Summary

1. The fishing industry supports an integrated approach to marine biodiversity protection which recognises that marine protected areas (MPAs) are just one of many tools – both spatial and activity-based – to help achieve marine biodiversity protection. 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. Where MPAs displace fishing activity, steps must be taken to ensure that the displaced catch does not threaten the sustainability of surrounding fisheries or compromise the effective operation of New Zealand’s fisheries management regime.

2. The Forum’s proposals are contrary to the industry’s approach to marine biodiversity protection. They are also inconsistent with the Government’s MPA Policy in several critical respects – notably, the Forum has failed to take existing habitat protection in the region into account, misapplied the ‘protection standard’, failed to state clear MPA objectives related to protection of habitat or ecosystem types, sought to justify MPA proposals on irrelevant grounds, and focused unduly on fishing rather than the full range of threats to marine biodiversity. The Forum has also ignored the impacts of displaced catch on fisheries sustainability. We recommend that these deficiencies should be rectified prior to the provision of final advice to Ministers.

3. If MPAs are to be established in the South East region, the fishing industry would be prepared to support a network of five MPAs as follows:
   i. **MPA (A) Tuhawaiki to Pareora** – Type 2 MPA with Fisheries Act prohibitions on bottom trawling and dredging;
   ii. **MPA (B) Waitaki Coastal** (excluding the extension) – Type 1 MPA (marine reserve);
   iii. **MPA (D) Pleasant River to Stony Creek** (excluding estuaries and offshore extension) – Type 1 MPA (marine reserve);
   iv. **MPA (G) Bryozoan bed** – Type 2 MPA with Fisheries Act prohibitions on bottom trawling, dredging and Danish seining; and
   v. **MPA (H) Papanui canyon** – Type 1 MPA (marine reserve).

4. The industry’s support for each of these five MPAs is subject to the following two conditions:
   i. No additional MPAs are proposed or implemented in the South-East region; and
ii. The Forum recommends that the Government must address any displacement of fishing from the MPAs by ‘rebalancing’ the affected fisheries in a manner consistent with industry policy.

If these two conditions are not sustained, the fishing industry’s ongoing support for the five MPAs cannot be assumed.

5. Our proposed network of five MPAs complements the existing marine habitat protection provided by seven mātaitai reserves that are geographically dispersed across the region. Mātaitai reserves are established for customary fisheries management purposes but, because of their fisheries restrictions, contribute to habitat protection and are therefore an essential consideration when designing a representative MPA network.

6. Together the five proposed MPAs represent nine regional habitat types and two sensitive habitats (bryozoans and Macrocystis beds). Along with the habitats in existing mātaitai reserves, 23 regional habitat types, two sensitive habitats and one additional habitat (estuarine boulder beach) would be under some form of protection within the region. All 26 habitat types would be represented in areas in which all commercial fishing was prohibited. The number of habitats that would be protected is the same as in the twenty MPAs proposed by the Forum, but with far less impact on commercial fishing and other marine user groups.

7. The fishing industry opposes the implementation of the remaining 15 MPAs proposed by the Forum. Our analysis demonstrates that these MPAs – variously – do not have clear biodiversity protection objectives, impose controls that are not necessary to meet the protection standard, are justified on grounds that are irrelevant to the MPA Policy, fail to account for existing habitat protection, are not threatened by activities that could be better managed by establishing an MPA, are not the least-cost management response, and cannot readily be implemented under the available legislation.

8. In addition, the MPAs individually and cumulatively have intolerable adverse effects on the exercise of commercial fishing rights. If the entire MPA network were to be implemented, an unacceptably significant proportion of catch would be affected for rock lobster and pāua fisheries, Danish seining, line fisheries, the flatfish trawl fishery and set net fisheries (particularly for fishers targeting school shark and rig). The individual MPAs which have the most critical adverse effect on commercial fishing are: the offshore portion of MPA (D) Pleasant River to Stony Creek, MPAs (E) & (F), bryozoan beds and Saunders canyon; the three MPAs (I), (J) & (K) south of Dunedin; and MPA (O), Long Point. The majority of the remaining MPAs individually have moderate adverse effects on commercial fishing.

9. Collectively – and in the case of the more critical sites, individually – the proposed MPAs displace fishing effort in a manner that would threaten the sustainability of the surrounding fisheries and may result in a net reduction of the biodiversity values of the South-East region.
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Introduction

1. This submission is made jointly by:
   - Southern Inshore Fisheries Management Company;
   - PauaMACS Incorporated;
   - Otago Rock Lobster Industry Association Incorporated;
   - CRA 8 Management Committee;
   - The NZ Rock Lobster Industry Council;
   - The Paua Industry Council;
   - Fisheries Inshore New Zealand;
   - The Federation of Commercial Fishermen; and
   - The Kina Industry Council.

2. The first four organisations represent commercial fisheries interests in the area covered by the South-East Marine Protection Forum (‘the Forum’). The remaining organisations are national representative bodies for the relevant sectors of the inshore fishing industry. This submission is made on behalf of our members who are quota owners, fishers and affiliated seafood industry personnel in inshore shellfish and finfish fisheries. Collectively 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 nine organisations are referred to as ‘the fishing industry’. Submitter details are provided at the end of Part One of the submission.

Introductory statement

3. The fishing industry supports an integrated approach to marine biodiversity protection which recognises that marine protected areas (MPAs) are just one of many tools – both spatial and activity-based – to help achieve marine biodiversity protection. 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 contrast to the structured approach to marine biodiversity protection favoured by the industry, the process for protecting marine biodiversity in the South East region starts from the proposition that (a) MPAs are the only effective way of protecting marine biodiversity and (b) fishing is always a threat to marine biodiversity. We do not accept that this approach is valid, either under the government’s ‘MPA Policy’\(^1\) or as a matter of common sense.

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5. We consider that in the South East region, any adverse effects of commercial fishing on marine biodiversity are already adequately managed under existing regulatory and voluntary measures. We therefore do not agree that excluding commercial fishing methods from a network of 20 MPAs is necessary in order to protect marine biodiversity in the region. In fact, if such a network were to be implemented the displacement of fishing into the remaining areas outside MPAs would threaten the sustainability of the region’s fisheries, resulting in a decline of fisheries abundance and a net loss of marine biodiversity.

6. We are aware, however, that the political reality is that MPAs will be established in the South East region. Given this imperative, our aim in this submission is to reinforce the need for a principled, risk-based approach to marine biodiversity protection that minimises adverse effects on existing users. Inevitably this will involve compromises and tradeoffs which we endeavor to make explicit in the submission.

Structure of submission

7. Our submission is in two Parts:

- **Part One** (this part):
  a) Analysis of the proposed MPA network as a whole; and
  b) Industry proposal for an MPA network for the South East region;

- **Part Two**: Analysis of each proposed MPA site.

A. Analysis of the Forum’s proposed MPA network

8. The Forum has proposed a network of twenty MPAs for the south east coast of the South Island. In this part of the submission we analyse the network as a whole in relation to:

- The requirements of government’s MPA Policy;
- The fishing industry’s Policy on Marine Biodiversity Protection; and
- Adverse effects on commercial fishing.

Consistency of the proposed network with government MPA Policy

9. The government MPA Policy comprises two documents – the *MPA Policy and Implementation Plan*, and the *MPA Classification, Protection Standard and Implementation Guidelines*. Although the Forum used the MPA Policy as a basis for its deliberations, the proposals diverge from the MPA Policy in several critical respects. Our five key areas of concern, together with recommendations for rectifying each concern, are discussed below.

a) **Existing habitat protection is not taken into account**

10. The MPA Policy requires that an inventory will be taken of existing marine areas that have some level of protection, together with an assessment of the extent to which those areas cover representative habitats and ecosystems. However, the extent of the Forum’s proposed MPA network suggests that the Forum has not assessed the existing protection afforded to the habitat types that occur in the region.
11. An extensive network of fisheries restrictions is already in place. These restrictions are shown in Volume 2 of the Forum’s consultation document and include 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.\(^2\) 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. Although these regulated and voluntary fisheries restrictions are not classified as MPAs, they are nonetheless relevant when assessing whether particular marine habitat or ecosystem types may be threatened by fishing methods.

12. There are also seven mātaitai reserves in the Forum’s region – i.e., Tuhawaiki, Waihoa, Moeraki, Waikouaiti, Otākou, Puna-wai-Toriki and Waikawa Harbour. The mātaitai reserves have a wide geographic spread and include 19 different regional habitat types and one additional habitat type (see Appendix One). Mātaitai reserves are recognised in Policy 3.6(a) of the New Zealand Biodiversity Strategy 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. Mātaitai reserves prohibit all commercial fishing and, in effect, achieve the MPA protection standard in every substantive respect.

13. As an example of the protection of representative habitats provided by mātaitai reserves, estuarine habitats are already represented in five mātaitai reserves in the Forum’s region – i.e., Waihoa, Moeraki, Waikouaiti, Otākou and Waikawa Harbour. Together these five mātaitai reserves cover nine different estuarine habitat types (see Appendix Two). In addition, 11 of the region’s estuaries are managed by the Department of Conservation and closed to commercial eel fishing.\(^3\) In spite of this, the Forum proposes five new MPAs covering six different estuaries, which simply replicate a subset of the habitat types already represented in the mātaitai reserves and conservation estate estuaries.

14. We also note that similar representative habitat types may already be protected outside the South East region. For example, the Forum promotes the Saunders canyon or Papanui canyon MPAs without considering whether equivalent protection has already been provided in New Zealand’s MPA network in the Hikurangi marine reserve (Kaikoura canyon). The New Zealand deepwater marine environment classification system suggests that similar habitat types are found in the two regions. At the very least we would have expected some discussion of existing protection of canyon habitats elsewhere in New Zealand’s MPA network.

**Recommendation 1:** The Forum should commission an analysis of the existing level of protection of the regional habitats, including protection outside recognised MPAs as well as protection of similar habitats outside the region. This analysis should inform the final selection of MPA sites.

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\(^2\) Consultation document, Volume II, pages 156 to 160.

\(^3\) 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, and Normanby lagoon.
b) Misapplication of the protection standard

15. The MPA Policy is based on applying a ‘protection standard’ to 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.

16. The MPA Policy requires a case by case analysis to be undertaken to determine which fishing methods need to be prohibited in order to protect particular habitat types. 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’. The MPA Policy emphasises that these presumptions need to be checked and assessed on a case by case 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.

17. Despite these requirements, nearly all the Forum’s proposed Type 2 MPAs prohibit numerous additional fishing methods in the absence of the necessary case by case analysis. The Forum appears to exclude additional fishing methods on the assumption that they prevent the maintenance and recovery of ecological systems, natural species composition and trophic linkages. However, the Forum provides no evidence in support of the assumption, which is itself indicative of the absence of any case by case analysis.

18. When managing fisheries under New Zealand’s Fisheries Act, the maintenance of ecological systems, natural species composition and trophic linkages is achieved through fisheries 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 prospective 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. MPAs of the scale proposed by the Forum 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 on a much larger spatial scale.

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4 A third matter – potential for the biodiversity to adapt and recover in response to perturbation – is assumed to be provided for if the first two criteria are met. Classification, Protection Standard and Implementation Guidelines, page 11.
5 Classification, Protection Standard and Implementation Guidelines page 12.
6 Classification, Protection Standard and Implementation Guidelines page 11.
7 There is only one exception – MPA (E), bryozoan habitat.
19. Our own case by case analysis of the proposed MPAs in Part Two of this submission shows that, in many cases:

- Existing fisheries management measures, including the Total Allowable Commercial Catch (TACC) and fisheries regulations, are such that the intensity of commercial fishing is unlikely to prevent the maintenance and recovery of ecological systems, natural species composition and trophic linkages at the proposed MPA sites; or

- The prohibited additional fishing methods do not (and are not likely to) occur at the proposed MPA sites; or

- The identified biodiversity values of a site are benthic in character, but fishing methods that do not disturb the seabed are nevertheless prohibited. The MPA Policy specifically enables MPAs to be created which protect benthic habitat from bottom impacting fishing methods while allowing sustainable use to continue higher in the water column.\(^8\)

20. In short, we consider that the Forum has misapplied the protection standard. Unless this is rectified, unnecessary costs will be imposed on existing resource users for no additional biodiversity benefits.

**Recommendation 2:** The Forum should undertake a case by case analysis of all proposed Type 2 MPAs in order to identify (with appropriate justification) the fishing methods that need to be excluded so as to achieve the protection standard.

c) Habitat protection not comprehensive

21. Although the Forum seeks a comprehensive network that is representative of all habitat types in the region, some habitat types are over-represented whereas others are not represented at all. Of the 36 regional habitats identified in Figure 2 of the consultation document, 14 are not included in the network.\(^9\) In contrast, regional habitats with a high level of representation include deep water sand (97% included), exposed shallow gravel (nearly 39%) and deep mud (nearly 35%). Other habitats with a high level of representation, but not identified as regional habitats in Figure 2, are *Macrocystis* bed (nearly 99%), bryozoan bed (94%) and exposed boulder beach (over 80%).

22. Of the habitat types represented in Type 2 MPAs, all are also represented in marine reserves. In other words, the Type 2 MPAs do not increase the comprehensiveness of the MPA network.

23. We do not suggest that all habitat types must be included in the network – to do so would be counter-productive if there is no suitable site and the habitat type is either already protected or not under threat. However, we do consider that the Forum should have provided information on the proportion of each regional habitat type included within the network, so that submitters

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\(^8\) Policy and Implementation Framework, paragraph 21.

\(^9\) Sheltered sandy beach, sheltered shallow sand, sheltered intertidal reef, sheltered shallow reef, moderate intertidal reef, sheltered shallow gravel, exposed gravel beach, deep water gravel, exposed shallow mud and deep water mud, estuarine sandflat, estuarine reef, estuarine gravel field and estuarine cobble field.
could focus on the attributes of the network as a whole rather than being encouraged to “vote” on individual MPAs.

**Recommendation 3:** The Forum should provide information on the proportion of each regional habitat type included (or not included) in the final proposed network.

d) Objectives not related to habitat protection

24. The MPA Policy requires each MPA to have clearly stated objectives related to the protection of specific marine habitat types or ecosystems.\(^9\) Many of the Forum’s MPA proposals do not have clearly stated objectives relating to the protection of unrepresented habitat types. In addition, there is often limited or no reasoning provided for why an MPA of that size is necessary to achieve the protection standard and protect the identified habitats.

25. In many cases, the justification for particular sites includes matters other than protection of representative habitats or ecosystems, including:

- fisheries management considerations such as improving local fisheries abundance or providing for recreational fishing;
- managing impacts on protected species; and
- non-biodiversity protection benefits such as tourism, public access or the educational values of a site.

26. These matters are all outside the scope of the MPA Policy and cannot be used to justify the selection of particular sites, although tourism-related benefits may be used when selecting between similar sites which have minimal impact on extractive use.\(^11\)

**Recommendation 4:** For each MPA site, the Forum should:

- state clear objectives identifying the habitat or ecosystem types protected in the MPA;
- justify the size of the MPA in relation to the protection standard and coverage of representative habitats; and
- delete all purported justifications that are beyond the scope of the MPA Policy.

e) Undue focus on fishing rather than full range of threats

27. The consultation document has a very substantial focus on fishing with almost no mention of any other activities that can and do have adverse effects that may require management in order to achieve biodiversity protection objectives. The Forum has not, to our knowledge, undertaken a threat assessment but has simply assumed that fishing is always a threat to a site’s biodiversity values. Assuming that fishing is a threat to biodiversity:

- contradicts the risk-based approach that is implicit in the MPA Policy, including in the observation that viability of the network is dependent on ‘the nature of actual and

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\(^9\) Policy and Implementation Framework, paragraphs 20, 79 and 82.

\(^11\) Policy and Implementation Framework, paragraph 92.
potential threats to a particular habitat and the amenability of those threats to mitigation using MPA management measures;\textsuperscript{12} and

- ignores existing management measures applied under the Fisheries Act, including measures that implement the Act’s obligations to avoid, remedy or mitigate the adverse effects of fishing and maintain the biological diversity of the aquatic environment.

