preserving them in their natural state as the habitat of marine life for scientific study”. While the MRA71 does not require a programme of scientific research be defined at the initiation of the marine reserve process, it is clear that from the structure and content of the MRA71 that the purpose is to provide habitats for research, not for the protection of marine biodiversity per se. That the Department of Conservation is forced to use inappropriate legislation for the protection of marine biodiversity is lamentable but does not nevertheless validate its use for the purpose the Government proposes.
24. The selection of any sites to be designated as marine reserves should be based around their scientific value, albeit untapped at their creation. It would be expected that the reserves are, or can be returned to, a near natural state and can provide the substance of a particular ecosystem that would be the focus of the research. As such, the justification of marine reserves needs to be in terms of that scientific value, not its biodiversity protection value.

The Fisheries Act 1996

25. There is no provision in the FA96 which enables the Minister to establish fishing prohibitions in order to create a Type 2 Marine Protected Area, unless it can be demonstrated that fishing constitutes an adverse effect on the stocks or the aquatic environment in the area.
26. Section 9 of the FA96 contains the environmental principles:
- 9 Environmental principles**
- All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following environmental principles:*
- a) *associated or dependent species should be maintained above a level that ensures their long-term viability:*
 - b) *biological diversity of the aquatic environment should be maintained:*
 - c) *habitat of particular significance for fisheries management should be protected.*
27. The FA96 contains provisions by which the Minister may impose area prohibitions on fishing. Section 11 provides for sustainability measures including measures relating to methods. While this section sets out the measures the Minister may implement, it does not in itself define the reasons for which the Minister may exercise those powers. Those reasons are set out in sections 13, 14, 14A, 14B and 15.
28. Sections 13 to 14B relate to the setting of catch limits for fish stocks in the Quota Management System.
29. Section 15 relates to the fishing related mortality of marine mammals or other wildlife. The Minister’s powers are only applicable to the mortality of marine mammals and other aquatic wildlife and are conditional on fishing having an effect on protected species. This needs to be read in conjunction with the Environmental Principles. The Minister’s powers to address an effect are limited to an effect which would result in the environmental principles not being achieved. In essence, the Minister has a power to make regulations to prohibit fishing where fishing has an adverse effect on the biological diversity but his powers are limited to those reasonably necessary to address the adverse effect.
30. The basic tenet of the FA96 is that fisheries management will be undertaken in such a manner as to not generally threaten the long term viability of associated or dependent species or maintenance of

the biodiversity of the marine environment. Where there are effects that are injurious, the Minister may take steps to mitigate, reduce or avoid those impacts.

31. In respect of prohibiting methods in certain areas, the Minister only has the power to regulate where the method is causing an adverse effect. The Minister does not have the power to establish spatial allocations of water space for the purpose of protecting marine biodiversity where that biodiversity is not under a sustainability threat from fishing.
32. For this consultation, the issue to be considered by the Minister is whether the degree of trawling and setnetting is so intense across the whole region that the Minister needs to impose prohibitions on the fishing activity to ensure the long term viability of an ecosystem habitat. The Minister needs to provide evidence to this proposition.
33. It is our view that neither trawling nor set netting imposes a level of adverse effect across all the habitats included and within the south east South Island region sufficient to warrant closures under the FA96. Even if the Ministry was able to demonstrate that trawling and setnetting adversely affected the ecosystem or habitat in a particular area, the Minister would need to take into account whether other examples of that habitat existed in the region and whether they were all under adverse effects from fishing to justify the Minister taking action to close the particular proposed areas.
34. It is akin to the position of protected species. The Minister's obligation under the FA96 is to ensure the long term viability of the species. The death of an individual seabird or marine mammal does not in itself constitute an adverse effect, - it is only if the aggregate number of seabirds or marine mammals killed compromise the long term viability of the population that an adverse effect is created providing the Minister justification to take action to mitigate the effect.
35. The Ministry has often relied on section 297 of the FA96 to justify the powers of the Minister to establish regulations. Section 297 merely defines the scope of what might be contained in a regulation but it does not enable or empower the Minister to establish regulations under the section. The powers to establish a regulation are found elsewhere in the FA96, for example, the sustainability provisions, the registration provisions or the operational provisions. Section 297 is not an enabling power in its own right.
36. In considering the South East Marine Protection proposals, the Minister will be exercising a direct responsibility role in respect of the Type 2 MPAs and a concurrence role in respect of the marine reserves. The considerations and legal constraints discussed above refer to the Minister's exercise of his powers in both his primary and concurrence duties. The concurrence role does not obviate the need for the Minister to act consistently with the powers set out in the FA96.

Development of New Policy and Regulatory Framework

37. We are aware that government agencies are preparing proposals for a new replacement framework aimed at appropriately protecting marine biodiversity where it is under threat and that these will be presented shortly for public consideration. We are, however, unaware of the framework or the details of the policy or its proposed implementation.
38. We do not consider it is appropriate to press on with the implementation of this package of measures for the South East South Island in advance of that wider development. The new package should include new legislation appropriate for the purpose and may include a replacement strategy, policy and practice.
39. We see no reason why the South East proposals should not be paused and re-considered in the light of that new marine protection framework. It would be inappropriate and invoke needless damage

to the fishing sector to press on with these proposals if they were later to be found inconsistent with or inappropriate for the new framework.

Summary

40. Neither the MRA71 nor the FA96 enables the closure of areas for the primary purpose of protecting marine biodiversity. The MRA71's purpose is limited to scientific study, not conservation, and the FA96's purpose is limited to ensuring long term viability of fisheries resources through the mitigation of adverse effects, not conservation per se. Neither Act provides a legal provision for the establishment of marine protected areas that have the primary purpose of a spatially exclusive allocation of marine space to protect examples of marine biodiversity.
41. The FA96 has as one of its basic principles the maintenance of marine biodiversity and, where that biodiversity is at risk of not being maintained at a habitat level, the Act provides for the Minister to take action. It does not however enable the Minister to use those powers where there is no such risk or where there are ample areas of a like or the same habitat that is not under threat.

PART III IMPACTS OF FISHING ACTIVITY ON THE MARINE ENVIRONMENT

42. The marine protection area proposal seeks to prohibit fishing from the Type 2 MPAs on the basis of their adverse impacts on the sustainability of those fishing practices on the benthic habitat within the south east region. For trawling, the adverse impacts are considered to be the impact on the benthos and the removal of fish in sufficient quantities so as to impact the local ecosystem. For set netting, the adverse effect is considered to be the impact of the removal of large quantities of fish.

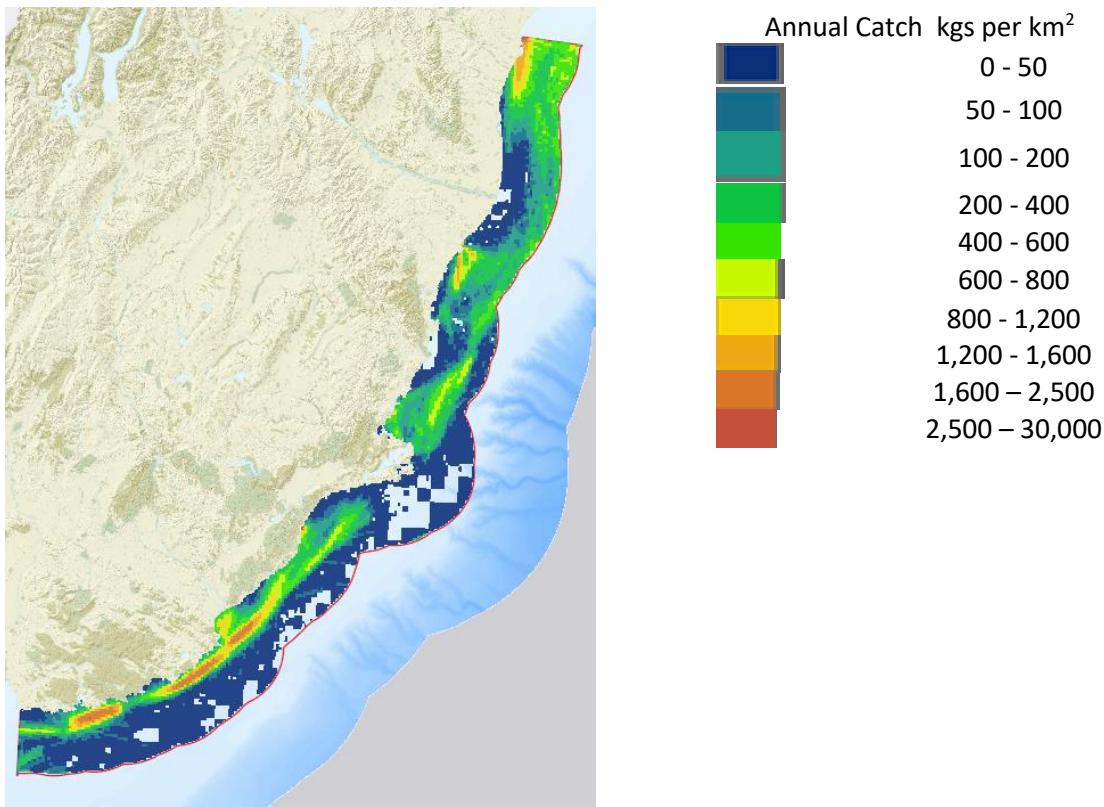
Trawling

43. Within the wider south east region, trawling is a relatively common fishing method. It occurs almost exclusively on the sand and gravel bottom and within the same historical areas of trawling.

44. In the main, the vessels trawling in the inshore south east region are less than 15 metres towing low headline nets targeting a range of species including flatfish, elephant fish and gurnard. The trawl gear they use is light, reflecting the low power and small size of the vessels. While all use trawl doors, the doors are light and make only shallow furrows in the benthos. Given the sand and gravel habitat and the medium energy zone in which they operate, any evidence of trawling such as furrows is quickly removed. With light gear, there is little disturbance of the benthos and the nets tend to be drawn lightly across the surface as against being forced into the benthos as might happen with heavier trawl gear. With light gear, there is a higher prospect that the gear will float above the sea bed rather than retain contact with it at all times. Science indicated that light trawl gear tends to have only 30% contact with the seabed during a tow.

45. Trawling takes place within the same footprint on an annual basis. Fish tend to aggregate in areas of high food availability, including benthic species such as crabs, and fishers have come to know those spatial patterns and restrict their activities to their localities. That the fish continue to habituate the areas indicates that trawling does not so significantly modify the benthos as to make it averse to fish species.

Trawl Intensity in South East South Island

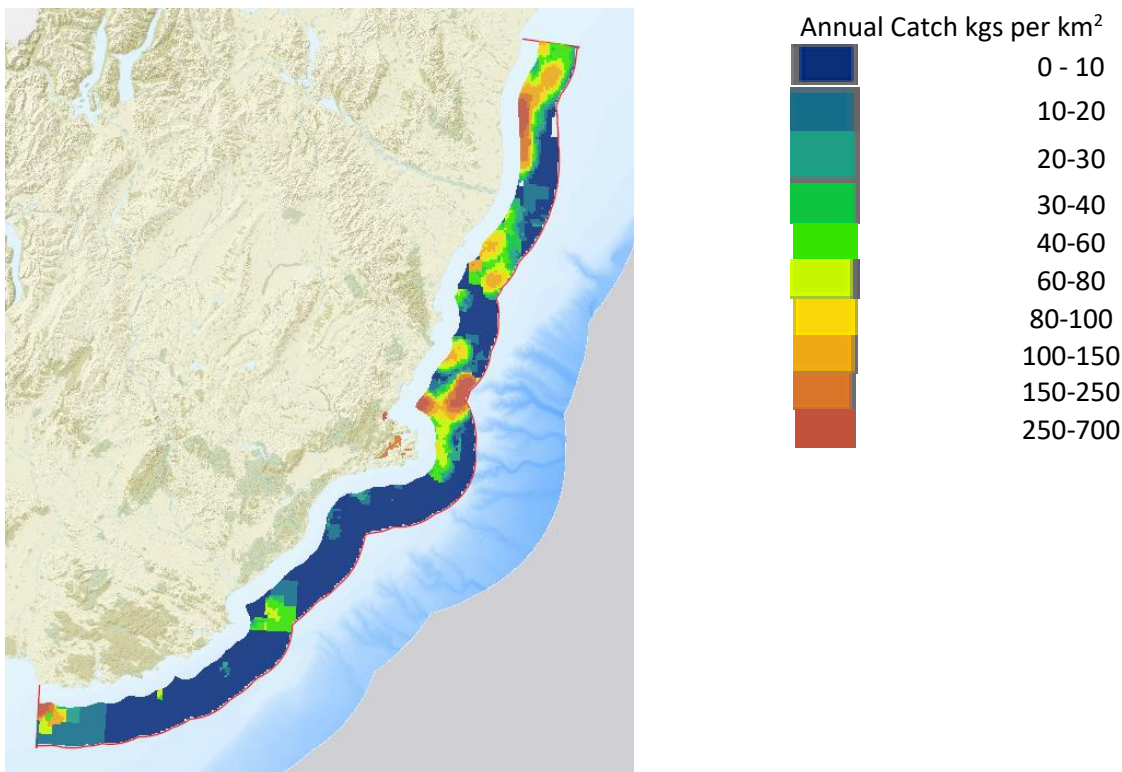


46. Trawl catches in the south east region average less than 500kgs per tow but most vessels make multiple tows in a day's fishing, increasing the overall catch level. Trawl catches in the wider south east region are estimated to be around 350 tonnes per annum.
47. Given the nature of the seabed trawled, the generally light nature of the gear and the small footprint of trawling in the wider south east region, it could not be said that trawling poses an adverse effect on the region as a whole or

Set netting

48. Within the proposed closures, setnetting is a common fishing practice. Set netting involves the positioning of anchored and weighted nets on the seabed. Floats are used to keep the nets open. The nets vary in length and height relative to the species being targeted and the choice of the individual fisher. The majority of nets set are around 1,000 metres and are up to 2.5 metres high.
49. Setting and hauling the nets does not cause damage to the benthos in the south east area as the nets are set on sand, gravel or mud and away from hard rock structures or fragile benthic life. The nets are set by dropping the anchor at one end then slipping the net from the vessel to allow it settle on the bottom. The net is not dragged across the benthos. On hauling, one end of the net will be retrieved and the net will be retrieved by pulling the net onboard and the vessel backwards using the net hauler.
50. Most of the species that are caught commercially in set nets are mobile predators such as rig and school shark, which feed both in open water and near the sea bed. Similarly, ling appear to be mainly bottom dwellers, as are red cod and common warehou (a schooling species that usually aggregates close to the sea bed). These bottom dwellers and feeders have close affinities with the benthic environment and apart from ling are not readily attracted to, or caught, by other fishing methods that could be used in this region such as longline. Setnet is the choice of fishing method to suit the fishes behaviour, location and bottom type.

Setnet Intensity in South East South Island



51. Setnet captures would average less than 500 kgs per set, often vessels only setting one net per day. Typically 450 tonnes would be caught each year by set net in the wider south east, much of it in the September – December period when rig are targeted.
52. The consistency of fishing activities over many years shows that fish are still abundant in the region and the assumed degradation to the marine environment supporting these fish must be at a minimum as fishing levels are maintained.
53. Fishstock abundance is monitored by the Ministry for Fisheries and catch levels are set to sustainable levels for both the target catch species and any by-catch.
54. Taking into consideration the above and the particular ecosystems at each of the proposed sites, there is no evidence to show that set netting is having a deleterious effect on the local or surrounding environment.

Summary

55. For this consultation, the issue to be considered by the Minister is whether the degree of trawling and setnetting is so intense across the whole region that the Minister needs to impose prohibitions on the activity to ensure the long term viability of an ecosystem habitat.
56. It is our view that neither trawling nor set netting imposes a level of adverse effect sufficient to warrant closures under the FA96. Even if the Ministry was able to demonstrate that trawling and setnetting adversely affected the ecosystem or habitat in a particular area, the Minister would need to take into account whether other examples of that habitat existed in the region and whether they were all under adverse effect to justify the Minister taking action to close particular areas.
57. We submit that trawling and setnetting does not impose adverse effects across the whole habitat types sufficient to warrant closures and that the Minister therefore cannot legally exercise his powers to create Type 2 MPAs in the south coast of the South Island.

PART IV OUR SUBMISSION ON THE PROPOSED AREAS

58. Southern Inshore supports Option 1 – retention of the Status Quo. Southern Inshore does not support Option 2 which is based on the proposal of the South East Marine Protection Forum, previously known as Network 1.
59. Southern Inshore does not agree that fishing activity poses an adverse effect on the aquatic environment where marine reserves and marine protection areas are proposed.
60. In assessing the impact of the measures, we have focused on the impacts at the fisher level. The analyses presented in the consultation documents that focus on the impacted catch as a proportion of the TACC are misleading and inappropriate. They portray the situation as might apply to a quota-owner who has the ability to transfer his catch across the wider FMA but do not portray the situation as it affects the fisher directly or the wider community affected by the closures. We contend this is the more important impact to be considered by Ministers.
61. Our comments on the proposed area closures follow:

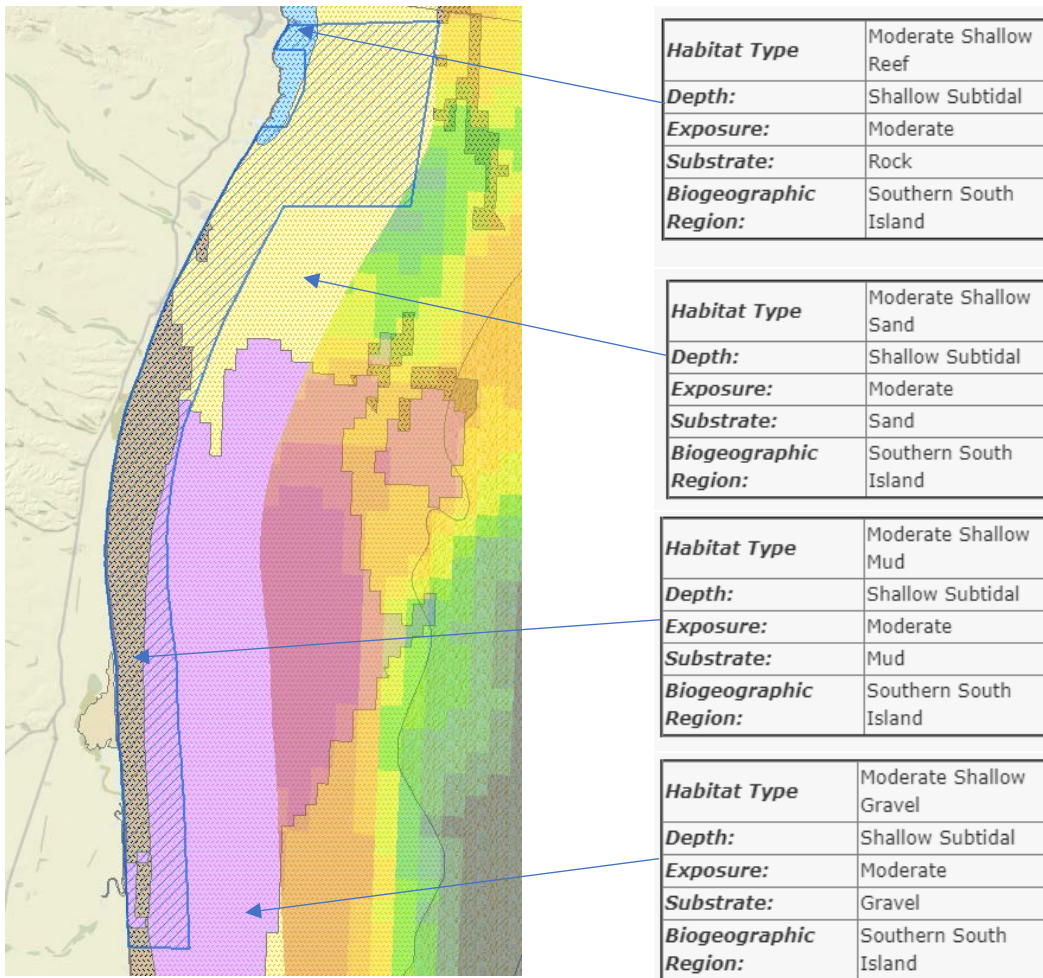
Area A1 Tuhawaiki

62. The proposed Tuhawaiki Marine Protection Area covers an area of 157.3 km² extending 7km outwards at its maximum and 40km southwards from Timaru.
63. The site initially consulted by the Forum was significantly smaller being only 4.4km² in the southern area adjacent to the existing mātaimai. Issues raised by submitters related to the size of the consulted area being too small to be viable and the need to provide a buffer to the existing mātaimai. The extension in size was not justified in terms of habitat selection. That the proposed area would enhance the mātaimai reserve and offer a buffer to the reserve is an irrelevant consideration. The extent of the offshore boundary of the mātaimai was agreed by all sectors at the time of its formation and subsequent designation. The main reason for the limit to the offshore boundary was due to the impact on commercial fishers and agreement to maintain their access to this important fishing area. The Forum was convened to protect the marine biodiversity, not enhance existing customary closures.

Habitat Type Consideration

64. The area contains moderate shallow reef, sand, mud and gravel, common along the south Canterbury coast. The vast majority of the areas in which those habitats are found are either very lightly fished or not fished at all in most of the Forum area and would have provided sufficient protection of the marine biodiversity without any cost to existing utilisation.

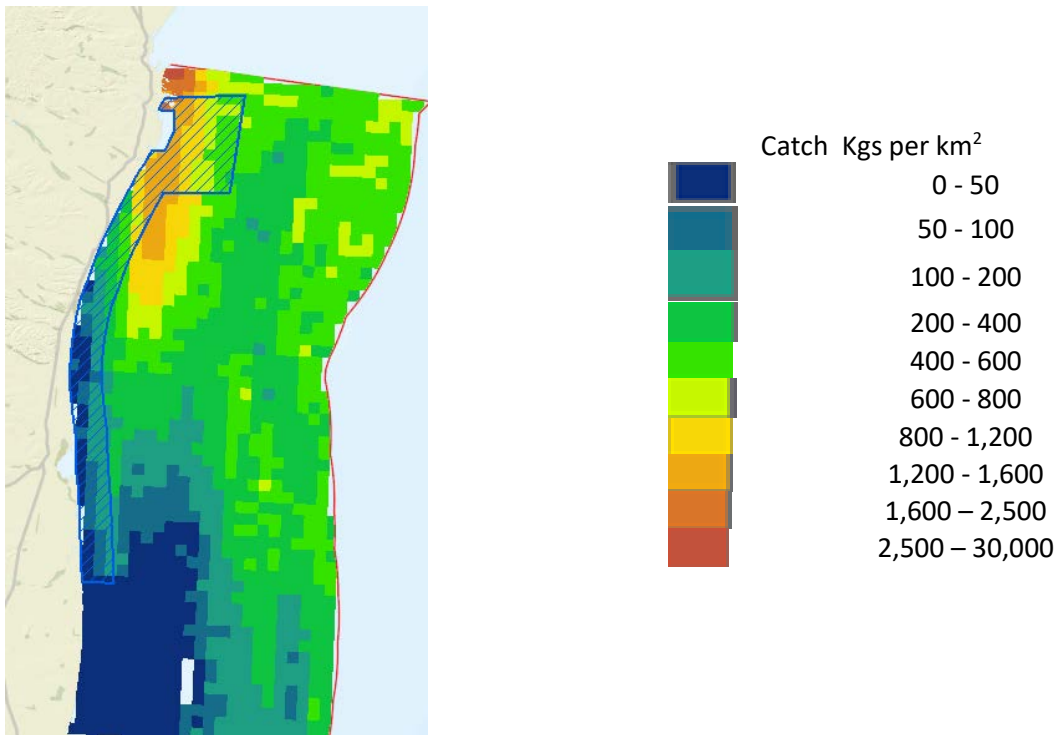
Tuhawaiki Habitat (shaded in blue)



65. None of the habitats in the Tuhawaiki area are rare, unique or outstanding and warrant protection on that basis. Rather the habitats are common and typical and are found throughout the whole south east area of the South Island.

Impact Consideration

66. The area is a major commercial fishing location that will impact in particular on the small trawl fleet operating from Timaru. The intensity of trawl activity in the Tuhawaiki MPA (shaded in blue) can be seen in the following map:



67. The consultation document indicates that the MPA would displace approximately 110 tonnes of catch per year, affecting at least 19 fishers using trawl or setnetting. Our analysis of catch records indicates the total catch would be nearer s9(2)(b)(ii) per year.

68. Trawlers from Timaru use the area as it provides the fishers with fishing for elephantfish, flatfish and gurnard on a sand or gravel substrate on a lee shore protected from offshore westerly winds. The vessels are generally small up to 15 metres, often low-powered and pulling small nets commonly 6 metre wide net with a headline height of 1 metre. A number of the trawlers are operated by only the fisher for profitability reasons and trawling in deeper or rougher seas with such small vessels is not always possible and the Tuhawaiki area provides a safe option. Being able to catch higher valued species such as gurnard, flats and elephantfish in an area close to their port underpins the fishing activity of those small trawlers. The loss of that area would reduce their opportunity to fish and more significantly reduce their profitability.

69. Trawling on a loose substrate such as gravel and sand does not create irreversible adverse effects on the habitat. The area is naturally an high energy zone where benthic disruption is common and traces of trawl activity are readily obliterated by natural sea action.

70. A number of the trawlers also setnet primarily for rig and elephantfish during the October-December period. Setnetting for rig commences at around 7 nm from shore and entails progressively moving towards the shore following the rig moving inshore to spawn or pup. Spawning aggregations are not found outside 12 nm which is now the outer prohibition limit. With low energy costs and accessible

ACE packages, setnetting provides a better return to fishers than trawling. It is also a cleaner fishery with lower levels of unwanted by-catch species.

71. The level of fishing in the area does not impose a risk to the sustainability of fishstocks in the area nor the removal of levels of fish so comprehensive as to impact the ecosystem of the area. Spawning and pupping grounds are already protected by a voluntary 1nm trawl closure and a 4nm setnet ban imposed in 2008. Fishstocks in the area have shown strong growth in abundance in recent years with MPI increasing the Total Allowable Catch for all species in the area to reflect that growth in abundance. Fishing does not pose a sustainability risk to the local fishstocks.
72. Our analysis of impacts indicates that five trawlers would have more than s9(2) of their catch displaced by the measures:
- Fisher A would have approximately s9(2) of his trawl catch currently caught in the Tuhawaiki MPA. The level of catch taken annually in the area varies from between s9() and s9(2). The fisher also setnets for three to four months of the year for elephantfish and rig to the north of Timaru. However, all that of setnet ground to be closed under the Hector Dolphin TMP closures for setnetting. While he could seek to relocate his rig setnetting to south of Timaru, his past experience of that option is that rig do not aggregate in the area to spawn – they appear to congregate in the area north of Timaru and catches elsewhere are accordingly light and patchy. Setnetting makes up approximately s9(2) of his current return from fishing. His vessel is not satisfactory for conversion to longlining. Local attempts to longline in the area have proved unsuccessful and unprofitable and at his age he does not consider a transition to longline to be viable. He will be forced to forgo any setnetting and focus on trawling to survive. The loss of the Tuhawaiki grounds will reduce his fishing opportunities to less than s9(2) of what he currently undertakes and leave him in a non-viable position. To maintain his profitability, he has had to release his crewman and now runs the vessel singlehanded. It provides a net return after expenses but before his wages of between s9(2)(b) and s9(2)(b) per annum. Given the TMP impacts, his vessel would be effectively worthless if he is unable to continue to trawl. With a family to support and no other major assets to sustain him, the impact of the trawl prohibition on top of the setnet prohibition will force him from the industry without an alternative livelihood.
 - Fisher B operates a small setnet/trawler vessel from Timaru, taking approximately s9(2) of his trawl catch from the Tuhawaiki area. The level of catch varies between s9() and s9() dependent on annual weather conditions. He also setnets in the October to December period to the north of Timaru but will lose that revenue under the TMP closure. That currently accounts for over s9(2) of his annual revenue and provides a higher net return for the effort. He recently purchased a larger vessel with the intent of continuing his setnetting and trawling activity, the larger vessel allowing him to operate more safely and fish further from his home port but requiring an additional crew member. Losing the Tuhawaiki area will decrease the number of days available to him to fish safely and force him to fish further out and change the portfolio he fishes for, dropping flatfish and increasing his red cod and barracouta catch. His profitability will decline.
 - Fisher C operates a small small setnet/trawler vessel from Timaru, taking approximately s9(2) of his trawl catch from the Tuhawaiki area. The level of catch varies annually between s9() and s9(2) dependent on weather conditions. Like the previous fishers, he also setnets in the October to December period but will lose that revenue under the TMP closure. That closure will reduce his net revenue by over s9(2). The Tuhawaiki closure would reduce his trawling opportunities to less

than s9(2) of a year and accordingly reduce his overall return. The loss of the area will place him in a non-viable position. He is currently having to assess other non-fishing options to provide a livelihood.

- Fisher D operates three vessels, one of which is primarily a set net vessel setting in the area to be closed under the dolphin TMP, one is a small trawl vessel fishing regularly in the Tuhawaiki area and the other is a larger vessel trawling outside the Tuhawaiki area. Like other setnetters, the fisher will effectively cease to use the setnet vessel. While he may try to set nets outside the 12nm and to the south of Timaru, his previous experience in those areas was for poor and patchy catches and continued operations in those areas is not viable. The loss of the inshore Tuhawaiki area will reduce the opportunity to use his smaller trawler in that space by around s9(2) of current trips. Without being able to have continued access to that water space, continued operations for his small trawler will not be viable. Those two vessels currently operate with a contracted skipper and crew, who will be redundant if the vessels are tied up. Neither vessel will have a commercial value and will not be able to be sold to recover existing debts on the vessels. While the fisher will continue operations using his larger vessel, his annual return will be reduced by around s9(2). His family has a history of 80 years' of fishing from Timaru in small vessels – that will come to an end if Tuhawaiki is closed.
- Fisher D operates a low-powered 15m trawler out of Timaru, taking approximately s9(2) of his catch from the Tuhawaiki area. The level varies between s9 and s9(2). He fishes intensively in the Tuhawaiki area, favouring it in rough weather when he is unable to fish further out.
- Fisher E operates a small 11m trawler out of Timaru, taking approximately s9(2) of his catch from the Tuhawaiki area. The level varies between s9 and s9(2). He fishes intensively in the Tuhawaiki area, favouring it in rough weather when he is unable to fish further out and it is the only place he can effectively target elephantfish and flounders. He fishes north of Timaru but finds the catches more sporadic. With a net having a 6 metre spread and only light trawl doors, his impact on the benthos is light. He has also tried to set net below Timaru but without success and has abandoned efforts to set net. The fisher is a young innovative fisher who has undertaken net innovations to reduce his bycatch of small and unwanted fish. With a young family and a vessel built in 1993, the fisher has chosen a career in fishing from Timaru. The closure will take over s9(2) of this fishing opportunities from him and force him to operate in more marginal conditions. He is uncertain if he will be able to profitably continue fishing in the future.

73. The proposed Tuhawaiki Marine Protected Area will have a significant effect for most of the fishers currently operating in the area. With the closure to setnetting of the space to the north of Timaru and the low abundance of rig outside the 12 nm boundary, fishers will need to concentrate their activities on trawling. The Tuhawaiki area represents a safe profitable fishery location in offshore westerly conditions for the smaller vessels. Without access to the area, some fishers will be unable to fish profitably. The effect of shifting effort to other regions where fishing may be economically viable will cause run-on effects to other fishers and localised fish populations, but also incur greater costs of travelling to those areas.

74. Our estimate is that the area has a catch of over s9(2)(b)(ii) per year. That catch will probably increase as setnetters impacted by the TMP closures focus their activity on trawling. The loss of the Tuhawaiki area would force operators to move their catch from the area to the area north of the proposed closure. The displacement of that effort to the north would quickly and seriously deplete the biomass in that area, forcing the operators into an unprofitable activity.

75. Based on fisher prices, we estimate the catch from the area to be worth over s9(2)(b) per year. With the loss of setnetting activity, we estimate that the level of trawl activity in the Tuhawaiki area would increase by over s9(2) increasing that loss of revenue to over s9(2)(b)(ii) per annum.
76. The loss of that catch and revenue to Timaru will impact on fish processors and service industries located in Timaru. Based on the catch value, we estimate the additional revenue losses in the processing and sectors will be in excess of s9(2)(b)(ii) We estimate that the catch from Tuhawaiki currently constitutes approximately s9(2) of the total finfish catch landed into Timaru from coastal setnet and trawl fishers but that percentage will increase to over s9() as effort is transferred from set netting to trawling.

Protected Species Considerations

77. The consultation notes that the area is significant for Hector's dolphins, little blue penguins, hoiho and a range of sessile invertebrates. Hector's dolphins are already protected by closures in the area and are managed under the Threat Management Plan and not these closures. It is estimated that there are less than 400 Hector's dolphins that would frequent the proposed closure and, with setnet already closed to 4nm, estimated deaths are less than 1 per year from trawling. There have been no recorded or reported captures of hoiho in the Tuhawaiki area with few if any juveniles transiting through the area. No hoiho are resident in the area.
78. Vessels operating in the South Island also operate under a set of Operational Guidelines for trawl and setnetting which include measures for the mitigation of risk to protected species.
79. The area is not critical to protected species and does not warrant closure for their protection.

Summary

80. In summary, we **oppose** the declaration of the Tuhawaiki area as a Type 2 MPA on the basis:
- The Minister has no power to prohibit fishing in such areas without justifiable cause;
 - The ecosystems and habitats in the area are not unique nor fragile for which protection is critical;
 - Commercial fishing does not threaten the long term viability or biodiversity of the ecosystems and habitats in the Tuhawaiki or wider Forum area;
 - The ecosystems and habitats are widely common throughout the South Canterbury-Otago region;
 - There are no protected species present which warrant additional protection;
 - The area is clearly identified as being an area of particular importance to the coastal fishing sector;
 - Closure of the area will have significant and unnecessary effects on the fishers who operate in that area, many of whom have already been seriously impacted by the Dolphin Threat Management Plan closures;
 - Closure of the area is inconsistent with Planning Principle 5 which states "Adverse impacts on existing users of the marine environment should be minimised in establishing MPAs"
 - Biodiversity protection is not a mechanism to restrict access to commercial fishing to enhance customary fishing;
 - The recommendation to close the area is in poor faith. The area consulted on was significantly smaller and had less impact. The Forum arbitrarily increased the scope of the area for reasons not justified but which appear to deliberately target commercial fishing.

Areas Waitaki Marine Reserve (B1) and Moko-tere-a-torehu MPA (C1)

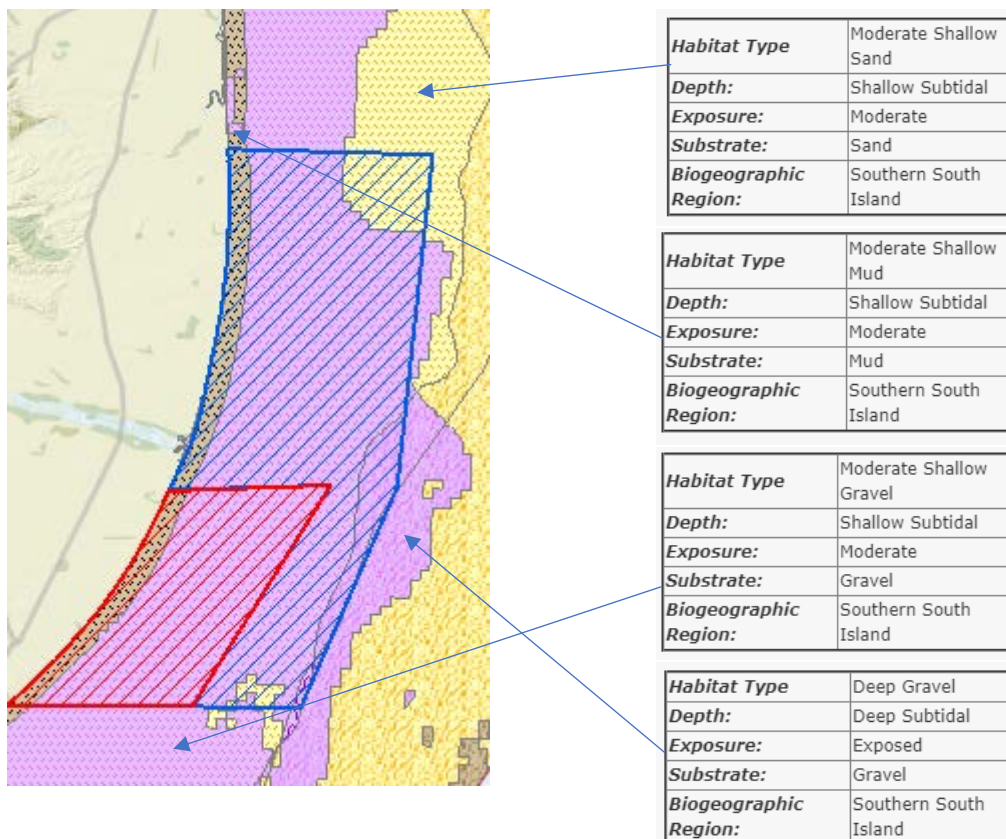
81. The proposed Waitaki Marine Reserve and Moko-tere-a-torehu Type 2 marine protection area cover a combined area of approximately 375km² being 10.7 km seaward and over 19 km along the coast, roughly centred on the Waitaki River mouth.

Habitat Considerations

82. The wider area consists primarily of gravels and some pockets of sand. There are some pockets of mud adjacent to the Waitaki river mouth. All of those habitats are common on the coast. None of the habitats or ecosystems or benthic fauna are unique or even uncommon for the coast. There are no special habitat considerations that warrant additional protection.

83. The area proposed for the Waitaki Marine Reserve consists of only two habitat types, gravel and mud. There is conjecture as to what might also be found in the area but without confirmation of presence, no decision to reserve the space should be taken. Since the area is not bounded by isolating structures, it does not constitute an ecosystem as such and has no apparent particular scientific value. Given the extent of agricultural development that has taken place on the Canterbury Plains and the runoff of nutrients and other agricultural impacts on the Waitaki River, the council will have no prospect of maintaining the site in a natural state for research, one of the regulatory prerequisites for marine reserves.

Waitaki Marine Reserve (B1) and Moko-tere-a-torehu MPA (C1) Habitat Map



84. The proposed MPA area consists largely of gravels, some small pockets of sand and a coastal fringe of mud. It is an area of relatively high turbulence where natural wave and current action continuously disturbs the benthos. That instability has resulted in there being no biodiversity structures such as kelp or rhodolith beds in the area. The fish species frequenting the area are

typical of those found elsewhere in the South Canterbury area, being largely transient and unconnected to any benthic feature. The level of fishing from both trawling and setnetting is light with setnetting being prohibited on the inner 4nm area.

Protected Species Considerations

85. Some Hector's dolphins frequent the area but the population is low and risks have been mitigated by the 2008 measures.
86. While one juvenile hoiho has been caught on in fishing activities in the proposed closure areas, there are no resident hoiho or nesting colonies. There are no other resident or nesting colonies of seabird species considered to be threatened by extinction. Little blue penguins are known to forage on occasions in the proposed MPA area but it is not their core area.
87. The low level of fishing activity in the area does not pose a material threat to protected species in the area.

Impact Considerations

88. MPI indicate that a total of 40 tonnes is caught annually in the combined area. Our estimate is slightly more than that estimate.
89. Two fishers are impacted significantly by the proposed closure. Both are setnetters, one operating from Moeraki, the other from Timaru.
90. The Moeraki fisher is significantly impacted and operates 3 vessels from Moeraki. He has setnet in the south of the area for many years. While he is impacted to a relatively minor degree by the Tuhawaiki closure, he is impacted by the proposed closure of these two areas. The two closures would see him lose access to over s9(2 of his set net grounds, s9(in the Waitaki Marine Reserve and s9(in the Moko-tere-a-torehu MPA.
91. He previously undertook a trial with MPI to longline for rig but found it to be most unsuccessful with low rig captures, high bycatch issues and higher cost structures and has not pursued the option further.
92. The South East closures will come on top of the loss of approximately s9(2 of his revenue from setnetting with the proposed Hector Dolphin Threat Management Plan closures. In aggregate, his net revenue will be decreased by over s9(2 as a result of the two initiatives. While he currently operates three vessels, it is likely that he will cease to operate one vessel, forcing that skipper and crewman out of the industry. It is unclear that even with those reductions in scope as to whether he will be able to survive as the area to be closed includes some of his most productive fishing on the gravel bottom.
93. He has fears that closures of other areas will see a movement of effort to the areas he currently fishes and see the overall profitability of his catch decline.
94. The Timaru based fisherman fishes more irregularly in the proposed closures. On average, he takes approximately s9(of his fish from that area but that varies between none and s9(2 That choice depends on the relative profitability of species being targeted and the prevailing weather conditions in the area.

Summary

95. We see no reason for the areas to be established as either a marine reserve or a Type 2 Marine Protected Area. The areas do not contain particular biodiversity to warrant being preserved for scientific research or sufficient biodiversity to warrant protection and the level of fishing activity is insufficient to pose any threat to the biodiversity.

96. In summary, we **oppose** the declaration of the proposed Waitaki Marine Reserve and Moko-tere-a-torehu Type 2 marine protection area on the basis:

- The Minister has no power to prohibit fishing in such areas without justifiable cause;
- The ecosystems and habitats in the area are not unique nor fragile for which protection is critical;
- The ecosystems and habitats are widely common throughout the South Canterbury-Otago region;
- The area proposed to be a marine reserve is effectively devoid of any attributes that would be conducive to a habitat or ecosystem targeted research interest;
- The inability of the regional council to control the influx of excess agricultural nutrients and waste from the Waitaki River precludes the ability to preserve the natural state of the area as a marine reserve;
- Commercial fishing activity levels are low and do not pose an adverse effect to the ecosystems and habitat in the area;
- Closure of the area will have a significant and unnecessary effect on the fishers who operates in that area;
- The recommendation to close the area is unnecessary and inappropriate.

Papanui Marine Reserve (H1)

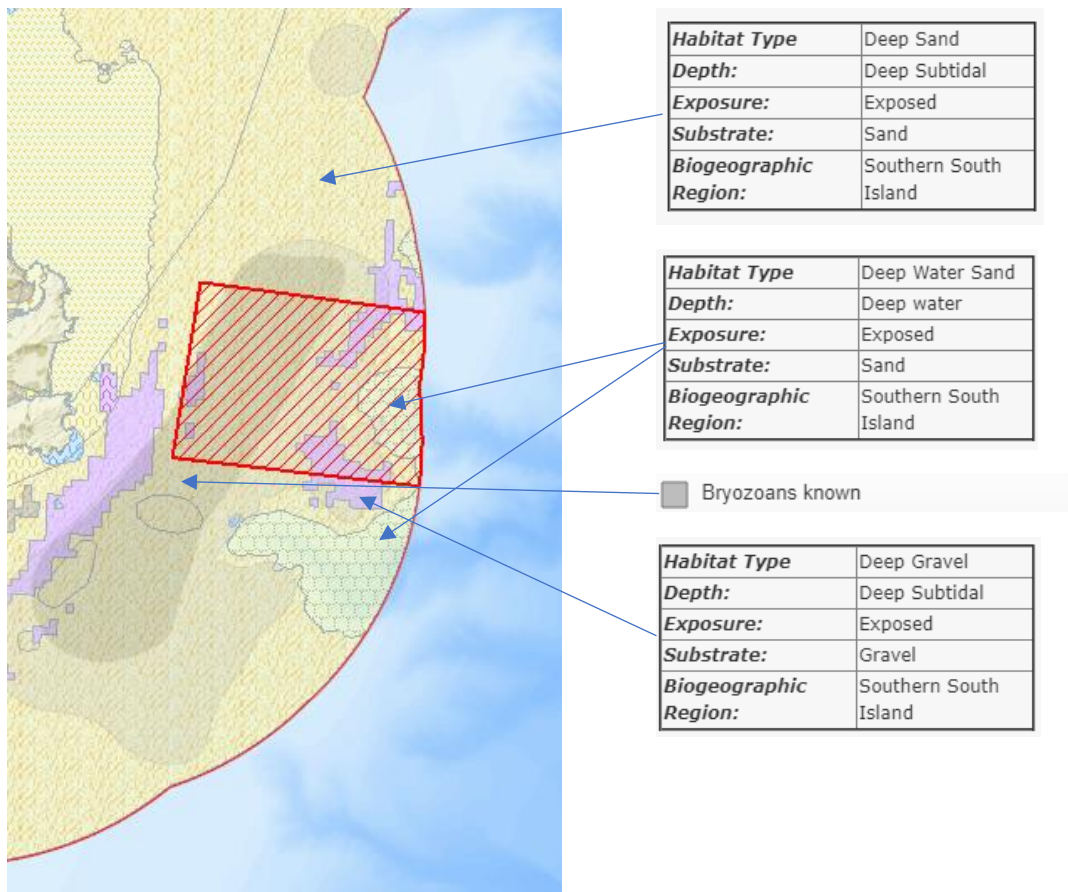
97. The proposed Papanui Marine Reserve is approximately 167 km² and lies offshore of the Otago Peninsula.

Habitat Considerations

98. The proposed reserve consists primarily of deep sand and gravel and contains the top of the Papanui deep water canyon and 30% of the bryozoan beds which stretch throughout the western side of the proposed marine reserve. It is enclosed on three sides by the proposed Kaimata Type 2 MPA.

99. Commercial fishers have a voluntary closure zone on the bryozoan beds.

100. The canyon is one of the few deep water canyons entering the territorial sea. The deep sand and deep gravel habitats are generally common throughout the Otago area.



101. The reserve and the MPA are effectively mirror copies of each other, each containing the same habitats, bryozoan beds and deep sea canyon heads. While the bryozoan beds warrant protection, the existing commercial closure provides that necessary protection.

Protected Species Considerations

102. While there are hoiho nesting colonies about the Otago Peninsula, hoiho appear to only forage in the northwest top and southwest bottom corners of the MPA and not in the proposed

reserve. Hoiho have been observed to favour gravel and sand beds for foraging grounds where they seek sprats, silverfish and other small pelagic fish. Video footage does not indicate the penguins foraging in the bryozoan beds, which afford their prey ample shelter, or wider in the proposed closure areas.

103. Similarly, sea lions have been observed foraging in the western fringes of the proposed closure areas but not wider into the closures. They do not appear to forage extensively in the bryozoan grounds.

104. There are no special protected species considerations that warrant the closures.

Impact Considerations

105. All commercial and recreational fishing is prohibited in a marine reserve and customary fishing would only be allowed for marae functions.

106. The consultation document indicates that the combined catch from the reserve area is approximately s9(2)(b)(ii) per annum worth a total of s9(2)(b)(ii). Our analysis of catch indicates the amount of catch has increased in current years and now averages around s9(2)(b)(ii) per year with a worth of over s9(2)(b) per annum.

107. There is very little trawl activity in the proposed area due to the rough bottom habitat. Set netting particularly for school shark is focused on the heads of the canyons and in the available area between the 4nm setnet prohibition zone and the western edge of the bryozoan beds. The head of the canyon is heavily used for the potting of ling. We are unsure as to why that activity is not reflected in the estimates of catch. There are approximately 120 sets of nets in the area each year, the majority of sets being in the September-November period when school shark fisheries are targeted.

108. There are three fishers who fish regularly in the proposed areas.

- Fisher A fishes from Carey's Bay. He fishes an average of 15 days each year in the proposed closure and takes an estimated s9(2) of his total setnet catch from the area. This totals around s9(2)(b)(ii) per annum, bringing an estimated revenue of over s9(2)(b) each year. In addition to the setnetting in the area, he also pots for blue cod within the area. He currently catches s9(2)(b) of cod each year in the area.
- Fisher B fishes from Carey's Bay and targets school shark and ling at the head of the canyons and to the west of the bryozoan beds. He takes an estimated s9(2) of his setnet catch and s9(2) of his pot ling from the proposed Papanui reserve. In total, over s9(2) of his revenue comes from the two proposed closures. If the two areas were to be closed, he would be forced to fish further afield in more open seas, reducing the days available for fishing and increasing the costs of accessing alternative fishing grounds.
- Fisher C fishes from Waikouaiti to the north of the proposed closures. He makes lesser use of the area for set netting but has significant potting for ling at the head of the canyon. That fishery provides him with around s9(2) of this fishing revenue. The risk to him is that if the proposed closures proceeded, the setnet effort displaced from within the closed areas would be re-located to the grounds he currently fishes and he would seek to relocate his potting activity to other canyons.

Fishers have a voluntary agreement in place to avoid the bryozoan beds. The evidence available to us indicates that fishers are observing that voluntary agreement and are going further than required by avoiding fishing in any bryozoan beds outside the voluntary agreement area.

Summary

109. We see no reason for the area to be established as a marine reserve. The area does not contain particular biodiversity to warrant being preserved for scientific research or sufficient biodiversity to warrant protection and the level of fishing activity is insufficient to pose any threat to the biodiversity. There is significant fishing activity in the area which would be prohibited by the closure.

110. In summary, we **oppose** the declaration of the proposed Papanui Marine Reserve on the basis:

- The Minister has no power to prohibit fishing in such areas without justifiable cause;
- The bryozoan ecosystems and habitats in the area are already protected by a voluntary industry agreement and a compliant fishing community
- Commercial fishing activity levels do not pose an adverse effect to the ecosystems and habitat in those areas;
- Closure of the areas will have a significant and unnecessary effect on the fishers who operate in those areas;
- The areas proposed are effectively mirrors of each other and encompass the Forum's total complement of bryozoan beds and canyon heads.
- The recommendation to close both areas is unnecessary and inappropriate

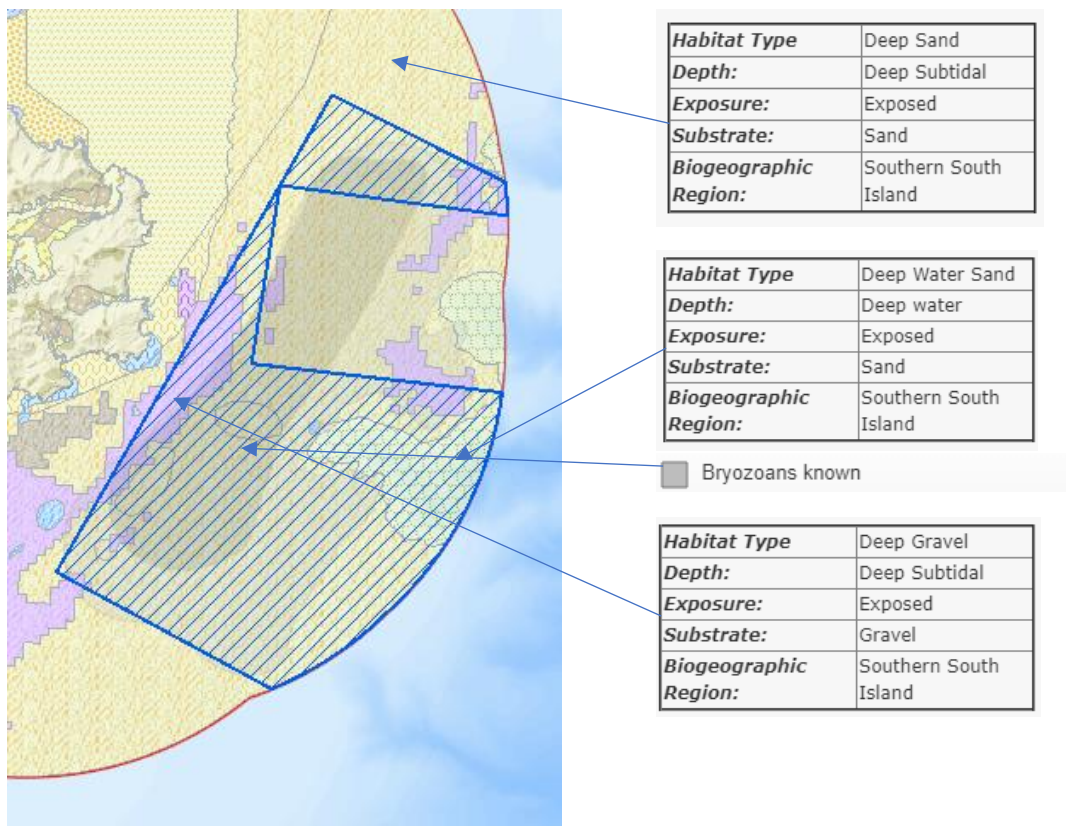
Kaimata Type 2 MPA (E1)

111. The proposed Kaimata Type 2 MPA is approximately 450km², and combined with the proposed Papanui reserve gives a total area of 600 km².

Habitat Considerations

112. The proposed Kaimata MPA includes the top of the Saunders Canyon and 65% of the bryozoan beds which stretch across the western area of the proposed MPA. Commercial fishers have a voluntary closure zone on the bryozoan beds.

113. The canyon is one of the few deep water canyons entering the territorial sea. The deep sand and deep gravel habitats are generally common throughout the Otago area.



114. The Papanui Reserve and the Kaimata MPA are effectively mirror copies of each other, each containing the same habitats, bryozoan beds and deep sea canyon heads. While the bryozoan beds warrant protection, the existing commercial closure provides that necessary protection.

Protected Species Considerations

115. While there are hoiho nesting colonies about the Otago Peninsula, hoiho appear to only forage in the northwest top and southwest bottom corners of the proposed areas. Hoiho have been observed to favour gravel and sand beds for foraging grounds where they seek sprats, silverfish and other small pelagic fish. Video footage does not indicate the penguins foraging in the bryozoan beds, which afford their prey ample shelter, or wider in the proposed closure areas.

116. Similarly, sea lions have been observed foraging in the western fringes of the proposed closure areas but not wider into the closures. They do not appear to forage extensively in the bryozoan grounds.

117. There are no special protected species considerations that warrant the closures.

Impact Considerations

118. The consultation document indicates that the setnet and trawling catch from the two areas is approximately s9(2)(b)(ii) per annum worth a total of s9(2)(b). Our analysis of catch indicates the amount of catch has increased in current years and now averages around s9(2)(b)(ii) per year with a worth of over s9(2)(b) per annum.

119. There is very little trawl activity in the proposed area. That activity tends to be focused on the deep sand in the north west corner of the proposed area, avoiding the bryozoan beds. Set netting particularly for school shark is focused on the heads of the canyons and in the available area between the 4nm setnet prohibition zone and the western edge of the bryozoan beds. There are approximately 130 sets of nets in the area each year, the majority of sets being in the September-November period when school shark fisheries are targeted.

120. There are three fishers who setnet regularly in the proposed areas.

- Fisher A fishes from Carey's Bay. He fishes an average of 40 days each year in the proposed closure and takes an estimated s9(2) of his total setnet catch from the area. This totals around s9(2)(b) per annum, bringing an estimated revenue of over s9(2)(b) each year.

In addition to the setnetting in the area, he also pots for blue cod within the area. He currently catches s9(2)(b)(ii) of cod each year.

- Fisher B fishes from Carey's Bay and targets school shark at the head of the canyons and to the west of the bryozoan beds. He takes an estimated s9(2) of his set net catch from the proposed Kaimata MPA. In total, over s9(2) of his revenue comes from the two proposed closures. If the two areas were to be closed, he would be forced to fish further afield in more open seas, reducing the days available for fishing and increasing the costs of accessing alternative fishing grounds.
- Fisher C fishes from Waikouaiti to the north of the proposed closures. He makes lesser use of the area and would not be impacted significantly by the closures. The risk to him is that if the proposed closures proceeded, the effort displaced from within the closed areas would be re-located to the grounds he currently fishes. That could impact more significantly in the September-November period when the fishers are targeting the school sharks migrating toward the coast.

Fishers have a voluntary agreement in place to avoid the bryozoan beds. The evidence available to us indicates that fishers are observing that voluntary agreement and are going further than required by avoiding fishing in any bryozoan beds outside the voluntary agreement area.

Summary

121. We see no reason for the areas to be established as a Type 2 Marine Protected Area. The area does not contain particular biodiversity to warrant being preserved for scientific research and the level of fishing activity is insufficient to pose any threat to the biodiversity.

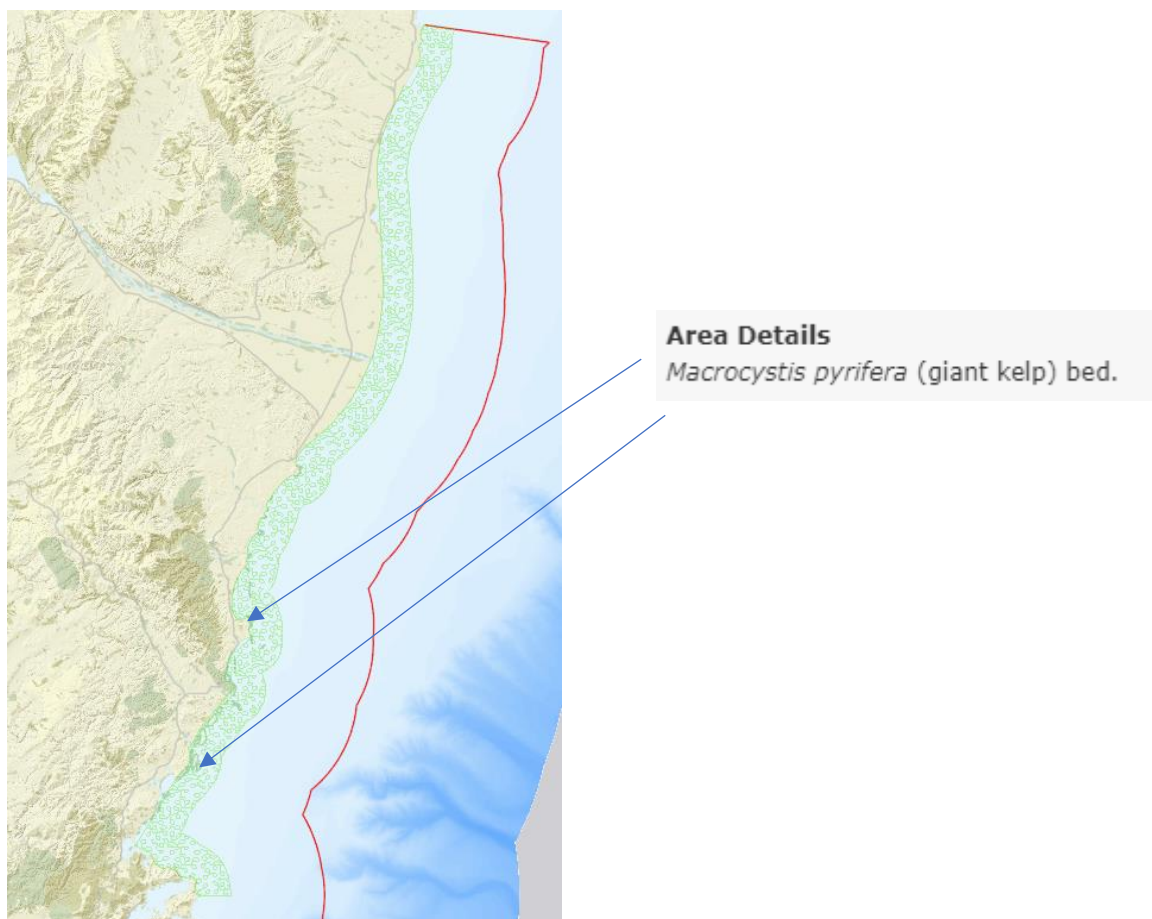
122. In summary, we **oppose** the declaration of the proposed Kaimata Type 2 MPA on the basis:

- The Minister has no power to prohibit fishing in such areas without justifiable cause;

- The bryozoan ecosystems and habitats in the area are already protected by a voluntary industry agreement and a compliant fishing community
- Commercial fishing activity levels are low and do not pose an adverse effect to the ecosystems and habitat in those areas;
- Closure of the areas will have a significant and unnecessary effect on the fishers who operates in those areas;
- The areas proposed are effectively mirrors of each other and encompass the Forum's total complement of bryozoan beds and canyon heads.
- The recommendation to close both areas is unnecessary and inappropriate.

The Arai Te Uru Kelp Protection Area

123. Giant kelp *Macrocystis pyrifera* is found primarily on hard rock surfaces on the coast or on shall reefs. There is only one known example of kelp growing on a gravel substrate in the low energy waters of Pegasus Bay on Rakiura. Kelp is not generally found on sand, mud or loose substrate in medium or high energy marine zones.
124. Research has indicated there is 18 km² of *Macrocystis pyrifera* in the South East Forum Area found on hard rock surfaces on the coast or on shallow reef close to the coast. The known beds are along the coast and are particularly found in the area between Oamaru and Warrington. The beds found in that area are both extensive and dense.
125. The proposal is to declare a kelp protection area stretching 271km along the coast and 5.6km seaward, an area of 1,491km² composed primarily of sand, gravel and mud in a medium to high energy flow. The proposed kelp area is shown as light green on the following map, the known beds are in the darker green. Kelp beds were previously known to exist on the reefs and rocky coast in the Catlins.



126. Other than on the coastal fringe hard reef structures, kelp has not previously been known to grow in the proposed Arai Te Uru closure area.

127. There is little current harvesting of attached kelp within the proposed protection area. However, the kelp beds between Oamaru and Warrington provide potential for significant sustainable harvest and plans are to commence harvesting in the near future. Sustainable harvesting does not result in a permanent loss of abundance or permanent reduction in density of canopy.
128. Some kelp caught is an incidental capture by trawlers of free-floating kelp which has become detached from reefs by high energy wave conditions. Fishers who catch the kelp indicate it is largely torn strands with no holdfast structures of gravel or loose material. If it does have holdfast anchors attached, it is not clear whether the kelp was detached by trawling or detached by other means, including natural means.
129. The consultation document does not specify whether the prohibition would apply on any harvest, targeted or incidental, of kelp. If incidental catch is not specifically excluded, the introduction of the protection area would preclude all trawling and Danish seining within the area.
130. There is no provision in the Fisheries Act that is appropriate to the prohibition of any harvesting of kelp in the proposed area. The sustainability of *Macrocystis pyrifera* more generally is protected through the QMS and the proposed closure is ill-founded.

In summary, we **oppose** the declaration of the proposed Arai Te Uru Kelp Protection Area on the basis:

- The Minister has no power to prohibit fishing in such areas without justifiable cause;
- The vast majority of the area is not suitable habitat for the growth of giant kelp and kelp is not known to have grown historically on the gravel and sand base.
- Kelp harvesting is a sustainable form of harvesting.

From: [Lucy Jacob](#)
To: [SEMP; Rebecca Bird; SEMP](#)
Cc: s9(2)(a)
Subject: WWF NZ Submission on the proposed MPA network in the South East region.
Date: Wednesday, 5 August 2020 2:54:13 PM
Attachments: [WWF_SEMPF_submission_FINAL_5_Aug_2020.pdf](#)

Dear Rebecca,

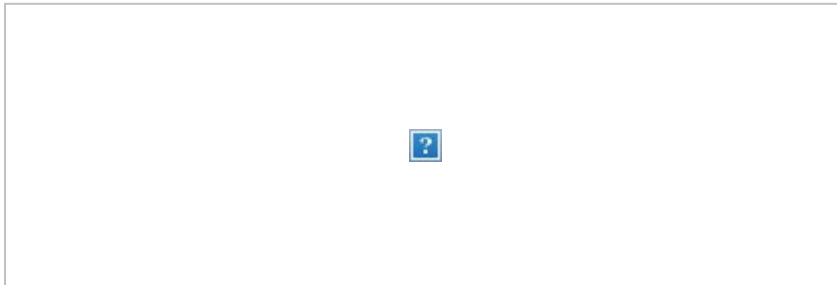
Thank you for the opportunity to submit this after the deadline.

We have enjoyed the opportunity to review the proposals and we hope that our submission is of interest and useful.

Please don't hesitate to come back to us if you have any questions.

Nga mihi

Lucy



Lucy Jacob MSc (Marine Environmental Protection), BSc

Ocean Programme Manager

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T : +s9(2)(a)



WWF - New Zealand Submission on the proposed Southeast Marine Protected Areas

Wednesday 5th August 2020

Submitted via email to southeast.marine@publicvoice.co.nz

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WWF - NZ – New Zealand**

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WWF - NZ New Zealand Submission on the proposed Southeast Marine Protected Areas

The Worldwide Fund For Nature - New Zealand (“WWF - NZ”) welcomes the opportunity to submit on the proposed southeast marine protected areas network in the South Island of Aotearoa New Zealand.

1 Executive summary of recommendations

The Government is consulting on a network of Marine Protected Areas (“MPAs”) for the south eastern region of the South Island that were put forward by the South East Marine Protected Forum, a complex collaborative stakeholder led process initiated in 2014.

One of the most effective ways to protect and restore biodiversity, build resilience in our ocean and for the health of our economy and wellbeing of our people is to establish a meaningful, well-connected, and representative network of marine protected areas. If this is done in the right way, that respects the rights of tangata whenua, and the principles of Te Tiriti o Waitangi are upheld, then all of Aotearoa New Zealand can benefit.

WWF – NZ advocates for the creation of a meaningful network of representative MPAs throughout Aotearoa subject to the rights of indigenous people and local communities. WWF – NZ’s goal is that our ocean is thriving and resilient, with at least 30% of each marine habitat within a network of highly protected areas and other effective area-based conservation measures (including Māori cultural practice).