28. In contrast to the assumption that fishing is always a threat, the Forum does not identify any non-fishing threats to marine biodiversity such as mineral exploration and development, point-source discharges, coastal structures, sedimentation, dredging, and spoil dumping. The MPA policy clearly envisages addressing all threats to biodiversity using a range of appropriate tools.

29. Impacts on marine biodiversity from terrestrial activities are particularly relevant in light of the findings of a NIWA report which concluded that only 7 of the 20 most important threats to New Zealand’s marine habitats were directly related to human activities within the marine environment. The top two threats, five of the top six threats, and over half of the 26 top threats stemmed largely or completely from human activities external to the marine environment – particularly, ocean acidification, rising sea temperatures and sedimentation resulting from changes in land use.\textsuperscript{13}

30. The focus on fishing as a threat carries through to the Forum’s choice of management tools. Aside from marine reserves, the only other tool proposed by the Forum is regulations made under the Fisheries Act. The Forum has not considered the use of other tools – such as Resource Management Act (RMA) mechanisms (e.g., reviews of consent conditions, rules in regional plans) – to manage the threats to MPA biodiversity values arising from marine and terrestrial activities managed under the RMA.

31. The MPA Policy makes it clear that Type 2 MPAs can be implemented under the Fisheries Act only if they comply with Fisheries Act purposes and principles.\textsuperscript{14} Generally, this means that the measure must be necessary to ensure sustainability, which includes avoiding, remediing or mitigating the adverse effects of fishing on the environment. Our analysis of the proposed Type 2 MPAs concludes that implementation under the Fisheries Act will be challenging because:

- in many cases, no actual or potential adverse effects of fishing are identified that need to be avoided, remedied or mitigated in order to ensure sustainability; and

- Fisheries Act decision-makers must consider the requirement to provide for utilisation of fisheries resources alongside the need to ensure sustainability.

\textsuperscript{12} Policy and Implementation Framework, paragraph 69.


\textsuperscript{14} Policy and Implementation Framework, paragraph 38.
Recommendation 5: The Forum should:

- undertake a threat assessment for the final selected sites in order to identify all potential threats to achieving the biodiversity protection objectives for each site;
- recommend controls on fishing only where fishing has an actual or potential adverse effect on the identified biodiversity protection objectives;
- recommend other controls (including tools that are not MPAs) where terrestrial or other marine activities have an actual or potential adverse effect on the identified biodiversity protection objectives.

Consistency with fishing industry policy on marine biodiversity protection

32. The inshore fishing industry has developed an agreed policy on marine biodiversity protection. This policy has been articulated in industry submissions over many years including, most recently, on the Government’s proposed new MPA Act. In its simplest form, the industry’s policy requires that:

- biodiversity protection objectives are clearly identified;
- threats to achieving those objectives are identified;
- the least cost measure is adopted to meet the identified objective and manage the threats (the least cost method may or may not be an MPA); and
- if fishing is displaced by an MPA, fisheries are ‘rebalanced’ by reducing catch limits and, for QMS stocks, providing compensation equivalent to the quota value of foregone catch so as to protect the integrity of the fisheries management regime.

Are biodiversity protection objectives identified?

33. In many cases, the biodiversity protection objectives of the proposed MPAs are not clearly stated. This makes it difficult for submitters to assess which tools are most appropriate for achieving the objective. It also makes it difficult to assess whether or not the MPA network will make an effective contribution to the protection of marine biodiversity. Our recommendation (4) above addresses this concern.

What are the threats?

34. The Forum has not conducted a risk assessment or identified specific threats to achieving the MPA objectives. As noted above, little consideration is given to terrestrial threats or non-fishing marine threats. Instead, there is simply an unjustified assumption that fishing is a threat, distorting the selection of appropriate management responses. Our recommendation (5) addresses this concern.

Are the proposed MPAs least-cost responses to the identified threats?

35. It is important to note that the Forum uses the concept of ‘least-cost’ in a different way from the industry policy. The Forum’s use of the term relates to the relative costs for existing uses and values when comparing two alternatives (e.g., MPAs (E) and (F) vs MPAs (G) and (H)) whereas the industry uses the term least-cost to refer to a management response which achieves an identified objective by managing the identified threats in a least-cost manner.
36. The Forum’s recommended management tools are seldom the least-cost approach to achieving marine biodiversity protection objectives. The main ways in which the Forum’s proposals do not adopt the least-cost approach that underpins the industry’s policy are:

- the failure to consider existing protection of similar habitat types – for example, in mātaitai reserves;
- the use of Type 1 MPAs (marine reserves) which prohibit all fishing, when a more targeted measure would address any specific threats to the identified biodiversity values of the site at less cost. We are aware that government’s MPA Policy requires that one example of each habitat type should be protected in a marine reserve, but we do not accept this aspect of the MPA Policy as it contradicts the (largely) principled, structured approach that is promoted in the remainder of the Policy; and
- the indiscriminate (rather than case by case) application of the protection standard to prohibit fishing methods that do not have adverse effects on the identified biodiversity values of the site or do not (and are unlikely to) occur at the site.

Our recommendations (1), (2) and (5) help address this concern.

Rebalancing

37. The fishing industry emphasises the need to ‘rebalance’ fisheries when establishing any MPA that displaces fishing catch and effort. The purpose of the rebalancing is to ensure the sustainability of fish stocks and safeguard the effective operation of the fisheries management regime so that one public policy objective (protection of marine biodiversity) does not undermine another (sustainable fisheries).\(^\text{15}\)

38. Rebalancing is a two-step process that entails:

- **a fisheries management response** to remove the displaced catch from the fishery and rebalance the biological system. In the case of displaced commercial catch, the management response is likely to be a TACC reduction whereas for displaced recreational catch, other management measures may be necessary to reduce catch (e.g., daily bag limit reductions); and

- **a market-based response** to rebalance the economic incentives for the effective operation of the QMS by ensuring that affected quota owners are no worse off (i.e., the Crown compensates affected quota owners for the market value of quota shares equivalent to the foregone commercial catch).

39. The Forum in some cases appears to recognise that displaced catch cannot necessarily be absorbed back into other areas of the fishery without threatening the sustainability of the surrounding fisheries. However, this recognition is not consistently applied across all the MPA proposals or all fisheries – for example, in several places the consultation material implies that

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\(^{15}\) Our rebalancing policy applies to all fisheries closures other than those made for legitimate sustainability reasons under the Fisheries Act.
displaced rock lobster catch can simply be absorbed elsewhere in the fishery without any adverse effects on local stock abundance or catchability. The Forum proposes no rebalancing of affected fisheries even where it is apparent that a proposed MPA will have adverse effects on the surrounding fisheries and the exercise of existing fishing rights.

40. In the absence of rebalancing, the MPA network will have an overall negative effect on sustainable marine management, particularly if cumulative displacement from the network is significant.

**Recommendation 6:** When proposing an MPA that results in the displacement of fishing effort, the Forum should also recommend that the Crown be required to rebalance the fisheries system through (a) an appropriate fisheries management response and (b) an appropriate market-based response.

### Adverse effects of the MPA network on commercial fishing

#### Cumulative impacts of the network

41. The Forum’s proposed MPA network will have a significant cumulative impact on commercial fishing within the South-East region. The fisheries that would be most impacted in terms of proportion of catch displaced within the south east region are as follows, in order of relative impact on the fishery:

- Set net fisheries targeting school shark – 19% displacement;
- Rock lobster fisheries – 17.3% displacement;
- Danish seining – 14.7% displacement;
- Line fisheries – 13.7% displacement;
- Set net fisheries targeting rig – 8% displacement;
- Set net fisheries targeting other species – 7.7% displacement;
- Trawl fisheries targeting flatfish – 7.2% displacement; and
- Pāua fisheries – 6.1% displacement.

42. These cumulative displacement figures are extremely significant for the affected fisheries, particularly as:

- For finfish fisheries, the same operators are likely to be affected by impacts on several of the affected species – for example, set netters prevented from targeting school shark may also be prevented from targeting rig and other species in the same or other MPAs in the network; and
- For rock lobster and pāua fisheries any displaced effort cannot simply be absorbed into the remaining portion of the fishery and will therefore have adverse effects on local fishery abundance outside the MPAs and, potentially threaten stock sustainability (as discussed in more detail below). Rock lobster and pāua fisheries are compatible with

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16 Using catch displacement figures from the Consultation Document. The analysis includes all MPAs and proposed extensions apart from MPAs (G) and (H) (which are subsumed within MPAs (E) and (F)).
the maintenance of high marine biodiversity values, making the impacts of no-take MPAs on these fisheries particularly difficult to justify.

43. Fisheries impacts on this scale will have significant economic effects on the seafood industry in Otago, on the communities that are supported by commercial fishing and seafood processing, and on the regional economy. In addition to the direct impacts of displacement from fishing grounds, fishers will face additional costs associated with extra steaming time and loss of catching efficiency. The magnitude of these costs is difficult to estimate as it depends on the circumstances of individual fishers. The analysis below considers the most affected fisheries in more detail.

**Impacts on key fisheries**

44. The South East Forum’s region is a valuable fishery for rock lobster. The CRA 7 (Otago) rock lobster fishery is a small but important rock lobster fishery, with an estimated current-year export value of $10.7 million. The South East region also includes a portion of the CRA 8 (Fiordland) rock lobster fishery, which is New Zealand’s single most valuable inshore fishery. CRA 8 is responsible for 35% of New Zealand’s rock lobster production and earns $105.8 million annually in export receipts. A 17.3% reduction in the region’s commercial rock lobster catch would clearly have a significant economic impact within the region and on New Zealand’s export earnings. The economic opportunities foregone if new MPAs are established will be exacerbated by the upward trajectory of CRA7 biomass, which will lead to substantial catch increases on 1 April 2017.

45. The South East region also supports a valuable pāua fishery. The PAU 5 areas (PAU 5A, PAU 5B and PAU 5D which is the Otago portion of the fishery) together generate nearly a third of New Zealand’s commercial pāua production and produce around $20 million in annual export returns. The PAU 5 fisheries will become even more important to New Zealand following the damage done to the Kaikoura/Canterbury pāua fishery by the Kaikoura earthquakes and the halving of commercial catch limits in Marlborough.

46. The Forum’s proposed MPAs prohibit commercial pāua fishing in areas that together contribute up to almost 6 tonnes of commercial paua catch annually (see Figure 1). The PAU 5D TACC is 89 tonnes, but quota owners are currently shelving 30% of their Annual Catch Entitlement (ACE) in order to facilitate a more rapid rebuild of the fishery. This leaves only 62 tonnes of PAU 5D ACE available for harvest. The amount of catch displaced from the Forum’s proposed MPAs is therefore, in some years, likely to be equivalent to almost 10% of the fishery. This is significant not only in terms of economic impact, but also for fisheries management.

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17 The table shows the cumulative impacts of MPA (D) Pleasant River to Stony Creek and MPA (O) Long Point. Schofield, M (December, 2016). PAU5 SEMPF. Summary of PAU5 catch within SEMPF Type 1 reserves.
18 Shelving makes ACE unavailable for fishing, effectively reducing the total commercial harvest by the amount shelved.
47. The South East region supports an active fleet of small inshore fishing boats targeting finfish species from local fishing ports spread throughout the region, including Timaru, Oamaru, Moeraki, Karitane, Port Chalmers, Carey’s Bay, Otakou, and Taieri Mouth. The trawl fishery is widely distributed throughout the region, although some areas are more important than others, as shown in Figure 2.

**Figure 2: The distribution of trawl fishing effort around the South East region.**

*Effort is cumulative from tows occurring within the 2008 to 2016 fishing years, location is based on reported trawl starting position. The plot on the left is trawl fishing effort (excluding flatfish) and on the right is trawl fishing effort for flatfish.*
48. Set netting effort is more concentrated and therefore more vulnerable to the impacts of displacement from MPAs (see Figure 3). The proposed MPAs that have the largest economic impact on finfish fisheries are MPAs (O) Long Point, (A) Tuhawaiki to Pareora, and (E/F) bryozoan beds and Saunders canyon.

Figure 3: The distribution of set net fishing effort around the South East Region

*Effort is cumulative from sets occurring within the 2008 to 2016 fishing years, location is based on reported starting position.*

**Fisheries management implications of displacement**

49. Displacement of commercial fishing on the scale identified above has serious consequences for the sustainable management of fisheries. The implications can be seen most readily in sedentary species such as rock lobster or pāua, but the same principle applies to more mobile species.

50. In several places the Forum’s consultation document assumes that impacts of MPAs on commercial fishing for rock lobster will be mitigated because movement of rock lobsters will enable harvesting to take place outside the proposed MPA. This assumption is incorrect. If an area is closed, rock lobsters will continue to move in to, out of, and through the closed area – but the fact remains that fishers will seek to take their existing catch entitlements from a reduced area and, consequently, a smaller resource. Rock lobster biomass and availability will inevitably be reduced outside the marine reserve. The likely consequences include:

- a reduction in the TAC/TACC with direct economic impacts on owners of rock lobster quota and ACE; and

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20 For example, see Consultation Document paragraph 213.
increased competition among commercial fishers and between commercial and non-commercial fishers who will each be trying to harvest the same amount of rock lobsters from a more confined area.

51. These impacts will be experienced regardless of the rock lobster stock status. Although the CRA7 rock lobster biomass is currently increasing, the impact of displaced fishing effort will offset at least part of the increased biomass and will therefore need to be taken into account in future management decisions.

52. The fisheries management implications for pāua fisheries are even more significant because of the reproductive biology of pāua. Research from New Zealand and around the world shows that pāua stocks do not benefit from adult spillover or larval dispersal from marine reserves or other closed areas. The species is also particularly vulnerable to additional fishing pressure. Whenever commercial or non-commercial catch is displaced from an MPA, fishers will continue to take the same amount of pāua from the smaller remaining harvestable pāua population. Every MPA that is established in a pāua fishery will therefore contribute to a decline in the abundance of the fishery outside the MPA. The greater the level of displacement is (e.g., from many MPAs), the greater the decline in fisheries abundance.

53. The PAU 5D fishery is rebuilding towards its management target level of 40% Bo, but the rate of rebuild is very slow. Every tonne of fish displaced from an MPA is equivalent to increasing the PAU 5D TAC and TACC by one tonne – and no competent fisheries manager would contemplate increasing catch levels in a fishery that is rebuilding only slowly towards the management target.

Cumulative impacts with other closures

54. For all the region’s commercial fisheries, the impacts of new MPA closures will be cumulative upon the impacts of existing closures. Existing closures in the Forum’s area of interest, from which fishing effort has already been displaced, include:

- seven mātaitai reserves which are closed to all forms of commercial fishing. Displacement from these closures has already been significant for some stocks – for example the mātaitai 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, Seaciff, Otago Harbour, Otago Peninsula, Taieri River mouth, Tokomairiro River mouth, and Clutha River mouth;\(^{21}\)
- 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;

\(^{21}\) Areas closed to commercial shellfish harvesting in the 1960s for food safety reasons (freezing works, sewage outfalls etc), but remained open for recreational harvest.
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;
• prohibitions on purse seining, trolling and Danish seining in all estuaries and harbours;
• voluntary trawl prohibitions south of Timaru and at the bryozoan beds;
• a prohibition on trawlers larger than 46m in length within 12 nm of the entire coastline; and
• a requirement for trawlers to use low headline nets within 2 nm of the coast.

55. It is critical that the Forum takes these closures into account when assessing (a) the level of existing protection of marine biodiversity from fishing-related threats; and (b) the impact of new MPAs on existing fishing activity in the region.

Impacts on local fishing ports and communities

56. All the fisheries discussed above are important in maintaining the viability of the South East region’s fishing ports. A high proportion of the commercial fishing vessels that operate within the region are small fishing vessels that are limited in the distance from shore in which they can operate and are also limited in the time they can spend fishing before returning to port. These vessels, which operate out of local ports, are likely to be the most adversely affected by the establishment of MPAs near their home port.22 Fishers based in Timaru, Oamaru and Moeraki tend to be more widely distributed offshore and along the coastline than those who fish out of Karitane, Dunedin (Port Chalmers, Otakou and Carey’s Bay) and Taieri Mouth.