The proposed network includes five marine reserves (the highest protection level), six type-2 MPAs (partial protection) and one kelp protection area. The network has not fully met the MPA Policy requirements and best practice design principles as it does not adequately protect or replicate all habitat types. Despite these limitations, if the entire proposed network is implemented, it will significantly progress marine protection in Aotearoa New Zealand. WWF-NZ acknowledges the incredible efforts that has gone in to get to this point.

1.1 WWF-NZ position on Proposed Network 1

WWF – NZ supports implementing the proposed network 1 in full.

1.2 Recommendations on Specific MPA Proposals

- MPI and DOC consider an extension of the western boundary of Kaimata Type 2 MPA to match up with existing fisheries regulations.
- WWF – NZ’s recommendation to improve the MPA network is that the Department of Conservation and Fisheries New Zealand continue to work with Kāi Tahu, local communities and others to;
 - a. progress the existing applications for mātaītai at Tautuku and Otara as these could provide benefits of protection in areas that are not currently well protected and uphold the rights and aspirations of tangata whenua.

- b. Support discussions to establish at least one customary fisheries management area(s), such as a mātaihai or rāhui, or other measures. For example, in the Catlins region as this important area has no protection, and the Waitaki river mouth, which could complement the existing marine reserve proposal.
- WWF-NZ recommends careful monitoring and engagement with tangata whenua, and local communities, including fishers to consider creating a buffer around Hākinikini Marine Reserve.

1.3 General Recommendations for the Network

- Work with Kāi Tahu and other Iwi in the area to develop effective mechanisms for co-governance and co-management of all proposed marine protected areas by tangata whenua and the Crown.
- Establish a robust monitoring framework for each MPA that includes parties working
 - a. in a co-management framework with tangata whenua, alongside local communities, and fishers potentially affected by the establishment of each MPA.
 - b. prioritise assessing the displacement of fishing effort, monitoring the edge effects and effectiveness of reserve boundaries, and fisheries benefits of marine protection, such as ‘spill over’. This will be useful for determining future management of the MPAs, and will also be useful for the future design of MPAs in Aotearoa.
- Support a 25-year generational review for all the MPAs in the network. This recommendation is an acknowledgement to Kāi Tahu and the importance of each generation being engaged in a review of the effectiveness, performance, and future direction of MPAs, and to enable adaptive management responses to monitor changes.
- Support exceptions for no-take marine reserves that are defined by mana whenua to allow Kāi Tahu to take or disturb life for special occasions such as wānaka, provided this will not significantly impact the ecological integrity of the marine reserve.
- In general WWF-NZ recognises that set-nets are a significant threat to threatened marine species including whakahao / rāpoka (New Zealand sea lions), hoiho (yellow-eyed penguin) and pahu (Hector’s dolphins) in the region and supports the removal of set nets from coastal waters where ever possible.
- Incorporate endangered species foraging habitats within SEMPA and the benefits of protecting these areas against the costs of not protecting them in the final advice to the Ministers.
- WWF-NZ supports the forfeiture of all petroleum exploration permits within the SEMP region, due to the potential negative impacts that this activity can have on endangered and vulnerable species in this area, and the quality and health of the ecosystems they rely on.

2 Context

2.1 The importance of marine protection in Aotearoa New Zealand

Aotearoa New Zealand has one of the largest marine areas (Exclusive Economic Zones) in the world, with diverse coastlines and ecosystems and an extraordinarily rich and unique array of animals, plants, and habitats. Our ocean is central to our identity. For Māori, te moana is a source of whakapapa, the sea and its bounty is a Taonga Tuku iho, a treasure that has been passed down from previous generations and for that reason it must be looked after to pass to future generations. Our ocean supports both people and our economy¹.

Thirty percent of Aotearoa New Zealand's biodiversity is in the sea, but the health of our marine environment is in serious trouble as species and habitats decline². It is estimated that 22% of marine mammals, 90% of seabirds and 80% of shorebirds are threatened with, or at risk of, extinction². Our ocean is facing increasing and cumulative threats² from anthropogenic impacts such as oil and gas exploration, overfishing, destructive fishing, increasing population pressures, land-based impacts, alongside the impacts from climate change, such as ocean acidification, coastal erosion and sea temperature rise.

The best way to build a healthy ocean that is resilient against the multiple and cumulative stressors, is to restore and maintain biodiversity. Each unique species has a role in an ecosystem and species richness helps to build resilience. When species disappear, ecosystems become vulnerable to stresses, and at risk of change and regime shifts. The most effective way to build and protect biodiversity is to establish an effective, well connected, and representative network of marine protected areas (MPAs)³. Scientists around the world are calling for marine protection on a greater scale, such as 30% by 2030^{4,5}, to match the scale of the threats affecting the health of our marine environments^{6, 7}. MPA networks that are ecologically coherent and protect 30% of each habitat type are expected to contribute significantly to the recovery of marine biodiversity⁴, whilst also building resilience to climate change and supporting sustainable fisheries⁸

Beyond benefiting the integrity of marine life within the ocean, marine protection protects the wellbeing of people, and the history of marine protection in Aotearoa stretches back to the indigenous people that first inhabited Aotearoa. In Te Ao Māori, we are not just part of the ecosystem, we are intricately related in kinship to all other living things. We are part of a network of life and death, imbued with spirit that extends in the past and into the future. In

¹It is estimated that the marine economy added \$7 billion to our economy in 2017 and employed more than 30,000 people (Ministry for the Environment, 2019).

²Ministry for the Environment & Stats New Zealand (2019)

³ Callum et al. (2017)

⁴ O'Leary et al. (2019)

⁵ Reuchlin-Hugenholtz, and McKenzie (2015)

⁶ Edgar et al. (2014)

⁷ Global Ocean Legacy (2010)

⁸ Green et al. (2014)

this world view, the mauri (life force essence) of a healthy moana enhances the mauri of those who interact with it.

Māori believe that being good kaitiaki (guardians) and adopting certain practices means the ocean will continue to provide for many generations to come. Sustainable use of the marine environment must not harm the mauri of the area or species. Mauri of an area or ecosystem is in part made up of the different mix of living things there. If there is evidence mauri has been harmed, for example, a fish stock is overfished or a habitat is degraded, this must be restored, in order to, protect the mana of those charged with kaitiaki responsibilities. A rāhui (protected area / closure), or mātaihai (customary fisheries management tool) may be put in place or some other actions to enable the integrity of the fish stock, habitat, or wider ecosystem to be restored. In this way, traditionally in Aotearoa New Zealand, active and effective fisheries management included elements of marine protection.

To summarise, the task of establishing a network of effective marine protection is of the utmost importance for the health and resilience of our ocean, and the economic, spiritual, and cultural wellbeing of people. If it is done in the right way, that respects the rights of Māori, the principles of Te Tiriti o Waitangi can be upheld and all of Aotearoa can benefit.

2.2 WWF - NZ's goals for Marine Protection

WWF – NZ advocates for the creation of a meaningful network of representative MPAs throughout Aotearoa New Zealand subject to the rights of indigenous and local communities. WWF – NZ's goal is that our ocean is thriving and resilient, with at least 30% of each marine habitat protected within a network of highly protected areas and other effective area-based conservation measures (including Māori cultural practice).

Decisions about marine protection should be based on the best available science and best practice design principles while recognising and promoting indigenous practice, knowledge, and leadership. Alongside advocating for meaningful marine protection throughout Aotearoa, WWF - NZ is advocating for fisheries reform, which would result in more integrated and holistic management from 'reef to ridge'⁹. This means Treaty based co-governance, cross-sectoral collaboration, and strong science and monitoring that includes mātauranga Māori – allowing Te Ao Māori to enrich the cultural values at the core of fisheries management. What we would see is a movement towards Ecosystem Based Management (EBM) of fisheries and the marine environment.

3 General comments about SEMPA process

3.1 Best practice MPA principles

The Department of Conservation's MPA Policy and Implementation Plan¹⁰ sets out principles based on Aotearoa New Zealand's international agreements and science. WWF – NZ supports

⁹Leathers (2020)

¹⁰ Department of Conservation (2005)

these principles¹¹ that the South East Marine Protected Forum was required to use as they align with internationally recognised best practice MPA design principles.

In addition to these principles WWF - NZ recommends¹² the Crown works alongside tangata whenua to identify appropriate management that supports kaitiakitanga and Mātauranga Māori, in accordance with tikanga Māori to restore our ocean and ecosystem health.

WWF - NZ also recommends that it is essential to have effective management and monitoring of all marine protected areas. This management should address all impacts to the areas, not only those caused by fishing, and will therefore require effective collaboration between authorities, communities, and policies. We urge a management regime that is adaptive, inclusive and can respond to information that comes from monitoring or other sources. This is particularly important in the face of climate change impacts and implications.

3.2 The collaborative process of the South East Marine Protected Areas Forum

WWF – NZ acknowledges the significant work it has taken to reach this point in the SEMPA process. The South East Marine Protected Forum (“SEMPF”) has worked on this for six years in a complex stakeholder-led collaborative processes¹³. This process shows establishing MPAs takes time, that strong leadership and commitment is required and that it is not always possible to reach a consensus between all parties.

The Forum went through a robust science and knowledge gathering process and identified over 100 important areas. In 2016 after further investigation and negotiation the Forum recommended 20 MPAs (sites) for public consultation. The Forum reviewed submissions, science, values, policy and after significant negotiations and concessions agreed on a network design. The Forum was not able to reach consensus so put forward two options (Network 1 and Network 2), in the 2018 recommendations report¹⁴ to the Minister of Fisheries and Minister of Conservation. After a robust assessment by the Department of Conservation (“DOC”) and Fisheries New Zealand (“FNZ”) against policies, legislation, and socio-economic values and impacts, both Ministers agreed to progress Network 1 as it best met the objectives of the MPA Policy and are seeking feedback on this.

¹¹ Department of Conservation & Fisheries New Zealand (2020)

¹² WWF - NZ (2016)

¹³ In 2014 the South East Marine Protected Forum was established to collaborate and put forward a consensus network of MPAs that were consistent with the MPA policy and guidelines and the purpose of the Marine Reserves Act, using the best available information and incorporating Kāi Tahu’s rights as mana whenua under Te Tiritiri o Waitangai. Forum members represented Kāi Tahu, commercial and recreational fishing interests, conservation advocates, tourism interest and local communities. The Forum was supported by both the Department of Conservation and Fisheries New Zealand.

¹⁴ South East Marine Protected Forum (2018)

3.3 The importance of an authentic Treaty Partnership approach

WWF- NZ wants to acknowledge the special relationship the Crown has with Māori and Kāi Tahu. WWF – NZ supports the aspirations of tāngata whenua and recommends New Zealand’s Marine Reserves Act is reformed to effectively enable authentic Treaty partnership¹³.

In all of its policy and legislation to protect and restore the marine environment and control the sustainable use and development of it, the Crown must, to the greatest extent practicable, protect the authority of iwi and hapū in relation to tāonga, to enable the practice of tino rangatiratanga and kaitiakitanga¹⁵.

Current marine reserves and fisheries legislation does not achieve “authentic partnership” with equal “political authority”¹⁵. A Rāhui or customary fisheries regulations enable (to some extent) tikanga and Mātauranga Māori in defined marine areas, but this falls short of genuine co-governance due to the requirement for most decision-making to be approved by the Crown¹⁵.

WWF - NZ supports:

- The Forum’s proposed co-management of MPAs by Kāi Tahu and the Crown¹³.
- The Forum's recommendation for a 25-year generational review for all the MPAs in the network. This recommendation is an acknowledgement of the importance of each generation being engaged in a review of the effectiveness, performance, and future direction of MPAs, and to enable adaptive management responses¹³.
- Exceptions for no-take areas that are defined by mana whenua to allow Kāi Tahu to take or disturb life for special occasions, such as wānaka, provided that this does not adversely impact the ecological integrity of the reserve.

¹⁵ Waitangi Tribunal (2011)

4 Comments and recommendations on specific SEMPA proposals

This section first comments on the proposed network, then answers the consultation questions (in the online submission template) sought for each of the proposed marine reserves and marine protected areas.

4.1 Proposed South East Marine Protected Forum (SEMPF) Network

The SEMPF area is located along the southeast coast of the South Island from Timaru in the North to Waipapa Point in the South and is 8968km². The Government is proposing to establish a network of MPAs with six marine reserves (4.5%¹⁶ of the area), five type-2 MPAs and one kelp protection area (Figure 1)

WWF – NZ supports implementing the proposed network in full, with several recommendations for consideration of future monitoring and management outlined below.

WWF-NZ has several overall comments on the proposed Network of protection:

- The network did not fully meet the MPA Policy¹⁷ requirements and best practice design principles by not adequately protecting or replicating all habitat types.
- WWF – NZ acknowledges the complex process, challenges, concessions, and importance of recognising and upholding the rights of Kāi Tahu, as mana whenua and other tangata whenua in this area.
- WWF-NZ supports the Government working alongside Iwi to progress future applications for mātaihai or other indigenous management tools, in areas such as the Catlins where there is currently no proposal for protection or at Waitaki river mouth, which could complement the existing marine reserve proposal.
- WWF-NZ supports tangata whenua and the Government in progressing the establishment of mātaihai at Tautuku and Otara, as these could provide additional benefits from their protection and could further add value to the proposed network of marine protection.
- In general WWF-NZ recognises that set nets are a significant threat to threatened marine species including whakahao / rāpoka (New Zealand sea lions), hoiho (yellow-eyed penguins), and pahu (Hector's dolphin) in the SEMPA area and supports the removal of set nets from coastal waters where ever possible.

¹⁶ Calculation based on the values used in the appendices to the consultation document. Total SEMPF area = 8968 km², Total proposed marine reserves = 404 km² (Waitaki = 101.3 km², Te Umu Koau = 96 km², Papanui = 167 km², Orau = 28.8 km², Okaihae = 5 km² and Hakinikini = 5.9 km²)

¹⁷ Department of Conservation (2005)

- WWF – NZ acknowledges there are some significant gaps in the cost and benefits analysis, including detail about how MPAs will benefit threatened marine species and surrounding fisheries. While the MPA Policy directs a habitat focus, the use of the area by seabirds and mammals is an indicator of its high biodiversity values. Understanding the benefits to fisheries from MPAs is important when decision makers are weighing up short term adverse economic effects over long term benefits.

WWF – NZ acknowledges there are some significant gaps in protection and these are highlighted in more detail below.

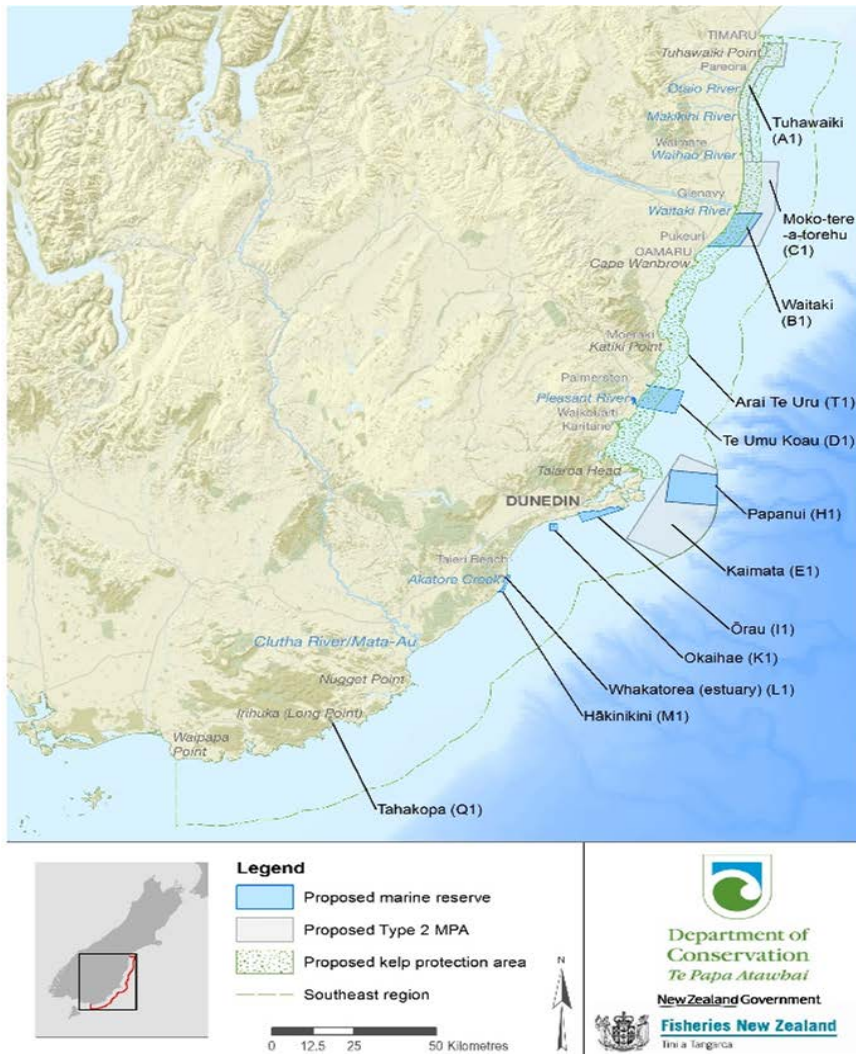


Figure 1: Proposed MPA Network¹⁰

4.2 Option 1: Maintaining the status quo, no protection provided

WWF – NZ does not support Option 1.

WWF – NZ agrees partly with the analysis and effects of maintaining status quo (no protection). What has not been highlighted in the analysis is;

- Failing to uphold the principles of Te Tiriti o Waitangi to enable kaitiakitanga and restore the mauri within the southeast region.
- The loss to biodiversity (beyond habitats) should the southeast region not have any form of protection including endangered, threatened, and protected species.
- The potential financial impact to commercial fishers if coastal fish stocks decline due to overfishing and or destruction of important juvenile biogenic habitat (which could have been protected).
- The potential financial impact to Aotearoa New Zealand’s ‘clean, green sustainable’ brand for failing to meet international marine protection obligations, which could also impact commercial fisheries export markets.
- The potential benefit to recreational fishers (through protection spill-over and larval dispersal effects)
- The delayed protection effect - given Aotearoa New Zealand’s MPA history, should protection not be established it will likely be decades or more before any adequate protection is put in place.
- Given the climate crisis Aotearoa New Zealand (and the world) is facing, the resilience benefit from this network of protection.

4.3 Option 2: Establish the proposed network (and Costs and Benefits)

WWF – NZ supports the establishment of the network in full, provided it upholds the rights of indigenous people and local communities.

If the primary objective was to maximise biodiversity protection, the network would have significant portions of all habitat types and ecosystems represented and replicated, including important foraging grounds of protected, endangered, and threatened species. However, WWF – NZ acknowledges that MPA processes are complex, with multiple objectives at play, and require gifts and gains and significant negotiations. The Forum worked hard to reduce the adverse effects on existing users, such as customary, recreational, and commercial fishers¹³ while seeking to meet the MPA Policy. As a result of the complex negotiations, considerations and concessions made, there are several limitations we would like to highlight include:

- The network does not meet the MPA policy, best practice design principles^{11,10,18} and Aotearoa New Zealand’s domestic and international obligations.

The network does not adequately represent or replicate the full range of habitats (or ecosystems) found in the SEMPf area.

- There are no marine reserves proposed for the Catlins region. WWF-NZ recommends that the Government support tangata whenua and local communities with progressing protection for this area.
- Four habitats have no protection (sheltered shallow sand, sheltered shallow reef, sheltered sandy beach and sheltered intertidal reef) and eight habitats are poorly represented, including deep reef, moderate intertidal reef, moderate sandy beach, deep sand, deep gravel, exposed shallow sand, deep mud, estuarine.
- Type-2 MPAs do not complement existing fisheries management boundaries and could cause confusion and non-compliance.
- The protection of ‘outstanding, rare, distinctive or internationally important marine communities or ecosystems’, including tube worm mats, bivalve beds, sponge gardens, and sea tulips, is unknown due to insufficient data on their occurrence¹⁴.
- Despite these limitations, if the entire proposed network is implemented it will significantly progress marine protection in Aotearoa New Zealand, and the region will have some of the largest marine reserves and type-2 MPAs around the mainland. The MPA network will not only improve biodiversity and ecosystem services through habitat protection, it will provide important scientific reference areas, enable public enjoyment, support fisheries, add value to the economy, and importantly help provide opportunities for partnership between the Crown and Kāi Tahu (and tangata whenua) to enable kaitiakitanga to manage and restore the mauri within the southeast region.

Costs & Benefits analysis

WWF – NZ agrees in general with the costs and benefits analysis in the consultation documents with the exception that it does not detail:

- How some costs (such as the estimated financial impact on commercial fishing) could be mitigated and reduced.
- The potential fisheries benefits of MPAs (e.g. spill over/larval dispersal effect, or potential increases in future quotas, or possible increases in recreational bag limits, as abundance is restored).
- Analysis of wider ecosystem service benefits resulting from the protection, including social and cultural values.

For each of the individual MPAs reviewed below, supporting material can be found in Appendix 1 – Cost and Benefits of Marine Protection and Appendix 2 - Threatened Marine Species for supporting material.

¹⁸ Ballantine (2014)

4.3.1 Type-1 MPAs

Waitaki Marine Reserve (B1) – Figure 2

WWF – NZ supports the establishment of Waitaki marine reserve in full.

WWF – NZ further proposes additional protection for the habitat and/or critical and vulnerable species around the Waitaki river mouth. This could be in the form of traditional management such as Mātaitai or other management tool.

Design:

The proposed marine reserve is a good design and size. It has clear boundaries and follows the coastline. It extends offshore 4.5– 5.4 nautical miles and does not cut through any known biological systems (e.g. reefs). From a compliance view, the straight-line design will aid enforcement and reduce boundary confusion (Figure 2)

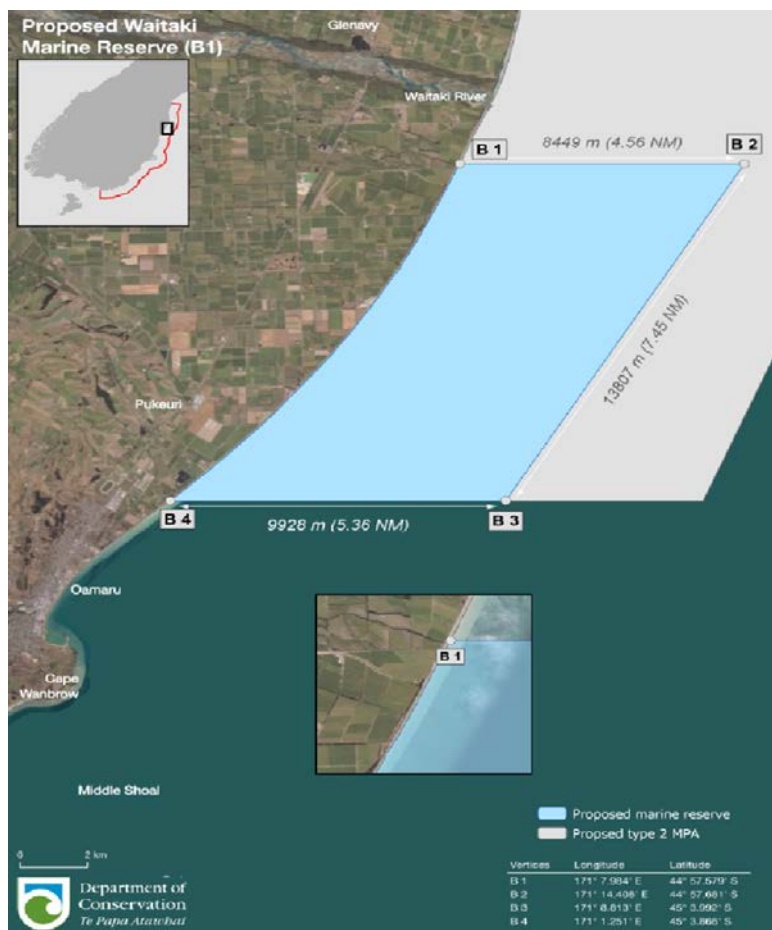


Figure 2: Proposed Waitaki Marine Reserve¹⁰

WWF – NZ supports the size and location of the reserve. Further concessions, such as a reduction in size could compromise the biodiversity gains.

Costs & Benefits

WWF – NZ acknowledges the importance of the Waitaki river mouth and surrounding waters to Kāi Tahu and others, such as recreational fishers particularly salmon fishers

WWF – NZ supports the benefits and costs listed, however there are several limitations. The benefits of protecting species foraging grounds and juvenile fish habitat (including potential spill over and economic value) should be adequately conveyed in the final advice to Ministers alongside the habitats this reserve will protect to ensure the best available information is used by the Ministers when balancing the costs and benefits, particularly the adverse economic effects on fishing.

Limitations of costs and benefits analysis:

- The importance of these waters as coastal foraging grounds, particularly the river mouth for species such as pahu (Hector's dolphins) and seabirds such as kororā (little penguins) and hoiho (yellowed-eyed penguins) and the value of protecting these areas. The area was historically known to have some of the highest densities of squat lobsters, which represent an important food source for fish, marine mammals and birds¹³.
- The potential fisheries benefits of this reserve. The reserve includes important high value biogenic habitat and kelp beds likely to be important for juvenile fish¹³. There is no recognition of the potential economic benefits of protecting the nursery and or breeding grounds for fish. If the research does not exist, agencies should prioritise getting it as the potential fisheries benefits from MPAs should be adequately included in the final advice to Ministers.
- The natural value of the area around the river mouth. Environment Canterbury designated it an area of significant natural value¹⁹.
- Recognition that the location of the reserve which starts several kilometres south of the Waitaki river mouth means it does not adequately protect the biodiversity of gravel beaches and subtidal cobble fields as it does not protect the river mouth where the majority of the freshwater influence (mixing) occurs¹³.
- The predominately north flowing current could reduce the potential benefit of the rich river mouth waters, as these waters would flow north away from the proposed marine reserve.

As discussed in the SEMP analysis¹³, WWF – NZ understands that there is little commercial fishing likely to be affected by the proposed marine reserve, given Danish seining is already prohibited out to the 3nm boundary and no commercial dredging, potting or pāua diving occurs in this area. Therefore, the cost (fishing displacement) of this reserve is likely to be minimal.

WWF - NZ recognises the analysis that the proposed marine reserve is unlikely to adversely affect recreational fishers, given most of their fishing occurs at or within the Waitaki river mouth¹³.

¹⁹ Environment Canterbury Regional Council EPlan

Te Umu Koau Marine Reserve (D1) – Figure 3

WWF – NZ supports the establishment of the Te Umu Koau marine reserve in full.

Habitats within this reserve are of national ecological importance and should be protected.

Based on the Forum’s assessment, WWF – NZ recognises that this site represents the best balance between reducing the impact on existing users and protecting important representative habitats that provide critical ecosystem services. Without this site (which partially includes a deep-water reef system) the network would not meet the MPA Policy (planning principle 5)^{17, 13}. We acknowledge this was a difficult proposal to work through due to potential impacts on fishers²⁰. The Forum investigated alternative locations along the coast but were unable to find an alternative with such a diverse range of interconnected habitats, without similarly affecting commercial fishers¹³.

Design:

The proposed marine reserve is a good design and size. It has clear boundaries and follows the coastline and includes both estuaries (Figure 3). It extends offshore just over 5.7 – 6.5 nm. Our key concern with the design of this reserve is that the offshore boundary crosses through a deep-water reef¹³. Studies have found that such designs can increase edge effects and impact on how quickly some species can recover and/or increase in abundance, such as rock lobster^{21, 22, 23}.

The proposed partial protection of the deep-water reef allows fishing to continue within the greater reef system. However, we do not support any further concessions, such as a reduction in size, as this could significantly compromise the biodiversity gains, especially if the deep-water reefs are excluded.

The straight-line design of this MPA will aid compliance and enforcement and reduce boundary confusion.

WWF – NZ supports the inclusion of both estuaries and the benefits listed.

²⁰ There are a number of commercial fisheries including kōura papatea (rock lobster), rawaru (blue cod), pātiki (flatfish), kumukumu (red gurnard), moko repe (elephant fish) and blue moki that could be potentially affected at varying levels by the proposed marine reserve. Given the value of kōura papatea quota, it is the most significant species to potentially be affected¹³. It is estimated (based on 2017 values) that up to \$1.84 million of kōura papatea/ rock lobster could be affected¹⁰.

²¹ Shears et al., (2006)

²² Goni, Quetglas & Renones (2006)

²³ Edgar et al. (2014)



Figure 3: Proposed Te Umu Koau Marine Reserve¹⁰

Costs & Benefits:

WWF – NZ supports the many benefits listed and agrees that this site is consistent with the Marine Reserves Act in that the natural features and habitats within the reserve are “*typical, or beautiful, unique and that their continued preservation is in the national interest*”^{10, 24}.

Te Umu Koau is one of the most unique sites in the whole network given the diverse range of natural features and habitats it covers from deep and shallow reef, sand, estuarine and a range of biogenic habitats, including giant kelp forests¹³. This reserve is likely to have exceptionally high biodiversity values.

²⁴ Marine Reserves Act 1971 <http://www.legislation.govt.nz/act/public/1971/0015/latest/DLM397838.html> Section 3(1)

Te Umu Koau is the only marine reserve in the SEMP network to protect an example of deep-water reefs. It is estimated that there is 163km² of deep-water reef within the region¹³. Te Umu Koau as proposed will protect 2.7% (4.5km²) of these deep-water reefs.

While analysis of many benefits has been provided, there are some important limitations in the analysis, and we recommend Ministers are provided the important information listed below.

Limitations of costs and benefits analysis:

- The benefits and importance of these waters as coastal and pelagic foraging grounds, and the coastline as breeding and haul out grounds for protected, endangered or threatened seabirds and marine mammals. For example, these waters support a range of threatened species such as hoiho (yellow-eyed penguin), red-billed gulls, white and black fronted terns, Otago shags, fur seals, whakahao / rāpoka (New Zealand sea lions), and pahu (Hector's dolphin). Hoiho have significant foraging ranges. Tagging studies confirm this proposed marine reserve will cover some, but not all the important foraging habitat²⁵.
- The potential fisheries benefits of this reserve. The reserve includes deep-water reefs and giant bladder (Macrocystis) kelp forest which provide critical ecosystem services¹³. These kelp forests are important settlement and nursery grounds for numerous fish and kōura papatea (rock lobster)¹³. There is no recognition of the potential economic benefits of protecting nursery grounds, yet fisheries benefits from marine reserves have been well documented^{26,27,28} on coastal rocky reef species like snapper and kōura papatea²⁹. If more research is needed to assess the potential fisheries benefits from MPAs, then agencies should prioritise this as a next step.
- The potential benefits to the recreational (non-fishing) and tourism sector.
- The significant benefits and scientific research opportunities this reserve offers, such as studying the behavioural response of Otago kōura papatea and other fish to partial reef protection
- Te Umu Koau will provide excellent opportunities for promoting Aotearoa New Zealand internationally
- The marine reserve does not follow best practice design principles due to the fact the offshore boundary cuts through a reef system to avoid closing the whole reef to commercial fishing. This should allow fishing of kōura papatea to continue within the greater reef system, thus reducing the impact on fishers¹³. Kōura papatea are migratory and are also likely to be available at some other stage of their life when they move outside the reserve. This potential benefit for fishers should be conveyed in advice to Ministers.
- Adverse economic effects (primarily on commercial fishers) have been described, but there is no supporting information on the likelihood of displacement (to other areas) or the ability to reduce the economic and livelihood effects.

²⁵ Eudyptes Eco Consulting (2020)

²⁶ Halpern, Lester & Kellner (2009)

²⁷ Goni et al., (2010)

²⁸ Abesamis et al., (2006)

²⁹ Barrett, Buxton & Gardner (2008)

- There is no fine-scale fisheries data available to assess the overall estimated cost to the fishing industry. It is estimated that between 9 – 11 fishers could be affected and up to 20.7% of the current annual catch taken within the CRA 7 fisheries management area could be displaced by this marine reserve³³. WWF – NZ acknowledges this is a stressful time for some commercial fishers, including Kāi Tahu fishers due to this potential financial impact.
- There is a lack of information about the state of the kōura papatea (rock lobster) fishery known as CRA 7. CRA 7 is a productive fishery with no reported sustainability concerns. The quota was increased in April 2020 by 31% and will be reviewed again in 2022³⁰. It is highly likely that those fishers affected will be able to catch their quota in full outside of the marine reserve. There is no evidence presented that this quota will not be able to be fully caught. It is vital that adequate monitoring is established and that FNZ works with affected fishers.

Recommendations:

WWF - NZ recommends FNZ monitors kōura papatea (rock lobster) catch at a finer scale (within the whole of CRA 7) to determine what proportion of the displaced catch is sustainably landed outside the reserve boundary and if CPUE overall is affected. The recent move towards digital and geospatial reporting should aid FNZ with implementing this.