57. Trawlers based in Karitane will be particularly vulnerable to the impacts of the outer portion of MPA (D) Pleasant River to Stony Creek, whereas Karitane-based set netters will be vulnerable to MPA (E), the larger bryozoan bed option (see Figure 4). Vessels fishing out of Dunedin will also be particularly vulnerable to the outer part of MPA (D) and to MPA (E). These vessels will also be adversely affected by MPAs (N) Akatore Offshore and (P) Long Point Offshore and – particularly – by MPA (O), Long Point. Vessels fishing out of Taieri Mouth will be affected by the nearby Akatore Coastal and Offshore MPAs as well as and MPAs (P) and (O) and the bryozoan bed and canyon MPAs to the north.

58. The restricted range of the vessels operating from these three ports means that even a relatively small loss of fishing grounds can have a big impact on their operations because their choices in relocating to new fishing grounds are limited by the size of the vessel and the type of ticket that the skipper is likely to hold.

22 The analysis in this section focuses on vessels which land 85% or more of their catch to one location.
Figure 4: The distribution of fishing effort from vessels fishing out of Karitane

Effort is cumulative from the 2008 to 2016 fishing years. BT=bottom trawl; SN=set net

B. Industry proposal for an MPA network for the South-East region

59. In this section of the submission we:
   - Propose an MPA network that the fishing industry is prepared to support (subject to the conditions set out in the proposal) and which we believe is capable of attracting widespread support from marine users in the South-East region; and
   - Analyse our proposed network in terms of the requirements of the MPA Policy.

60. For the avoidance of doubt, the industry opposes all MPA proposals in the Forum’s consultation document, other than as documented in this section of the submission.

61. The full justification for our potential support for certain MPAs and opposition to others is set out in Part Two of this submission.
Description of proposed network

62. The fishing industry supports a network of five MPAs, comprising three marine reserves and two Type 2 MPAs, as follows:

- **MPA (A) Tuhawaiki to Pareora** – Type 2 MPA with Fisheries Act prohibitions on bottom trawling and dredging;
- **MPA (B) Waitaki Coastal** (excluding the extension) – Type 1 MPA (marine reserve);
- **MPA (D) Pleasant River to Stony Creek** (excluding the estuaries and offshore extension) – Type 1 MPA (marine reserve);
- **MPA (G) Bryozoan bed** – Type 2 MPA with Fisheries Act prohibitions on bottom trawling, dredging and Danish seining; and
- **MPA (H) Papanui canyon** – Type 1 MPA (marine reserve).

63. The key attributes of the proposed MPAs are set out in Appendix 3.

64. The industry’s support for the five MPAs is subject to the following two conditions:

- No additional MPAs are proposed or implemented in the South-East region; and
- The Forum recommends that the Government must address any displacement of fishing effort from the MPAs by ‘rebalancing’ the affected fisheries as described in this submission.

If these two conditions are not sustained, the fishing industry’s ongoing support for the five MPAs cannot be assumed.

65. Our proposed network of five MPAs takes account of the existing marine biodiversity protection provided by commercial fishing regulations and voluntary commercial fisheries closures. The MPAs complement the habitat protection provided by seven mātaitai reserves that are geographically dispersed across the region. As noted elsewhere in this submission, mātaitai reserves are established for customary fisheries management purposes but, because of their fisheries restrictions, directly contribute to habitat protection and are therefore an essential consideration when designing a representative MPA network. The proposed MPA network and the current mātaitai reserves are shown in Figure 5.

66. The fishing industry supports the inclusion of each of the five MPAs in the network for the following reasons:

- **MPA (A) Tuhawaiki to Pareora** protects four regional habitat types. The area is important for school shark pupping and elephant fish eggs, making it a habitat of particular significance for fisheries management. It is therefore appropriate to implement management measures under the Fisheries Act;
- **MPA (B) Waitaki Coastal** adds two habitats that are not represented elsewhere in the industry’s proposed MPA network (including one habitat that is also not represented in existing mātaitai reserves). It has relatively minor impacts on commercial fishing.
Although the biodiversity protection benefits of this MPA are not compelling, we are prepared to consider it on the basis that it complements the other MPAs in the network;

- **MPA (D) Pleasant River to Stony Creek** adds one habitat type not represented elsewhere in the network as well as one sensitive habitat, *Macrocystis* beds. It contains biodiversity values that may meet Marine Reserves Act criteria.

Although the biodiversity protection benefits of this MPA are not compelling, we are prepared to consider it on the basis that:
- it complements the other MPAs in the network; and
- its impacts on commercial fishing are not as significant as alternative proposed MPA sites with similar habitat types;

- **MPA (G) Bryozoan bed** protects three regional habitat types. The proposed restrictions contribute to avoiding, remedying or mitigating adverse effects of bottom-perturbing fishing methods on sensitive bryozoan habitats, and it is therefore appropriate to implement management measures under the Fisheries Act; and

- **MPA (H) Papanui Canyon** protects three regional habitat types and bryozoan habitats. The canyon may contain biodiversity values that are potentially consistent with Marine Reserves Act criteria.

**Figure 5: Proposed MPA network and existing mātaitai reserves**
Analysis of proposed network

Protecting representative habitats

67. Together the five proposed MPAs represent nine regional habitat types and two sensitive habitats (bryozoans and *Macroystis* beds). Along with the habitats in existing mātaitai reserves, 23 regional habitat types, two sensitive habitats and one additional habitat (estuarine boulder beach) would be under some form of protection within the region. All 26 habitat types would be represented in areas in which all commercial fishing was prohibited (either marine reserves or mātaitai reserves) with duplicate representation of six habitat types in Type 2 MPAs. The habitat protection provided by the proposed network and existing mātaitai reserves is shown in Figure 6.

![Figure 6: Existing and proposed habitat protection](chart)

<table>
<thead>
<tr>
<th>Regional habitat types (1-23) and other habitat types (24-26)</th>
<th>MPA (A) Type 2</th>
<th>MPA (B) Type 1</th>
<th>MPA (D) Type 1</th>
<th>MPA (G) Type 2</th>
<th>MPA (H) Type 1</th>
<th>Existing mātaitai reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Estuarine sandy beach</td>
<td>3,4,5,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Estuarine sandflat</td>
<td></td>
<td>4,5,7</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3 Moderate sandy beach</td>
<td></td>
<td></td>
<td>3,6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Moderate shallow sand</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,3,5,6</td>
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<tr>
<td>5 Exposed sandy beach</td>
<td></td>
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<td></td>
<td>7</td>
<td></td>
<td></td>
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<tr>
<td>6 Exposed shallow sand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,7</td>
<td></td>
</tr>
<tr>
<td>7 Estuarine intertidal reef</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,7</td>
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<tr>
<td>8 Estuarine reef</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>5</td>
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<tr>
<td>9 Moderate intertidal reef</td>
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<td></td>
<td></td>
<td></td>
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<td>1,3,5,6</td>
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<tr>
<td>13 Deep reef</td>
<td></td>
<td>4.6</td>
<td>0.5</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>14 Estuarine gravel beach</td>
<td></td>
<td></td>
<td></td>
<td>2,4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Estuarine gravel field</td>
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<td></td>
<td></td>
<td>4</td>
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</tr>
<tr>
<td>16 Moderate gravel beach</td>
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<td>13.2</td>
<td></td>
<td></td>
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<td>17 Moderate shallow gravel</td>
<td></td>
<td></td>
<td></td>
<td>8.2</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>18 Deep gravel</td>
<td></td>
<td></td>
<td></td>
<td>2.4</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>19 Estuarine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,3,4</td>
</tr>
<tr>
<td>20 Estuarine cobble beach</td>
<td></td>
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<td>7</td>
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<tr>
<td>21 Mud flat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,5,7</td>
<td></td>
</tr>
<tr>
<td>22 Moderate shallow mud</td>
<td></td>
<td></td>
<td></td>
<td>10.2</td>
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<td></td>
</tr>
<tr>
<td>23 Deep mud</td>
<td></td>
<td>2.4</td>
<td>24.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Estuarine boulder beach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>25 <em>Macroystis</em> bed</td>
<td>36.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 Bryozoans</td>
<td></td>
<td></td>
<td></td>
<td>32.1</td>
<td>17.4</td>
<td></td>
</tr>
</tbody>
</table>

*Key: The green boxes indicate the proportion of the regional habitat type included in the MPA. The blue boxes refer to the mātaitai reserves containing the identified habitat, as follows: (1) Tuhaiai; (2) Waihoa; (3) Moeraki; (4) Waikouaiti; (5) Otakou; (6) Puna-wai-toriki; (7) Waikawa Harbour.*
68. By way of comparison, there are 36 classified habitats within the South East Region. The twenty MPAs proposed in the Forum’s consultation document together represent 22 of these regional habitats, two sensitive habitats (bryozoan beds and *Macrocystis*) and two additional habitat types (exposed boulder beach, estuarine boulder beach). The number of habitats that would be protected in the industry’s proposal is therefore the same as in the twenty MPAs proposed by the Forum, but with far less impact on marine user groups.

**Achieving the protection standard**

69. The three Type 1 MPAs – Waitaki coastal, Pleasant River to Stony Creek and Papanui canyon – achieve the protection standard because they are marine reserves. The management measures in the Type 2 MPAs achieve the protection standard, as follows:

- **MPA (A) Tuhawaiki to Pareora** – Danish seining is already prohibited in the area. The additional prohibition of bottom trawling and dredging will provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity. The existing prohibition on set netting and the relatively low level of fishing intensity at the site mean that no further restrictions are necessary in order to provide for the maintenance of ecological systems, natural species composition and trophic linkages; and

- **MPA (G) Bryozoan bed** – the prohibition of bottom trawling, dredging and Danish seining will provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity. No further restrictions are necessary in order to provide for the maintenance of ecological systems, natural species composition and trophic linkages, particularly as the objective of the MPA is to protect benthic bryozoan habitat.

70. To be clear, we are not proposing that the existing mātaitai reserves are, or should be, part of the MPA network. Neither are we proposing that additional controls should be adopted within the mātaitai reserves so that they may formally achieve the protection standard. Mātaitai reserves are customary management tools and it is up to tangata whenua to determine how fisheries resources in the reserve should be managed. Instead, we are simply acknowledging that, in substantive effect, the controls which apply by default in mātaitai reserves provide for the maintenance and recovery of:

- physical features and biogenic structures that support biodiversity (including through the prohibition on all bottom-impacting commercial fishing methods); and

- ecological systems, natural species composition and trophic linkages (including through the prohibition on commercial fishing and the capacity to control the level of recreational and customary harvesting within the mātaitai reserve).

**Minimising impacts on existing users**

71. The proposed MPA network does have some adverse effects on commercial fishing. In particular, the PAU 5D fishery is adversely affected by MPA (D), Pleasant Point to Stony Creek. Over the last eight fishing years, an average of 826 kg of catch has been taken from the pāua statistical area in which the MPA is located. Although this is around 1% of the total commercial catch in PAU 5D, pāua fisheries are particularly vulnerable to the impacts of catch displacement
and a 1% displacement is likely to slow the rate of rebuild in the fishery.\textsuperscript{23} The PAU 5D fishery would therefore need to be ‘rebalanced’ by reducing the TAC and TACC by 1%, compensating PAU 5D quota owners, and implementing any necessary measures to constrain recreational catch by an amount equivalent to the displaced recreational catch.

72. Nevertheless, the impacts of MPA (D) on PAU 5D are considerably less than the impacts of alternative similar MPA sites such as MPA (O), Long Point, which would displace nearly five times more commercial pāua harvest (see analysis in Part Two of this submission).

73. In addition, MPA (A) is likely to have a minor impact on trawling for flatfish and MPA (B) has a minor impact on set netting for rig and school shark. While proposed MPAs (G) and (H) are anticipated to have a moderate impact on commercial fishing, the area supports around half the number of fishing events of Alternative One (MPAs (E) and (F)) and the economic value of the affected commercial harvest is less than half that of Alternative One.

74. A comparative analysis of the proportion of commercial catch displaced from fisheries in the South East region under (a) the Forum’s proposed network and (b) the fishing industry’s proposed MPA network is set out in Figure 7.\textsuperscript{24}

\begin{figure}[h]
\centering
\begin{tabular}{|c|c|c|}
\hline
 & Forum MPA network\textsuperscript{25} & Industry MPA network\textsuperscript{26} \\
 & (\%) & (\%) \\
\hline
Set net rig & 8.0 & 0.9 \\
Set net school shark & 19 & 0.6 \\
Set net elephant fish & 1.4 & - \\
Set net other & 7.7 & 0.7 \\
Trawl flatfish & 7.2 & 0.2 \\
Trawl gurnard & 1.6 & 1.1 \\
Trawl red cod & 3.2 & 0.4 \\
Trawl terakihi & 3.3 & 0.8 \\
Trawl other & 1.9 & 0.4 \\
Rock lobster & 17.3 & 5.4 \\
Pāua & 6.1 & 0.4 \\
Squid & 4.4 & 1.5 \\
Blue cod potting & 4.2 & 1.7 \\
Dive other & 1.3 & 0.8 \\
Danish seine & 14.7 & 1.8 \\
Line fisheries & 13.7 & 3.0 \\
\hline
\end{tabular}
\caption{Comparison of commercial catch displaced (expressed as a proportion of total catch taken from the South East region)}
\end{figure}

\textsuperscript{23} For further analysis, see Part Two of the submission.
\textsuperscript{24} Analysis based on displacement figures provided in Consultation document (corrected for MPA (D)). The figures used may therefore differ from the independent analysis provided elsewhere in this submission.
\textsuperscript{25} The Forum’s MPA network includes all MPAs apart from (G) and (H).
\textsuperscript{26} The Industry’s MPA network is as proposed in this submission.
75. Recreational and customary fishers may also be adversely affected by the Type 1 MPAs – i.e., (B) Waitaki coastal, (D) Pleasant Point to Stony Creek and (H) Papanui canyon – but we anticipate any impacts to be relatively minor, especially when compared to alternative MPA sites which cover similar habitat types. We also acknowledge that marine reserves may alienate customary interests and values and this in itself is an adverse effect, irrespective of existing levels of customary use of the site.

**Managing all threats**

76. In order to complement the controls provided by the proposed marine reserves and Fisheries Act regulations, we recommend that the biodiversity protection benefits of the five MPAs should be enhanced by reviewing the consent conditions of all consents located within 200m of the MPA sites (as identified on SeaSketch and in Appendix Three of this submission). The purpose of the review is to identify whether any of the activities have adverse effects on the identified biodiversity values of the sites and, if so, to amend the consent conditions to avoid, remedy or mitigate the identified adverse effect.

**Summary of recommendations**

77. The fishing industry recommends that the Forum should adopt the network of five MPAs proposed in this submission. At the very least we consider that the Forum should put the proposed network of five MPAs forward to Ministers as a viable, least-cost option for protecting marine biodiversity in the South East region.

78. Furthermore, when carrying out its own analysis prior to the preparation of final advice to Ministers, we recommend that the Forum should:

   a) Commission an analysis of the existing level of protection of the regional habitats, including protection outside recognised MPAs as well as protection of similar habitats outside the region;
   b) Undertake a case by case analysis of all proposed Type 2 MPAs and identify (with appropriate justification) the fishing methods that need to be excluded so as to achieve the protection standard;
   c) Provide information on the proportion of each regional habitat type included (or not included) in the final proposed network;
   d) For each MPA site: state clear objectives identifying the habitat or ecosystem types protected in the MPA; justify the size of the MPA in relation to the protection standard and coverage of representative habitats; and delete all purported justifications that are beyond the scope of the MPA Policy; and
   e) Undertake a threat assessment for the final selected sites; recommend controls on fishing only where fishing has an actual or potential adverse effect on the identified biodiversity protection objectives; and recommend other controls (including tools that are not MPAs) where terrestrial or other marine activities have an actual or potential adverse effect on the identified biodiversity protection objectives.
79. If the Forum recommends to Ministers any MPA that results in the displacement of fishing effort, the Forum should also recommend that the Crown be required to rebalance the fisheries system through (a) an appropriate fisheries management response and (b) an appropriate market-based response.

80. The fishing industry groups that have prepared this submission are available collectively and individually to discuss the material presented in the submission with the Forum. We strongly recommend the Forum to hold public hearings so that Forum members have an opportunity to fully understand and question the issues raised by all submitters.

Submitter details

81. For the purposes of this submission the following four signatories are the contact persons on behalf of the nine industry submitters. The preferred method of contact is email. The names of the contact persons (but not their email addresses) may be released under the OIA.

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Chief Executive  
Fisheries Inshore New Zealand  
jeremy@inshore.co.nz

On behalf of:
- Southern Inshore Fisheries Management Company;
- PauaMACS Incorporated;
- Otago Rock Lobster Industry Association Incorporated;
- CRA 8 Management Committee;
- The NZ Rock Lobster Industry Council;
- The Paua Industry Council;
- Fisheries Inshore New Zealand;
- The Federation of Commercial Fishermen; and
- The Kina Industry Council.
<table>
<thead>
<tr>
<th>Regional habitat types</th>
<th>Tuhawaiki</th>
<th>Waioha</th>
<th>Moeraki</th>
<th>Waikouaiti</th>
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Appendix Two: Protection of estuarine habitats in the Forum’s region

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<th>Estuarine habitat types</th>
<th>Estuarine unclassified</th>
<th>Sandy beach</th>
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<th>Intertidal reef</th>
<th>Cobbled beach/ boulder beach</th>
<th>Sandflat</th>
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<td>(L) Akatore Estuary</td>
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<td>(Q) Tahakopa Estuary</td>
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<td>(R) Tautuku Estuary</td>
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<td>(S) Haldane</td>
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### Appendix Three: Key attributes of MPAs in industry’s proposed network

#### A. Tuhawaiki to Pareora

<table>
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<tr>
<th>Description of area</th>
<th>The MPA extends 4.4km along the shore and offshore to 1.1km, and has an approximate area of 4.4km²</th>
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<tbody>
<tr>
<td>Implementation mechanism</td>
<td>Type 2 MPA implemented under Fisheries Act</td>
</tr>
<tr>
<td>Proposed fisheries restrictions</td>
<td>Bottom trawling and dredging</td>
</tr>
<tr>
<td>Habitats protected (MPA objective)</td>
<td>Protects moderate shallow sand, moderate shallow reef, moderate shallow gravel and moderate gravel beach</td>
</tr>
<tr>
<td>Protection standard</td>
<td>Danish seining is already prohibited in the area. The additional prohibition of bottom trawling and dredging will provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity. The existing prohibition on set netting and the relatively low level of fishing intensity at the site mean that no further restrictions are necessary in order to provide for the maintenance of ecological systems, natural species composition and trophic linkages</td>
</tr>
<tr>
<td>Impacts on commercial fishing</td>
<td>Minor</td>
</tr>
<tr>
<td>Impacts on other existing uses</td>
<td>Negligible</td>
</tr>
<tr>
<td>Other threats</td>
<td>Nearby consents for gravel extraction and sewage discharge</td>
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#### B. Waitaki Coastal (excluding extension)

<table>
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<tr>
<th>Description of area</th>
<th>The MPA extends south of the Waitaki River mouth for 14.8km and offshore for 8km, covering an area of approximately 88.4km²</th>
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<tr>
<td>Implementation mechanism</td>
<td>Type 1 MPA implemented under Marine Reserves Act</td>
</tr>
<tr>
<td>Proposed fisheries restrictions</td>
<td>All fishing prohibited</td>
</tr>
<tr>
<td>Habitats protected (objective of MPA)</td>
<td>Protects moderate shallow gravel, moderate shallow mud and moderate gravel beach (&amp; possibly unmapped kelp habitat)</td>
</tr>
<tr>
<td>Protection standard</td>
<td>Achieved by establishment of marine reserve</td>
</tr>
<tr>
<td>Impacts on commercial fishing</td>
<td>Minor</td>
</tr>
<tr>
<td>Impacts on other existing uses</td>
<td>Possible minor impact on recreational fishing; Marine reserves may alienate customary interests and values</td>
</tr>
<tr>
<td>Other threats</td>
<td>Numerous other potential threats exist within 200m of the site, including a landfill, stormwater discharges, meatworks and a quarry</td>
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### D. Pleasant River to Stony Creek (coastal portion of MPA, excluding estuaries)

<table>
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<th>Description of area</th>
<th>The MPA extends approximately 8km northwards along the coast from the Pleasant River and 1.5-2km offshore. The offshore extension and the Pleasant River and Stony Creek estuaries are not included in the MPA</th>
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</tr>
<tr>
<td>Proposed fisheries restrictions</td>
<td>All fishing prohibited</td>
</tr>
<tr>
<td>Habitats protected (objective of MPA)</td>
<td>Protects moderate shallow reef, moderate intertidal sand, moderate sandy beach and sensitive <em>Macrosystis</em> bed habitats</td>
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<tr>
<td>Protection standard</td>
<td>Achieved by establishment of marine reserve</td>
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<tr>
<td>Impacts on commercial fishing</td>
<td>Moderate impact on pāua and rock lobster fisheries; Minor impact on trawl fisheries</td>
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<tr>
<td>Impacts on other existing uses</td>
<td>Possible moderate impact on recreational fishing; Marine reserves may alienate customary interests and values</td>
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<td>Other threats</td>
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### G. Bryozoan bed

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<th>The MPA is approximately 19.2km by 8.3km and abuts MPA (H) Papanui canyon</th>
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</tr>
<tr>
<td>Proposed fisheries restrictions</td>
<td>Bottom trawling, dredging and Danish seining</td>
</tr>
<tr>
<td>Habitats protected (objective of MPA)</td>
<td>Protects deep gravel, deep mud, deep reef and sensitive bryozoan habitat</td>
</tr>
<tr>
<td>Protection standard</td>
<td>The prohibition of bottom trawling, dredging and Danish seining will provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity. No further restrictions are necessary in order to provide for the maintenance of ecological systems, natural species composition and trophic linkages, particularly as the objective of the MPA is to protect benthic bryozoan habitat</td>
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<tr>
<td>Impacts on commercial fishing</td>
<td>Moderate impact on set net and trawl fisheries; Possible impact on line and potting fisheries</td>
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<td>Impacts on other existing uses</td>
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### H. Papanui canyon

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<th>Description of area</th>
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<td>Proposed fisheries restrictions</td>
<td>All fishing prohibited</td>
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</tr>
<tr>
<td><strong>Habitats protected</strong></td>
<td>Protects deep gravel, deep mud, deep reef and sensitive bryozoan habitat</td>
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<tr>
<td>(objective of MPA)</td>
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<tr>
<td>Protection standard</td>
<td>Achieved by establishment of marine reserve</td>
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<tr>
<td>Impacts on commercial fishing</td>
<td>Moderate impact on set net and trawl fisheries; Possible impact on line and potting fisheries (including cod and rock lobster)</td>
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<td>Possible minor impact on recreational fishing; Marine reserves may alienate customary interests and values</td>
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<td>Other threats</td>
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</table>
Fishing Industry Submission
on Proposed Marine Protected Areas for the
South Island South-East Coast
Part Two: Analysis of proposed MPA sites
20 December 2016

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Introduction

1. This is Part Two of a two part submission made jointly by:
   - Southern Inshore Fisheries Management Company;
   - PauaMACS Incorporated;
   - Otago Rock Lobster Industry Association Incorporated;
   - CRA 8 Management Committee;
   - The NZ Rock Lobster Industry Council;
   - The Paua Industry Council;
   - Fisheries Inshore New Zealand;
   - The Federation of Commercial Fishermen; and
   - The Kina Industry Council.

2. In this section of the submission we analyse each of the twenty MPA sites proposed by the Forum against four general policy requirements, i.e.:
   - Consistency with government’s MPA Policy;¹
   - Consistency with fishing industry policy on marine biodiversity protection (as set out in Part One of this submission);
   - Impact on commercial fishing; and
   - Ability to implement the MPA under existing legislation.

3. **Figure 1** summarises the outcomes of this assessment.

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<th>MPA</th>
<th>Consistent with MPA Policy?</th>
<th>Consistent with industry policy?</th>
<th>Commercial fishing impact</th>
<th>Implementation tool</th>
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<td>Possible under FA</td>
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<td>No compelling MRA case</td>
<td>Consider?</td>
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<td>Moderate (significant for Danish seine)</td>
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<tr>
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<td>Moderate (significant for Danish seine)</td>
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<td>Oppose</td>
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<td>Not justified under MRA</td>
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<td>Significant inconsistency</td>
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<td>No available implementation tool</td>
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MPA (A): Tuhawaiki to Pareora (Type 2)

Consistency with MPA Policy

4. Proposed MPA (A) is inconsistent with the MPA Policy in three main respects, as follows:

a) **Protection standard**: Restrictions on fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on all net fishing, commercial long lining, midwater trawling and the use of recreational fishing lines with more than five hooks are intended to provide for the maintenance and recovery of ecological systems, natural species composition and trophic linkages (i.e., the second aspect of the protection standard). However:

- there is no evidence that the fishing methods in question may have such impacts; and
- impacts of this nature would be unlikely given the relatively low level of fishing intensity at the site.

The additional fisheries restrictions are therefore not necessary to meet the MPA protection standard;

b) **Irrelevant considerations**: The proposal is based in part on fisheries management considerations such as general reduction of fishing-related impacts on ecosystems and protection of school shark pupping and elephant fish egg cases. Under the MPA Policy, fisheries management considerations cannot be used to justify the establishment of an MPA; and

c) **Existing habitat protection**: The proposed site does not protect habitat types that are not already protected in the nearby Tuhawaiki mātaitai reserve. Further discussion on marine biodiversity in mātaitai reserves is included in Part One of this submission.

Consistency with Industry Policy on Marine Biodiversity Protection

5. Proposed MPA (A) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

d) **Objectives**: The objectives of the proposed MPA are implicit rather than explicit. The implied objectives relate to fisheries management considerations (avoiding, remedying or mitigating adverse effects of fishing, protecting habitats of significance for fisheries management) rather than protection of representative examples of marine biodiversity;

e) **Threats**: No threats are identified. Commercial fishing is not a threat to the site’s biodiversity values because there is an existing voluntary trawl ban in place, and set netting and Danish seining are already prohibited. No dredging takes place and nor is it likely to take place in future because the fish stocks present in the area are not harvested by the dredging method. Gravel extraction and sewage discharges take place within 200m of the site, yet no measures to manage these potential threats to marine biodiversity are proposed; and

f) **Least-cost**: MPA (A) is not a least-cost approach to marine biodiversity protection because the existing combination of voluntary controls and fisheries regulations, together with the adjacent mātaitai reserve, already protect the biodiversity values associated with the site.
Furthermore, the proposed additional prohibition on non-bottom perturbing fishing methods imposes additional costs without providing additional marine biodiversity protection benefits.

**Impacts on commercial fishing rights**

6. Proposed MPA (A) is anticipated to have only a minor impact on the exercise of commercial fishing rights. The most frequent type of fishing event within the MPA site is trawling for flatfish, but as the area is already covered by a voluntary trawl ban any additional displacement is expected to be minimal.

7. The impacts of cumulative displacement of catch from the adjacent Tuhawaiki mātaitai reserve should also be considered, but are not anticipated to be significant.

**Implementation options**

8. Proposed MPA (A) could potentially be implemented using Fisheries Act regulations if fishing was having an adverse effect on marine biodiversity. No evidence of such an adverse effect has been provided, particularly given the existing prohibitions on commercial set netting and Danish seining and the voluntary trawl ban. However, the area is recognised as a habitat of particular significance for fisheries management and regulatory protection could therefore potentially be provided to give effect to the obligations in Fisheries Act section 9(c).²

**Conclusion**

9. MPA (A) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The habitats in question are already protected under the combination of existing controls at the site and in the adjacent mātaitai reserve. The marine biodiversity protection benefits of establishing the site as a Type 2 MPA are negligible. However, the site is a habitat of particular significance for fisheries management and the impacts on commercial fishing are minor. For these reasons the industry is prepared to give further consideration to the inclusion of MPA (A) in the MPA network. In doing so we are placing considerable weight on the fisheries management benefits of the proposal.

10. If MPA (A) becomes part of the MPA network, the controls on fishing should apply only to bottom trawling and dredging. The industry opposes any additional controls on fishing in MPA (A) as they are not necessary to achieve the protection standard.

**MPA (B): Waitaki Coastal (Type 1)**

**Consistency with MPA Policy**

11. Proposed MPA (B) is inconsistent with the MPA Policy in three main respects, as follows:

² Fisheries Act section 9(c) requires decision-makers to take into account the principle that habitat of particular significance for fisheries management should be protected.
a) **Protection standard:** No explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard. The identified environmental features of the site relate only to benthic habitats – protection of the biodiversity associated with these features could therefore potentially be achieved without prohibiting all fishing;³

b) **Irrelevant considerations:** The proposal is justified in part in relation to reducing the risk of incidental fisheries captures of Hector’s dolphins and little blue penguins. The interaction between fisheries and protected species is not a relevant consideration for the selection of MPA sites. The purported benefit to recreational salmon fishing at the nearby river mouth arising from prohibiting trawling in MPA (B) is irrelevant as it relates to inter-sectoral fisheries access rather than biodiversity protection; and

c) **Unjustified spatial extent:** The optional northern extension of MPA (B) does not cover any new unrepresented habitat types, and neither is it required in order to meet the protection standard. Protection of Hector’s dolphin and the foraging habitats of penguins is not a valid justification for the extension. The value of the extension in relation to the MPA Policy is not apparent.

**Consistency with Industry Policy on Marine Biodiversity Protection**

12. Proposed MPA (B) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

d) **Objectives:** The biodiversity protection objectives are not clearly stated. It is assumed that MPA (B) is intended to protect kelp habitat and habitat for penguin and dolphins. There is no information to suggest that this particular site is particularly representative of kelp habitats, either regionally or nationally. Protection of endangered species is not a valid MPA objective;

e) **Threats:** No threats are identified. To the extent that “unique” kelp habitat exists in the area, it exists together with (and irrespective of) current and historic fishing effort at the site. Danish seining and commercial set netting are already prohibited in much of the site. Numerous other potential threats exist within 200m of the site, including a landfill, stormwater discharges, meatworks and a quarry but no measures are proposed to manage these risks;

f) **Least-cost:** A marine reserve may be a least-cost approach only if multiple threats to the identified marine biodiversity protection objectives exist and those threats can be managed under a marine reserve. However, in this case there are no identified threats that would be better managed under a marine reserve, so proposed MPA (B) is not a least-cost approach to marine biodiversity protection.

³We 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 contradicts the principled approach that is promoted in the remainder of the Policy.
Impacts on commercial fishing rights

13. Proposed MPA (B) is anticipated to have only a minor impact on the exercise of commercial fishing rights. Rig and school shark are the species most commonly caught at the site.

Implementation options

14. The stated objectives of proposed MPA (B) are not consistent with the purposes for which marine reserves may be established under the Marine Reserves Act. There is no suggestion that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA s5). In contrast, the habitats are identified as being of regional interest only. There is no evidence that the site is of particular value for the purposes of scientific study.

Conclusion

15. MPA (B) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The site may not meet the statutory criteria for establishing a marine reserve, the habitats in question are not at risk from any identified threats, and the biodiversity protection benefits of establishing the area as a marine reserve are negligible. Nevertheless, the industry is prepared to give further consideration to this site because it could potentially contribute to a viable MPA network and has only minor impacts on commercial fishing activity. In giving further consideration to this site we are placing considerable weight on the contribution the MPA could make to the industry’s proposed network rather than the attributes of the MPA per se.

16. The industry opposes the northerly extension of MPA (B) as it provides no additional biodiversity protection benefits.