WWF – NZ recommends in the future that this reserve could benefit from an increase in size offshore to include more deep-water habitat, or that an alternative deep-water reef is considered for protection. This would require careful monitoring of the benefits and impacts on key fisheries like kōura papatea (rock lobster).

Papanui Marine Reserve (H1) – Figure 4

WWF - NZ supports the establishment of the Papanui marine reserve in full.

WWF – NZ recommend seismic surveying be prohibited from the marine reserve with a buffer to ensure the level of sound entering the area does not adversely impact marine life³¹. Species and ecosystem service benefits should be adequately conveyed in the final advice to Ministers along with the unique habitats represented in this reserve to ensure the best available information is used by the Ministers when weighing up any adverse economic effects.

Design:

The proposed marine reserve is a good design and adequate size and is located completely offshore (Figure 4). It is a good example of deeper waters, covering 60-80 m depth and most importantly it includes the head of the Papanui canyon. It is nested within a type2-MPA which will act as a buffer and potentially increase the biodiversity benefits.

³⁰ CRA 7 2020 Sustainability measures <https://www.fisheries.govt.nz/dmsdocument/38996/direct>

³¹ See WWF-NZ submission on the Proposed Marine Mammal Protected Areas for detailed recommendations about the required limits on sound entering protected areas.

The outermost (offshore) boundary follows the 12nm (territorial sea) contour which will help reduce non-compliance. The inner western boundary may potentially cause non-compliance as it does not align with existing fisheries measures out from the peninsula.

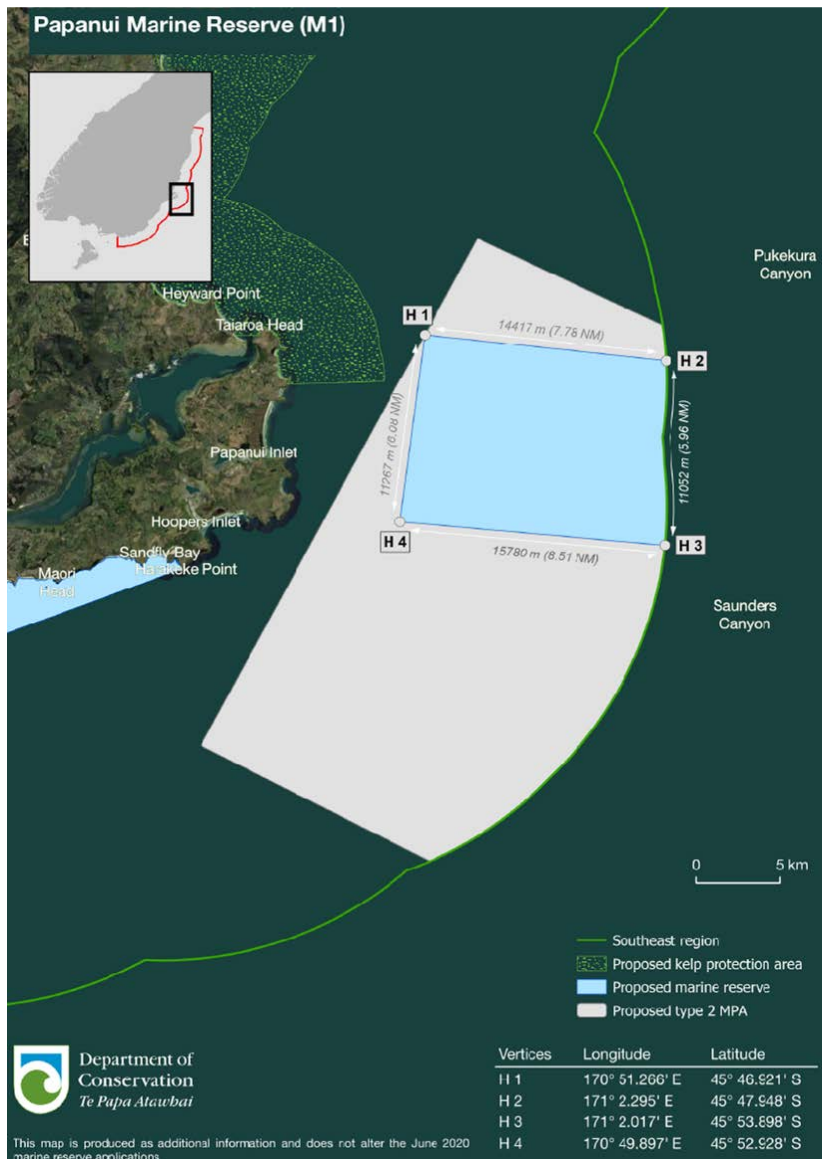


Figure 4: Proposed Papanui Marine Reserve¹⁰

Costs & Benefits:

WWF - NZ supports the costs and benefits listed and recommends explaining in full the justification of this site and its global significance.

Saunders Canyon to the South would have been WWF – NZ’s preferable canyon to include in the southeast MPA network given it extends further within the territorial sea, and has the deepest waters and habitats within the region and higher biodiversity gains¹³, including for threatened species such as hoiho (yellow-eyed penguins), (refer to Appendix 2, Figure 17). However, given the potential adverse effects on commercial fishers including Kāi Tahu fishing

interests and the MPA Policy principle five³², WWF - NZ supports the partial inclusion of Papanui canyon.

WWF – NZ agrees the bryozoan thickets off the Otago Peninsula are ‘outstanding, rare, distinctive or internationally or nationally important marine habitat and ecosystems’¹³ and supports the proposed protection which will protect 30% of their known distribution.

Limitations of costs and benefits analysis:

- More detail around the benefits of Papanui canyon should be provided to Ministers. The Forum¹³ describes the unique and rare features of Papanui canyon and the influence of the Southland current and upwellings.
- The value and benefit of protecting important coastal and pelagic foraging habitats for marine mammals such as paraoa (sperm whales), whakahao / rāpoka (New Zealand sea lions); and seabirds like seabirds³³, including hoiho (yellow-eyed penguins), toroa (albatross) and koau (Otago shags) and the cost (to the species) of not protecting their full ranges. WWF – NZ discusses this further under Kaimata type-2 MPA.
- The potential biological benefits of the plateau being included in the marine reserve boundary. This area includes a small examples of queen scallop beds, which is the only example in the whole network¹³.
- The importance of the bryozoan beds as feeding grounds to larger vertebrates, given the abundance of organisms that use the bryozoan habitat such as whakahao / rāpoka (New Zealand sea lions) and hoiho (yellow-eyed penguins)¹³.
- The significant benefits and scientific research opportunities this reserve offers.
- The significant tourism benefits and opportunities to promote Aotearoa New Zealand’s international reputation.

Recommendations:

WWF – NZ would recommend, as for all the MPAs, that any displacement of fishing effort is adequately monitored to assess the impacts on affected fishers. The blue cod fishery could potentially experience the biggest displacement, based on the estimations by the Forum¹³, this represents less than 2% (3.2 tonnes) of the total commercial blue cod quota available for the quota management area.

There is an existing petroleum exploration permit that slightly overlaps with the reserve boundary. A rapidly increasing body of science shows significant negative impacts of exploration activities such as seismic surveys on marine mammals,³⁴ and marine food webs³⁵. Considering the marine reserve proposed is of high ecological value and inhabited by a range of vulnerable marine mammals, which should be protected from damage and impacts of

³² The MPA policy Planning Principle 5 provides: “Where there is a choice of several sites, which if protected would add a similar ecosystem or habitat to the MPA network, the site(s) chosen should minimise adverse impacts on existing users and Treaty settlement obligations.”

³³ SEMPF 2018 report¹³ describes over 53 species of seabirds known to forage here, including eight threatened species, three of which are classified as Nationally Critical (page 151).

³⁴ Lucke et al (2019).

³⁵ New studies show seismic surveys damage shellfish, crustaceans and kill zooplankton (such as larval fish and krill) for kilometres around (McCauley et al, 2017). Impacts on these low trophic levels have knock-on effects for the whole marine ecosystem (McCauley et al, 2017).

seismic surveying. WWF - NZ recommends existing petroleum exploration permits within the region should be forfeited to the Crown.

Orau Marine Reserve (I1) – Figure 5

WWF - NZ supports the establishment of the Orau marine reserve in full.

For the reserve to have successful biodiversity outcomes WWF - NZ further proposes that post implementation DOC and FNZ supports Kāi Tahu and the local community to consider the creation of a buffer of additional protection around the existing reserve. This could be done by establishing a type-2 MPA or establishing a customary fisheries management tool, such as a mātaítai, or another form of management tool.

The proposed ‘buffer’ could surround Orau marine reserve and potentially include Hoopers Inlet. This could provide some partial protection of Tow Rock and White Island and associated habitats, whilst not impacting unduly on recreational and customary fishers.

Design:

The proposed marine reserve boundary does not meet best practice design principles¹⁷ by excluding Tow rock in the north and Lions Head and White Island in the South. The design of the reserve means the maximum offshore distance is 1.7nm (Figure 5). The shape of the reserve and lack of adequate offshore distance will likely increase the ‘edge effect’ from fishing and reduce the biological potential of the reserve.

The benefit is that it follows the coastline and uses straight line boundaries and significant landmarks which will aid compliance and enforcement.



Figure 5: Proposed Orau Marine Reserve¹⁰

Costs & Benefits:

WWF - NZ supports the costs and benefits listed in the appendices, but recommends further information is provided to Ministers to address the limitations in the analysis.

Limitations of costs and benefits analysis:

- The importance of these coastal waters and habitats given the proximity to Dunedin and public accessibility. Orau marine reserve has the potential of being an iconic Dunedin reserve which could add economic value, attract tourists and educational experiences, such as the school programme Experiencing Marine Reserves³⁶.
- The concessions made³⁷, which have potentially compromised the biological effectiveness of the reserve, have not been adequately included.
- That there was overwhelming support from submitters³⁸, including the science sector to extend the boundary offshore. This would have ensured the reef systems were not partially protected (for example around White Island and Tow rock) and would have created a buffer zone between the reefs and the offshore boundary.
- The high biodiversity values of Tow Rock and White Island. The Forum's report¹³ highlights that these two areas have some of the best water clarity in the region, combined with strong currents which results in increased biodiversity values.
- The consequence (habitat representation loss) of adjusting the offshore boundary to reduce adverse effects on fishers. To reduce conflicts, Tow Rock and White Island were excluded as they are extremely popular fishing areas near Dunedin. As a result of this a reef system has been split and important deep reef habitat, poorly represented elsewhere in the Network, is excluded.
- The potential increase in 'edge effects' from fishing³⁹ due to the reduction in the offshore boundary and design of the reserve¹³ and the potential effect this has on the ability of biodiversity (species and habitats) to recover.
- The important foraging grounds within and around the proposed reserve and the costs of not protecting these. For example, Tow rock is important for seabirds and marine mammals, such as whakahao / rāpoka (New Zealand sea lions)¹³.
- That White Island has unique underwater scenery that is not replicated elsewhere in the Network.
- There is no explanation why the important Hoopers Inlet is excluded (the proposed boundaries stop just south of the inlet) or was not considered as a type-2 MPA to complement Orau. This is an important nursery habitat for many species including whakahao / rāpoka (New Zealand sea lions).

Okaihae Marine Reserve (K1) – Figure 6

WWF - NZ supports the establishment of the Okaihae marine reserve in full.

The benefits of 'land to sea' protection will likely increase public enjoyment and potential education opportunities. Analysis of the costs and benefits shows that biodiversity gains outweigh potential adverse impacts.

Design:

³⁶ Refer to www.emr.org.nz for more information

³⁷ Refer to SEMPA recommendation report¹⁴ alternative offshore boundaries consulted - Figure 2-43: Site I1

³⁸ Refer to SEMPA recommendation report¹⁴ section 2.4.8.3

³⁹ Refer to Appendix 1 – Costs and Benefits of Marine Protection

The proposed marine reserve is a good design for its purpose of protecting Okaihae (Green Island) rocky reefs and kelp forests. It is located offshore but has close proximity to the coast. The boundaries extend approximately 1 km around the island (Figure 6).

The straight-line boundaries should aid compliance.

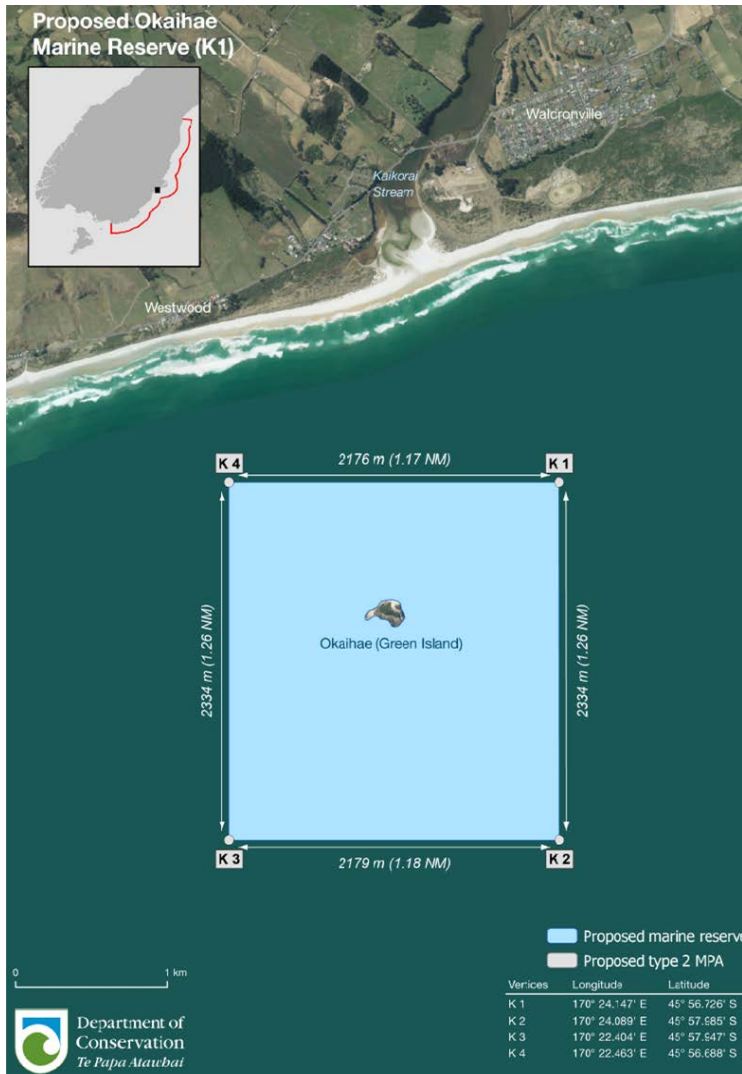


Figure 6: Proposed Okaihae Marine Reserve¹⁰

Costs & Benefits:

WWF - NZ supports the costs and benefits listed about Okaihae (Green Island) nature reserve and the associated species found on the island and in the waters around it.

WWF - NZ supports that while the marine reserve size is relatively small and would not meet the sufficient size principle of best practice²², we consider it sufficient for its purpose of protecting the surrounding reefs and associated habitats.

As stated in the SEMPA analysis¹³ WWF - NZ agrees that the potential adverse effects on recreational users are minimal given there are other reefs available nearby and that the reserve is unlikely to have any significant impact on commercial fishers.

Limitations of costs and benefits analysis:

- Despite being an offshore island, Okaihae is easily accessible by small boat and kayak and this benefit should be included.
- The significant benefits and scientific research opportunities this reserve offers should be highlighted.

Hākinikini Marine Reserve (M1) – Figure 7

WWF - NZ supports the establishment of the Hākinikini marine reserve in full.

Hākinikini is a valuable representative example of exposed intertidal and shallow rocky reef.

We consider that based on the limited information in the Forums report³³, the potential adverse impacts of extending the offshore boundary in the future could be outweighed by the biodiversity benefits.

WWF – NZ is concerned about the offshore boundary potentially cutting through reef and that there is no buffer around the reef. This could impact on the integrity and benefits of the marine reserve. We therefore recommend a monitoring programme to assess the edge effects and effectiveness of the reserve boundary, including working with those fishers affected and considering future management action accordingly.

Design:

The proposed marine reserve would have been a good design and size if the offshore boundary extended further to buffer the reef habitat²². It currently extends less than 1nm offshore. The reserve follows the coastline and uses straight lines and will enable the use of clear land markings which should aid with compliance and enforcement (Figure 7).

WWF - NZ disagrees that the marine reserve “*is expected to be a suitable size for allowing the maintenance and /or recovery of the biodiversity associated with the habitats it contains.*” Research from similar habitats in northern Aotearoa New Zealand highlights the importance of size and design on key species such as snapper and kōura papatea (rock lobster)^{18,21,40,41}.

The offshore boundary at the Northern and Southern ends extend offshore less than 1nm. Figure 8¹³ shows how the offshore boundaries are estimated to meet the reef (blue) in some places. There is no buffer around the reef and this means that fishing the reserve boundary (which is nearly 6km long) could increase the edge effects^{18, 21, 22} and negatively impact fish, kōura papatea (rock lobster) and other species that live on the reef and associated habitats

⁴⁰ Shear, Russell & Babcock (2003)

⁴¹ Kelly & MacDiarmid (2002)

(refer to Appendix – Costs and Benefits of Marine Protection). The Forum made concessions and reduced the offshore boundary because of the trawl fishery that operates close to shore¹³.

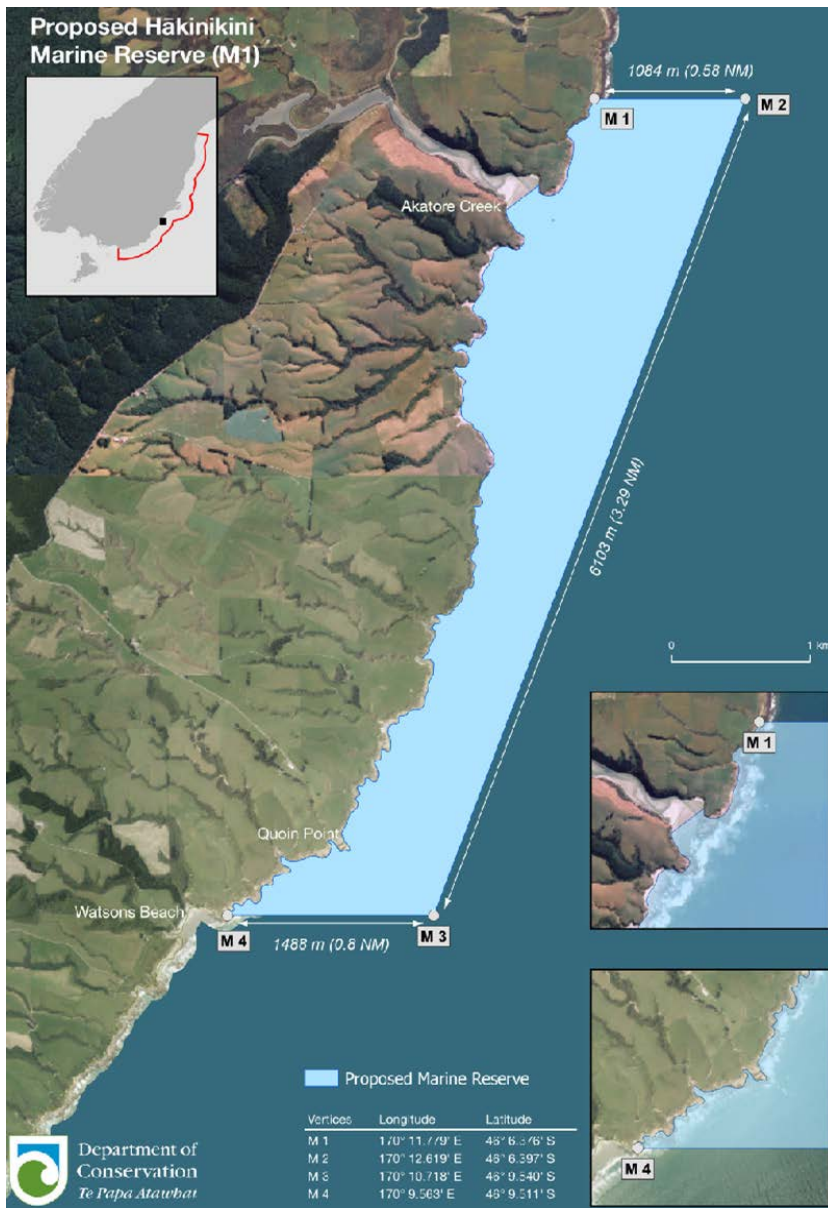


Figure 7: Proposed Hākinikini Marine Reserve¹⁰

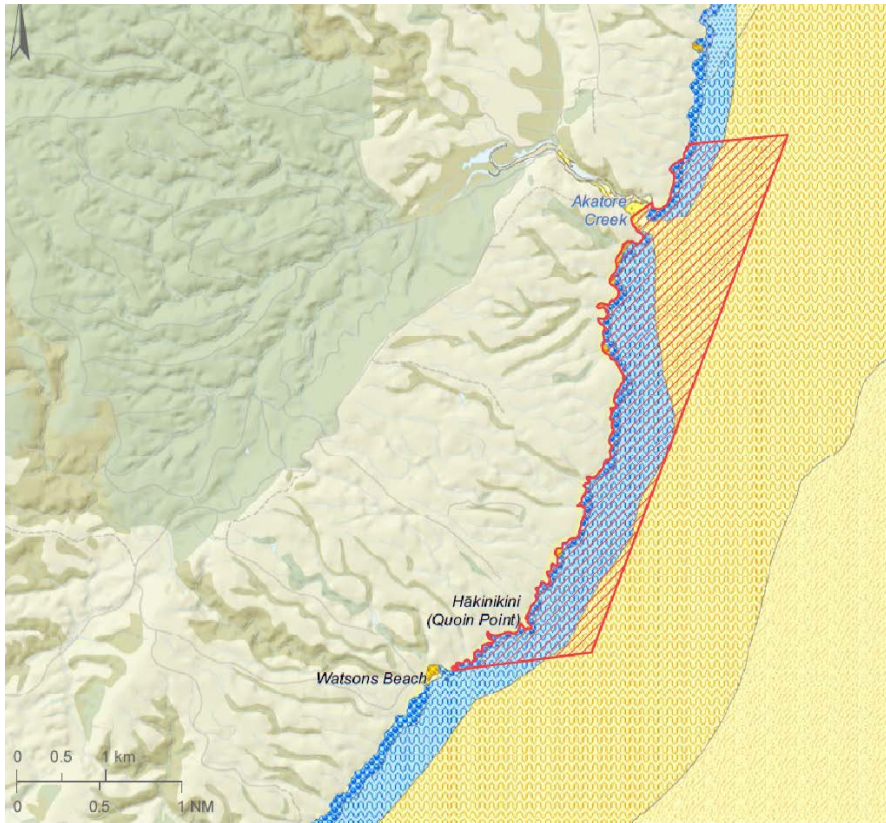


Figure 8: Broad-scale habitat map for Hākinikini marine reserve from SEMPf report¹³

Costs & Benefits:

The Forum estimated that the proposed reserve will likely have minimum impact. The Forum reported using seasketch (which has significant limitations) that the most impacted fisheries were likely to be pot caught kōura papatea (rock lobster) estimated at about 1%, bottom long line or dahn 0.6% and trawl 0.3%¹³.

Limitations of costs and benefits analysis:

- Adequate information about the potential negative boundary effect.
- Limited information on adverse economic commercial effects due to a lack of fine scale fisheries catch data.
- The importance of these waters as coastal foraging grounds seabirds such as hoiho (yellowed-eyed penguins) and marine mammals such as pahu (Hector's dolphins), kekeno (NZ fur seal) and whakahao / rāpoka (New Zealand sea lions), refer to Appendix 2: Threatened Marine Species.

4.3.2 Type-2 MPAs

Type-2 MPAs can assist with not only the purpose of the MPA policy, which focuses on habitat and ecosystems, but can have specific species benefits including for endangered, threatened or protected species but also other fish species that all play an important role in maintaining the food chain and trophic linkages and support healthy functioning ecosystems.

Tuhawaiki type-2 MPA – Figure 9

WWF - NZ supports the establishment of the Tuhawaiki type-2 MPA and recommend FNZ and DOC produce a more detailed map which shows the existing fisheries restrictions alongside the proposed MPA.

WWF - NZ supports prohibiting the following fishing methods within the Tuhawaiki type-2 MPA; bottom trawling, dredging, Danish seining, set-netting and mid-water trawl.

Design:

The proposed type-2 MPA (Figure 9) is designed to follow the coast south of Timaru extending offshore approximately 1.5 nm to south of the Waihao River. There is a small increase offshore south of Timaru between 3.1 – 3.7 nm. The boundaries will need to be well marked to reduce non-compliance.

Costs & Benefits:

WWF - NZ agrees with the benefits listed, particularly those for seabirds, including hoiho (yellow-eyed penguin) and pahu (hector's dolphins), however if the focus was on protecting foraging grounds for seabirds or marine mammals alongside the benthic habitat then the offshore boundaries would need to be extended, refer to Appendix 2 – Threatened Marine Species.

Limitations of costs and benefits analysis:

An adequate description and map of the existing fisheries restrictions in the area would be helpful. WWF - NZ supports the theoretical benefits but notes that this type-2 MPA may add little protection when existing measures are taken into account. There is already an existing 4nm set net ban and the prohibition of Danish seining and some restrictions on trawling. In addition to these the updated Hector's and Maui Dolphin Threat Management Plan, released after the Forum had concluded, includes some set net protection which overlaps with this proposed type-2 MPA (refer to Appendix 2 – Threatened Marine Species Figure 22). The final advice should reflect how additional protection will enhance benefits for endangered Hector's dolphins.

Recommendation:

DOC and FNZ create an updated map to reflect existing fisheries measures alongside the proposed Type 2 MPA.



Figure 9: Proposed Tuhawaiki type-2 MPA¹⁰

Moko-tere-a-torehu type-2 MPA – Figure 10

WWF - NZ supports the establishment of the Moko-tere-a-torehu type-2 MPA.

WWF - NZ supports prohibiting the following fishing methods within the Moko-tere-a-torehu type-2 MPA; bottom trawling, dredging, Danish seining, set-netting, mid-water trawl and commercial long lining.

Design:

The proposed type-2 MPA (Figure 10) is designed to follow the coast south of the Waihao River extending offshore approximately 5.8 nm. The MPA buffers around the northern boundaries of the Waitaki marine reserve.

The straight-line design will help with compliance and enforcement.



Figure 10: Proposed Moko-tere-a-torehu type-2 MPA¹⁰

Costs & Benefits:

WWF - NZ agrees with the benefits listed in the Forum's report¹³, particularly those for seabirds including hoiho (yellow-eyed penguin) and pahu (hector's dolphins).

Limitations of costs and benefits analysis:

An adequate description and map of the existing fisheries restrictions with proposed measures to show what additional protection is added, particularly on endangered, protected and threatened species and the habitats they forage and rely on (refer to Appendix 2 – Threatened Marine Species). The final advice should reflect how additional protection will enhance benefits for endangered Hector's dolphins.

The Forum noted the importance of these waters to a variety of fish and consequently that 34.5 tonnes of catch would be displaced, and that the largest adverse effect would be to red gurnard, rig, and school shark commercial fisheries¹³. DOC and FNZ have not adequately described if this quota could be caught sustainability outside of the proposed type-2 MPA, potentially reducing these adverse effects.

Recommendation:

DOC and FNZ create an updated map to reflect existing fisheries measures alongside the proposed Moko-tere-a-torehu type-2 MPA.

Kaimata Type-2 MPA – Figure 11

WWF - NZ supports the establishment of the Kaimata type-2 MPA and recommends consideration of a modification to the western boundary to reduce compliance concerns by linking up to existing fisheries measures and to protect important foraging habitats for endangered, protected, and threatened species.

WWF - NZ supports prohibiting the following fishing methods within the Kaimata type-2 MPA; bottom trawling, dredging, Danish seining, set-netting, mid-water trawl and purse seining.

Design:

The proposed type-2 MPA (Figure 11) is designed to follow the offshore 12 nm territorial sea boundary, which will aid compliance and enforcement by commercial fishers. The MPA provides a buffer zone around the Papanui marine reserve. The western boundary does not extend towards the shore to meet up with existing fisheries restrictions. The boundary creates a channel of unprotected waters between Harakeke Point and Taiaroa Head which could increase the risk of non-compliance within Kaimata.

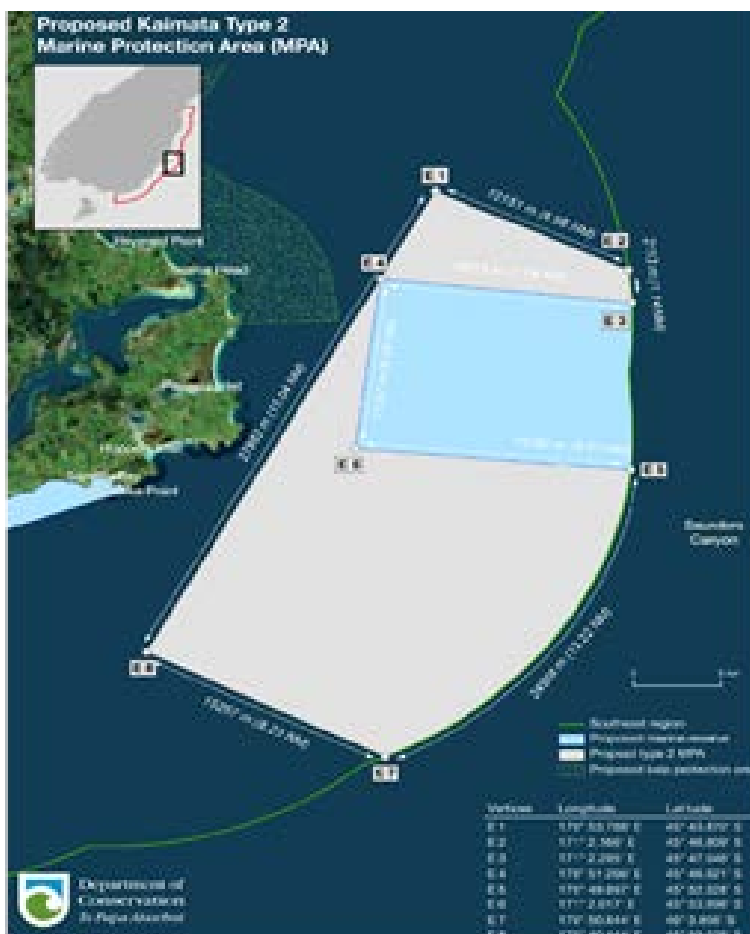


Figure 11: Proposed Kaimata type-2

Costs & Benefits:

WWF - NZ supports the benefits listed but they do not adequately reflect the biodiversity gains.

WWF - NZ supports the large size of the Kaimata type-2 MPA as it will not only protect important biogenic habitat, such as the bryozoan beds (important nursery grounds for many fish and invertebrates including juvenile blue cod⁴³), but will offer some protection for the foraging grounds of marine mammals and seabirds many of which are endangered, threatened or protected species (refer to Appendix 2 – Threatened Marine Species).

Rayment et al. (2019)⁴² highlights that the Otago submarine canyons and associated areas, part of which is protected within the type-2 MPA, provide year-round habitat for a significant number of deep-diving marine mammals. Rayment et al. (2019)⁴² observed nine cetaceans and 217 sightings of NZ fur seals during their surveys (Figure 12). Their research also confirmed Otago is a global hotspot for Shepherd’s beaked whales⁴².

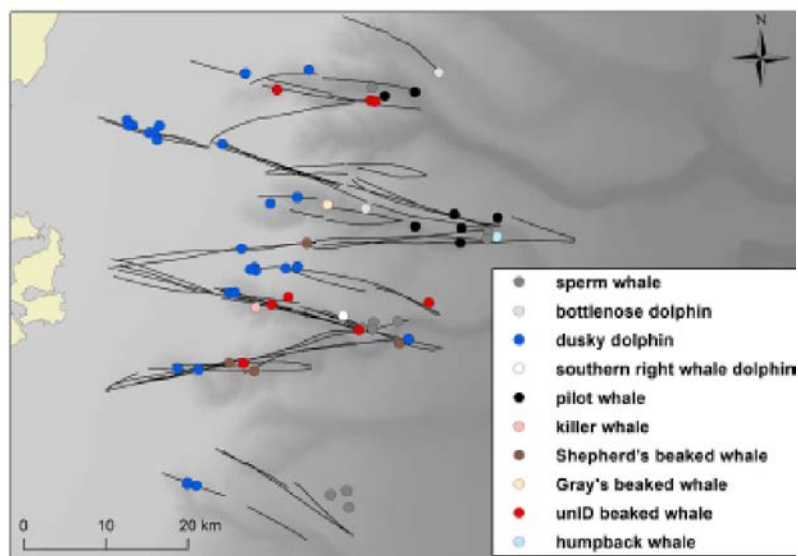


Figure 12: Marine mammal visual survey results from Rayment et al.⁴¹

Limitations of costs and benefits analysis:

The costs and benefits for threatened marine species, of protecting or leaving unprotected, the important foraging habitats between the coast and the western boundary of Kaimata has not been adequately explained:

- Augé et al research highlights some of the important foraging grounds of tagged female sea lions around the Otago region, refer to Figure 19a⁴³ and 19b⁴⁴, Appendix 2.
- WWF – NZ have provided evidence that was not available to the Forum of some important hoiho (yellow-eyed penguins) foraging habitats⁴⁵ around Otago, refer to Appendix 2 –Figure 17⁴⁶.