MPA (C): Waitaki Offshore (Type 2)

Consistency with MPA Policy

17. Proposed MPA (C) is inconsistent with the MPA Policy in three main respects, as follows:

   a) **Protection standard:** Restrictions on fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on midwater trawling and all set netting are intended to provide for the maintenance and recovery of ecological systems, natural species composition and trophic linkages (i.e., the second aspect of the protection standard). However, there is no evidence that the fishing methods in question may have such impacts, particularly as fishing intensity at the site is low-moderate for all species apart from school shark and rig. The additional restrictions are therefore not necessary to meet the MPA protection standard;

   b) **Irrelevant considerations:** The proposal is justified in part in relation to reducing the risk of incidental fisheries captures of Hector’s dolphins and little blue penguins. The interaction between fisheries and protected species is not a relevant consideration for the selection of
MPA sites. The stated justification for the optional extension across the Waitaki River mouth – i.e., to ensure no impact (from commercial fishing) on the customary and recreational fishing associated with the river mouth – relates to allocation of access between fisheries sectors and is clearly beyond the scope and purpose of the MPA Policy; and

c) **Unjustified spatial extent**: The relatively large size of the MPA has not been justified with respect to MPA Policy principles, especially as all of the six identified habitats are also protected in other MPA proposals. The proposed extension across the Waitaki River mouth protects no additional habitats and is included for fisheries allocation reasons rather than MPA Policy reasons.

**Consistency with Industry Policy on Marine Biodiversity Protection**

18. Proposed MPA (C) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

   d) **Objectives**: The objectives of the MPA are not clearly stated. The implied objectives relate to protected species habitat protection rather than protection of representative examples of marine biodiversity;

   e) **Threats**: No threats are identified. Much of the area within the 5.4nm boundary of the site is already protected by fisheries regulations prohibiting Danish seining within 3nm of the coast and set netting within 4nm of the coast. There is no commercial dredging in the area and nor is it likely that this method would be used in future due to the nature of the fisheries. Existing management measures implemented by the industry, together with regulatory measures under the Fisheries Act, serve to avoid, remedy or mitigate any adverse effects of commercial fishing on the Hector’s dolphins and penguins. An outfall (of unspecified nature) occurs within 200m of the site, yet no measures are proposed to manage this potential threat; and

   f) **Least-cost**: MPA (C) is not a least-cost approach to marine biodiversity protection because measures are already in place to manage threats to protected species (the implied objective of the MPA). MPA (C) therefore excludes fishing methods for no clear biodiversity protection benefit.

**Impacts on commercial fishing rights**

19. Proposed MPA (C) is anticipated to have a moderate impact on the exercise of commercial fishing rights. On average, over 20 set net fishing events per year start inside MPA (C), making it an important area for set netters targeting school shark and rig.\(^4\) The impacts of the MPA on set netting are exacerbated by the existing prohibition on set netting within 4nm of the south east coast of the South Island.

20. In addition, MPA (C) would displace 12% of Danish seine catch within the South East region.\(^5\) This is a significant impact on a single fishing method, particularly as Danish seining is already prohibited within 3nm of the entire south east coast of the South Island.

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\(^5\) Consultation Document, Figure 14.
Implementation options

21. Proposed MPA (C) could be implemented using Fisheries Act regulations only if fishing was having an adverse effect on the aquatic environment or marine biodiversity. Fisheries Act measures are already in place to avoid, remedy or mitigate adverse effects of fishing on populations of protected species. The consultation document suggests that there may be “residual effects” on protected species, but provides no information to suggest that:

- such residual effects exist; or
- if they do exist, such residual effects have an adverse effect on protected species populations; and
- if residual effects with adverse effects on protected species populations exist, the risk would be best managed by an MPA rather than other methods.

Conclusion

22. MPA (C) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. Fisheries Act measures already address interactions between fishing and protected species, and the marine biodiversity protection benefits of establishing the site as a Type 2 MPA are negligible. The industry therefore opposes the establishment of proposed MPA (C).

MPA (D): Pleasant River to Stony Creek (Type 1)

Consistency with MPA Policy

23. Proposed MPA (D) is inconsistent with the MPA Policy in three main respects, as follows:

a) **Protection standard**: No explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard. The identified environmental features of the site relate only to benthic habitats and protection of the biodiversity associated with these habitats could therefore potentially be achieved without prohibiting all fishing;

b) **Irrelevant considerations**: MPA (D) must stand or fail on its own merits – the discussion of Shag Point (an MPA option that was rejected by the Forum) is irrelevant. Benefits to tourism are an irrelevant consideration under the MPA Policy unless comparing sites of minimal impact, which is not the case for MPA (D); and

c) **Existing habitat protection**: Estuarine habitats are already protected in five mātaitai reserves in the Forum’s region – i.e., Waihoa, Waikouaiti, Moeraki, Otakou and Waikawa Harbour. Together these five mātaitai reserves represent nine different estuarine habitat types, as discussed in Part One of our submission. In addition, Moeraki mātaitai contains four marine habitats that are similar to those in MPA (D). The justification for including two estuaries in MPA(D) is exceedingly weak.
Consistency with Industry Policy on Marine Biodiversity Protection

24. Proposed MPA (D) has clearly defined biodiversity protection objectives – i.e., to protect several rare habitat types (volcanic rock reefs, estuaries, kelp forests etc) and spectacular inshore habitats (Moeraki boulders) – and is in this respect consistent with the requirements of industry policy on marine biodiversity protection. However, the proposal is inconsistent with the Industry Policy in two other respects, as follows:

d) **Threats**: No threats are identified. The area’s special and representative habitats exist together with (and irrespective of) current and historic fishing effort at the site. Danish seining and commercial set netting are already prohibited at the site. Trawl fishing intensity is low. Estuarine habitat threats are typically terrestrial in origin, yet no management measures are proposed in response to terrestrial threats; and

e) **Least-cost**: A marine reserve may be a least-cost approach only if multiple threats to the identified marine biodiversity protection objectives exist and those threats can be managed under a marine reserve. However, in this case there are no identified threats to the stated biodiversity protection objectives, so proposed MPA (D) is not a least-cost approach to marine biodiversity protection.

Impacts on commercial fishing rights

25. We note that Consultation document Figure 18, commercial fishing intensity in MPA (D), is incorrect. The coastal portion of proposed MPA (D) will have a moderate impact on the exercise of commercial fishing rights, and the offshore portion will have a significant impact, as follows:

- **Pāua**: Pāua statistical area P5DH41, within which MPA (D) is located, provides on average 826kg of commercial catch annually. However, the productivity of the area varies considerably and in some years it produces significantly more than the average catch – for example in 2008 it generated 1,950 kg of catch and in 2015, 1,450 kg. The average catch from the statistical area is just over 1% of the total PAU 5D commercial harvest but in some years it has provided over 3% of PAU 5D catch;

- **Rock lobster**: Rock lobster fishing effort will be displaced by MPA (D). It is estimated that around 5% of CRA 7 catch could be displaced from the coastal portion of the MPA. However, if the offshore portion of the MPA were to be implemented, the impacts on the rock lobster fishery would more than double (to over 11% of the fishery), resulting in a significant and unacceptably high level of displacement;

- **Trawl fisheries**: The trawl fisheries in MPA (D) target flatfish and mixed species such as gurnard and red cod. The offshore portion of MPA (D) is more important for these fisheries than the coastal portion;

- **Blue cod**: Information provided by fishers indicates that MPA (D) is located in an area of relatively high intensity blue cod potting effort; and

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6 Annual average catch over the last eight fishing years.
7 Schofield, M (December, 2016). PAU5 SEMPF. Summary of PAU5 catch within SEMPF Type 1 reserves.
8 This analysis is based on a total PAU 5D commercial harvest of 62 tonnes as a 30% ACE shelving is currently in place to assist the rebuild of the fishery.
9 Based on analysis in Consultation document Figure 18 (corrected version).
- **Eels**: Eels are harvested commercially in the estuaries included in MPA (D).

26. The displacement of fishing from MPA (D) will be exacerbated by the cumulative displacement from existing management measures in the vicinity, including the Moeraki mātaitai 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 (D) displaces additional fishing effort into the taiāpure.

**Implementation options**

27. The stated objectives of proposed MPA (D) – i.e., to protect several rare habitat types (volcanic rock reefs, estuaries, kelp forests etc) and spectacular inshore habitats (Moeraki boulders) – are potentially consistent with the Marine Reserves Act requirement that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA s5). The special features are all found within the inshore option for the MPA, but not within the offshore extension. While the site may provide opportunities for scientific study of various habitat types, it is not necessary to establish the marine reserve in order to study species for fisheries management purposes.

**Conclusion**

28. MPA (D) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several respects. In particular, no threats to the marine biodiversity values of the site have been identified that could be more effectively managed if the area were a marine reserve and similar habitat types are represented in the two nearby mātaitai reserves. However, the coastal portion of the site contains biodiversity values that may meet Marine Reserves Act criteria for protection and on this basis the industry is prepared to give further consideration to the inclusion of this part of the site in an MPA network.

29. The coastal portion of MPA (D) has moderate impacts on commercial fishing activity and it, if it were to become an MPA, would be acceptable only if ‘rebalancing’ of affected fisheries (particularly pāua and rock lobster), including a reduction of the TACC and allowances and payment of compensation to quota owners, was to occur.

30. The industry opposes:

- the proposed seaward extension of the site because it has additional adverse impacts on fishing without commensurate biodiversity protection benefits; and

- the inclusion of the Pleasant River and Stony Creek estuaries because it is not justified on habitat protection grounds, similar habitats are already protected in the nearby Waikouaiti and Moeraki mātaitai reserves, and it has an adverse effect on commercial eel fishing.
MPAs for Otago Shelf and Canyons – Alternative One

MPA (E): Otago Shelf (Type 2) and MPA (F): Saunders Canyon (Type 1)

Consistency with MPA Policy

31. Proposed MPAs (E) and (F) are inconsistent with the MPA Policy in six main respects, as follows:

a) **Protection standard:** The identified biodiversity values of the sites (for both the canyons and the bryozoan beds) relate only to benthic habitats. However:
   - for MPA (E), restrictions on fishing are proposed beyond those which are necessary to protect benthic habitats and provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on midwater trawling, all set netting and purse seining that some Forum members consider are necessary to provide for the maintenance and recovery of ecological systems, natural species composition and trophic linkages are not supported by evidence that the fishing methods in question have or may have such impacts, particularly as fishing intensity is low-moderate for all species apart from school shark and rig. The additional restrictions are therefore not necessary to meet the MPA protection standard; and
   - for MPA (F), no explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard when the biodiversity values of the site are primarily benthic.

b) **Unjustified spatial extent:** The proposal is poorly justified in terms of the size of MPA necessary to protect representative habitats. In particular:
   - for MPA (E), MPA Policy objectives could be met by protecting a representative example of bryozoan habitats rather than the entire bryozoan bed; and
   - for MPA (F), a smaller marine reserve at the nearby Papanui Canyon protects a similar range of habitats with less impact on existing users;

c) **Existing habitat protection:** No consideration has been given to whether the Kaikoura canyon – which is already protected in the Hikurangi marine reserve – contains similar habitat types to those proposed to be protected in MPA (F). If the Hikurangi marine reserve contains similar habitat types, then there is little MPA Policy justification for including the Saunders canyon in the MPA network as a marine reserve;

d) **Irrelevant considerations:** Interactions between fishing and protected species (seabirds, sea lions) are an irrelevant consideration for the selection of sites or for determining the spatial extent of an MPA. Tourism benefits are relevant only when sites of minimal impact are being compared. That is not the case for MPAs (E) and (F), so the purported tourism benefits of the MPAs are irrelevant;

e) **Overlay of MPA types:** Alternative One overlays two incompatible MPA types – i.e., the Type 1 MPA (F) lies on top of the Type 2 MPA (E). If MPA (F) were to be established, the fisheries prohibitions in the overlapping area of MPA (E) would be redundant. In spite of this, the

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10 Planning principle 5 (MPA Policy).
consultation document presents the habitat protection data for Alternative One as if the two MPAs were spatially distinct. The habitats protected by (F) are, in fact, a subset of the habitats protected by (E) rather than additional to the habitats protected by (E). In contrast, the two MPAs in Alternative Two are spatially distinct, and the habitat protection provided by MPA (G) is additional to the habitats protected by MPA (H). In spite of this crucial difference, Figures 23 and 24 in the discussion document present the habitat protection data for the two alternatives as if they were equivalent. In doing so, the consultation document provides a misleading basis for comparing the two options; and

f) **Adverse impacts on existing users**: Impacts on existing users should be minimised in the establishment of MPAs. Alternatives One and Two protect a similar range of habitats but Alternative One has a significantly greater adverse impact on existing users and is therefore inconsistent with MPA planning principle 5. The commercial finfish catch displaced by Option One has more than twice the economic value of the catch displaced by Option Two.

### Consistency with Industry Policy on Marine Biodiversity Protection

32. Proposed MPAs (E) and (F) have clearly defined biodiversity protection objectives – i.e., to protect bryozoan beds (E) and canyon habitats (F) – and are in this respect consistent with the requirements of industry policy on marine biodiversity protection. However, the proposals are inconsistent with the Industry Policy in three other respects, as follows:

g) **Objectives**: The implicit objective of reducing interactions between fisheries and seabirds and sea lions is irrelevant to the establishment of MPAs;

h) **Threats**: Although no threats to the biodiversity values of the area are identified, bottom-perturbing fishing methods are an implied threat to bryozoan habitats. In recognition of this threat, the bryozoan beds are already partially protected by a voluntary trawl ban. No Danish seining or dredging takes place in the area and the additional prohibition of non-bottom-perturbing fishing methods in MPAs (E) and (F) cannot be justified on the basis of risks to the identified biodiversity values; and

i) **Least-cost**: Neither of the proposed MPAs is a least-cost approach to biodiversity protection because:

- MPA (E) protects the full extent of the bryozoan habitat rather than a representative sample and prohibits fishing methods that do not threaten the integrity of bryozoan habitats; and

- MPA (F) has a greater adverse effect on existing users than the proposed alternative MPA (H), but both protect a similar range of habitat types.

### Impacts on commercial fishing rights

33. Proposed MPAs (E) and (F) have a significant impact on the exercise of commercial fishing rights, as follows:

- an estimated 7.2% of the region’s line fishery takes place in MPAs (E) and (F);\(^ {11}\)

\(^ {11}\) Consultation document Figure 25.
- every year around 40 set net events targeting school shark start within MPAs (E) and (F), making this an important area for the local set net fleet, as shown in Figure 1;\(^{12}\)
- regionally-significant catches of rig spiny dogfish, ling, blue warehou, and ghost shark are also taken by set net fishers from the area of the MPAs;
- deep water rock lobster potting takes place in the canyons and surrounding waters, targeting in-season abundance of larger grades of lobsters. We estimate at least two vessels operate in the area, with a seasonal landing of around 5 to 7 tonnes at the current CRA 7 TACC; and
- more cod potting takes place in these MPAs than in any of the other proposed sites.\(^ {13}\)

34. The fishing grounds within MPAs (E) and (F) are particularly important for the small fishing vessels that fish out of Karitane and Dunedin, as these vessels have a limited range and therefore limited choices if they have to move to alternative fishing grounds (as discussed in Part One of our submission).

**Figure 1:** The distribution of school shark target set net effort

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**Implementation options**

35. Proposed MPA (E) could be implemented under the Fisheries Act only if the fishing methods to be regulated are having an adverse effect on the marine biodiversity values that the MPA is intended to protect – i.e., bryozoan habitats. There is no justification for prohibiting non-bottom perturbing fishing methods under the Fisheries Act. For bottom-perturbing fishing methods, the spatial extent of the proposed area is larger than necessary to avoid, remedy or mitigate adverse effects of fishing on bryozoan beds, especially as a voluntary trawl ban is already in place over part of the area.

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\(^{13}\) Based on displaced catch figures in Consultation document.
36. The stated objective of proposed MPA (F) – i.e., to protect the canyon habitats – is potentially consistent with the Marine Reserves Act requirement that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA s5). While the site may provide opportunities for scientific study of various habitat types, we do not consider that the establishment of a marine reserve is necessary for scientific research purposes.

Conclusion

37. Alternative One is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in many critical respects. In particular, the spatial extent of MPA (E) and the prohibition of additional fishing methods is not justified in terms of managing threats to biodiversity. Together, the two MPAs have impacts on existing users that are more than twice as significant as those of Alternative Two, for similar biodiversity protection benefits. The industry therefore opposes the establishment of proposed MPAs (E) and (F).