⁴² Rayment et al., (2019)

⁴³ Augé (2011)

⁴⁴ Augé, Moore & Chilvers (2012)

⁴⁵ Tracking data from 2018 and 2020 confirms that Kaimata is the only MPA within the network that includes large pelagic foraging habitat for Hoiho, Figure 17 Appendix 2.

⁴⁶ Mattern (2020)

- FNZ and DOC have not described where existing fisheries restriction measures start and finish around the coast in comparison to the proposed type2 MPA and marine reserve in this area.
- There was no fine scale fisheries information available for this ‘unprotected channel’ of water. WWF – NZ cannot determine the scale of any potential adverse effects. However, given the proposed type-2 MPA does not restrict recreational or customary fishing and allows some methods of commercial fishing to occur¹⁰, meaning fewer fishers are likely to be affected, we consider FNZ should produce an assessment of the potential adverse effects.

Recommendation:

WWF - NZ is proposing that the western boundary is partially extended towards the coast to connect with the existing fisheries management measures, such as the existing set net ban. Figure 13 is a ‘best estimate’ of the potential boundary adjustment, FNZ and DOC would need to work with Kāi Tahu, local communities and any potential fishers that could be affected. This adjustment could have significant biodiversity gains for some of our most endangered and at-risk seabirds and marine mammals as well as protecting a full range of coastal to offshore benthic habitats. It could also reduce the risk of non-compliance for those fishing methods that can occur between Harakeke Point and Taiaroa Head and the western Kaimata boundary.

DOC and FNZ need to create an updated map to reflect existing fisheries measures around the Otago coast alongside the proposed Kaimata type-2 MPA.

DOC and FNZ need to describe and assess the potential boundary adjustment and closure of this unprotected channel between Harakeke Point and Taiaroa Head and the western boundary of Kaimata.

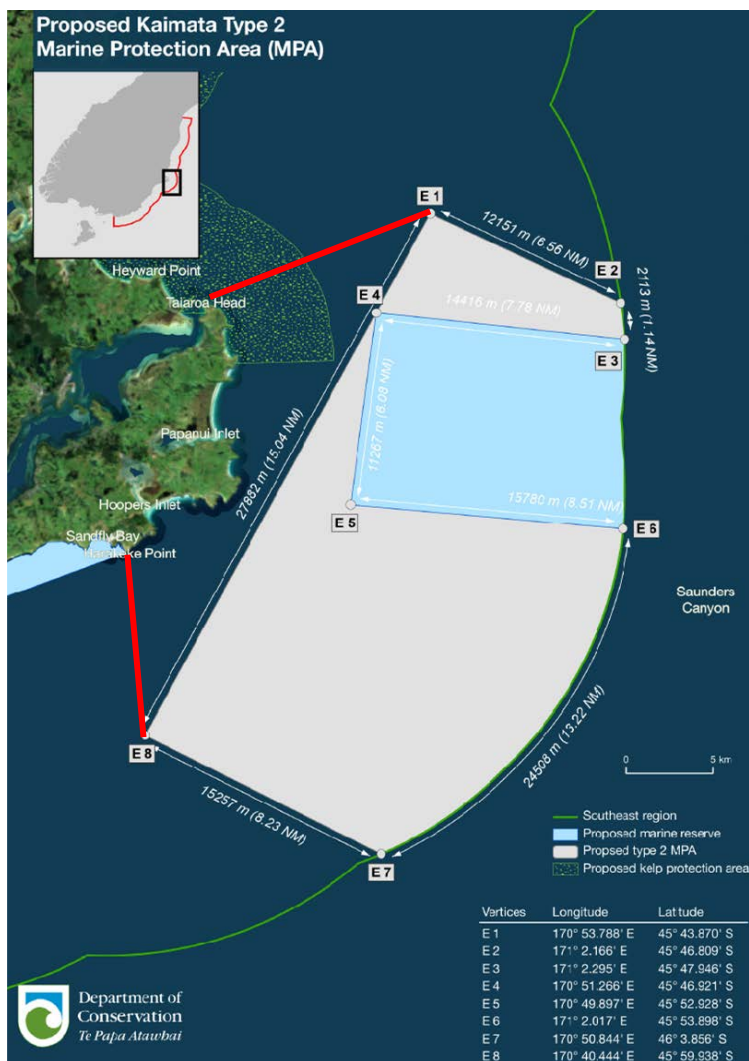


Figure 13: Alternative boundary adjustment to Kaimata type-2 MPA western boundary

Whakatorea Type-2 MPA – Figure 14

WWF - NZ supports the establishment of the Whakatorea type-2 MPA

WWF - NZ supports prohibiting the following fishing methods within the Whakatorea type-2 MPA; dredging, set-netting, commercial line fishing, mechanical harvesting (including spades for collecting shellfish) and syke net fishing.

Design:

The proposed type-2 MPA is a good design that includes the entire estuary (Figure 14).



Figure 14: Proposed Whakatorea type-2 MPA¹⁰

Costs & Benefits:

WWF - NZ agrees with the benefits listed in the Forums report¹³ and that the Akatore estuary should be protected within a type-2 MPA. This complements the adjacent marine reserve.

WWF – NZ supports that the type-2 status allows for customary kaitiakitanga as Akatore estuary is an important mahika kai resource for whānau and hapū.

WWF – NZ supports the Forum’s report¹⁴ that the potential adverse effects of displacing commercial fyke netting for shortfin tuna (eel) to the surrounding estuaries are likely to be minimal, and that this MPA will have minimum impact on recreational fishing.

Tahakopa Type-2 MPA – Figure 15

WWF - NZ supports the establishment of the Tahakopa type-2 MPA.

WWF - NZ supports prohibiting the following fishing methods within the Tahakopa type-2 MPA; dredging, set-netting, commercial line fishing, mechanical harvesting (including spades for collecting shellfish) and syke net fishing.

Design:

The proposed type-2 MPA is a good design that includes the entire estuary (Figure 15).

Costs & Benefits:

WWF - NZ supports the benefits listed^{12, 14} and supports that Tahakopa is a relatively pristine estuary with significant ecological and cultural values and warrants protection.

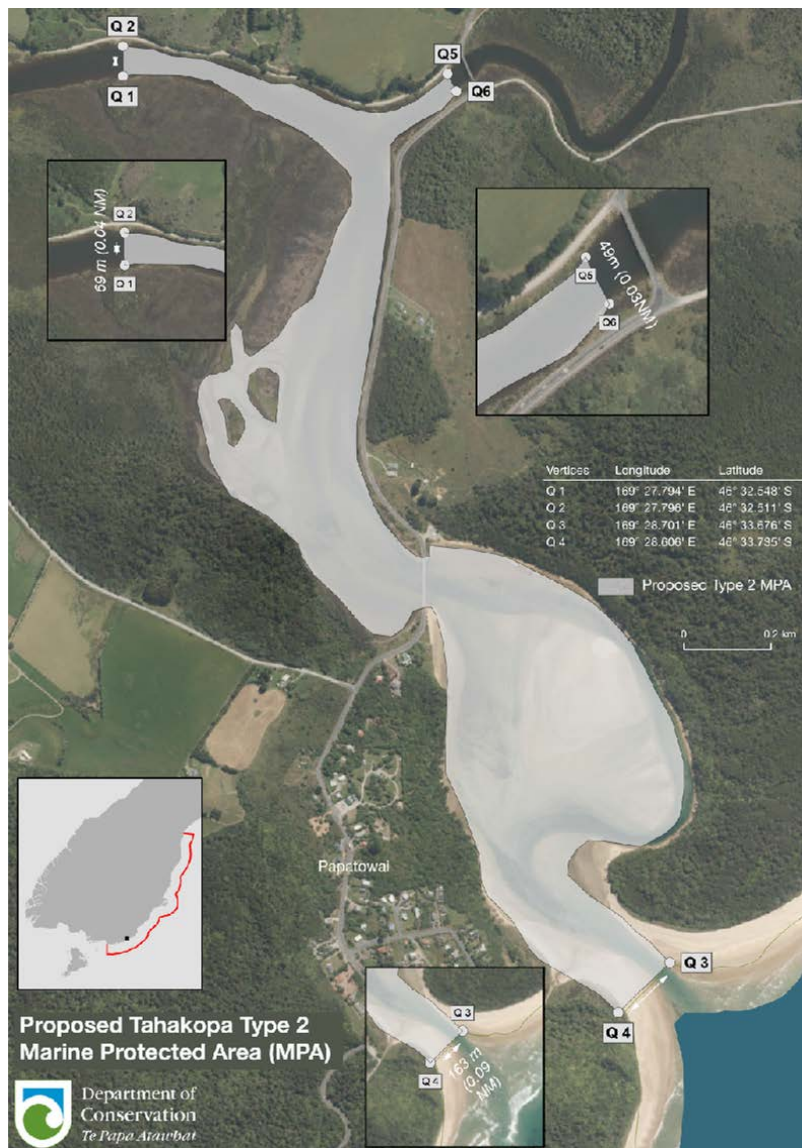


Figure 15: Proposed Whakatoea type-2 MPA¹²¹⁰

Bladder kelp protection area, Arai Te Uru – Figure 16

WWF - NZ supports the establishment of a bladder kelp (*Macrocystis pyrifera*) protection area (Figure 16) and supports the prohibition of harvesting bladder kelp within this area.

WWF - NZ supports the costs and benefits listed. The value of bladder kelps has been well described in the Forum report¹³. Kelp forests are highly productive and are considered an ecosystem engineer¹⁴ as well as an important biogenic habitat, because they are critical for many species from fish and crustaceans like rock lobster. Kelp enhances the settlement of pelagic larvae and the survivorship of settled juveniles and individuals. Recent research also shows that the *Macrocystis* are an important food for paua¹³.

The benefit of designating a bladder kelp protection area is to ensure these kelp forests are monitored to maintain the overall health, especially with increasing land-based impacts, such as sedimentation and climate change.

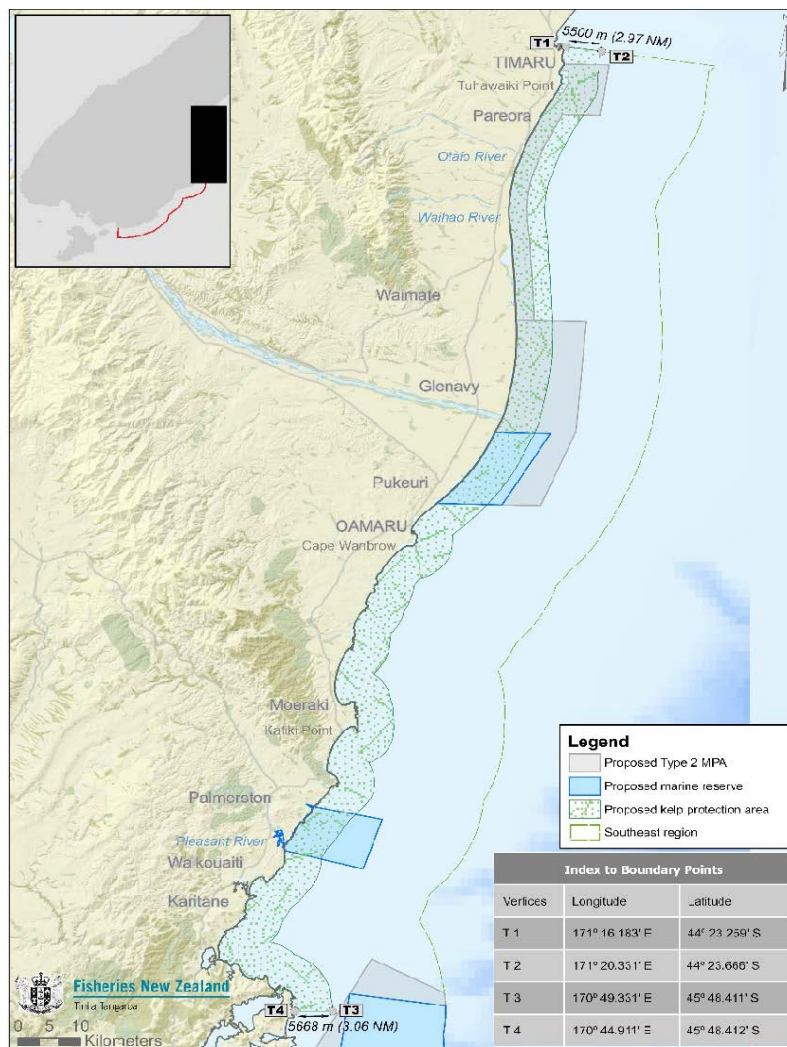


Figure 16: Proposed Bladder kelp protection area, Arai Te Uru¹⁰

5 South East Marine Protection Forum Gaps and next steps

The SEMPF area has proposed six marine reserves, five type-2 MPAs and one kelp protection area. Overall, there are some outstanding examples of habitats and ecosystem services proposed to be protected, however the network does not protect and replicate all habitat types as required by the MPA Policy. The lower third of the SEMPF area has virtually no protection proposed (Figure 1).

The Forum considered and consulted on a range of southern sites, such as Long Point and the Catlins¹⁴.

Whilst WWF - NZ advocates for meaningful representative MPA networks, these must be done in a way that upholds the rights and aspirations of indigenous and local communities and in collaboration with other stakeholders.

The Forum report highlighted the benefits and challenges of establishing protection at the Catlins¹³. Protection in the Catlins would benefit not only habitat representativeness, but endangered, threatened, and protected species such as hoiho (yellow-eyed penguins), and whakahao / rāpoka (New Zealand sea lions). Mattern's tracking work³⁰ and Reed's PhD research^{33,34} highlights the waters around the Catlins as important foraging habitats (Figures 2 and Figures 4 & 5).

WWF – NZ further proposes that DOC and FNZ continue to work with tangata whenua and the local community to consider alternative forms of protection for this significant area. This could include traditional/customary management or other forms of protection.

In addition to implementing the network in full, WWF – NZ recommends implementing recommendation contained within section 1.2 and 1.3, on pages 3 and 4.

6 Future recommendation

WWF – NZ acknowledges that MPA processes are complex, with multiple objectives at play. A limitation of the MPA process is that the focus is on habitats and not the entire ecosystem from mountains to reefs, incorporating all users and activities. Marine Spatial Planning potentially offers an improved more holistic framework. However, it is important that any future processes uphold the rights of our indigenous and local communities and set strong ecological targets, that are based on robust science and Mātauranga Maori. This will enable Te Ao Māori to enrich the cultural values at the core of fisheries management and marine protection.

As part of the process to reform our Marine Reserve legislation in Aotearoa, WWF-NZ recommends that an open and collaborative discussion around how to achieve an effective home-grown approach to management and protection of our diverse marine ecosystems. Such a process can help to determine the most effective way for us to rapidly step up our efforts to achieve a thriving and resilient ocean, thereby mitigating the impacts of climate change on our marine environment, and sustaining our communities for generations to come.

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8 Appendix 1: Costs and benefits of marine protection

WWF – NZ supports the benefits of marine protection described in the consultation document¹⁰ and the Forum's 2018 recommendation report¹³. The forum has recommended type-1 (no take, the highest protection) and type-2 (partial protection) MPAs.

No-take marine reserves are by far the most effective type of MPA for the purpose of biodiversity protection^{47,48}. They can restore the biomass and structure of fish assemblages

⁴⁷ Willis (2013)

⁴⁸ Sala and Giakoumi (2017)

and restore ecosystems to a more complex and resilient state^{27,47,49}. Partially protected MPAs can have some value by restricting specific activities (e.g. banning trawling to prevent habitat destruction), but in general they are not as effective^{21,50,51}.

Research over the last 30 years in shows that following best practice design principles is essential for the success of marine reserves^{18,52}. If reserves are too small or narrow in size, fishing pressure on the edges can have a significant effect and reduce biomass of target species inside the reserve boundaries^{18,23,53}. This is often referred to as the ‘edge effect’ of fishing. This can be mitigated by designing larger marine reserves¹⁸ or creating buffers by nesting type-1 no take marine reserves within type-2 MPAs or other fisheries management tools including customary tools such as mātaihai, taiāpure and rāhui.

The benefits of protection are not always seen immediately. Restoring some ecosystem services and food web dynamics can take significant time, 20 or more years^{18,51,52}. Predicting, and then measuring direct benefits of protection, such as habitat recovery and biomass increase is often easier than providing evidence of the societal benefits from restricting use in areas⁵⁴, whether that be from type-1 or type-2 MPAs. Decision makers often balance short-term impacts or ‘costs’ (including economic) against long-term ‘benefits’ (such as healthy ecosystems).

The impact on existing fishers (customary, recreational, and commercial) such as displacement of effort is often the biggest challenge when determining MPA sites.

Marine reserves, MPAs and networks can support fisheries in several ways, including by protecting or restoring critical fish habitat, through fisheries spill over and through larval dispersal^{23,26,27,28,29,55}. Research from the Leigh marine reserve in Northern Aotearoa New Zealand shows that the reserve acts as a snapper nursery and contributes ten times more fish than expected to the surrounding areas⁵⁶.

There are always costs associated with establishing MPAs. Balancing, offsetting, and reducing these adverse effects can be challenging for decision makers but given the long-term benefits for ecosystems and for society overall⁸, it should not deter the establishment of a representative network of MPAs.

Building resilience and climate change

Our ocean plays an important role in regulating Earth’s climate and helps mitigate the consequences of global emissions. Climate change is arguably the greatest threat facing our ocean and is causing ocean acidification, rising sea levels, and warming of the ocean². It is also expected to significantly alter the distribution of many marine species and habitats, such as changing the distribution of sources of food and impacting reproduction (Grose et al., 2020).

⁴⁹ Pryor et al. (2020)

⁵⁰ Pryor et al. (2020)

⁵¹ Shears, Russell & Babcock (2003)

⁵² Babcock et al. (2010)

⁵³ Young, et. al. (2006)

⁵⁴ Schratzberger, et. al. (2019)

⁵⁵ Kelly, Scott & MacDiarmid (2002)

⁵⁶ Port et al. (2017)

Creating a network of marine reserves is a powerful way to build resilience against the cumulative impacts of climate change and direct anthropogenic threats such as intensive fishing⁵⁷. Marine reserves can provide refuges for species as they adapt and find new ways to survive the changing climate, or act as ‘genetic banks’ and /or biodiversity hotspots, safeguarded against genetic degradation and being a source of species and genetic diversity into areas and ecosystems where it has been lost.

⁵⁷ Roberts et al., (2017)

9 Appendix 2: Threatened marine species

The protection of threatened seabirds or marine mammals was not considered as an objective of the SEMPF process. The Forum was unable to select sites or adjust boundaries⁵⁸ of sites based on the conservation benefits for protected species, such as hoiho (yellow-eyed penguins), and whakahao as the MPA Policy directs a habitat focus. We consider this scope limitation to be a flaw of the policy and process and strongly recommend that information about how the various MPAs will support and benefit threatened and endangered protected species is provided to decision-makers. Therefore we have collated some useful information here.

Marine mammals and seabirds are good indicator species of areas of high biodiversity value. Much of the southeast coast out to over the continental shelf are important foraging grounds for a range of marine mammals and seabirds¹³, including many protected⁵⁹ and or threatened species⁶⁰.

SEMPF report that over 50 seabirds knowingly forage within the southeast region¹³. For example, the nationally endangered hoiho (yellow-eyed penguins), which have declined by an estimated 65% in the last 20 years⁶¹ nest along the coast at the Catlins, Otago Peninsula, and on the north Otago coast¹³. Hoiho spend considerable amounts of time foraging for benthic prey over the sea floor and adjacent shelf¹³, where they are at risk of interacting with fishers⁶².

⁵⁸ Note that foraging habitat of some protected species like hoiho and whakahao was included when justifying protection in some areas by SEMPF, but MPAs were not designed to protect key foraging grounds of endangered, threatened, or protected species.

⁵⁹ Protected under the Wildlife Act 1953 and Marine Mammals Protection Act 1978.

⁶⁰ The latest threatened bird list can be found at <https://www.doc.govt.nz/nature/conservation-status/threatened-birds/> and the latest threatened marine mammals can be found in Baker et al., (2019). All marine mammals are protected species in New Zealand.

⁶¹ Department of Conservation (2019)

⁶² Mattern and Wilson. (2018)

Satellite tags on yellow-eyed penguins confirm how important the SEMP area waters are, refer to Figure 17 and Figure 18⁴⁶.

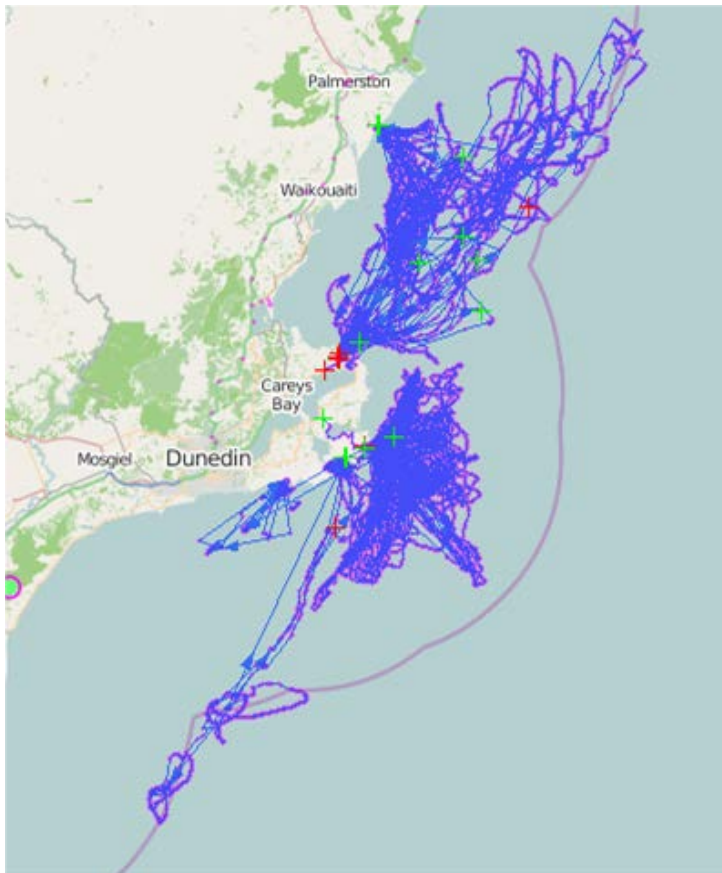


Figure 17: All tagged yellow-eyed penguin at sea distribution for 2018 – 2020 around the Otago region⁴⁶

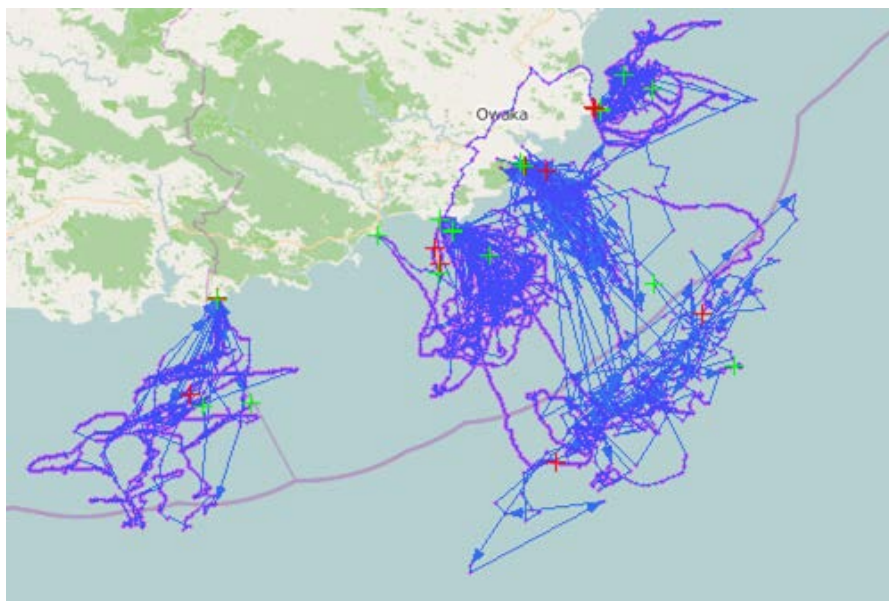


Figure 18: All tagged yellow-eyed penguin at sea distribution for 2018 – 2020 around the Catlins⁴⁶

Kekeno (New Zealand fur seals) and a small population of the nationally vulnerable whakahao/rāpoka (New Zealand sea lion) also haul out, breed and forage in the region.

Whakahao/rāpoka (New Zealand sea lion) were once widespread around the mainland but are now the rarest sea lion species in the world and have declined by about ~ 50% since 1998⁶³. Whakahao/rāpoka (New Zealand sea lion) are under severe threat from disease, accidental death (by-catch) in commercial fisheries, habitat change caused by fishing, and resource competition caused by fishing and likely climate change⁶².

The reduced Whakahao/rāpoka population is relatively stable but almost entirely found offshore around Auckland (~64% of the population) and Campbell (~30% of the population) sub-Antarctic Islands. Recolonisation of the mainland has started at Rakiura / Stewart Island, Otago and Southland, and the population is slowly increasing⁶². The increasing mainland population is essential for the long-term survival of the species. However, as the population and distribution expands over larger foraging grounds there will be an increased risk from fishing and other threats. Augé et al research highlights some of the important foraging grounds of tagged female sea lions around the Otago region, refer to Figure 19a⁴³ and 19b⁴⁴. More recently Reed's PhD research also confirms the unprotected waters around the Catlins are important foraging grounds for whakahao/rāpoka (New Zealand sea lion), refer to Figures 20⁶⁴ and 21⁶⁵.

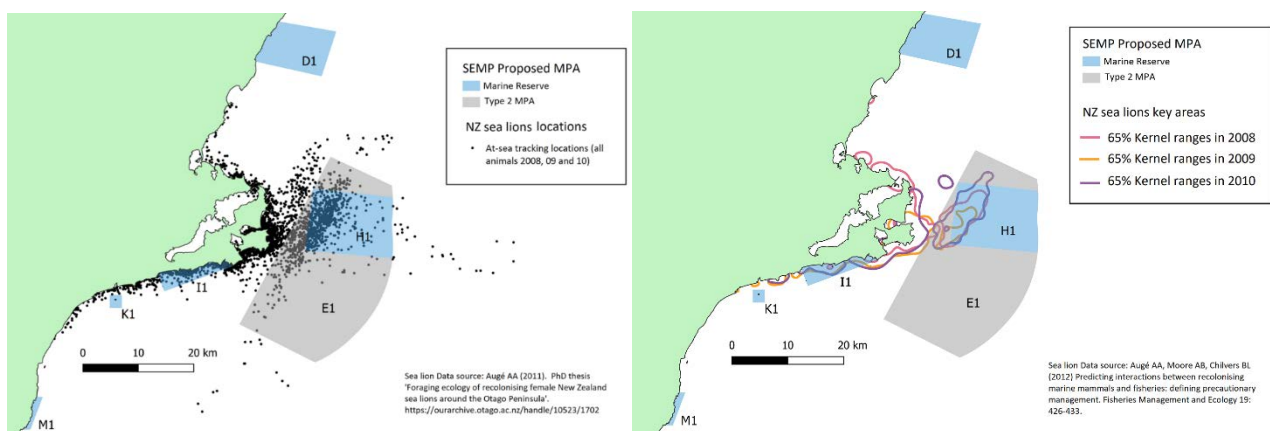


Figure 19: a) Female NZ sea lion at sea tracking locations for 2008, 2009 and 2010⁴³, b) Female NZ sea lion key areas based on 65% kernel ranges for 2008, 2009 and 2010⁴⁴

Figure 19: a) Female NZ sea lion at sea tracking locations for 2008, 2009 and 2010⁴³, b) Female NZ sea lion key areas based on 65% kernel ranges for 2008, 2009 and 2010⁴⁴

⁶³ Department of Conservation & Ministry for Primary Industries (2017).

⁶⁴ Reed (2019a)

⁶⁵ Reed (2019b)

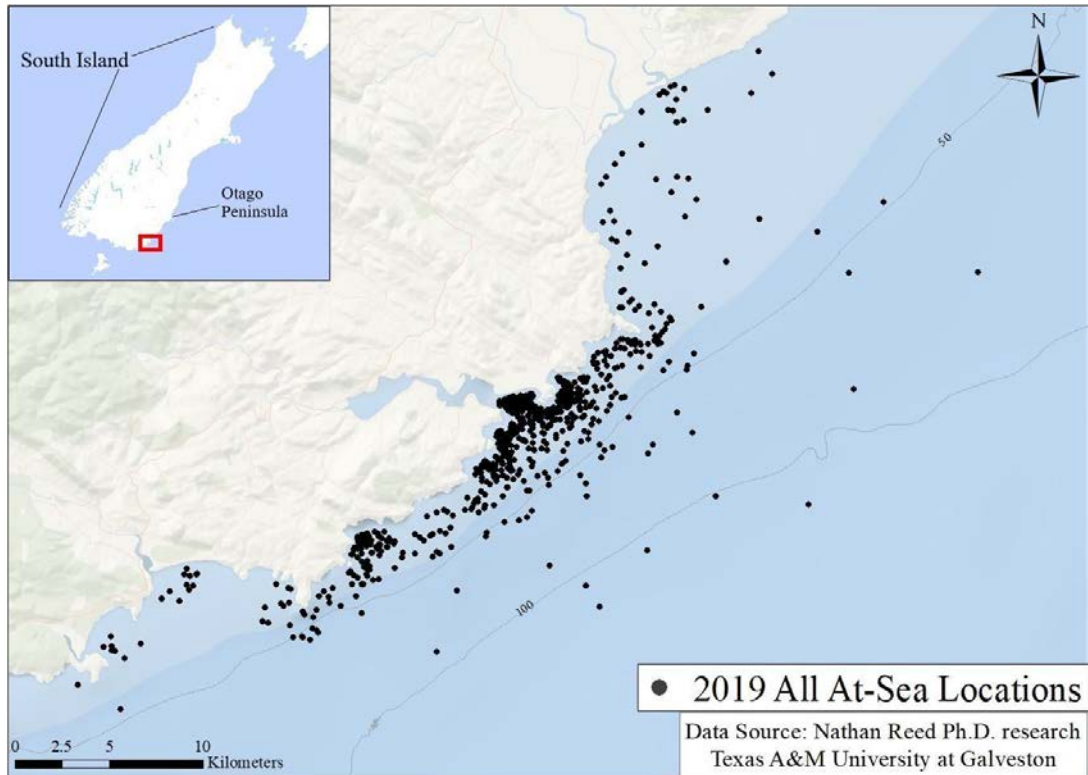


Figure 20: PhD research map showing the 2019 at sea locations of tagged whakahao / rāpoka (New Zealand sea lions) around the Catlins region⁶³.

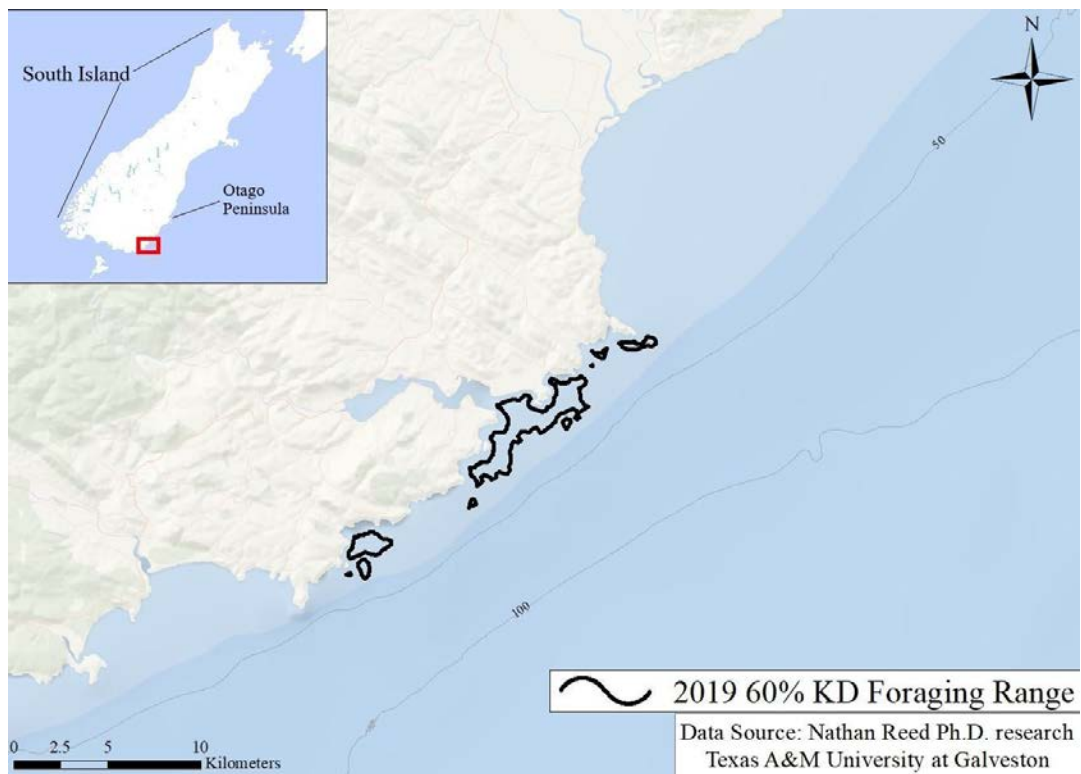


Figure 21: PhD research map showing the 2019 60% kernel foraging range of tagged whakahao / rāpoka (New Zealand sea lions) around the Catlins region⁶⁴.