MPAs for Otago Shelf and Canyons – Alternative Two

MPA (G): Otago Shelf (Type 2) and MPA (H): Papanui Canyon (Type 1)

Consistency with MPA Policy

38. MPA (G) is broadly consistent with MPA Policy requirements in that it seeks to protect a representative area of bryozoan habitat from bottom-perturbing fishing methods using an appropriate tool (i.e., restrictions on bottom-perturbing fishing methods under the Fisheries Act). Together, MPAs (G) and (H) protect nearly 50% of the bryozoan habitat. Alternative Two is consistent with MPA planning principle 5 in that it has a lower level of impact on existing users than Alternative One.

39. However, Proposed MPA (H) is inconsistent with the MPA Policy in several respects, as follows:

   a) Protection standard: No explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard given that the identified biodiversity values of the canyon sites relate only to benthic habitats;

   b) Existing habitat protection: No consideration has been given to whether the Hikurangi marine reserve contains similar habitat types to those proposed to be protected in MPA (H); and

   c) Irrelevant considerations: Tourism benefits are an irrelevant consideration for MPA site selection unless comparing alternatives of minimal impact.

Consistency with Industry Policy on Marine Biodiversity Protection

40. Proposed MPAs (G) and (H) have clearly defined biodiversity protection objectives – i.e., to protect bryozoan beds (G) and canyon habitats (H) – and are in this respect consistent with the requirements of industry policy on marine biodiversity protection. However, the proposals are inconsistent with the Industry Policy in two other respects, as follows:
d) **Threats:** Although no threats to the biodiversity values of the area are identified, bottom-perturbing fishing methods are an implied threat to the bryozoan habitats. Danish seining and dredging do not occur in the area and, in recognition of the threat to bryozoan beds, a voluntary trawl ban applies in part of the area. The threats that MPA (G) seeks to manage are therefore already addressed. MPA (H), which prohibits all fishing methods in a marine reserve, cannot be justified on the basis of risks to the identified benthic biodiversity values; and

e) **Least-cost:** MPAs (G) and (H) achieve similar biodiversity protection benefits at less cost to existing users than Alternative One. However, they are not the least-cost way of achieving the specified biodiversity protection objectives. In particular:

- for MPA (G), fisheries regulations may not be the least-cost way of protecting the biodiversity values of the bryozoan beds. If the current voluntary trawl ban is appropriate in scale and implemented in a reliable manner, no additional biodiversity benefits would arise from the establishment of a Type 2 MPA, particularly as Danish seining and dredging do not occur in the area; and

- MPA (H) is not a least-cost way of protecting the canyon habitats because no clear threats to those habitats have been identified that would be more effectively managed within a marine reserve.

**Impacts on commercial fishing rights**

41. While proposed MPAs (G) and (H) are anticipated to have a moderate impact on the exercise of commercial fishing rights, the impact is less than that of Alternative One. As with Alternative One, the species most commonly caught in MPAs (G) and (H) are school shark, rig and ling. Catches of some affected species are regionally significant – including sea perch, warehou, ling, rough skate and (in particular) ghost shark. Deepwater rock lobster potting occurs in the canyons and surrounding area as discussed in relation to MPAs (E) and (F). Cod potting and ling potting are likely to take place in the area. However, Alternative Two experiences around half the number of finfish fishing events of Alternative One and the economic value of the affected commercial finfish harvest is less than half that of Alternative One.

**Implementation options**

42. Proposed MPA (G) could be implemented under the Fisheries Act as the bottom-perturbing fishing methods that would be prohibited in the area may have an adverse effect on the marine biodiversity values (i.e., bryozoan habitats) that the MPA is intended to protect.

43. The stated objective of proposed MPA (H) – i.e., to protect the canyon habitats – is potentially consistent with the Marine Reserves Act requirement that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA ss). While the site may provide opportunities for scientific study of various habitat types, we do not consider that the establishment of a marine reserve is necessary for scientific research purposes.
Conclusion

44. Alternative Two is inconsistent with the MPA Policy and industry policy on marine biodiversity protection in some relatively minor respects and it has a moderate impact on commercial fishing. However, of the two alternatives it is the lesser-cost approach to achieving the identified biodiversity protection objectives for the bryozoan and canyon habitats. The industry is therefore prepared to give further consideration to the inclusion of MPAs (G) and (H) in the MPA network.

MPA (I): Harakeke Point to White Island (Type 1)

Consistency with MPA Policy

45. Proposed MPA (I) is inconsistent with the MPA Policy in three main respects, as follows:
   a) **Protection standard:** No explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard;
   b) **Unjustified spatial extent:** The proposal is poorly justified in terms of protection of representative habitats, particularly regarding the size of MPA necessary to protect representative habitats. For example, a similar range of habitats could be protected in an MPA with a shorter coastal extent, and the Tow Rock boundary option does not protect significant amounts of additional habitat types. MPA (I) replicates habitats protected in other parts of the proposed network, in particular proposed MPAs (J) and (K), and it is not clear whether the habitats in MPA (I) are significantly different from those that would be protected were MPAs (J) and/or (K) to be established;
   c) **Irrelevant considerations:** The proposal is based in part on fisheries management considerations such as the recovery and sustainability of pāua populations. Under the MPA Policy, fisheries management considerations cannot be used to justify the establishment of an MPA. Tourism opportunities and the desire to create a “flagship marine reserve” on the doorstep of Dunedin are irrelevant under the MPA policy unless comparing equivalent sites of minimum impact, which is not the case for MPA (I).

Consistency with Industry Policy on Marine Biodiversity Protection

46. Proposed MPA (I) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:
   d) **Objectives:** The objectives of the proposed MPA are not clearly stated. The area is said to have high biodiversity values but the main drivers of the proposal appear to be establishing a “flagship” marine reserve close to Dunedin and providing a “green” drawcard to encourage tourism. Such objectives are unrelated to marine biodiversity protection and, if pursued, will result in a reallocation of resources from one use (fishing) to another (tourism-based activities);
   e) **Threats:** No threats to marine biodiversity arising from commercial fishing are identified. Danish seining and commercial set netting are already prohibited at the site. In contrast, no management measures are proposed for known identified threats such as sand extraction at Tomahawk Lagoon or treated sewage discharge at Lawyers Head and offshore; and
f) **Least-cost:** A marine reserve may be a least-cost approach only if multiple threats to the identified marine biodiversity protection objectives exist and those threats can be managed under a marine reserve. However:

- the identified threats of sand extraction and sewage discharge cannot be addressed by a marine reserve;
- if recreational fishing is threatening the sustainability of local pāua populations, then this should be addressed by appropriate Fisheries Act measures not by a marine reserve; and
- no commercial fishing-related threats to marine biodiversity have been identified.

As there are no identified threats that would be better managed under a marine reserve, MPA (I) is not a least-cost approach to marine biodiversity protection.

**Impacts on commercial fishing rights**

47. Proposed MPA (I) is anticipated to have a significant impact on the exercise of commercial fishing rights, particularly for the CRA7 rock lobster fishery. We consider the rock lobster catch estimates in the consultation document to be very conservative as this is an extremely productive area of the coastline for rock lobsters. The small area around Tow Rock alone produces around 10% of the total catch taken from CRA 7 – i.e., around 10 tonnes of landings under the current TACC. Furthermore:

- the area is becoming even more productive as CRA 7 stock abundance increases;
- the value of CRA 7 rock lobsters taken from the Tow Rock area is higher than other CRA 7 lobsters because of the size of the fish caught in the area;
- the adverse effects of displacement of fishing from MPA (I) is exacerbated by the cumulative impacts of displaced catch from adjacent MPAs (J) and (K).

48. According to estimates provided in the discussion document, the cumulative displacement across proposed MPAs (I), (J) and (K) is around 4.5% of the CRA 7 fishery. However, our estimates indicate that the three MPAs generate a significantly higher proportion of rock lobster catch, possibly as much as 19% of CRA 7 landings. In support of this conclusion, we note that the area is fished by the Dunedin/Port Chalmers lobster fleet which has reported landings in excess of 54 tonnes in the period 1 April to 31 September 2016 (against a total CRA 7 TACC of just under 98 tonnes). If this catch is displaced into the surrounding fisheries accessible to the Dunedin/Port Chalmers fleet, the rock lobster fishery will be placed under considerable pressure which will reduce catch per unit effort (CPUE), increase catching costs, and reverse the upward trend of stock abundance in the fishery. The cumulative impact of displaced catch across the three MPAs is extremely significant.

**Implementation options**

49. The stated objectives of proposed MPA (I) are not consistent with the purposes for which marine reserves may be established under the Marine Reserves Act. Considerations such as providing “an iconic marine reserve with excellent access for the public” are irrelevant under the Marine Reserves Act. There is no suggestion that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA s5). In contrast, the area is of primarily local interest. The
The proposed value of the site for scientific study is based primarily on the opportunity to study a relatively intact pāua population, but there are many other areas around the country where relatively intact pāua populations can be (and are) studied for fisheries management purposes (e.g., Fighting Bay).

**Conclusion**

50. MPA (I) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The proposal is driven by matters unrelated to the protection of marine biodiversity, including fisheries management, public access and tourism benefits. It is poorly justified in terms of protection of representative habitats and, when considered cumulatively with adjacent MPA proposals, has a significant impact on the exercise of commercial fishing rights for rock lobster. The industry therefore opposes the establishment of proposed MPA (I).

**MPA (J): White Island to Waldronville (Type 2)**

**Consistency with MPA Policy**

51. Proposed MPA (J) is inconsistent with the MPA Policy in three main respects, as follows:

a) **Protection standard:** Restrictions on fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The Forum has made no attempt to justify the additional prohibitions on all commercial fishing methods in relation to the protection standard. For example, the prohibition on commercial rock lobster potting while allowing recreational rock lobster potting to continue is clearly an allocative decision that cannot be justified in relation to the protection standard;

b) **Fisheries allocation and management:** The proposal is clearly aimed at reallocating fisheries access between fishing sectors rather than achieving marine biodiversity protection objectives. The proposals for specific controls on recreational fishing step well into the realm of fisheries management rather than marine biodiversity protection; and

c) **Habitat protection:** MPA (J) replicates habitats protected in other parts of the proposed network, in particular proposed MPAs (I) and (K) and it is not clear whether the habitats in MPA (J) are significantly different from those that would be protected were MPAs (I) and/or (K) to be established.

**Consistency with Industry Policy on Marine Biodiversity Protection**

52. Proposed MPA (J) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

d) **Objectives:** The objective of the MPA is to protect the area from the impact of displaced fishing effort from the two adjacent proposed marine reserves – i.e., a fisheries management objective rather than a marine biodiversity protection objective;
e) **Threats**: The only identified threat is displaced fishing pressure from the adjacent proposed marine reserves. Responding to this threat is a fisheries management matter, not a marine biodiversity protection matter. Danish seining and commercial set netting are already prohibited at the site. Marine structures and sewage and stormwater discharges occur within 200m of the site, yet no measures are proposed to manage these potential threats;

f) **Least-cost**: The least-cost response to manage the identified threat is to directly address the source of displaced fishing effort by leaving the adjacent areas in proposed MPAs (I) and (K) available for fishing. Irrespective of whether MPAs (I) and (K) are established, any threats arising from recreational fishing pressure should be addressed by using Fisheries Act tools to effectively manage recreational fishing effort at a scale appropriate to effective fisheries management.

**Impacts on commercial fishing rights**

53. Proposed MPA (J) alone is anticipated to have a moderate impact on the exercise of commercial fishing rights, particularly for the CRA7 rock lobster fishery. We consider the rock lobster catch estimates in the consultation document to be very conservative as this is an extremely productive area of the coastline for rock lobsters and CRA7 stock abundance is increasing. We estimate that the area of MPA (J) produces around 5 to 7 tonnes of rock lobster landings annually.

54. The impacts on rock lobster fishing are cumulative across adjacent MPAs (I), (J) and (K) and together result in significant level of displacement, as discussed under MPA (I) above.

**Implementation options**

55. Proposed MPA (J) could be implemented using Fisheries Act regulations only if fishing was having an adverse effect on the aquatic environment or marine biodiversity. There is no evidence that this is the case for any of the commercial fishing methods which would be prohibited in the MPA.

56. The reallocation of access to fisheries between fishing sectors cannot be justified on sustainability grounds under the Fisheries Act.

**Conclusion**

57. MPA (J) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The rationale for proposing the site as an MPA is exceedingly weak. It has been proposed for fisheries allocation and management reasons and is unjustified in terms of MPA Policy requirements relating to habitat protection or the protection standard. The industry therefore opposes the establishment of proposed MPA (J).
MPA (K): Green Island (Type 1)

Consistency with MPA Policy

58. Proposed MPA (K) is inconsistent with the MPA Policy in two main respects, as follows:
   a) **Protection standard:** No explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard; and
   b) **Irrelevant considerations:** Tourism opportunities, accessibility and the desire to create an “iconic place” are irrelevant under the MPA policy unless comparing equivalent sites of minimum impact (which is not the case here). Many of the values attributed to the site are values of the terrestrial environment rather than the marine environment and are therefore not relevant for selecting a site to protect representative marine habitats.

Consistency with Industry Policy on Marine Biodiversity Protection

59. Proposed MPA (K) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:
   c) **Objectives:** The objectives of the proposed MPA are not clearly stated but appear to relate primarily to wildlife values, recovery of harvested fish populations, and the history of the island rather than protection of representative areas of marine biodiversity. The aim of establishing “an iconic place” is unrelated to marine biodiversity protection;
   d) **Threats:** No threats to marine biodiversity arising from commercial fishing are identified. Danish seining and commercial set netting are already prohibited at the site. While there are anecdotal suggestions of fishery decline, the status of fisheries at the site is not documented and the causes of any decline are not identified; and
   e) **Least-cost:** A marine reserve may be a least cost approach only if multiple threats to the identified marine biodiversity protection objectives exist and those threats can be managed under a marine reserve. Any decline in fisheries abundance can be more effectively managed under the Fisheries Act at a spatial scale appropriate to effective fisheries management. The establishment of a marine reserve (with resulting spatial displacement of fishing effort) will exacerbate rather than rectify anecdotal reports of fishery decline. There are therefore no threats that would be better managed under a marine reserve, so MPA (K) is not a least cost approach to marine biodiversity protection.

Impacts on commercial fishing rights

60. Proposed MPA (K) alone is anticipated to have a minor impact on the exercise of commercial fishing rights, although impacts could be moderate for the CRA7 rock lobster fishery. We consider the rock lobster catch estimates in the consultation document to be very conservative as this is an extremely productive area of the coastline for rock lobsters. The estimated displacement of 0.2% of the rock lobster fishery is improbable in the context of recent and current stock abundance. We estimate that the area of MPA (K) produces around 3 tonnes of rock lobster landings annually under current management settings.
61. The impacts on rock lobster fishing are cumulative across adjacent MPAs (I), (J) and (K) and together result in significant level of displacement, as discussed under MPA (I) above.

Implementation options

62. The stated objectives of proposed MPA (K) are not consistent with the purposes for which marine reserves may be established under the Marine Reserves Act. There is no suggestion that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA s5). In contrast, the area is of primarily local interest and appears to be degraded (habitat restoration is not a relevant consideration under the Marine Reserves Act). While the site may provide opportunities for scientific study of various habitat types, the establishment of the marine reserve is not necessary for scientific research to inform fisheries management. The potential to provide educational experiences for young people is not an indication of the scientific value of the site for Marine Reserves Act purposes.

Conclusion

63. MPA (K) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The proposal is driven by matters unrelated to the protection of marine biodiversity, including tourism and fisheries benefits. When considered cumulatively with adjacent MPA proposals, MPA (K) has a significant impact on the exercise of commercial fishing rights for rock lobster. No biodiversity-related threats from commercial fishing have been identified and the establishment of a marine reserve will exacerbate rather than halt the anecdotally-reported decline in fisheries abundance in the area. The industry therefore opposes the establishment of proposed MPA (K).