Other marine mammals, including paikea (whales) are well known to the southeast coastal and pelagic waters¹³ (refer to Figure 12⁴¹).

While MPAs can maintain and enhance biodiversity and ecosystem functioning which would likely benefit large megafauna like paikea (whales), their effectiveness is reduced if important foraging habitat and or breeding grounds of large megafauna are not protected.

Another species of high priority to WWF – NZ are pahu (Hector’s dolphin). SEMPf were instructed⁶⁶ the Maui and Hector’s dolphin Threat Management Plan (“TMP”), which was being updated at the time, would address fishing threats to pahu (Hector’s dolphins) throughout the SEMPf region. However, the TMP provided very little new protection, and no protection for Otago pahu (Hector's dolphins).

Figure 22, from the updated Maui and Hector’s TMP shows in orange the new set net closures for 2020⁶⁷. From the Waitaki river north to Timaru (and above), a set net closure extends offshore. This shows the Tuhawaiki type-2 MPA could be superseded. The final maps used by FNZ and DOC in their advice to the Ministers needs to include all existing protection measures against those proposed in the SEMPf network. Figure 22 also highlights that there is no protection for pahu (Hector’s dolphin) south of the Waitaki river within the SEMPf region.



⁶⁶The Consultation document states “Fishing method restrictions are being considered in an update of the *Hector’s and Māui Dolphin Threat Management Plan*. These restrictions could overlap with the proposed Tuhawaiki and Mokotere-a-torehu Type 2 MPAs and Waitaki Marine Reserve. Therefore, depending on what is decided for the updated plan, the proposed Type 2 MPAs may be superseded or implemented in a modified form”.

Figure 22: Map showing updated pahu (Hector’s dolphin) set net restrictions alongside existing measures for the southeast South Island region⁶⁸

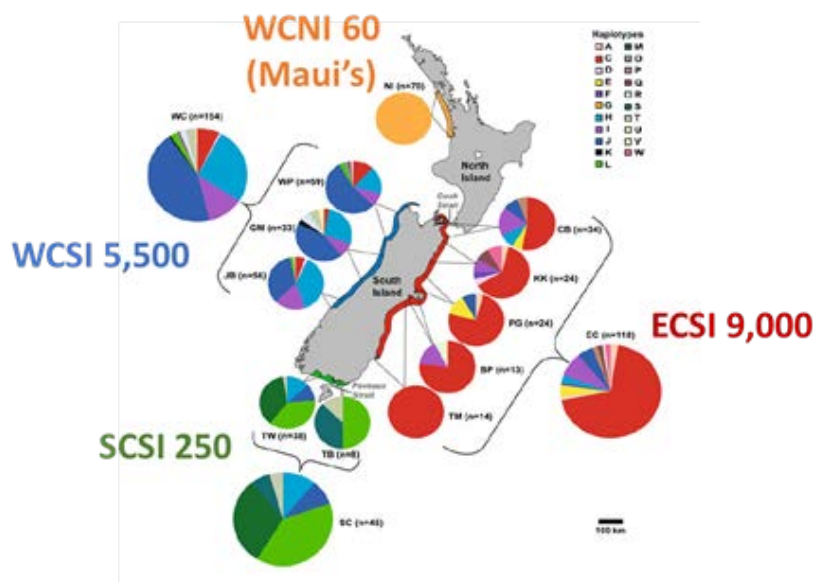
WWF – NZ considers threats to pahu (Hector’s dolphin) should be managed at a local scale to ensure there is no further local depletion, fragmentation, and disappearance of Hector’s populations. Local-level population management:

- Aligns with Kiwi values that every population of dolphins in our coastal environment is important – no matter how big or small. They are like hapū, and just because Hector’s are doing well in one area, does not mean we should allow other smaller populations to decline or disappear.
- Will help to achieve the Government’s Threat Management Plan vision of “resilient” and “thriving” populations by maintaining genetic richness and linkages between the larger populations and the smaller “stepping-stone” populations.
- Is important for the ecological integrity of coastal waters. Pahu (Hector’s dolphin) belong to their local marine ecosystems, playing an important role as top predators in keeping coastal ecosystems healthy.⁶⁹

Scientific understanding about the Otago pahu (Hector’s dolphin) population size and genetics is limited. There is known to be a small population there, which may be an important stepping-stone population for the pahu (Hector’s dolphin) populations in Timaru to the North and the populations at the bottom of the South Island (Porpoise Bay). However, here has been no specific genetic sampling of pahu (Hector’s dolphin) dolphins in Otago (note the gap between ECNI sampling and SCSI sampling in Figure 23).

Four genetic sub-populations

Hamner et al. 2012



⁶⁸ Source of map: Fisheries New Zealand 2020 – website

<https://www.mpi.govt.nz/dmsdocument/40886-mpi-dolphin-tmp-factsheet-south-island-june-2020>

⁶⁹ Rosenblatt and Heithaus (2011)

Figure 23. Genetic groups of Māui and Hector's dolphins⁷⁰

The limited protection of the coastal waters from South of Waitaki represents a gap in threat management to pahu (Hector's dolphin). We recognise that the lack of scientific knowledge about the Otago pahu (Hector's dolphin) meant the Government was not confident to propose protections, with socio-economic costs for fishing communities in this area. Therefore, we strongly recommend the Government build scientific understanding about the Otago pahu (Hector's dolphin) population to enable more robust risk assessment and risk management, and in particular – ensure this important steppingstone population does not decline and disappear.

⁷⁰ Hamner et al. (2012)

From: [Jared Bothwell](#)
To: [SEMP](#)
Subject: FW: late submission, SEMPA, proposed Otago Peninsula Marine Reserve
Date: Monday, 10 August 2020 9:21:59 AM

From: Blake Abernethy (Blake) <s9(2)(a)>
Sent: Monday, 10 August 2020 8:45 am
To: Lauren Bland s9(2)(a)
Cc: Jared Bothwell s9(2)(a); Rebecca Bird s9(2)(a)
Subject: FW: late submission, SEMPA, proposed Otago Peninsula Marine Reserve

Hi Lauren,

Please see below, late submission lodged by Allen Frazer in our Dunedin Office on behalf of Mr Brad Clearwater.

Regards

Blake

From: Allen Frazer s9(2)(a)
Sent: Sunday, 9 August 2020 9:51 PM
To: Blake Abernethy (Blake) s9(2)(a)
Subject: late submission, SEMPA, proposed Otago Peninsula Marine Reserve

Hi Blake

I took a call through our reception from **Brad Clearwater**, on Thursday **6/ 08/2020** about the SEMPA proposed Otago Peninsula Marine Reserve.

He had tried to make a submission by last Monday, s9(2)(a) and was not able to use the submission / online survey (he was very frustrated).

I said the submission date had closed, but that I would pass on his key points/ concerns that he wanted made, but with no certainty it could be included in the submissions

Cheers

Al

Submission;

- Brad Clearwater ph s9(2)(a) - about the proposed Otago Peninsula Marine Reserve (Cape Saunders out to the Papanui Canyon).
 - Has lived on the peninsula all his life (he is now in his late 30s). Has always fished around the Papanui Inlet area – from the rocks as a kid, now diving and fishing in the same area – launching out of Papanui Inlet.
 - He agrees the area needs a rest, and to be monitored, and for example is supportive of new fisheries measures recently introduced for blue cod.
 - But he is very opposed to the proposed Marine Reserve, and locking up the area permanently.
 - He suggests a temporary closure with continued monitoring instead.
 - He noted the approach Fish and Game are using for the Tekapo Canal to rest the area as a good model
-

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From: [Alison Undorf-Lay](#)
To: [SEMP](#)
Subject: Sanford Limited - submission on South East Marine Protection Areas
Date: Tuesday, 4 August 2020 2:47:11 PM
Attachments: [image002.png](#)
[Sanford submission on the proposed network of South East Marine Protected Areas, submitted - July 2020.pdf](#)

Please find attached the submission by Sanford Limited.

Alison Undorf-Lay

Industry Liaison Manager



DDI M [s9\(2\)\(a\)](#)
E [s9\(2\)\(a\)](#)
T +64 (9) 379 4720 **F** N/A

22 Jellicoe Street, Freemans Bay, Auckland, 1011, New-Zealand
PO Box 443 - Shortland Street 1140



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By email: southeast.marine@publicvoice.co.nz

21 July 2020

Proposed south-east marine protection network
Department of Conservation
Conservation House
PO Box 10420
Wellington 6143

Tēnā koutou

Sanford submission on the proposed network of South East Marine Protected Areas

Thank you for the opportunity to comment on your proposed network of South East Marine Protected Areas – Type I.

I wish to bring to your attention that Sanford has lodged an application for an open ocean marine farm with the Otago Regional Council called Project East. The Project East application area is shown on the attached map, see back page of this submission and is within the area identified on your maps as being part of the area included in the south east coast.

Project East

Sanford's open ocean farming application proposes that Two Farming Areas be constructed via a staged development plan growing King salmon. Project East will create year round sustainable opportunities for both Otago and Southland and many new jobs.

The site for the new open ocean salmon farm was chosen after much deliberation, despite the vast area of coastal water there are in fact very few suitable sites available for aquaculture.

It is my view that the Project East salmon farm can successfully operate alongside the new MPA reserves and will not put at risk any of the special values that have been recognised within the reserve network, and in particular the conservation values within:

- Arai Te Uru – T1 kelp beds, and
- Te Umu Koau – D, deep water and deep sand, and
- Papanui Canyon – H1.

Our submission

Sanford asks that **Minister's when deciding on the** South East Marine Protection **Forum's** recommendations not only consider the views of current users in an area but also consider future uses that were not part of the stakeholder considerations back in 2016, such as aquaculture and in particular the potential for salmon farming in Otago waters.

There is currently no aquaculture development in the Otago coastal marine area but this does not mean that the area is not well suited for marine farming.

As New Zealand strives to contribute to the challenge of feeding the world and too create opportunities to generate regional wealth outside of our urban cities, it is important that areas such as the south east coastline are able to be considered for multi use development and protection.

Management of these areas

Sanford supports the directive of the Forum to establish co-management of proposed marine reserves with Ngai Tahu, and also the local host communities of interest.

Government aspires for aquaculture to be a \$30 billion industry by 2030, if there is going to be any chance of achieving this goal then it is vital there be opportunities to grow our aquaculture footprint.

We tautoko your proverb, *Ehara taku toa i te toa takitahi, engari, he toa takitini*. My success should not be bestowed onto me alone, as it was not individual success, but success of a collective.

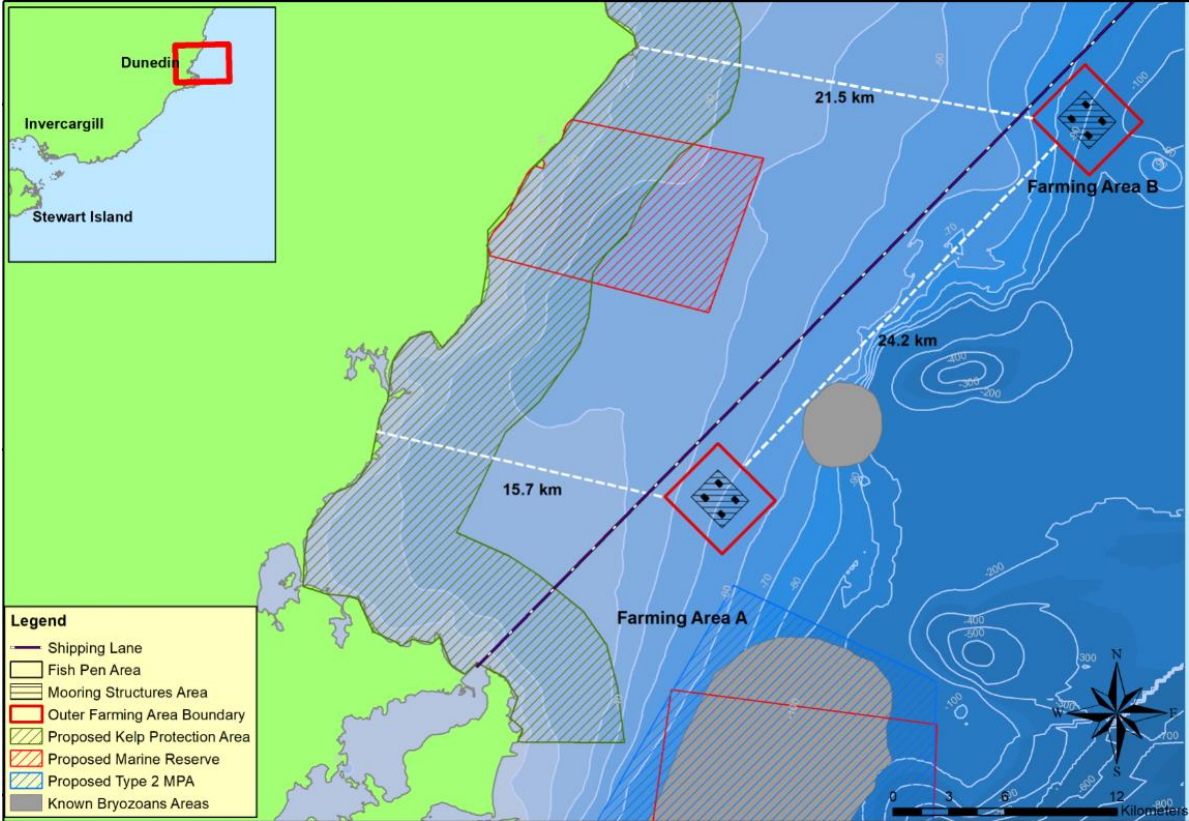
Sanford is most willing to speak to our submission and answer questions in relation to our Project East open ocean marine farm proposal.

Yours sincerely

Na Ted Culley
General Manager - Aquaculture
Sanford Limited

Contact details are **Alison Undorf-Lay** | s9(2)(a) [REDACTED] [REDACTED]

Indicative map of the Project East Two Farming Areas



From: [Rachel Stedman](#)
To: [SEMP](#)
Subject: FW: Tautuku Fishing Club Submissions against the Proposed south-east marine protection network
Date: Monday, 3 August 2020 1:51:56 PM
Attachments: [BetterSolutions-blackbackground_e430822f-e526-414b-9596-822227b26817.png](#)
[EmilyCrossen_6fba04a3-72e3-456f-ab9a-e56bff20a580.PNG](#)
[SC65801403_20073109441.pdf](#)

Let me know if there are any further problems, It appears to be attached to me..

Thanks , Rachel

Rachel Stedman | Law Clerk M: [s9\(2\)\(a\)](#)
79 Stuart Street | PO Box 5541 Dunedin 9054 | New Zealand | Also at Mosgiel www.webbfarry.co.nz



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From: SEMP <southeast.marine@publicvoice.co.nz>
Sent: Monday, 3 August 2020 1:30 PM
To: Rachel Stedman [s9\(2\)\(a\)](#)
Subject: RE: Tautuku FishingSEMP <southeast.marine@publicvoice.co.nz> Club Submissions against the Proposed south-east marine protection network

Dear Rachel,

Thank you for your email, unfortunately there is no attachment.
Could send that through so we can process it please?

Kind regards,
SEMP team

From: Rachel Stedman
Sent: Friday, 31 July 2020 4:34 PM
To: 'southeast.marine@publicvoice.co.nz.' <southeast.marine@publicvoice.co.nz>
Subject: Tautuku Fishing Club Submissions against the Proposed south-east marine protection network

Dear Department of Conservation,

Please find the scanned and signed Submissions against the Proposed south-east marine protection network for the Tautuku Fishing Club as **attached**.

Best regards,

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**SUBMISSION ON THE PROPOSED MARINE PROTECTED AREAS
FOR NZ'S SOUTH ISLAND SOUTH EAST COAST**

SUBMITTER DETAILS

Name of submitter:	Tautuku Fishing Club Dunedin and Haast Incorporated
Postal address:	PO Box 1488 Dunedin 9054
Preferred method of contact:	By post & email
Email:	s9(2)(a)
Telephone number:	s9(2)(a)
Signature: <i>(by Person authorised to sign on behalf of person or organisation making submission)</i>	s9(2)(a)

I **do not** wish for my name and address to be released under the Official Information Act 1982.

I **do not** wish the commercially sensitive information that I have provided, to be released under the Official Information Act 1982

Are you responding as an individual or as an organisation?

- Individual
 Organisation

Which category best describes your main interest in this area?

- Amateur fishing charter vessel operator
 Commercial fishing
 Environmental
 General public
 Owner of land adjacent to a proposed marine protected area
 Recreational fishing
 Tangata whenua
 Other (please specify)

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Proposed marine protection measures

I would like to make a submission on the establishment of the full network:

Yes

No

And

I would like to make a submission on the following sites: (please tick all that apply)

- Marine reserves
- Waitaki Marine Reserve (B1)
- Te Umu Koau Marine Reserve (D1)
- Papanui Marine Reserve (H1)
- Ōrau Marine Reserve (I1)
- Okaihae Marine Reserve (K1)
- Hākinikini Marine Reserve (M1)
- Type 2 marine protected areas
- Tuhawaiki (A1)
- Moko-tere-a-torehu (C1)
- Kaimata (E1)
- Whakatorea (L1)
- Tahakopa (Q1)
- ~~Kelp protection area~~
- Arai Te Uru bladder kelp protection area (T1)

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- 1 This submission is made on behalf of Tautuku Fishing Club Dunedin and Haast Incorporated ("Club") and its members, in response to the proposed southeast marine protected areas Consultation document from February 2020.

ABOUT US:

- 2 The Tautuku Fishing Club is based in Dunedin and Haast and is a large club formed in 1970 with 75 Members. We are a Co-Founder of the Dunedin Community Salmon Trust Inc, affiliated to New Zealand Sport Fishing Council – NZSFC, affiliated to Fish Mainland Inc, affiliated to New Zealand Federation of Freshwater Anglers – NZFFA, and to IGFA. The Club rooms were founded in 1972 and prides itself in bringing the community together to fish recreationally. The Club runs competitions and family and community events which is rich in Dunedin History and has a huge Community following.
- 3 The Club prides itself in its sustainability and conservationist approach to recreational fishing. Our associated projects include: collaboration and partnership with Otago as the 1st in the World to breed Blue Cod for either reseeding or farming purposes, collaboration and partnership with Otago University for Shark research, the blue Cod "tagging" exercise with the Tindale Research Foundation, continued shark "tag & release" exercise with the Ministry for Primary Industries, and we are now in the process of developing a recreational fishing app for future catch recording.

ABOUT RECREATIONAL FISHING

- 4 Fishing is one of New Zealand's most valued and popular recreational activities (MPI reference). Fishers are largely responsible for initiating an interest in the oceans, the species unique to New Zealand and are inherently advocates for the protection of marine life and sustainability of the habitat and species that are caught. Fishing is an activity that benefits both physical and mental health and is transferable to all age groups.

OUR SUBMISSIONS

- 5 The Club and its members support the general policy of protection of marine biodiversity representative of New Zealand's marine habitats and ecosystems. The Club considers the protection of marine biodiversity is beneficial to all New Zealanders, including recreational fishers.
- 6 However, the Club considers the negative impact the proposed Type 1 Marine Protection Areas ("MPAs") will have on recreational fishing will be unreasonable and substantial. It considers the need for Type 1 MPAs in these areas (rather than other, less restrictive alternatives) is not sufficiently demonstrated. It considers that the demonstrable negative impacts of some of the Type 1 MPAs on recreational fishing outweigh the benefits.
- 7 The Club and its members strongly object to the proposed heavy reliance on Type 1 MPAs.

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- 8 It is the Club's submission Type 2 MPAs should be substituted for the Type 1 MPAs originally proposed at Ōrau, Okaihae and Hākinikini. The Club considers using Type 2 MPAs in these areas would achieve the policy goal of the protection of marine biodiversity, while avoiding the numerous negative impacts on recreational fishing.
- 9 The Club and its members therefore oppose all proposed Type 1 marine reserves but support the five Type 2 MPAs proposed in the original consultation: Tuhawaiki, Moko-tere-a-torehu, Kaimata, Whakatorea and Tahakopa and the introduction of Type 2 MPAs at Ōrau, Okaihae and Hākinikini.
- 10 The Club and its members submit that no Type 1 MPAs should be implemented because:
- a Recreational fishing has a limited impact on Marine Biodiversity in these areas at present, and its prohibition is therefore unnecessary to achieve the policy goals;
 - b Alternative protection measures are available to achieve the desired result of protecting marine biodiversity, without the need for Type 1 MPAs;
 - c Insufficient consideration has been given to the impact of Type 1 MPAs on recreational fishers and commercial fishers in these areas to enable informed and fair decision-making and the process of this consultation has been unsatisfactory in many respects;
 - d The health and safety of recreational fishers will be at risk if type 1 MPAs are implemented in these areas;
 - e Fishing culture, mental health, community culture, and tourism will be negatively impacted by the implementation of Type 1 MPAs in these areas; and
 - f The restrictions in the current legislation mean this process would best be put on hold until the legislation is updated.
 - g There are a number of areas that have been extended in size without consultation, the Club considers this concerning and in contravention of recreational fisher's interests.

LIMITED IMPACT OF RECREATIONAL FISHING AT PRESENT

- 11 Decisions on marine reserves along the south east coast must take full account of the fact that adverse weather and adverse sea conditions already prevent recreational fishing for most of the year. This is to the extent that there are usually only about 40-60 days that recreational fishing is safely available, and these are further subject to the other restrictions on when people can go out fishing (i.e. work and other commitments).
- 12 Because of these natural restrictions, there are extremely limited effects on habitat from recreational fishing use at present. There is therefore a significantly reduced need for marine reserves or other management mechanisms to be created to protect the biodiversity and

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specified habitats on the south-east coast of the South Island, particularly when compared with more populated marine areas of New Zealand, such as the Hauraki Gulf, where weather and adverse sea conditions are much less extreme. Further out to sea, such as over the proposed Papanui Marine Reserve, weather and sea conditions are even more restrictive and fishing may only be possible for recreational fishers 20 days a year.

- 13 There is no evidence to support a conclusion that the exclusion of recreational fishing is necessary to protect any of the identified habitats given the existing limited recreational fishing access. Therefore, no Type 1 reserves should be implemented and instead, if any marine reserves are designated, they should be Type 2 reserves in the limited locations supported by the Club and other recreational fishers.
- 14 In light of the lower population and existing limitations from weather on recreational fishing, there are too many reserves and management areas proposed for the south east coast. In addition, there is no justification for extending the management area so far beyond a particular habitat it is seeking to protect. A management area restricted to the confines of the relevant habitat is all that is required by the MPA Policy, and all that can possibly be justified on the information available.
- 15 Impacts on stakeholders and Iwi are too great to adopt wide ranging and unjustified protections at this time. The Forum should recognise the inadequacies of the legislation it is working under, and await the more flexible and robust approach that will be available following legislation reform.
- 16 The Type 2 reserves accepted by the recreational fishers provide sufficient habitat protections without overextending the Forum's reach and creating unjustified impacts on existing users. The Forum does not have enough information to provide a basis for recommending any further marine reserves in the face of opposition from existing users.
- 17 Furthermore, the proposed Type 1 MPAs would not protect the fishery resources and environment from a number of other, greater threats, such as discharge of sediment, plant nutrients and toxins (including the raw sewerage off Lawyer's Head, which is in the middle of the proposed Type 1 MPA). In the Club's view, the harvesting of flora and fauna from the Southeast Coastal Area is of lesser impact than many other activities.

ALTERNATIVE PREFERABLE MEASURES

- 18 Both the MPA Policy and the Consultation Document note that areas that are closed to certain fishing methods may be implemented in lieu of Type 1 Marine Reserves, as long as these management tools enable a site's biodiversity to be maintained or recover to a healthy functioning state.
- 19 It is therefore the Club's submission that Type 2 MPAs should be implemented in Ōrau, Okaihae and Hākinikini. This would achieve the policy goal of protecting marine biodiversity while avoiding the negative consequences associated with Type 1 MPAs, detailed in these submissions.

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- 20 The current legislation creates inflexible and complicated marine protections. The reasons that need to be relied on for creating a marine reserve are far too narrow for the interests of all stakeholders to be adequately considered. Moreover, the reasons given are not supported by sufficient evidence or information to understand what might be protected. Management mechanisms must be properly tailored to match the reasons that they are put in place, and with due consideration of all of the characteristics and uses of that area.
- 21 Protections based solely on types or classes of habitat are an inadequate justification for wide ranging 'national parks' of the sea. It is an approach which selects one to two types of habitat for protection without gathering further information about what else may actually be present in each habitat. It is possible for example, and there is no information to contradict this, that a protection of "Exposed Shallow Gravel" will just be a protection for a bunch of rocks with no real other value.
- 22 Until more information is available about what ecosystem any particular habitat might support, and the information is compiled to identify an appropriate management mechanism to best manage that ecosystem, the proposed areas are unjustified and overly restrictive. The approach in the current legislation isolates a scientific rationale, but science is not a reason for creating a reserve in itself, science is the method by which information should be found to establish and support a widely acceptable and collaborative approach to managing the marine environment.
- 23 It is obvious that the expansive Ōrau Type 1 reserve, which contains an ongoing serious pollution source, is unlikely to offer any particular benefit in terms of habitat protection. The habitats which the Forum has been tasked to find are located further down the coast from the substantial and continual source of wastewater pollution. It is unnecessary for this reserve to be extended so far to the north given the current human impact on the environment. This is a highly utilised recreational fishing area and a Type 1 marine reserve of the size proposed will have too great an effect on existing users.
- 24 A number of the proposed areas would best be managed through seasonal restrictions, species specific protections or other more flexible options, which are unavailable under the current legislation. It is recognised that considerable benefit is gained from mechanisms which work with the community. The recreational fishing community in Dunedin cares for this environment as if it were part of their backyard.
- 25 A more collaborative approach is needed which allows interested groups to come together to identify the issues that are most important to them. Recreational fishers may also have some areas that they would like to see properly managed, for example to provide for and encourage regeneration of fish stocks through seasonal restrictions or periodical no-take areas.
- 26 The Club strongly supports an integrated Iwi, community and agency approach for managing marine areas, such as was successful in Fiordland in the 1990s, where a representative community working group (later Fiordland Marine Guardians) was formed and an agreed vision, information sharing and consultation resulted in a management plan for the harvesting

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of paua in the area. The key to success is ensuring local involvement in the management of local areas and the co-operation of all interested groups. This has not happened through the current process.

- 27 Management mechanisms such as this have already been put in place by Iwi along parts of the south east coast and it is these type of management mechanisms which should be utilised in the future and recognised as contributing towards biodiversity protection. A collaborative, well supported and thoughtful approach should be preferred. If everyone is involved in creating the management mechanisms then everyone will abide by them.
- 28 The current approach is too onerous and insufficiently explained for many sectors of the community. The scientific reasons for creating the currently considered proposals are incomprehensible for most recreational fishers. The only thing that many can see is the lost access to recreational fishing with family and friends. More information needs to be gathered to ensure that the most appropriate protections are identified and to ensure that everyone understands and supports the reasons for putting management methods in place.

INSUFFICIENT CONSIDERATION OF RECREATIONAL FISHERS

- 29 At pages 17-21 of the Consultation Document, the Costs and Benefits of the proposed network are discussed. The Club considers that:
- a The interests of recreational fishers have not been given adequate weighting in these considerations.
 - i For example, at page 18, the listed impact relevant to recreational fishing is that the implementation of the proposed network may:
 - A “potentially be associated with negative cultural, social and economic impacts on the fishers who are affected by area and fishing method restrictions (see Table 1 for estimates of the potential economic impacts on commercial fishers)”.
 - ii To group the cultural, social and economic impacts of the proposed network on both recreational and commercial fishers into one bullet point, noted merely as “potential” impacts, demonstrates a lack of understanding of a diverse range of negative consequences of the network, all worthy of genuine and thorough consideration.
 - b Implementing Type 1 MPAs at Ōrau, Okaihae and Hākinikini would interfere unduly with and adversely affect the Club members’ existing usage of the Type 1 areas for recreational purposes and would therefore be contrary to the public interest under the Marine Reserves Act 1971, s 5(6)(d) and (e).
- 30 It is the Club’s submission that further consideration should be given to the opinions of recreational fishers. Further information should be gathered by the Forum before these plans

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are rolled out. The consultation process should not be used as an information gathering opportunity. The conclusions regarding the impact of each of the proposed Type 1 MPAs demonstrates a complete lack of understanding local usage and concerns.

31 For example, the effects of the proposed Type 1 MPA at Ōrau on recreational fishers are understated and described as “likely to be moderated by other suitable [unspecified] locations nearby”. Without access to the popular fishing spots within the proposed Type 1 MPA at Ōrau, the nearest viable alternative would be to:

a Launch into the Dunedin harbour (for example at Port Chalmers); or

b Drive for 40 minutes to Taieri Mouth.

Because fishing in the polluted and busy harbour is no substitute for the ocean fishing opportunities in the Ōrau area given the species of fish are different and paua and crayfish cannot be found in the harbour, the only real “suitable” location is Taieri Mouth. Launching at Taieri Mouth presents the issue of getting over the bar – which can be dangerous for small crafts. The increased travel time may be a deterrent, and will also lead to all recreational fishers being forced into the same, already popular, fishing spots.

32 Shore based, or “wet fishers” will also be heavily impacted by the introduction of the Ōrau Marine Reserve. It is important to provide safe opportunities for Shore fishing close to and accessible from Dunedin City. Without the popular shore fishing spots at St Kilda, Tomahawk and Boulder Beach, our Club members are likely to venture to more precarious fishing spots such as Cape Saunders, where their safety will be put at risk.

33 Diving spots along the south coast are plentiful, but it is the weather and sea conditions that limit opportunities. The most common reason for recreational diving is recreational fishing. These waters are rarely clear enough to offer good diving opportunities for any other reason. This opportunity must be kept open along the south coast, especially near populated areas. There are popular diving spots for our members in the proposed Ōrau, Okaihae and Hākinikini areas. Paua diving is particularly popular in the proposed Type 1 Ōrau area, and there is no substitute area available. Okaihae is a popular spot for spear fishing, and this type 1 MPA will be a great loss to the diving community if implemented.

34 The marine Forum has some scientific information to understand the south east coast, but information gathering to understand impacts on recreational fishers has been almost non-existent. The Forum does not have enough information to understand the impact of the proposed areas on recreational fishers, and information should be gathered from fishers to provide a clear understanding of:

a Favoured launching sites;

b Best and/or most popular recreational fishing spots;

c Preferred spots in different types of weather;

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- d Important sheltering locations;
 - e Counts of recreational takes;
 - f Understanding safety considerations for smaller boats.
- 35 Independent and robust information about existing recreational fishing on the south-east coast is essential for the Forum to understand the impact of imposing restrictions on existing recreational users and fishing opportunities, before identifying proposed reserves or management areas.
- 36 Furthermore, this independent information gathering should take account of the voluntary agreements in place between commercial and recreational fishers along the south east coast. These agreements essentially separate the two sectors based on longstanding agreements. The imposition of Type 1 MPAs severely disrupts these separations and potentially displaces the two sectors. The likely consequence would be that they compete more than previously over other stretches of coastline that both value for access and fishing. In other words, there is potentially a far greater level of disruption, as a consequence of implementing some MPA proposals, than the Club could outline in its submission at this time.
- 37 Examples of this potential disruption include a displacement of recreational fishers from the Type 1 MPA to the area around Taieri Mouth and the Otago Harbour will lead to increased pressure on these areas which could become sea deserts due to increased volumes of fishing which would previously have been spread out over the Type 1 MPA areas.
- 38 Without this information the Forum is not in a position to assess the full impacts of specific areas on recreational fishers along the south east coast, and is not in a position to put forward any area because it does not have a sufficient understanding of the likely adverse impacts on recreational fishers. It is unreasonable to gather the necessary information to understand impacts on recreational fishing through this process. These impacts should have been identified before the proposed areas were finalised for consultation.
- 39 There have also been limitations on recreational fishing representation on the Forum, and it is of course difficult for two recreational fishers to represent the views of a very wide and dispersed group. The Club and its members are especially concerned about the representation of recreational fisher's views given:
- a The Club and other local fishing-related organisations did not have any input into the selection of the person who allegedly was tasked with representing our interests, which the Club considers to be a breach of due process requirements;
 - b The expressed directive by the panel to alleged sector representatives that they were banned from informing locals of progress made and seeking their input throughout the process, which the Club considers to be a breach of natural justice requirements;

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- c Nelson Cross was removed from the panel, and his replacement Steve Bennett was unwilling to inform us when we requested a report on updates; and
- d Tim Ritchie's views alone do not represent the majority of recreational fishers.

40 The consequence of the process followed by the Forum is that it has formulated its proposals within a void of locally relevant information, which inevitably raised the prospect of the proposals attracting opposition. This process goes entirely contrary to what the Marine Guardians of Fiordland and Kaikoura found to be central to their success. As the Guardians designed their proposed management changes, those changes were tested with local input and modified through compromises 'gifts and gains'. The end result was that everyone involved had a sense of buy-in and preparedness to support their collective changes. In summary, the Club considers the Forum's process is fundamentally flawed and counterintuitive if the Forum wants to gain local support. The process should be seriously reconsidered.

41 The Club considers that due to the economic downturn because of Covid-19 it is of importance to allow recreational fishers to provide for their families through catch limits that are already in place or limited further by a less restrictive MPA plan.

42 The timing of the proposed reserve area is a 'kick in the guts' to those that need to fish for recreation and mental health due to the significant economic downturn.

43 Under the current circumstances, the Club appeals to the Forum to defer its process until the legislation is updated, or at least until the expected economic and social upheaval has run its course.

INADEQUATE INFORMATION ON COMMERCIAL FISHING

44 The Club and its members are also concerned with the level and depth of analysis of the effects of the proposed network on Commercial Fishers. For example, it is not clear whether the Treasury has done any analysis, and we question whether the Department of Conservation could demonstrate the capability to analyse these effects fairly and transparently.

45 Given that the Forum must weigh the adverse impacts on existing users, and the commercial fishers will be the existing users that are most impacted, the lack of information about commercial fishing creates an unfair and inequitable process. Consultation should be put on hold until adequate information is gathered and made publicly available.

46 Impacts on commercial fishers are essential to consider in understanding how any network of reserves might function. Where one area might prevent commercial fishing there will be a clearly felt displacement effect on other fishing grounds. The current proposals and lack of information about impacts on existing commercial users means that no assessment of understanding of displacement effects is possible at this time, and this puts the recreational fishers in an impossible position.

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- 47 Consultation on and recommendation of any proposed Type 1 MPAs is premature until information about impacts on commercial fishers is made public. Given the lack of information the Forum is already working with, it would seem obvious that making available any commercial fishing information is essential for the community to review before finalising their submissions.
- 48 The current proposals have been formulated with reference to protecting specific habitats and have a very narrow focus purely because the legislation relied on to create Type 1 MPAs also has a narrow purely scientific focus. The process is difficult to follow and understand for many recreational fishers. It is also inappropriate that the southeast coast is considered in isolation, due consideration should also be given to other ecosystems and habits in adjoining coastal areas.

HEALTH AND SAFETY IS AT RISK BY PROPOSED MPAS

- 49 Any potential impact on the safety of recreational fishers must be fully considered by the Forum. A number of the areas identified for Type 1 MPAs or management areas would result in recreational fishers having to travel a large distance offshore before starting to fish. This creates significant safety concerns, particularly for families using smaller-sized boats.
- 50 The proposed Type 1 MPA at Ōrau is one example. This will reduce the safety of our Dunedin-based Club members because it will force them to venture out beyond areas sheltered from wind, and increase their travel time from shore. These safety considerations are not to be understated, as in our experience the swells in this area are large and the sea conditions very changeable. The need to travel too far from shore will put our members at risk. This area also offers several unique launching points close to Dunedin city that provide recreational fishers and their families the opportunity to get out fishing during an appropriate weather window (for example Tomahawk Beach). Locations which provide this opportunity must be preserved and proximity to residential areas maintained. It is this proximity which promotes recreational fishing opportunities. Another area which has similar safety considerations is Hākinikini.
- 51 Recreational fishers with young families will have reduced fishing opportunities because several of the proposed areas would mean recreational fishing could only be done in waters further out from the coast where weather and sea conditions are considerably more risky. Again, many of our members with families enjoy fishing in the proposed Ōrau Type 1 area, which provides a safe space for children to be introduced to the activity.
- 52 Because of the often difficult weather and sea conditions, and the high probability of quickly changing conditions, fishing areas must be maintained that are close to the coast, and in areas that provide an easy retreat when the weather turns bad.
- 53 All Type 1 reserves:
- a That create the need to travel well offshore before starting fishing; and/or

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- b Which mean that fishing opportunities in sheltered areas, or close to shelter are removed; and/or
- c Which mean that long distances need to be travelled in to shore when weather conditions deteriorate;

will cause significant safety issues for recreational fishers.

- 54 Another example is Okaihae, a valuable fishing spot for recreational fishers. The shelter offered by Green Island, the insurance value of being able to fish nearby when there is a risk of bad weather, and having that proximity to shelter, is invaluable and would present a significant loss. The implementation of this proposed area would have a significant impact on existing recreational users, including divers and spear fishers.

FISHING CULTURE, COMMUNITIES, AND TOURISM WILL BE NEGATIVELY IMPACTED

- 55 Areas like Ōrau, Hākinikini and Te Umu Koau which are close to towns, cities and other residential settlements provide important opportunities for recreational fishers. Because these proposed reserves are close to residential areas, particularly communities popular for holidaying and local tourism, continued recreational access is necessary to support and encourage fishing opportunities for the public. Each occasion that weather is permissible, local fishers can be seen fishing off the coast within these areas.
- 56 Tourism opportunities are not confined to overseas tourists. New Zealanders travel within New Zealand to go recreational fishing, and this source of recreation, and the corresponding income for local residents, must be protected. The Dunedin City Council describes Dunedin as “a sea fisherman's dream” on its website, but the proposed Type 1 MPA at Ōrau will be detrimental to the Council's stated promotion of the City.
- 57 Living and interacting with the coastline and the ability to gather seafood is an essential part of life for many that live and holiday on the coastline. Type 1 MPAs close to residential areas will remove this important psychological, social and cultural experience and should be avoided.
- 58 Ready access to safe fishing spots also ensure that families have a means to put locally gathered nutritious food on their tables at minimal cost. This is going to become increasingly important over the coming months, following the expected severe economic downturn which will in turn lead to high unemployment and many families being without income. The ability to gather seafood to feed the family will become a vital lifeline for many families struggling with the economic downturn. Preventing them from being able to access this valuable resource by introducing the Type 1 MPAs will cause real and serious hardship to such families and goes against the current governmental advice to “be kind” during this crisis. The Club and its members appeal to the Forum's sense of compassion, especially over the coming months.

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- 59 Introduction of the Type 1 MPAs will also prevent struggling families from being able to collect driftwood from the beach to heat their homes. It will also prevent residents in low-lying areas of St Clair, St Kilda and South Dunedin from being able to prepare emergency sandbags during the frequent flooding situations in those areas. In poorer areas, many residents do not have access to cars, so need to be able to take sand from the beach within walking distance in order to protect their homes from flood damage, as sand bags are often the only line of defence for such residents (many of whom cannot afford to relocate during floods). Any restriction on access to sand on nearby beaches for flood control would be a serious oversight.
- 60 There is also likely to be a mental health impact of introducing Type 1 MPAs, as for many, fishing and gathering seafood is a calming leisure activity which allows them to get into nature and is therefore good for mental health. With the current Covid-19 crisis and impending financial crisis the government is focussing on ways to improve mental health. Fishing and seafood gathering fit this bill, and the effective removal of these as options for a large portion of the recreational fishing community is likely to have an adverse effect on mental health.
- 61 The Club also has a thriving community built around local fishing and seafood gathering, particularly recreational fishing off Tomahawk beach/Smaills Beach from Maori Head to Harakeke Point (see attached photo). Tractors are used to launch boats of Club members from Tomahawk Beach to assist families in putting food on their tables. The Club runs various popular community events such as our Easter Classic fishing competition and our "Ken Wyber Cup" for the heaviest fish caught at Smaills Beach which has been an annual event since 1981 (see attached photos of a young club member with the cup). Fish which have been caught at Smaills Beach for this competition include Tope, Barracoutta and Blue Cod.
- 62 These events will be greatly impacted by the proposed Type 1 MPAs, which will prevent fishing in our popular areas. We consider this will be a great loss to our communities, and their sense of community spirit. It may also lead to a reduction in tourism.

RESTRICTIONS IN CURRENT LEGISLATION

- 63 Setting out information about habitat types and locations does not assist much of the community to understand why the Forum is looking to lock up particular marine environments by establishing so many Type 1 MPAs. The marine area is a community resource and protections need to be put in place with the full involvement of all members of the public, not just a narrow and select focus on the needs of the scientific community or meeting an arbitrary target to lock up a set proportion of habitats in a particular region.
- 64 The proposals put forward cannot be sufficiently supported because the process does not provide for a wide enough assessment of each environment, or especially the known uses of each area. The scientific basis in the current legislation is outdated and fails to capture the interests and concerns of locals.

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- 65 A more appropriate approach will incorporate a broader assessment that encompasses the shoreline and other ecosystem interactions. The Forum has attempted to refer to these things as providing reasons for establishing Type 1 MPAs in some areas, but ultimately these are not matters that the Forum can consider because they are outside the scope of the Marine Reserves Act or fisheries legislation which is being relied on to create the proposed areas.
- 66 Regeneration of fish stocks, protection of an endangered species, or identification of a unique ecosystem, these are all reasons that are easier for recreational fishers to understand when compared to the reasons for locking up a marine area under the current legislation. The Club understands that the intent of the MPA Policy is to provide that bridge between the Marine Reserves Act and current interests in biodiversity protection. But this Policy too makes it difficult to see the current process as reasonable when the mere action of identifying various types of habitats appears to be used to justify preventing fishing access, even without first obtaining any understanding about what is actually present in the relevant marine area.
- 67 Any reasons identified for restricting fishing opportunities should be clearly articulated and supported with information to allow recreational fishers to appreciate and understand the reasons why they may need to limit recreational fishing access, and especially in those situations where they might be expected to forego fishing altogether. The present legislation, and the limited information available to the Forum to date, gives the impression that the current process is proceeding full steam ahead without any clear information or good reason to underpin a decision or recommendation to establish the proposed Type 1 MPAs.
- 68 If clear, well supported reasons could be researched and communicated to recreational fishers it would certainly be appreciated by members of the recreational fishing community who, aside from commercial fishers, are the people who actually interact with the southeast coast marine environment most frequently. At the moment the lack of information only contributes to making this a very intimidating and difficult process, with a great personal impact in terms of removing valued and longstanding recreational pursuits.

SUMMARY OF OUR SUBMISSIONS

- 69 The Club and its members submit that Type 1 MPAs should not be implemented in Ōrau, Okaihae or Hākinikini because:
- a Recreational fishing has a limited impact on marine biodiversity in these areas at present, and its prohibition is therefore unnecessary to achieve the MPA Policy goals;
 - b Alternative protection measures are available to achieve the desired result of protecting marine biodiversity, without the need for Type 1 MPAs;
 - c Insufficient consideration has been given to the impact of Type 1 MPAs on recreational fishers and commercial fishers in these areas to enable informed and fair

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decision-making and the process of this consultation has been unsatisfactory in many respects;

- d The safety of recreational fishers will be reduced if Type 1 MPAs are implemented in the areas outlined in this submission;
- e Fishing culture, mental health, community culture, and tourism will be negatively impacted by the implementation of Type 1 MPAs in these areas; and
- f The restrictions in the current legislation mean this process would best be put on hold until the legislation is updated, or at least until the expected economic and social upheaval as a consequence of COVID-19 has run its course.

70 The Club and its members strongly object to the proposed heavy reliance on Type 1 MPAs.

71 It is the Club's submission that Type 2 MPAs should be substituted for the Type 1 MPAs proposed at Ōrau, Okaihae and Hākinikini. The Club considers using Type 2 MPAs in these areas would achieve the policy goal of protection of marine biodiversity, while avoiding the numerous negative impacts on recreational fishing.

Date

31/07/20 .

s9(2)(a)

Tautuku Fishing Club Dunedin and Haast Incorporated



Recreational fishing off Tomahawk Beach/Maori Point to Harakeke Point.



Recreational fishing off Tomahawk Beach/Maori Point to Harakeke Point.



Recreational Fishers' tractor to launch boats of Tomahawk Beach to assist families in fishing our coast in providing food for their tables.



Recreational fishing off Tomahawk Beach/Smaill's Beach from Maori Head to Harakeke Point.



Tautuku Fishing Club Dunedin "Ken Wyber Cup" heaviest fish caught from Smail's Beach. Has been fished from 1981! Fish species that have been caught are Tope, Barracoutta, and Blue Cod.

From: [Bill Chisholm](#)
To: [SEMP](#)
Cc: [Victor Thompson](#)
Subject: Revised and amended submission from South Island Eel Industry Association Inc
Date: Sunday, 2 August 2020 1:41:45 PM
Attachments: [South East MPA submission August 2020 .pdf](#)

To: SEMP
From: Bill Chisholm
Subject: Revised and amended submission from South Island Eel Industry Association Inc

Dear SEMP

In accordance with your instructions, attached and re-submitted is an amended submission from the South Island Eel Industry Association Inc.

Yours faithfully

Bill Chisholm, Chisholm Associates,

s9(2)(a)

Ph s9(2)(a)

Email s9(2)(a)

Website www.chisholm.co.nz



From: SEMP <southeast.marine@publicvoice.co.nz>
Sent: Wednesday, 3 June 2020 3:26 PM
To: Bill Chisholm s9(2)(a)
Cc: semp@doc.govt.nz
Subject: FW: South East MPA submission 2020 V2

Tenā koe Bill,

On 25 March 2020, you made a submission via email during the public consultation process on the proposed southeast marine protected areas (SEMP) network on the south-east coast of the South Island. Your submission is attached.

After you made your submission, the SEMP public consultation was withdrawn due to New

Zealand's emergency response to the global COVID-19 pandemic, which meant people could no longer participate meaningfully in the SEMP public consultation process.

On 3 June 2020, the Department of Conservation (DOC) and Fisheries New Zealand recommenced the SEMP public consultation for two months. We are again inviting public feedback on the proposed network, which remains unchanged from the proposed network you have submitted on.

DOC and Fisheries New Zealand acknowledge the time and effort taken in making your submission.

Now that public consultation has recommenced, here are your options for your submission:

- 1) Do nothing - your submission will be automatically considered in this new public consultation process
- 2) Amend and resubmit your submission by replying to this email. Your submission will be considered in this new public consultation process
- 3) Withdraw your submission by replying to this email, advising us you wish to do so. Your submission will not be considered

Submissions are now due by 3 August 2020.

For further information, please visit the DOC website: <https://www.doc.govt.nz/our-work/south-eastern-south-island-marine-protection/>. DOC is investigating options for live online question and answer sessions with the public. Should they proceed, details of these sessions will be on the DOC website.

DOC also plans to provide email updates to stakeholders during the consultation period. If you have any further questions or would like to opt out of these updates please email DOC at semp@doc.govt.nz.

Kind regards
PublicVoice

From: Bill Chisholm s9(2)(a)
Sent: Wednesday, 25 March 2020 11:03 am
To: SEMP <southeast.marine@publicvoice.co.nz>
Subject: South East MPA submission 2020 V2

To: Proposed Southeast Marine Protection Network, Department of Conservation, PO Box 10420, Wellington 6143

From: Bill Chisholm, on behalf of the South Island Eel Industry Association Incorporated

Re: Submission on Proposed South-East Marine Protected Areas

Please find attached a submission on the above.

Yours faithfully

Bill Chisholm, Chisholm Associates,

s9(2)(a)

[Redacted]

[Redacted]

Email s9(2)(a)

Website www.chisholm.co.nz





South Island Eel Industry Association

P O Box 1673, Invercargill.

telephone 03 230 4608

fax 03 230 4475

Email: waituna@xtra.co.nz

Proposed Southeast Marine Protection Network
Department of Conservation
PO Box 10420
Wellington 6143

2nd August 2020

Sent by email to: southeast.marine@publicvoice.co.nz

AMENDED Submission on the Proposed South-East Marine Protected Areas

This is a submission made by the South Island Eel Industry Association (SIEIA). SIEIA represents commercial eel fishermen who utilise the eel resource (shortfin and longfin eels) in the South Island, including coastal estuaries in the South-East Marine area. Our members comprise the majority of eel permit holders and take the majority of the shortfin and longfin eel catch in the South Island.

The address for service for this submission is C/- Bill Chisholm, Chisholm Associates, s9(2)(a) [redacted] Ph s9(2)(a) [redacted] email s9(2)(a) [redacted]

Our members are often involved in other commercial fisheries, especially pāua and rock lobster fisheries. We have a close involvement with other commercial fishing organizations and their issues through the Commercial Fisheries Forum. Consequently, SIEIA supports the joint submission of the Paua Industry Council, Rock Lobster Industry Council and Fisheries Inshore NZ, and endorses all points made in that submission. For brevity, they will not be repeated here.

This submission is made after a careful reading of the Consultation Document dated June 2020 (the Consultation Document), and ministerial advice papers posted on the DoC website.

SIEIA opposes all proposed marine reserves in estuaries, i.e. proposals D1 – Pleasant River/Stony Creek; L1 – Akatore Estuary and Q1 – Tahakopa Estuary, as outlined in the Consultation Document.

Section 3 of the Consultation Document provides a basic analysis of the cost-benefits of the proposed network of Marine Reserves, including the eel fisheries. The Consultation Document also poses some questions for submitters to answer. The rest of this submission (below) is SIEIA's response to the cost-benefit analyses, and the questions posed in Section 3 of the Consultation Document, as they relate to the shortfin (SFE) and longfin (LFE) eel fisheries.

Of particular concern to SIEIA are the following statements from the Department of Conservation (DoC), in advisory notes to the Ministers of Fisheries and Conservation:

DOC is concerned that the Fisheries New Zealand's assessment of the potential for impact on the eel fishery in the estuaries is based on data provided by the eel industry (via a submission).

DOC's view is that the statement regarding the maximum displacement of fishing from the Quota Management Area appears to be misleading and remains unjustified as it does not account for the rotational nature of the fishery (i.e. summing individual maximum catches from each MPA does not equate to an annual maximum displacement).

DoC's view (above) is itself misleading. DoC do not have any knowledge of the mechanics and logistics of commercial eel fishing, yet they claim expertise on "the rotational nature of the fishery". Despite SIEIA's letters and submissions to the South-East Marine Protection Forum (SEMPF), DoC continue to take the view that SIEIA is intent on misleading the process, and that DoC (somehow) knows more about eel fishing than SIEIA or the fishermen themselves. DoC's stance on this matter is consequently absurd, unprofessional and unbecoming of a Crown agency.

SIEIA's previous correspondence and submission to SEMPF are attached to this submission. SIEIA stands by all statements made in these earlier documents. They remain relevant for this submission as well. For brevity, the main points to emphasise from our earlier correspondence, and this submission, are summarised below:

1. There are two regular commercial eel fishermen in that area of SFE15 affected by the three proposed estuarine closures (through gazettal as marine reserves). One is based in Balclutha, and one in Owaka. At least three other commercial eel fishermen fish in these estuaries in some years, but this is not a regular occurrence.
2. Commercial eel fishermen will regularly travel up to 100km to fish an area. Hence, all three estuaries are important eel fisheries for the two local fishers.
3. Annual catch rates in each estuary have been difficult to quantify. SIEIA has done its best to provide SEMPF with accurate information on this through interviewing individual fishermen and the Licenced Fish Receiver for SFE15 – Mossburn Enterprises Ltd of Invercargill. Catch-effort-landing-returns do not provide information on the precise location of the catch. This has now changed with the introduction of electronic reporting, but accurate historical catch records for each estuary remain unavailable.
4. SFE fishermen will not fish estuaries in wet years, because shortfin eels can be more easily caught elsewhere during flood events. It is harder to catch shortfin eels in estuaries than in flooded paddocks. However, estuaries are important to SFE fishermen in seasons when there are no floods, as there is nowhere else to catch them.
5. The highest quality SFE eels are caught in estuaries. These eels are the most consistent in size and condition and fetch the best prices.
6. The "rotational nature of the fishery" is important. The more estuaries available to fish, the longer the rotations can be, allowing eel size, condition and numbers to increase to a level where catching them remains economic.

7. In SFE15 there have been two new mataitai proposals which, if gazetted, will exclude SFE fishermen. These are the Mokomoko Inlet (near Bluff) and the Tautuku Estuary. SIEIA has been forced to oppose these mataitai reserves because of the cumulative closure effects with these three proposed estuarine marine reserves. There are already two mataitai reserves in estuaries in SFE15 - Waikoaiti estuary and Waikawa estuary.

8. There are 7 estuaries in SFE15 which are gazetted public conservation land. DoC will no longer issue concessions to commercial eel fishermen. Therefore, these 7 estuaries are already fully protected from commercial eel fishing.

9. Consequently, there are 9 estuaries in SFE15 which are closed to commercial eel fishing. Any further closures will risk the fishery becoming uneconomic.

SIEIA agrees with the advice provided by Fisheries New Zealand to the Minister of Fisheries:

Fisheries New Zealand considers you should consider addressing concerns about the harvest of shortfin eels in proposed Type 2 MPAs in estuarine areas through a review of sustainability measures for the relevant stock (SFE15), rather than attempting to prohibit the use of Fyke nets in these areas (as proposed by proponents of Network 1). Fisheries New Zealand considers a more effective and credible strategy for addressing these concerns would be to review the total allowable commercial catch and other harvest controls in place for SFE 15.

SFE sustainability should continue to be assessed through robust, peer-reviewed scientific research. Fisheries New Zealand convenes their “Eel Science Working Group” at least once a year. This Working Group forum is open to all interested parties. It is where issues of SFE sustainability are appropriately discussed. SFE sustainability should not be subjected to the closed-door SEMPf process, which appears to include organisations that know little about commercial eel fishing but remain thoroughly hostile to it (including DoC).

In summary, SIEIA opposes all proposals for marine reserves or Marine Protected Areas in estuarine habitats, as outlined in the Consultation Document.

Yours faithfully

s9(2)(a)

pp: Victor Thompson
Chairman – South Island Eel Industry Association Inc



South Island Eel Industry Association

P O Box 1673, Invercargill.

telephone 03 230 4608

fax 03 230 4475

Email: waituna@xtra.co.nz

South East Marine Protection Forum,
PO Box 5244,
Dunedin 9058

14th December 2016

Submission on the Proposed Marine Protected Areas for NZ's South Island South-East Coast

This is a submission made by the South Island Eel Industry Association (SIEIA). SIEIA represents commercial eel fishermen who utilise the eel resource (shortfin and longfin eels) in the South Island, including coastal estuaries in the South-East Marine area. Our members comprise the majority of eel permit holders, and take the majority of the shortfin and longfin eel catch in the South Island.

The address for service for this submission is C/- Chisholm Associates, s9(2)(a) [redacted], email s9(2)(a) [redacted]

The South Island Eel Industry Association opposes the proposal in its entirety.

More specifically, the South Island Eel Industry Association opposes all proposed estuaries being gazetted as type 1 or type 2 Marine Protected Areas. These are:

- Proposal D – Pleasant River Estuary and Stony Creek Estuary
- Proposal L – Akatore Estuary
- Proposal Q – Tahakopa Estuary
- Proposal R – Tautuku Estuary
- Proposal S - Haldane Estuary

None of the proposed estuary sites would be suitable for inclusion in a network of Marine Protected Areas.


All of the proposed estuary sites are important commercial shortfin eel fisheries. Shortfin eels command the highest prices to fishermen and exporters, and estuary fish tend to be the best-conditioned and highest quality of all shortfin eels caught commercially.

These estuary fisheries are of the highest importance to the commercial eel fishery. Inland, shortfin eels are caught commercially during flood events. In some dry seasons, there are no flood events. However, shortfin eels can be caught at any time in estuaries, so they are able to provide a “top-up” catch during dry seasons when

there are few floods. Without these estuarine areas available to fish, the commercial eel industry will quickly expire

All of the proposed estuaries are very important fisheries. Maximum shortfin eel catches (per annum) in each area are estimated below:

s9(2)(b)(ii)



There already a number of mataitai reserves and Doc-managed reserves in estuaries of the South-East Marine area. These are listed below:

Mataitai Reserves:

- Wainono lagoon
- Waikoaiti estuary
- Waikawa estuary

DoC- Managed Reserves (as indicated by DoC public on-line GIS facility)

- Waipati (Chaslands) estuary
- Puerua Estuary (part)
- Akatore creek estuary, upstream of Akatore Road
- Tomahawk lagoon
- Orokonui Creek lagoon (Waitati)
- Hawksbury lagoon
- Shag River lagoon
- Wainono lagoon
- Otaio River mouth

- Pareora River mouth
- Normanby lagoon

All of these areas are closed to commercial eel fishing, and are given a considerable degree of “protection”. **In the case of DoC-managed areas, these should have been considered in the first instance for MPA’s, as they already provide a significant degree of protection, including no commercial fishing allowed.** It is surprising that none of these areas were considered for MPA’s of any kind and indicates a bias towards closing more areas to commercial fishing, rather than providing a network of representative protected areas at least cost.

Yours faithfully

Victor Thompson
Chairman – South Island Eel Industry Association Inc

Overview of Otago Inshore fisheries interests

Otago’s freshwater and coastal marine fisheries are of significant importance to Otago communities and the wider regional economy. These fisheries rely on healthy aquatic environments to sustain them. Pollutants reaching the coastal marine environment can adversely affect fisheries resources and fishing in several ways. For example

- increased sediment loading can adversely effect the survival rates of fish and shellfish larvae (e.g. kina and paua) resulting in decreased recruitment into the fishery
- Increased sediment loading adversely affects habitats such as seaweed beds. These form important nursery environments for fish and shellfish larvae.
- Coastal water quality is crucial to wild bivalve fisheries (e.g. cockles and surf clams). These species are filter feeders which concentrate contaminants, and consequently are subject to robust food safety controls. Contamination, even at low levels, by human or animal waste to coastal waters will effectively close these fisheries due to the presence of bacterial and viral pathogens.
- Increased nutrients such as nitrates have the potential to effect algal production in the coastal area. Algal blooms can be potentially toxic and effect the functioning of marine ecosystems.
- Elevated loadings of N, P pathogens and sediment all have a detrimental effect on Otago’s commercial and customary freshwater eel fisheries.

There is considerable potential to develop Otago’s inshore fisheries, providing it is done sustainably, and the environmental impacts of harvesting are appropriately mitigated. These additional fisheries include:

- Edible Kelp species
- Surf clams
- Paddle crabs
- Octopus

- Queen scallops

These potential fisheries are all dependent on good water quality, and can be severely impacted by degraded freshwaters entering the nearshore marine environment. In addition, the potential to develop nearshore aquaculture in Otago Region can be severely diminished by degraded freshwaters entering the marine ecosystem.

The Quota Management System (QMS) and commercial initiatives are extremely important to maintaining these fisheries for sustainable harvest. The QMS limits the amounts of each species which can be harvested, so as not to adversely reduce their density to the point where harvest becomes uneconomic and to allow for a healthy adult breeding population to remain, and therefore sustain the fishery.

It is imperative that the habitats of these fisheries are maintained and preferably enhanced, to ensure their sustainability. In most circumstances, fresh water quality is not something that recreational, commercial or customary fishermen can manage, or enhance.



South Island Eel Industry Association

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telephone 03 230 4608

fax 03 230 4475

Email: waituna@xtra.co.nz

Ruth White,
C/- Department of Conservation,
PO Box 5244,
Dunedin 9058

30th March 2015

Dear Ruth

Re: South East Marine Protection Forum

The South Island Eel Industry Association (SIEIA) represents commercial eel fishermen who utilise the eel resource (shortfin and longfin eels) in the South Island, including coastal estuaries in the South-East Marine area. Our members comprise the majority of eel permit holders, and take the majority of the shortfin and longfin eel catch in the South Island. A recent international peer review report identified no significant concerns over the sustainability of our fishery, which is managed by the Ministry for Primary Industry under the Quota Management System.

Contrary to popular belief, freshwater eels prefer clean, high quality fresh water over turbid waters with muddy substrates. Any reduction of water quality is therefore detrimental to eel habitat, and the eel fishery as a whole. A significant proportion of

the commercial eel catch is taken from estuarine areas. There already two mataitai reserves in estuaries of the South-East Marine area (Waikawa Estuary and Waikoaiti estuary), so we would oppose any attempt to close more estuarine areas to commercial fishing, through the gazettal of Marine Reserves.

Furthermore, we are very concerned that the South East Marine Protection Forum is not focussed on the real threat to our estuaries and coastlines, which is poor water quality from inland runoff. In particular, sediment input from freshwaters flowing into the coastal environment smothers sensitive estuary and near-shore environments. Closing these areas to harvest does nothing to prevent this. Some additional information on fresh water quality and its effects on coastal fisheries is attached below for your information

This situation has the potential to become a classic case of misidentified threats, and the tragedy they cause through creating new problems (closed areas) and solving nothing. We are disappointed that your promotional material indicates that somehow the public can inform you of managing threats through a questionnaire weighted towards increasing the number of closed areas, and not through robust independent science. We can assure you that the threats to the estuaries of the South East Marine environment will not be mitigated through harvest closures. We believe that you are in danger of wasting taxpayers money and it could be said that you see fishermen (commercial, customary and recreational) as easier targets than freshwater polluters.

Consequently, we do not wish to participate in your questionnaire (in its present form). However, we would like to be added to your mailing list so that we can keep informed of South East Marine Protection Forum deliberations.

Yours faithfully

Victor Thompson
Chairman – South Island Eel Industry Association Inc

From: [Bill Chisholm](#)
To: [SEMP](#)
Cc: s9(2)(a)
Subject: SEMPA Submission August 2020
Date: Sunday, 2 August 2020 1:16:39 PM
Attachments: [SEMPA Submission August 2020.pdf](#)

To: SEMP
From: Bill Chisholm
Subject: Revised and amended submission from Kina Industry Council

Dear SEMP

In accordance with your instructions, attached and re-submitted is an amended submission from the Kina Industry Council.

Yours faithfully

Bill Chisholm, Chisholm Associates,
s9(2)(a)
s9(2)(a)
s9(2)(a)
Email s9(2)(a)
Website www.chisholm.co.nz



From: SEMP <southeast.marine@publicvoice.co.nz>
Sent: Wednesday, 3 June 2020 1:15 PM
To: Bill Chisholm s9(2)(a)
Cc: semp@doc.govt.nz
Subject: FW: SEMPA Submission from Kina Industry Council

Tenā koe Bill,

On 25 March 2020, you made a submission via email during the public consultation process on the proposed southeast marine protected areas (SEMP) network on the south-east coast of the South Island. Your submission is attached.

After you made your submission, the SEMP public consultation was withdrawn due to New Zealand's emergency response to the global COVID-19 pandemic, which meant people could no longer participate meaningfully in the SEMP public consultation process.

On 3 June 2020, the Department of Conservation (DOC) and Fisheries New Zealand recommenced the SEMP public consultation for two months. We are again inviting public feedback on the proposed network, which remains unchanged from the proposed network you have submitted on.

DOC and Fisheries New Zealand acknowledge the time and effort taken in making your submission.

Now that public consultation has recommenced, here are your options for your submission:

- 1) Do nothing - your submission will be automatically considered in this new public consultation process
- 2) Amend and resubmit your submission by replying to this email. Your submission will be considered in this new public consultation process
- 3) Withdraw your submission by replying to this email, advising us you wish to do so. Your submission will not be considered

Submissions are now due by 3 August 2020.

For further information, please visit the DOC website: <https://www.doc.govt.nz/our-work/south-eastern-south-island-marine-protection/>. DOC is investigating options for live online question and answer sessions with the public. Should they proceed, details of these sessions will be on the DOC website.

DOC also plans to provide email updates to stakeholders during the consultation period. If you have any further questions or would like to opt out of these updates please email DOC at semp@doc.govt.nz.

Kind regards
PublicVoice

From: Bill Chisholm s9(2)(a)
Sent: Wednesday, 25 March 2020 10:52 am
To: SEMP <southeast.marine@publicvoice.co.nz>
Subject: SEMPA Submission from Kina Industry Council

To: Proposed Southeast Marine Protection Network, Department of Conservation, PO Box 10420, Wellington 6143

From: Bill Chisholm, on behalf of the Kina Industry Council

Re: Submission on Proposed South-East Marine Protected Areas

Please find attached a submission on the above.