MPA (L): Akatore Estuary (Type 2)

Consistency with MPA Policy

64. Proposed MPA (L) is inconsistent with the MPA Policy in three main respects, as follows:

a) Protection standard: Restrictions on commercial fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on commercial set net fishing, line fishing, mechanical harvesting, and fyke nets are intended to provide for the maintenance and recovery of the ecosystem, natural species composition and trophic linkages of the area. However:

- commercial fishing using the first three methods does not occur in the estuary and therefore does not have an adverse effect on biodiversity values. The potential future use of these methods in the estuary is unlikely; and
- there is no evidence to support the implication that the intensity of commercial eel fishing in the estuary has an adverse effect on biodiversity values;

The additional restrictions are therefore not necessary to meet the protection standard;
b) **Fisheries allocation**: By allowing recreational line fishing to continue while prohibiting commercial line fishing, the proposal reallocates fisheries access between fishing sectors in a manner that cannot be justified for marine biodiversity protection purposes; and

c) **Existing habitat protection**: Estuarine habitats are already protected in five mātaitai reserves in the Forum’s region – i.e., Waihoa, Waikouaiti, Moeraki, Otakou and Waikawa Harbour. Together these five mātaitai reserves represent nine different estuarine habitat types, as discussed in Part One of our submission. The consultation document proposes MPAs in six estuaries around the region – Pleasant River, Stony Creek, Akatore, Tahakopa, Tautuku and Haldane – none of which represent habitats not already in mātaitai reserves. MPA (L) is therefore redundant for the purposes of representative habitat protection.

### Consistency with Industry Policy on Marine Biodiversity Protection

65. Proposed MPA (L) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

   d) **Objectives**: The objective of the MPA is to protect the estuary from high levels of fish extraction and bottom disturbance from fishing. Reducing the level of fish extraction is a fisheries management objective rather than a biodiversity protection objective;

   e) **Threats**: No threats are identified – in fact, the consultation document states that “there are few environmental threats associated with [the estuary]”. The threat implied in the objective (i.e., high levels of fish extraction and bottom-disturbance from fishing methods) simply does not exist. Aside from some eel fishing, there is no commercial fishing in the estuary and no bottom-perturbing fishing methods are used; and

   f) **Least-cost**: MPA (L) is not a least-cost approach to marine biodiversity protection because no biodiversity benefits will be achieved by prohibiting fishing methods that do not exist in an area (or, in the case of eel fishing, are undertaken but do not threaten the biodiversity values of the estuary).

### Impacts on commercial fishing rights

66. Proposed MPA (L) is anticipated to have a negligible impact on the exercise of commercial fishing rights, apart from commercial eel fisheries, for which the impact is likely to be more significant (especially with respect to the cumulative impacts of existing mātaitai reserves and other estuarine MPAs within the proposed network).

### Implementation options

67. Proposed MPA (L) could be implemented using Fisheries Act regulations only if fishing was having an adverse effect on the aquatic environment or marine biodiversity. The majority of fishing methods that would be prohibited under the proposal – i.e., dredging, commercial set net fishing, commercial line fishing, mechanical harvesting – do not occur at the site, and it is not anticipated that these methods would be utilised in the future. There is therefore no Fisheries Act-related justification for prohibiting the use of the methods.
By prohibiting commercial line fishing and allowing the use of line fishing by other sectors to continue, the proposal has some allocative effect between fishing sectors. The reallocation of access to fisheries between fishing sectors cannot be justified on sustainability grounds under the Fisheries Act.

Whitebaiting is not regulated under the Fisheries Act and any prohibitions would presumably be implemented by regulation under the Conservation Act 1987.

Conclusion

MPA (L) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The objective of the proposed MPA infers high levels of fish extraction and the use of bottom-perturbing fishing methods, neither of which exist at the site. No biodiversity benefits will be achieved by prohibiting activities which do not occur in the area. The industry therefore opposes the establishment of proposed MPA (L).

MPA (M): Akatore Coastal (Type 1)

Consistency with MPA Policy

Proposed MPA (M) is inconsistent with the MPA Policy in three main respects, as follows:

a) **Protection standard:** No explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard;

b) **Replication:** As the site simply replicates habitat protected in other proposals (particularly MPA (O)), there is no justification for establishing it as a Type 1 MPA; and

c) **Irrelevant considerations:** The ability of the public to access rock pools is an irrelevant consideration in MPA site selection.

Consistency with Industry Policy on Marine Biodiversity Protection

Proposed MPA (M) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

d) **Objectives:** The objectives of the proposed MPA are to replicate other MPAs and improve connectivity, rather than to protect identified biodiversity values of the site (although schist habitats are identified as a feature of the site);

e) **Threats:** No threats to marine biodiversity arising from commercial fishing are identified. Danish seining and commercial set netting are already prohibited at the site; and

f) **Least-cost:** A marine reserve may be a least-cost approach only if multiple threats to the identified marine biodiversity protection objectives exist and those threats can be managed under a marine reserve. However, in this case there are no identified threats that would be better managed under a marine reserve, so proposed MPA (M) is not a least-cost approach to marine biodiversity protection.
Impacts on commercial fishing rights

73. Proposed MPA (M) is anticipated to have a moderate impact on the exercise of commercial fishing rights, as follows:

- **Rock lobster**: An estimated 2-3 tonnes of rock lobster is landed from the Akatore reef systems in a season;

- **Blue cod**: Information provided by fishers indicates that MPA (M) is located in an area with medium to high intensity of cod potting;

- **Trawl fisheries**: Trawling for flatfish and other species occurs within MPA (M). The impact of MPAs (M) Akatore Coastal and (N) Akatore Offshore will be cumulative as fishers target similar species in both areas, including flatfish, gurnard, red cod and elephant fish.

74. The area is particularly important for the small coastal vessels that operate out of nearby Taiere Mouth, including the trawl and rock lobster fleets. These fishers would be particularly affected by the MPA because the removal of fishing grounds forces vessels to range further up and down the coast to make up for lost catch. The nature of the Taiere river mouth is such that vessels need to rapidly seek shelter in adverse weather and any additional steaming time represents a hazard. The Akatore fishing grounds are therefore favoured because they are accessible and relatively safe.

Implementation options

75. The stated objectives of proposed MPA (M) are not consistent with the purposes for which marine reserves may be established under the Marine Reserves Act. There is no suggestion that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA s5). In contrast, the area is of interest primarily to replicate and connect other proposed MPAs. The suggested opportunities for scientific study are not compelling. The potential to provide educational experiences is not an indication of the scientific value of the site for Marine Reserves Act purposes.

Conclusion

76. MPA (M) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. There is no justification for establishing a Type 1 MPA purely to replicate and connect other proposed MPAs. There are no threats to the biodiversity values of the site that could be better managed if the site were to be established as a marine reserve. The area, together with MPA (N), is critical for the small fishing vessels based out of Taiere Mouth. The industry therefore opposes the establishment of proposed MPA (M).
MPA (N): Akatore Offshore (Type 2)

Consistency with MPA Policy

77. Proposed MPA (N) is inconsistent with the MPA Policy in three main respects, as follows:
   a) *Protection standard*: Restrictions on fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on midwater trawling, all set netting and purse seining are intended to provide for the maintenance and recovery of ecological systems, natural species composition and trophic linkages (i.e., the second aspect of the protection standard). However, there is no evidence that the fishing methods in question may have such impacts, particularly as the site experiences low-moderate fishing intensity for all species and methods. The additional restrictions are therefore not necessary to meet the MPA protection standard;
   b) *Irrelevant considerations*: Fisheries interactions with protected species are not a relevant consideration for MPA site selection; and
   c) *Unjustified spatial extent*: The relatively large size of the MPA is not justified with respect to MPA Policy principles, particularly as the site is described as providing replicate protection of other deep water reef habitats. The same habitat types could be protected in a much smaller MPA and the site adds nothing to the proposed network in terms of protection of unrepresented habitat types.

Consistency with Industry Policy on Marine Biodiversity Protection

78. Proposed MPA (N) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:
   d) *Objectives*: The objective of the MPA is to protect deep offshore reef, but it is not clear why such a large area is required in order to achieve this objective, particularly as these habitat types are protected in other MPAs in the proposed network;
   e) *Threats*: No threats are identified. The predominant fishing method of set netting is unlikely to be a threat to deep offshore reef habitats; and
   f) *Least-cost*: MPA (N) is not a least-cost approach to marine biodiversity protection because it excludes fishing methods for no clear biodiversity protection benefit.

Impacts on commercial fishing rights

79. Proposed MPA (N) is anticipated to have a moderate impact on the exercise of commercial fishing rights for the inshore trawl and set net fisheries. An estimated 2 to 3 tonnes of rock lobster catch is estimated to be taken annually in the deep reef habitat.

80. The impact of MPAs (M) Akatore Coastal and (N) Akatore Offshore will be cumulative as several species are targeted in both areas, including rock lobster, flatfish, gurnard, red cod and elephant fish. The impact of MPAs (M) and (N) on the small commercial fishing vessels operating out of nearby Taieri Mouth is discussed in response to MPA (M) above.
Implementation options

81. Proposed MPA (N) could be implemented using Fisheries Act regulations only if fishing was having an adverse effect on the aquatic environment or marine biodiversity. There is no indication that this is the case: bottom-impacting fishing methods are already prohibited in much of the area, and set netting is unlikely to have an adverse effect on deepwater reefs.

Conclusion

82. MPA (N) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The area, together with MPA (N), is critical for the small fishing vessels based out of Taiere Mouth. Given the absence of fishing-related risks to marine biodiversity, the marine biodiversity protection benefits of establishing the site as a Type 2 MPA are negligible. The industry therefore opposes the establishment of proposed MPA (N).

MPA (O): Long Point (Type 1)

Consistency with MPA Policy

83. Proposed MPA (O) is inconsistent with the MPA Policy in two main respects, as follows:

a) **Protection standard:** No explanation is provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard; and

b) **Irrelevant considerations:** Boosting the Catlins tourism industry is not a relevant consideration for selection of sites unless selecting between sites of low impact, which is not the case for MPA (O). Reducing interactions between fishing and protected species such as little blue penguins is also irrelevant to MPA site selection. It is not clear why extensive information on the Nuggets has been provided in the consultation document, given that the Forum concluded that an MPA at the Nuggets would have unacceptable adverse impacts on cultural values and on customary, recreational and commercial fishing.

Consistency with Industry Policy on Marine Biodiversity Protection

84. Proposed MPA (O) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

c) **Objectives:** The objectives of the MPA are not clearly stated. It is assumed that the objectives relate to protecting a relatively wide range of important habitats unique to Catlins coast, in part because these habitats support a high number of iconic and protected species;

d) **Threats:** No threats to the site’s biodiversity values are identified. Although the area is highly valued for commercial fishing, the biodiversity values of the site exist alongside sustainable fisheries. Danish seining and commercial set netting are already prohibited in much of the site; and

e) **Least-cost:** Although the site is promoted as being a lesser-cost alternative to a marine reserve at the Nuggets, it is not a least-cost approach to marine biodiversity protection. A marine reserve may be a least-cost approach only if multiple threats to the identified marine
biodiversity protection objectives exist and those threats can be managed under a marine reserve. However, in this case there are no identified threats that would be better managed under a marine reserve and the area is highly valued for commercial fishing. The establishment of a marine reserve at Long Point is therefore not a least-cost approach to marine biodiversity protection.

**Impacts on commercial fishing rights**

85. Proposed MPA (O) is anticipated to have a significant impact on the exercise of commercial fishing rights, including for pāua, rock lobster, and trawl fisheries (especially for flatfish).

86. MPA (O) covers several pāua statistical areas, as shown in **Figure 2**. Of these statistical areas, P5DH21 is covered by a voluntary closure, P5DH22 in its entirety and the majority of fishable habitat in P5DH18 is included within the MPA boundaries, and most catch in P5DH23 is taken from outside proposed MPA (O). The analysis below therefore incorporates catch taken from areas 18, 21 and 22.\(^\text{14}\)

**Figure 2: Paua statistical areas for MPA (O)**

87. On average, over the past eight fishing years, these statistical areas have produced 3,950kg of commercial pāua catch annually. In some years the catch has been as high as 5,201kg (2010) or 4,750kg (2012). The area contributes between 3.3% and 5.8% of the PAU 5D TACC (4.4% on average over the last 5 years) and up to 8.3% of the actual PAU5D catch (taking into account the current shelving of 30% of ACE).

88. The adverse effect of MPA (O) on pāua fisheries would be significant because pāua is a sedentary species, and fisheries based on sedentary species are particularly vulnerable to the adverse effects of additional fishing pressure displaced from areas closed to fishing.

\(^{14}\) Schofield, M (December, 2016). PAU5 SEMPF. Summary of PAU5 catch within SEMPF Type 1 reserves.
89. Numerous closures to commercial pāua fishing currently apply in the Forum’s area of interest, including several in the immediate vicinity of MPA (O), as shown in Figure 3. The impacts of MPA (O) on commercial pāua fishing will be cumulative together with the impacts of displacement from existing closed areas, which already cover almost a quarter of the suitable pāua habitat within 1 nm of the coast in the PAU 5D fishery. Displacement of commercial pāua fishing from MPA (O) would place additional pressure on the remaining open areas of PAU 5D, with potential implications for the sustainability of the fishery.

Figure 3: Regulated and voluntary commercial pāua closures near MPA (O)

90. Furthermore, in 2009 the pāua industry put in place a voluntary closure to commercial pāua harvesting along the western side of Long Point in order to make better provision for non-commercial pāua harvesting by the local community in the area. MPA (O) would negate the well-recognised benefits of this industry/community arrangement, displacing both commercial and recreational fishing effort into other areas and generating inter-sectoral competition for access to the more limited pāua resource outside the marine reserve.

91. Long Point is an important rock lobster fishing ground encompassing portions of the CRA 7 and CRA 8 fisheries. We consider the estimate of displaced catch provided in the consultation document (0.2%) to be improbably low.

92. MPA (O) is also an important area for the flatfish trawl fishery, as shown in Figure 4. On average, nearly 170 flatfish trawl tows start from within the MPA boundaries every year. The
area has produced over 227 tonnes of flatfish over the past eight years.\textsuperscript{15} This is equivalent to over 6\% of the region’s total catch of flatfish.\textsuperscript{16} It is also a valuable mixed trawl fishery, generating regionally-significant catches of red cod, stargazer and tarakihi.

93. Small fishing vessels operating out of Dunedin and Taieri Mouth will be particularly affected by MPA (O) if it is implemented on its own. The cumulative adverse effects on these fishers will be even more significant if MPAs (N) Akatore Offshore and (P) Long Point Offshore are implemented.

\textbf{Figure 4: The commercial fishing effort for flatfish bottom trawl within MPA (O) Long Point}

\begin{center}
\begin{figure}
\includegraphics[width=\textwidth]{Figure4}
\end{figure}
\end{center}

\textit{Fishing effort is cumulative from the 2008 to the 2016 fishing year}

\textbf{Implementation options}

94. The stated objectives of proposed MPA (O) are not consistent with the purposes for which marine reserves may be established under the Marine Reserves Act. Although the area has a range of biodiversity values, there is no suggestion that the area contains features that are “\textit{of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest}” (MRA s5). The suggested opportunities for scientific study are not compelling and are certainly not necessary for fisheries management purposes, as implied in the consultation document.

95. It is possible that the site would fail the statutory tests for establishing marine reserves because it interferes unduly with commercial fishing for pāua and flatfish, and with recreational fishing.


\textsuperscript{16} Consultation document Figure 53.
Conclusion

96. MPA (O) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. The site is highly valued for commercial fishing, especially for pāua and flatfish but also for rock lobster and mixed trawl fisheries. The impacts on pāua fisheries are unacceptable and the displacement of pāua fishing from the area would threaten the sustainable management of surrounding pāua populations. There are no threats to the biodiversity values of the site that could be better managed if the site were to be established as a marine reserve. The industry therefore opposes the establishment of proposed MPA (O).

MPA (P): Long Point Offshore (Type 2)

Consistency with MPA Policy

97. Proposed MPA (P) is inconsistent with the MPA Policy in three main respects, as follows:

a) **Protection standard**: Restrictions on fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on midwater trawling, all set netting and purse seining are intended to provide for the maintenance and recovery of ecological systems, natural species composition and trophic linkages (i.e., the second aspect of the protection standard). However, there is no evidence that the fishing methods in question may have such impacts. The additional method restrictions are therefore not necessary to meet the MPA protection standard, particularly as the identified environmental features relate to seafloor structure;

b) **Irrelevant considerations**: Fisheries interactions with protected species are not a relevant consideration for MPA site selection; and

c) **Unjustified spatial extent**: No explanation is provided as to why a relatively large MPA is necessary to meet the protection standard, particularly given the uniformity of the habitats in the MPA and the fact that these habitats are well accounted for in other proposed sites within the network.

Consistency with Industry Policy on Marine Biodiversity Protection

98. Proposed MPA (P) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

d) **Objectives**: The biodiversity protection objectives are not clearly stated. The implied objective is to protect structural complexity on the seafloor, but there is little information about the actual biodiversity values of the area. The area seems to have been selected to “make up the numbers” rather than for any particular site-related attributes;

e) **Threats**: No threats are identified. If the area, as suggested, is “an area where biogenic habitats, in particular bryozoans, are still in reasonable condition”, it can be assumed that the fishing methods used in the area are compatible with maintenance of the biodiversity values of the site; and
f) **Least-cost**: MPA (P) is not a least-cost approach to marine biodiversity protection because it excludes fishing methods – particularly non-bottom-impacting fishing methods such as set netting – for no clear biodiversity protection benefit. The size of the area is also unjustified under a least-cost approach.

**Impacts on commercial fishing rights**

99. Proposed MPA (P) is anticipated to have a moderate impact on the exercise of commercial fishing rights, although the impact would be more significant for some species. The area is particularly important for the set net fishery targeting school shark and rig. It also produces regionally-significant catches of trawl-caught species including silver wharehou (nearly 20% of the region’s SWA catch is taken from trawls starting in MPA (P)), squid, and queen scallops (43% of the region’s catch over the past eight years).

100. The area is important for small vessels fishing out of Taieri Mouth and Dunedin. Because of their size and limited range, these vessels have limited options for travelling to new fishing grounds.

**Implementation options**

101. Proposed MPA (P) could be implemented using Fisheries Act regulations only if fishing was having an adverse effect on the aquatic environment or marine biodiversity. There is no indication that this is the case, particularly for non-bottom perturbing fishing methods.

**Conclusion**

102. MPA (P) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. There are no compelling biodiversity protection reasons for establishing the site as an MPA yet it would have moderate adverse effects on commercial fishing activity. The industry therefore opposes the establishment of proposed MPA (P).

**MPA (Q): Tahakopa Estuary (Type 1)**

**Consistency with MPA Policy**

103. Proposed MPA (Q) is inconsistent with the MPA Policy in two main respects, as follows:

a) **Protection standard**: No explanation has been provided as to why a marine reserve (in which all fishing is prohibited) is necessary to meet the protection standard given the almost complete absence of commercial fishing in the estuary; and

b) **Existing habitat protection**: Estuarine habitats are already protected in five mātaitai reserves in the Forum’s region – i.e., Waioha, Waikouaiti, Moeraki, Otakou and Waikawa Harbour. Together these five mātaitai reserves represent nine different estuarine habitat types, as discussed in Part One of our submission. The consultation document proposes MPAs in six estuaries around the region – Pleasant River, Stony Creek, Akatore, Tahakopa, Tautuku and Haldane – none of which represent habitats not already in mātaitai reserves. MPA (Q) is therefore redundant for the purposes of representative habitat protection.
Consistency with Industry Policy on Marine Biodiversity Protection

104. Proposed MPA (Q) has a reasonably clearly defined objective – i.e., to protect a relatively pristine estuarine habitat. However, it is inconsistent with industry policy on marine biodiversity protection in two other respects, as follows:

   c) **Threats:** No threats are identified. Aside from some commercial eel fishing, there is no commercial fishing in the estuary. There is a landfill consent within 200m of the site, yet no management measures are proposed for the landfill or for other terrestrial activities in the catchment which may threaten the biodiversity values of the estuary; and

   d) **Least-cost:** A marine reserve may be a least-cost approach only if multiple threats to the identified marine biodiversity protection objectives exist and those threats can be managed under a marine reserve. However, in this case there are no identified threats that would be better managed under a marine reserve – the only commercial fishing at the site is an eel fishery which is compatible with maintenance of the biodiversity values of the site. MPA (Q) is therefore not a least-cost approach to marine biodiversity protection.

Impacts on commercial fishing rights

105. Proposed MPA (Q) is anticipated to have a negligible impact on the exercise of commercial fishing rights, apart from commercial eel fisheries, for which the impact is likely to be more significant (especially the cumulative impacts of existing mātaitai reserves and other estuarine MPAs within the proposed network).

Implementation options

106. The site is unlikely to meet Marine Reserve Act criteria. No evidence is provided that the area contains features that are “of such distinctive quality, or so typical, or beautiful or unique that their continued preservation is in the national interest” (MRA s5). In contrast, the area is of primarily local interest. No opportunities for scientific study are identified.

Conclusion

107. MPA (Q) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. Estuarine habitats are already adequately protected in the Forum’s region in five mātaitai reserves. No biodiversity benefits will be achieved by prohibiting activities which do not occur in the area and there are no threats to the biodiversity values of the site that could be better managed if the site were to be established as a marine reserve. The industry therefore opposes the establishment of proposed MPA (Q).

MPA (R): Tautuku Estuary (Type 2)

Consistency with MPA Policy

108. Proposed MPA (R) is inconsistent with the MPA Policy in four main respects, as follows:
a) **Protection standard**: Restrictions on commercial fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on commercial set net fishing, line fishing, mechanical harvesting, and fyke nets are intended to provide for the maintenance and recovery of the ecosystem, natural species composition and trophic linkages of the area. However:

- commercial fishing using the first three methods does not occur in the estuary and therefore does not have an adverse effect on biodiversity values. The potential future use of these methods in the estuary is unlikely; and
- there is no evidence to support the implication that the intensity of commercial eel fishing in the estuary has an adverse effect on biodiversity values;

The additional restrictions are therefore not necessary to meet the protection standard;

b) **Fisheries allocation**: By allowing recreational line fishing to continue while prohibiting commercial line fishing, the proposal has the effect of reallocating fisheries access between fishing sectors in a manner that cannot be justified for marine biodiversity protection purposes;

c) **Irrelevant considerations**: Tourism and public access benefits are not relevant considerations for site MPA selection, unless comparing sites of minimal impact (which is not the case for eel fisheries in the various proposed estuarine MPAs); and

d) **Existing habitat protection**: Estuarine habitats are already protected in five mātaitai reserves in the Forum’s region – i.e., Waihoa, Waikouaiti, Moeraki, Otakou and Waikawa Harbour. Together these five mātaitai reserves represent nine different estuarine habitat types, as discussed in Part One of our submission. The consultation document proposes MPAs in six estuaries around the region – Pleasant River, Stony Creek, Akatore, Tahakopa, Tautuku and Haldane – none of which represent habitats not already in mātaitai reserves. MPA (R) is therefore redundant for the purposes of representative habitat protection.

**Consistency with Industry Policy on Marine Biodiversity Protection**

109. Proposed MPA (R) has a reasonably clearly defined objective – i.e., to protect an unmodified estuary. However, it is inconsistent with industry policy on marine biodiversity protection in two other respects, as follows:

e) **Threats**: No threats have been identified – the consultation document states that the area contains “pristine” communities. Aside from some eel fishing, there is no commercial fishing in the estuary and no bottom-perturbing fishing methods are used. No management measures for terrestrial threats to estuarine biodiversity are proposed; and

f) **Least-cost**: MPA (R) is not a least-cost approach to marine biodiversity protection because no biodiversity benefits will be achieved by prohibiting fishing methods that do not exist in the area (or, in the case of eel fishing, are undertaken but do not threaten the biodiversity values of the estuary).
Impacts on commercial fishing rights

110. Proposed MPA (R) is anticipated to have a negligible impact on the exercise of commercial fishing rights, apart from commercial eel fisheries, for which the impact may be more significant (especially the cumulative impacts of existing mātaitai reserves and other estuarine MPAs within the proposed network).

Implementation options

111. Proposed MPA (R) could be implemented using Fisheries Act regulations only if fishing was having an adverse effect on the aquatic environment or marine biodiversity. The majority of fishing methods that would be prohibited under the proposal – i.e., dredging, commercial set net fishing, commercial line fishing, mechanical harvesting – do not occur at the site, and neither is it anticipated that these methods would be utilised in the future. There is therefore no Fisheries Act-related justification for prohibiting the use of the methods.

112. By prohibiting commercial line fishing and allowing the use of line fishing by other sectors to continue, the proposal has an allocative effect between fishing sectors. The reallocation of access to fisheries cannot be justified on sustainability grounds under the Fisheries Act.

113. Whitebaiting is not regulated under the Fisheries Act and any prohibitions would presumably be implemented by regulation under the Conservation Act.

Conclusion

114. MPA (R) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. Estuarine habitats are already adequately protected in the Forum’s region in five mātaitai reserves. No biodiversity benefits will be achieved by prohibiting activities which do not occur in the area. The industry therefore opposes the establishment of proposed MPA (R).

MPA (S): Haldane (Type 2)

Consistency with MPA Policy

115. Proposed MPA (S) is inconsistent with the MPA Policy in three main respects, as follows:

a) Protection standard: Restrictions on commercial fishing are proposed beyond those which are necessary to provide for the maintenance and recovery of physical features and biogenic structures that support biodiversity (i.e., the primary requirement of the MPA protection standard). The additional prohibitions on commercial set net fishing, line fishing, mechanical harvesting, and fyke nets are intended to provide for the maintenance and recovery of the ecosystem, natural species composition and trophic linkages of the area. However:

- commercial fishing using the first three methods does not occur in the estuary and therefore does not have an adverse effect on biodiversity values. The potential future use of these methods in the estuary is unlikely; and
• there is no evidence to support the implication that the intensity of commercial eel fishing in the estuary has an adverse effect on biodiversity values;

The additional restrictions are therefore not necessary to meet the protection standard;

b) **Fisheries allocation:** By allowing recreational line fishing to continue while prohibiting commercial line fishing, the proposal has the effect of reallocating fisheries access between fishing sectors in a manner that cannot be justified for marine biodiversity protection purposes;

c) **Existing habitat protection:** Estuarine habitats are already protected in five mātaitai reserves in the Forum’s region – i.e., Waihoa, Waikouaiti, Moeraki, Otakou and Waikawa Harbour. Together these five mātaitai reserves represent nine different estuarine habitat types, as discussed in Part One of our submission. The consultation document proposes MPAs in six estuaries around the region – Pleasant River, Stony Creek, Akatore, Tahakopa, Tautuku and Haldane – none of which represent habitats not already in mātaitai reserves. MPA (S) is therefore redundant for the purposes of representative habitat protection; and

d) **Irrelevant considerations:** The facilitation of pingao restoration (an activity that takes place above MHWS) is an irrelevant consideration for establishing an MPA. Tourism and public access benefits are not relevant considerations for site MPA selection, unless comparing sites of minimal impact (which is not the case for eel fisheries in the various proposed estuarine MPAs).

**Consistency with Industry Policy on Marine Biodiversity Protection**

116. Proposed MPA (S) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:

e) **Objectives:** The objective of the MPA appears to be to protect an estuary of significance for bird habitat. The protection of bird habitats is not relevant to the selection of representative areas of marine biodiversity;

f) **Threats:** No specific threats have been identified. Aside from some eel fishing, there is no commercial fishing in the estuary and no bottom-perturbing fishing methods are used. Danish seining is prohibited by regulation. The edges of the estuary are grazed, but no management measures are proposed for this potential threat to biodiversity values; and

g) **Least-cost:** MPA (S) is not a least-cost approach to marine biodiversity protection because no biodiversity benefits are achieved by prohibiting fishing methods that do not exist in an area (or, in the case of eel fishing, are undertaken but do not threaten the biodiversity values of the estuary).

**Impacts on commercial fishing rights**

117. Proposed MPA (S) is anticipated to have a negligible impact on the exercise of commercial fishing rights, apart from commercial eel fisheries, for which the impact is likely to be more significant (especially the cumulative impacts of existing mātaitai reserves and other estuarine MPAs within the proposed network).
Implementation options

118. Proposed MPA (S) could be implemented using Fisheries Act regulations only if fishing was having an adverse effect on the aquatic environment or marine biodiversity. The majority of fishing methods that would be prohibited under the proposal – i.e., dredging, commercial set net fishing, commercial line fishing, mechanical harvesting – do not occur at the site, and neither is it anticipated that these methods would be utilised in the future. There is therefore no Fisheries Act-related justification for prohibiting the use of the methods.

119. By prohibiting commercial line fishing and allowing the use of line fishing by other sectors to continue, the proposal has an allocative effect between fishing sectors. The reallocation of access to fisheries cannot be justified on sustainability grounds under the Fisheries Act.

120. Whitebaiting is not regulated under the Fisheries Act and any prohibitions would presumably be implemented by regulation under the Conservation Act.

Conclusion

121. MPA (S) is inconsistent with both the MPA Policy and industry policy on marine biodiversity protection in several critical respects. No biodiversity benefits will be achieved by prohibiting activities which do not occur in the area. The industry therefore opposes the establishment of proposed MPA (S).

MPA (T): Kelp forest (Other)

Consistency with MPA Policy

122. Proposed MPA (T) is, in its entirety, inconsistent with the MPA Policy and it is not clear why it has been included in the proposed network. In particular:

   a) **Protection standard**: The proposal does not meet the protection standard and is therefore not an MPA under the MPA Policy;

   b) **Habitat protection**: A representative example of kelp habitat is protected in proposed MPA (D), comprising over 36% of the identified area of *Macrocystis* beds in the region. Protecting additional kelp habitat cannot be justified under the MPA Policy; and

   c) **Unclear management response**: Aside from a general intent to restrict the ability to commercially harvest kelp, the specific controls that would apply in order to protect the kelp habitat have not been identified, hindering any assessment the proposal’s value for biodiversity protection or impacts on other uses and values.

Consistency with Industry Policy on Marine Biodiversity Protection

123. Proposed MPA (T) is inconsistent with industry policy on marine biodiversity protection in three main respects, as follows:
**Objectives:** Protecting kelp habitat is a valid biodiversity protection objective, but – for the purposes of establishing a network of representative MPAs – protection of the entire spatial extent of kelp habitat is not justified;

e) **Threats:** Kelp harvesting is the only identified threat, but there is no current harvesting of kelp in the area. The consultation document states that there is little, if any, attached *Macrocystis* harvest in the Forum region and most harvest is of free floating or beach cast kelp. Kelp harvesting therefore is not and has not been a threat to kelp habitats. It follows that if kelp habitats in the region are declining or at risk, it is a result of threats other than commercial kelp harvest.

Threats arising from terrestrial activities (sedimentation from changes to land use etc) are not identified in the consultation document. However, there are numerous marine and terrestrial activities that may have adverse effects on kelp habitat in the vicinity of MPA (T), including marine structures and aquaculture, construction sites, meatworks, discharges of contaminated water, dredging, gravel extraction, industrial activities, landfills, quarries, offal pits, silage storage, household sewage systems, river works and flood protection works, as well as stormwater, sewage and human effluent outfalls. No management measures are proposed in response to these threats; and

f) **Least-cost:** MPA (T) is not a least-cost management response because management measures are not targeted at identified risks. Furthermore, the proposal seeks to protect the entire kelp habitat rather than a representative sample of kelp habitat. To the extent there are ecosystem risks from the harvesting of kelp, the Fisheries Act has a range of tools to manage harvesting activity.

**Impacts on commercial fishing rights**

124. By prohibiting the commercial harvest of kelp, MPA (T) will have significant impacts on the exercise of commercial harvest rights for kelp.

**Implementation options**

125. Kelp harvesting restrictions could be established under the Fisheries Act, but only for Fisheries Act purposes – i.e., to avoid, remedy or mitigate adverse effects of kelp harvesting on the aquatic environment. Other terrestrial and marine threats to kelp habitat cannot be readily addressed under current legislation. The industry does not support the use of *ad hoc* legislation to implement marine biodiversity protection because it results in an inconsistent, piece-meal legislative framework that does not facilitate integrated management.

**Conclusion**

126. Although the industry agrees that kelp habitats are an important component of marine ecosystems, MPAs are not an appropriate tool to manage the range of threats to kelp habitats. Proposed MPA (T) is entirely inconsistent with the MPA Policy and industry policy on marine biodiversity protection and will have a significant impact on commercial harvest rights for kelp. The industry therefore **opposes** the establishment of proposed MPA (T).