Yours faithfully

Bill Chisholm, Chisholm Associates,

s9(2)(a)

[Redacted]

[Redacted]

Email s9(2)(a)

Website www.chisholm.co.nz



KINA INDUSTRY COUNCIL

s9(2)(a)

Ph s9(2)(a)

e-mail: s9(2)(a)

Proposed Southeast Marine Protection Network
Department of Conservation
PO Box 10420
Wellington 6143

2nd August 2020

Sent by email to: southeast.marine@publicvoice.co.nz

AMENDED Kina Industry Council Submission on the Proposed South-East Marine Protected Areas

The Kina Industry Council (KIC) is the peak representative organization for the Sea Urchin (SUR3) commercial fishery in Otago. The address for service for this submission is C/- Bill Chisholm, Chisholm Associates, s9(2)(a) Ph s9(2)(a) email s9(2)(a)

Our industry – SUR3 is a free-dive fishery (i.e. not using scuba) operating around Otago's coastline. Our harvesting patterns are always carefully organized to spread effort and to meet particular market demands for quality product which, in itself, is seasonal. This means that our harvesting crews tend to only lightly fish individual populations of kina which in turn means a large number of areas are required to ensure economic and biological sustainability. Participants in the fishery are small compared to most other fisheries, with a limited number of skilled divers doing most of the harvest (up to 10 per annum). Funding of our organization is by way of a voluntary levy, which in turn demonstrates a strong mandate for representation.

Our Quota Share Owners (QSOs) and divers are also often involved in other dive fisheries, especially the pāua fisheries. We therefore take an interest in issues around pāua as well.

Consequently, KIC supports the joint submission of the Paua Industry Council, Rock Lobster Industry Council and Fisheries Inshore NZ, and endorses all points made in that submission. For brevity, they will not be repeated here.

This submission is made after a careful reading of the Consultation Document dated June 2020 (the Consultation Document), and ministerial advice papers posted on the DoC website. **KIC opposes sites D1 and K1**, described in the Consultation Document dated June 2020, as potential sites for marine reserves.

Section 3 of the Consultation Document provides some basic analyses of the cost-benefits of the proposed network of Marine Reserves, and poses a series of leading questions for submitters to answer. The rest of this submission (below) is KIC's response to the cost-benefit analyses, and the questions posed, in Section 3 of the Consultation Document.

Area closures for Kina have the potential to severely affect quota value, processing capability and markets. Kina can only be gathered in a few areas where there is safe water conditions, suitable visibility, suitable densities and suitable quality of product. Too often in the past there have been arbitrary closures of some of our best kina fisheries with scant regard for the adverse effects on our industry. The Foveaux Strait closures are an example of this. It would appear that our industry is considered too small to bother worrying about if other, larger political issues are at stake.

For the South Island, kina was brought into the Quota Management System in October 2002. For SUR3, the recreational and customary allowance is 10 tonnes; and the commercial allowance (TACC) is 21 tonnes. With 1 tonne allocated to other sources of mortality, the total allowable catch is therefore 42 tonnes.

No reliable data is available on the recreational and customary harvest of kina in SUR3. The commercial catch of kina in SUR3 has been recorded since 1983, as follows:

1983 – 4.8T	1996 – 6.0T	2009 – 4.2T
1984 – 14.4T	1997 – 5.4T	2010 – 5.1T
1985 – 4.0T	1998 – 3.8T	2011 – 5.2T
1986 – 6.2T	1999 – 38.4T	2012 – 4.3T
1987 – 2.4T	2000 – 50.4T	2013 – 4.8T
1988 – 1.7T	2001 – 11.2T	2014 – 0.4T
1989 – 0.8T	2002 – 5.2T	2015 – 0.2T
1990 – 4.1T	2003 – 0.3T	2016 – 4.5T
1991 – 21.3T	2004 – 0.3T	2017 – 8.0T
1992 – 15.8T	2005 – 0.5T	2018 – 0
1993 – 9.9T	2006 – 0.1T	2019 – 2.5T
1994 - 8.8T	2007 – 3.2T	
1995 – 7.1T	2008 – 2.1T	

The maximum commercial harvest from SUR3 was 50.4 tonnes in 2000. The commercial harvest has rarely exceeded 5 tonnes since the introduction of SUR3 into the Quota Management System, and the introduction of a 21 tonne TACC.

The reason why SUR3 hasn't been fully caught is because there have been few vessels available to do this, few experienced free-divers available, and few areas with water conditions suitable for harvest. However, two areas suitable for kina harvest have been identified in proposed Marine Reserve areas D1 and K1.

KIC wishes to develop the SUR3 fishery to a level commensurate with its 21 tonne TACC. This level of catch has been achieved before. Based on previous catches, a 21 tonne TACC is very likely to be sustainable, providing enough areas are available to lightly-fish all areas.

Not many areas outside proposed Marine Reserve areas D1 and K1 are suitable for kina harvest. This is because there needs to be suitable water conditions for harvest, which are mainly found in D1 and K1. Other areas either do not have sufficient kina present, have poor water visibility, or are not safe to free-dive. Consequently, if D1 and K1 are gazetted as marine reserves, the ability to lightly harvest kina in SUR3 is lost, and the SUR3 fishery will be rendered worthless.

Commercial kina harvest can have an important beneficial effect in areas where the kina population has exploded. These are known as “kina barrens” because much of the area is denuded of seaweed from kina browsing. There are many areas in the North Island where kina barrens are present. Commercial kina harvest is a known method of reducing the adverse environmental effects of kina barrens through a harvesting method known as “grooming”. If kina barrens became prevalent in proposed Marine Reserve areas D1 and K1, there would be no ability to manage them by grooming, and no ability to mitigate their adverse effects through commercial harvest.

The Joint Agency advice on the South-East Marine Protection Forum recommendations - Appendix 3, estimated the Network 1 proposals consisted 5.4% of the SUR3 catch, with an estimated loss of catch of 211Kg (0.211 tonnes), and an estimated loss of value of \$10,473. These estimates are grossly inaccurate, which is unsurprising as they are merely “...based on the % of “fishable ground” in the QMA.” KIC can advise that the entire fishery would be lost if areas D1 and K1 are gazetted marine reserve, because the poor economics of harvesting alternative low-quality areas would render this fishery valueless.


Relief sought.

KIC requests that either:

- Areas D1 and K1 be withdrawn from the marine reserve proposals outlined in the Consultation Document, or
- All marine reserve and MPA proposals outlined in the consultation document are withdrawn

Yours faithfully

s9(2)(a)



pp: Peter Herbert - Chairman

KINA INDUSTRY COUNCIL

From: [Bill Chisholm](#)
To: [SEMP](#)
Cc: [Roger Beattie](#); s9(2)(a); [Storm Stanley](#); s9(2)(a); [nici](#); s9(2)(a); [Victor Thompson](#)
Subject: Submission from the Specialty & Emerging Fisheries Group
Date: Sunday, 2 August 2020 1:50:11 PM
Attachments: [South-east Marine Protected Areas submission 2020.pdf](#)

To: SEMP
From: Bill Chisholm
Subject: Submission from the Specialty & Emerging Fisheries Group
Dear SEMP

Please find attached a submission from the Specialty & Emerging Fisheries Group on the South East MPA Consultation Document dated June 2020.

Yours faithfully

Bill Chisholm, Chisholm Associates,

s9(2)(a)

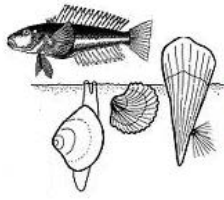
[Redacted]

[Redacted]

Email s9(2)(a)

Website www.chisholm.co.nz





SPECIALTY & EMERGING FISHERIES

s9(2)(a)

Ph s9(2)(a)

Email s9(2)(a)

Proposed Southeast Marine Protection Network
Department of Conservation
PO Box 10420
Wellington 6143

2nd August 2020

Emailed to: southeast.marine@publicvoice.co.nz

Submission on the Proposed South-East Marine Protected Areas

The Specialty and Emerging Fisheries Group is a representative collective of commercial fishing associations operating mainly niche fisheries and markets, including (but not limited to) the Chatham Islands Finfish Association, the BCO5 Association, the North Island Eel Enhancement Company, KBB3G Quota Owners Group and NZ Kelp Ltd, the South Island Eel Industry Association, the Kina Industry Council and the Bluff Oyster Management Company.

The contact person for this submission is Mr Bill Chisholm, s9(2)(a)
email s9(2)(a) phone s9(2)(a)

The Specialty & Emerging Fisheries Group supports the submissions of the following organisations affected by the Network 1 proposal, and endorses all points made in those submissions:

- KBB3G Quota Owners Group and NZ Kelp Ltd
- South Island Eel Industry Association Inc
- Kina Industry Council Inc
- Joint submission made by the The NZ Rock Lobster Industry Council (NZRLIC), the Pāua Industry Council (PIC) and Fisheries Inshore New Zealand (FINZ).

Yours faithfully

s9(2)(a)

Bill Chisholm

From: Yolanda van Heezik [mailto:s9(2)(a)]
Sent: Monday, 3 August 2020 4:05 PM
To: E Sage (MIN) <s9(2)(a)>
Subject: Re: our conversation in Dunedin on Friday

Dear Minister Sage,

In reply to our conversation on Friday, here is the information you requested:

1. I have attached a submission on the South East Marine Protection Area proposal, based on one written by Dr Ursula Ellenberg, which specifically addresses the needs of yellow-eyed penguins and other species. It bears in mind that the SEMPFA adopted the approach of selecting areas representative of habitat diversity rather than areas to protect specific species. Moreover, when the process of consultation began we did not have all the information we have now on foraging distributions of yellow-eyed penguins.
2. I have attached some information on the lack of a national legislative framework that would facilitate the implementation of bylaws for managing pet and stray cats; this has been brought to my attention in the past few months by various community groups.
3. Regarding our conversation about the problem of DOC permits for research taking up to a year to be approved; an institutional permit could be a good solution. Institutional animal ethics committees provide a valuable check already. Perhaps "umbrella" permits could be issued to sub-groups within institutions, e.g., departments.

Best regards,
Yolanda

Prof. Yolanda van Heezik

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2020 Submission on proposed southeast Marine Protected Areas

General feedback

I fully support the implementation of the proposed Marine Protected Areas to protect our unique marine biodiversity and to safeguard marine productivity and ecosystem services for the benefit of people and nature in the long term.

The current proposal does not consider important taonga species including penguins and Hector's Dolphins that require larger protected areas to safeguard their populations.

I am disappointed to see that the current proposal almost completely ignores the Catlins, an important area for yellow-eyed penguins and Hector's dolphins. Numbers of breeding pairs of yellow-eyed penguins in the Catlins have plummeted in the last two years, and in the 2018/2019 breeding season nearly every chick from the Catlins was brought into rehabilitation due to being underweight, indicating marine resources off the Catlins coast are inadequate to meet needs.

1. Waitaki Marine Reserve (B1)

The Waitaki River mouth is an ecologically important marine habitat that deserves better protection than what would be achieved with the current proposal. The suggested seaward boundary of 10km (5.36nm) means that the proposed MPA barely extends beyond current fishing restrictions (such as the 4nm set net ban).

The area off the Waitaki River mouth out to 12nm and north following the currents is a significant foraging site for seabirds and marine mammals and needs to be protected.

Particularly, the important Oamaru Blue Penguins, Yellow-eyed Penguins and Hector's Dolphins rely on this area for food.

The endangered, endemic Yellow-eyed penguin regularly gets bycaught in commercial fisheries operating in the area north and east of the Waitaki River mouth and outside of the currently proposed MPA (compare CSP reports).

In addition, the commercially and ecologically important Oamaru Blue Penguin colony is situated south of the proposed MPAs. There is considerable overlap between commercial setnetters and Little Penguin foraging hotspots immediately East of Oamaru. Considering the risk of bycatch mortality for pursuit diving species **an ecological and commercially sensible MPA will include the main foraging areas of Little Penguins off Oamaru.**

Given the importance of the Waitaki coastal and offshore area for protected species any negative interactions with commercial fisheries need to be managed and mitigated. This is best achieved through the expansion of the current proposal.

Thus, **I strongly encourage expanding the currently proposed MPAs out 12nm and 16nm both north and south of the Waitaki River mouth** to safeguard protected species at this important feeding area. As a minimum, this area should be covered by a Type II MPA to reduce fisheries impact.

2. Te Umo Koau Marine Reserve (D1)

As far as I can see, this is the only site that would protect (half!) of a deep reef. I strongly recommend **including the entire reef into the proposed Te Umo Koau Marine Reserve** and expanding protected deep reef habitat. A second site including such habitat will be required.

The current Fisheries New Zealand estimate that 20.7% of the catch in CRA7 (the quota management area within which this site falls) occurs in this area needs to be validated. Only 12.6% of the fishing habitat would be affected and the stated impact appears to be an overestimate.

3. Papanui Marine Reserve (H1)

The Otago Peninsula is an important stronghold for a number of protected species. Surrounding seas are hugely diverse ranging from shallow reefs to bryozoan beds and deep sea canyons. This productive marine environment offers essential foraging hot spots for both marine mammals and seabirds. No wonder, Dunedin prides itself as the “wildlife capital” of New Zealand.

The seas surrounding the Otago Peninsula are the least important areas for the commercial fisheries across the entire South East Marine Planning Area. Why not take a bold step and commit to a meaningful MPA that includes more than the proposed areas?

The Papanui Marine Reserve would have considerably more benefit if it were extended all the way to the shores of the Otago Peninsula. **Ideally, it will be part of one large comprehensive marine reserve around the entire Otago Peninsula connecting with the proposed Ōrau Marine Reserve (see below) and out to 12nm.** This could be implemented as a Type II MPA to ban destructive fisheries including setnetting and bottom trawling.

4. Ōrau Marine Reserve (I1)

The MPA in its current coast hugging boundaries from Harakeke Point to White Island will be **famously protecting Dunedin City’s sewage plume where little fishing takes place anyway** – an international embarrassment.

The Otago Peninsula is a population stronghold for the endangered and rapidly declining Yellow-eyed Penguin. If this decline continues unabated, even the most conservative population models predict local extinction of this emblematic species within our lifetime¹.

As previously discussed and evident from SeaSketch as well as more recently provided maps, **the MPAs currently proposed around the Otago Peninsula will not include any important Yellow-eyed Penguin foraging hotspots.**

A meaningful MPA requires **extending the proposed area out to 12nm** and ideally linking it to the MPA proposed at the tip of the Otago Peninsula to benefit the region as a whole. A comprehensive MPA protecting meaningful areas off the Otago Peninsula will put Dunedin truly on the map as the wildlife capital of New Zealand.

¹ Mattern, T., Mayer, S., Ellenberg, U., Houston, D.M., Darby, J.T., Young, M., van Heezik, Y., Seddon, P.J. in review. Quantifying climate change impacts emphasises the importance of managing regional threats in an endangered species. <http://biorxiv.org/content/early/2016/07/29/066696>

5. Okaihae Marine Reserve (K1)

I fully support the proposed Marine Reserve around Green Island and encourage extending it further. Ideally, this will be connected to a more comprehensive marine reserves system around the Otago Peninsula.

6. Hākinikini Marine Reserve (M1)

Full support!

*The five Marine Protected Areas***1. Tuhawaiki (A1)**

Full support!

2. Moko-tere-a-torehu (C1)

Full support!

3. Kaimata (E1)

Full support!

4. Whakatorea (L2)

Full support!

5. Tahakopa (Q1)

The Tautuku estuary has experienced little human disturbance in the past and as a result is uniquely pristine, surrounded by native lowland podocarp forest and a protected wetland. The estuary is an important nursery area and stopover site for migratory shorebirds. I strongly support the protection this small treasure for future generations.

I support the use of the estuary for Kāi Tahu cultural purposes and environmental education. I do agree that set and fyke netting should be prohibited in the estuary. I encourage to also restrict spearfishing and recreational line fishing at Tautuku estuary. I applaud the Forum's suggestion to allow hand-gathering only in this proposed Type 2 reserve.

Arai Te Uru (T1) Bladder Kelp Area

I fully support the proposed kelp protection area. Kelp forests provide important nursery grounds for many species including crayfish, blue cod and butterfish. They are impacted by anthropogenic changes to the environment resulting in stronger and more frequent heat waves and increased river sediment load. Setting aside areas that cannot be harvested will help protect this important habitat.

SEMP 2020

2. Your details

Please tell us your name

First name:

Yolanda

Last name:

van Heezik

What is your email address?

s9(2)(a)

Are you responding as an individual or as an organisation?

Individual

Do you identify as tangata whenua?

No

Which category best describes your main interest in this area?

Environmental

Information release

3. Proposed marine protection measures

I would like to make a submission on the establishment of the full network:

Yes

And/or

I would like to make a submission on the following sites: (please tick all that apply)

Waitaki Marine Reserve (B1)

Te Umu Koau Marine Reserve (D1)

Papanui Marine Reserve (H1)

Ōrau Marine Reserve (I1)

Okaihae Marine Reserve (K1)

Hākinikini Marine Reserve (M1)

Tuhawaiki (A1)

Moko-tere-a-torehu (C1)

Kaimata (E1)

Whakatorea (L1)

Tahakopa (Q1)

Arai Te Uru bladder kelp protection area (T1)

4. The full network

Do you agree with our initial analysis of the costs/impacts of maintaining the status quo?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Loss of international reputation and failure to meet our international agreements and MPA and Biodiversity Policy.

Do you agree with our initial analysis of the benefits of maintaining the status quo?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What is your preferred option, the status quo, the network or another option?

The network (implement the full network of proposed marine protection measures)

Why do you support the network? Please provide evidence to support your answer.

Otago has no marine reserves and MPAs, and there is evidence that changes in the marine environment in this area are contributing to population declines of endangered taonga species such as yellow-eyed penguins. We desperately need protected areas to allow biodiversity to recover and improve resilience of marine systems.

6. Waitaki Marine Reserve

Do you consider you exercise kaitiakitanga in the area of the proposed marine reserve?

No

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

Qualified support

Why do you partially support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

What changes to the site or activity restrictions would you like to see? Please consider the stated costs and benefits described in the consultation document. Please provide evidence to support your answer.

I support an extension of this site to the north to provide better representation of habitat diversity and protect foraging habitat of little penguins and Hector's dolphins.

7. Te Umu Koau Marine Reserve

Do you consider you exercise kaitiakitanga in the area of the proposed marine reserve?

No

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the marine reserve implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

8. Papanui Marine Reserve

Do you consider you exercise kaitiakitanga in the area of the proposed marine reserve?

No

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the marine reserve implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

9. Ōrau Marine Reserve

Do you consider you exercise kaitiakitanga in the area of the proposed marine reserve?

No

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

Qualified support

Why do you partially support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

What changes to the site or activity restrictions would you like to see? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

Consider adding Tow Rock to this area.

10. Okaihae Marine Reserve

Do you consider you exercise kaitiakitanga in the area of the proposed marine reserve?

No

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the marine reserve implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

11. Hākinikini Marine Reserve

Do you consider you exercise kaitiakitanga in the area of the proposed marine reserve?

No

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the marine reserve implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

12. Tuhawaiki

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the Type 2 MPA implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

13. Moko-tere-a-torehu

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the Type 2 MPA implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

14. Kaimata

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the Type 2 MPA implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

15. Whakatorea

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the Type 2 MPA implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

16. Tahakopa

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the Type 2 MPA implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

17. Arai Te Uru bladder kelp protection area

Do you agree with the costs/impacts identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other costs/impacts that have not been described in our initial analysis?

Do you agree with the benefits identified for this site?

Agree

Why do you agree? Please provide evidence to support your answer.

Are there other benefits that have not been described in our initial analysis?

What option best represents your view on this site?

I fully support the proposal (I want the kelp protection area implemented)

Why do you fully support this proposal? Please consider the stated costs/impacts and benefits described in the consultation document. Please provide evidence to support your answer.

18. Comments and supporting documents

Please add any final comments to your submission

Upload any supporting documents

[Submission SEMPA YvH July 2020.docx](#)

30 July 2020

Proposed Southeast Marine Protection Network
Department of Conservation
Conservation House
PO Box 10420
Wellington 6143

SUBMISSION ON PROPOSED SOUTHEAST MARINE PROTECTED AREAS

1. The Dunedin City Council (DCC) thanks the Department of Conservation (DOC) and Fisheries New Zealand for the opportunity to comment on the proposed south-eastern South Island marine protected areas. The DCC notes this is an update to the original submission made on 15 May 2020, which was withdrawn.
2. The DCC acknowledges Marine Protected Areas (MPAs) are one of a number of tools available for conserving marine biodiversity and are an important component of sustainable marine management systems. The DCC notes six type 1 MPAs and five type 2 MPAs are proposed for the southeast region of the South Island.

Te Ao Tūroa – The Natural World, Dunedin’s Environment Strategy

3. In 2016, the DCC adopted Te Ao Tūroa – The Natural World, Dunedin’s Environment Strategy 2016-2026. Te Ao Tūroa takes a partnership approach to delivering on the city’s environment ambitions to facilitate and secure a healthy environment now and into the future. The aspirational goals of Te Ao Tūroa are that:
 - Dunedin is resilient and carbon zero – developing and implementing a climate change adaption plan and sustainable resource management;
 - Dunedin has a healthy environment – taking a landscape-scale approach to protecting ecosystems and increasing indigenous biodiversity; and
 - Dunedin people care for the natural world – engaging with the community and raising awareness of issues around the city’s natural environment.
4. In particular, Te Ao Tūroa notes the importance of the sea, coastline and waterways to Dunedin’s natural environment. Dunedin’s natural environment and resources – the landscapes, wildlife, mahika kai and coastline – are a source of pride and prestige for Kai Tahu, as they are for all the city’s residents.
5. The DCC notes the importance of Crown obligations to Māori through Te Tiriti o Waitangi, the Treaty of Waitangi, deeds of settlement, legislation, protocols and regulations, and giving effect to the principles of Te Tiriti o Waitangi around decisions under the Marine Reserves Act. As noted in the Te Ao Tūroa, partnership with Kāi Tahu as kaitiaki is integral to achieving Dunedin’s environmental outcomes.

The 3 Waters Strategic Direction Statement 2010-2060

6. The DCC's 3 Waters Strategic Direction Statement identifies improving the quality of discharges to the environment as a key priority, while embracing the concept of kaitiakitaka and having regard to affordability. This will be achieved by reducing wastewater overflows and polluting discharges, and discharging in an environmentally responsible manner.
7. Improvements to Dunedin City's wastewater and stormwater systems are ongoing. The DCC has made substantial investments in wastewater management since 2000. More recently, the DCC has commenced wastewater system planning which looks holistically and strategically at whole of system performance and drivers for change and aligns those needs with financial planning cycles for any future upgrades that may be required. Stormwater system planning is also being considered.

Dunedin City drainage activities

8. The DCC wastewater and stormwater systems service over 40,000 properties. Wastewater from Dunedin and Mosgiel is tertiary treated at either Tahuna or Green Island wastewater treatment plants, before discharge to the sea via outfall pipelines at St Kilda and Waldronville. There is also an emergency wastewater outfall at Lawyers Head. Discharge of stormwater occurs at St Clair beach.
9. The proposed Orau (site I1) and Okaihae (site K1) Marine Reserve sites are located off the coast of Dunedin. There are existing DCC wastewater¹ and stormwater² discharges and existing outfall structures within the proposed Orau Marine Reserve, and an existing wastewater discharge adjacent to the proposed Okaihae Marine Reserve.
10. As the outfalls and discharges are crucial to the operation of Dunedin City's wastewater and stormwater services, and as their environmental impacts are already controlled by the Resource Management Act 1991, the DCC wishes to ensure its infrastructure needs are adequately recognised and provided for by this proposal to create marine reserves.

Proposed Site I1 (Orau Marine Reserve)

11. The Tahuna and Lawyers Head wastewater outfalls, and the St Clair stormwater outfalls discharge to the proposed Orau Marine Reserve.
12. The DCC has invested in improvements to the Tahuna Wastewater Treatment Plant, with about \$112 million spent between 2007 and 2013 upgrading the plant to improve the quality of the discharge and constructing a new 1.1 km long primary outfall pipeline off St Kilda beach.

¹ The DCC holds resource consents for the occupation of the coastal marine area by the outfalls (2002.621 and 2006.534) and for discharge of treated wastewater (2002.623 and 2002.264) and discharge to air at Lawyers Head (2002.626).

² The DCC has two stormwater outfalls located at St Clair beach, and holds resource consent for the discharge of stormwater to the sea (RM11.313.10).

13. The stormwater discharges at St Clair are also crucial to the City. The continued use of the coast at St Clair helps alleviate flooding issues in South Dunedin.
14. The DCC's existing resource consent for the Tahuna Wastewater Treatment Plant discharge (2002.623) has comprehensive environmental monitoring conditions to assess the environmental effects of the discharge. These conditions require sampling within the proposed Orau Marine Reserve including sediment, plankton, shellfish (mussels) and macro-invertebrates. Annual dive inspections and associated maintenance are undertaken on the outfall as a condition of consent 2002.621. This work could involve disturbance of the seabed around the outfall pipe.
15. It is noted the Tahuna outfall may provide some positive effects, as a 2019 outfall dive survey found it has been completely colonised by a wide variety of species. Ongoing monitoring of the effects of the discharges has not indicated any significant adverse environment impacts of the activity.

Proposed Site K1 (Okaihae Marine Reserve)

16. Wastewater from the Green Island wastewater treatment plant is discharged into the sea via an 850 m outfall pipeline located off Waldronville beach near the Okaihae Marine Reserve. The DCC has invested \$45 million since 2000 upgrading the treatment plant and constructing the outfall pipeline off Waldronville.
17. The outfall is not within the Okaihae Marine Reserve; therefore, there will be no wastewater discharge directly within the proposed reserve. However, there is a low probability the discharge plume from the outfall *could* discharge indirectly into the proposed Okaihae Marine Reserve in certain circumstances³.

Future consents

18. The DCC has other discharges to the coastal marine area, including at Lawyers Head, that are not currently consented. The DCC is currently in discussions with the Otago Regional Council (ORC) about the need for consent, and if so, the priority and phasing of applications.
19. Dunedin City is experiencing increased urban growth that may result in the need for:
 - i. potential future changes to wastewater discharge consents including the characteristics and volume of wastewater discharged and changes to or creation of new outfalls; and
 - ii. possible new stormwater discharges to the coast, e.g. from any alterations to the existing network, to service any new development, or should there be changes to

³ There is initial high dilution and dispersion achieved from the offshore outfall so elevated nutrient concentrations attributable to the discharge are most likely restricted to the immediate vicinity of the outfall (*i.e.* <1500 m from the outfall). Nutrient enrichment because of the existing wastewater discharge 2000 m from the outfall is unlikely. It is also noted the effluent plume is more likely to travel westward or eastward alongshore rather than offshore.

permitted activity of stormwater to freshwater generally. These may require a new coastal outfall(s) and associated discharge(s).

Potential impacts of the proposal on the DCC's drainage activities

Existing discharges and structures

20. The existing discharges and structures are not inconsistent with the establishment of the Orau and Okaihae Marine Reserves. However, Section 3.5 of the consultation documents discusses implications for current users and other groups. While there are listed provisions for activities such as anchoring and driving on the foreshore (section 3.5.4 of Appendix 1), there is no mention about provision for existing discharges and structures. It is unclear whether conditions explicitly allowing existing discharges, and the presence and maintenance of outfall structures will be included in the Orau and Okaihae Marine Reserve Orders In Council.

21. The consultation document Appendices (p 100) states:

“Any other use that is not permitted by the Marine Reserves Act and not explicitly allowed for in the Order in Council would be prohibited in this marine reserve”

22. Unless provision is made in the Orau and Okaihae Marine Reserve Order in Council (or through other means as appropriate), the DCC's wastewater and stormwater management activities would be unable to legally continue.

Resource consent monitoring

23. Monitoring or research within a Marine Reserve requires a Marine Reserves Act Permit, with associated permit fees payable. The DCC would need a Marine Reserves Act Permit (or Permits) to continue fulfilling these existing resource consent requirements. This additional regulatory process imposes additional costs on the DCC for continuing to carry out existing mandatory requirements for a consented activity. Indeed, if a Marine Reserves Act Permit was not granted, this would cause the DCC to become non-compliant with its resource consent, or conversely it renders the DCC's consent conditions ultra-vires as the activity now requires the approval of a third party for it to be achieved.

Future consents

24. Appendix 1 of the consultation documents outlines activities that are likely to take place at the Orau Marine Reserve site that are unlikely to be affected by establishment of the marine reserve and “are not considered to be inconsistent with the purpose of the reserve at their current levels of intensity”.

25. Unless an alternative means of wastewater and stormwater disposal is proposed, the DCC's existing discharges and structure consents will need renewing when the existing resource consents expire, to continue to provide for the city's stormwater and wastewater disposal.

26. The DCC has invested substantially in infrastructure in the area of the Orau Marine Reserve and notes that establishing the Orau Marine Reserve may increase the complexity and cost of renewing existing resource consents or applying for new resource consents.
27. The DCC has statutory obligations to continue providing the essential functions of stormwater and wastewater services to its communities and this needs to be recognised for future consenting requirements. The DCC is committed to improving the quality of discharges to the environment as a key priority; system planning and renewals work is on-going to improve the condition of the DCC's network assets to improve processes and the network and reduce surcharge and overflows.
28. The DCC also requests further discussion with DOC to reach agreement for infrequent discharges that are currently unconsented to continue, so they are not an offence under the Marine Reserves Act 1971 should the Orau Marine Reserve be established before the discharges are consented.

Other considerations

29. In 2015, the DCC called on the Government to place a moratorium on deep-sea oil and gas exploration and extraction in New Zealand waters, and this was reiterated in 2016. We support the aim of the proposals to protect and restore marine ecosystems and habitats by managing the impacts from activities that occur within them.
30. The DCC is active in safeguarding the natural world. In addition to increased regulatory protection of indigenous biodiversity under the Second Generation Dunedin City District Plan (2GP) this work includes:
 - i. scheduling of many coastal Areas of Significant Conservation Value (e.g. Edge of Pleasant River Estuary, as referred to in page 25 of the consultation document) for marine and/or estuarine biodiversity values; and
 - ii. approving the reviewed Reserves and Beaches Bylaw 2017, which considers human impacts on wildlife such as vehicle access (as referred to in page 32).
31. The DCC also manages indigenous ecosystems and measures to control animal and plant pests on DCC land including a number of coastal reserves. This requires aligning closely with the legislative responsibilities of the ORC and DOC to manage pests within the Dunedin boundary.
32. The DCC acknowledges and values the important role of marine life and our coastal environment in our economy and lifestyle. The Otago Peninsula's wildlife – including the New Zealand Sea Lion, Yellow-eyed Penguin and Northern royal albatross – has led to Dunedin being dubbed the 'Wildlife Capital' of New Zealand, which has significant local economic benefits. Yellow-eyed Penguin population decline requires the full protection of identified feeding areas to secure these local benefits and the continuation of a thriving tourism sector.
33. Additional protection of marine biodiversity values is consistent with DCC's strategic direction and we note the economic and social benefits that MPAs can confer when located close to


urban centres (e.g. Cape Rodney-Okakari Point Marine Reserve (Goat Island) near Auckland, and Taputeranga Marine Reserve in Wellington).

Conclusion and request to accommodate Dunedin City drainage activities

34. The DCC supports the proposed network as presented in the consultation document, but requests the City's infrastructure needs are recognised, as detailed below:
- (a) For the proposed **Orau Marine Reserve** the DCC:
- i. requests conditions in the Order in Council (or through other means as appropriate) to provide for (1) the existing discharges (to water and air) and (2) existing structures, including disturbance of the seabed associated with outfall maintenance, to ensure these activities can legally continue.
 - ii. requests further discussion with DOC to reach agreement for infrequent discharges that are currently unconsented to continue, so they are not an offence under the Marine Reserves Act 1971 should the Orau Marine Reserve be established before the discharges are consented.
- (b) For the proposed **Okaihāe Marine Reserve** the DCC:
- iii. requests acknowledgment that the wastewater discharge may enter the Marine Reserve and provision of a condition in the Order in Council (or through other means as appropriate) for the existing discharge into the Marine Reserve.
35. To avoid duplication with Resource Management Act 1991 requirements, the DCC requests DOC considers permitting environmental sampling associated with resource consent requirements as a condition of the Order In Council. Alternatively, although less desirably because the duplication would remain, DOC could consider waiving any fees associated with the requirement to apply for a Marine Reserves Act Permit for existing resource consent monitoring requirements.
36. The DCC is committed to working with DOC and other relevant parties to achieve the long-term outcomes in the draft proposals.

Yours sincerely

s9(2)(a)



Aaron Hawkins
Mayor of Dunedin