

**BEFORE THE ENVIRONMENT COURT
AT AUCKLAND
I MUA I TE KŌTI TAIAO O AOTEAROA
TĀMAKI MAKAURAU ROHE**

UNDER the Resource Management Act 1991
IN THE MATTER of appeals under Clause 14 of Schedule 1 of the Act
BETWEEN **BAY OF ISLANDS MARITIME PARK
INCORPORATED**

(ENV-2019-AKL-000117)

**ROYAL FOREST AND BIRD PROTECTION
SOCIETY OF NEW ZEALAND
INCORPORATED**

(ENV-2019-AKL-000127)

Appellants

AND **NORTHLAND REGIONAL COUNCIL**
Respondent

**REBUTTAL EVIDENCE OF TIMOTHY DENNE FOR BAY OF
ISLANDS MARITIME PARK INC AND ROYAL FOREST AND BIRD
PROTECTION SOCIETY OF NEW ZEALAND INC (ECOLOGY)**

TOPIC 14 – MARINE PROTECTED AREAS

22 JUNE 2021

Royal Forest and Bird Protection
Society of NZ Inc
Solicitor acting: PD Anderson
PO Box 2516
Christchurch 8140
p.anderson@forestandbird.org.nz

Bay of Islands Maritime Park / Ngāti Kuta
ki te Rāwhiti
Counsel: Sally Gepp
Level 1, 189 Hardy Street
Nelson 7010
sally@sallygepp.co.nz

MAY IT PLEASE THE COURT

1. My name is Timothy Denne.
2. My qualifications and experience are set out in my primary statement of evidence dated 19 March 2021. I confirm that in preparing this evidence I have complied with the Expert Witness Code of Conduct.
3. This statement of rebuttal evidence responds to the evidence of:
 - a. Jacob Dylan Hore;
 - b. Thomas Clark;
 - c. Mark Semmens;
 - d. Kim Lawrence Drummond;
 - e. Dr Philip Hunter Mitchell; and
 - f. Paul Roy Knight.
4. It also responds to the Joint Witness Statement (JWS) of the fisheries experts.

Executive Summary

5. In my primary evidence I argued that the main impact of introducing marine protected areas (MPAs), including fishing bans or method restrictions, is an increase in costs rather than a reduction in catch and revenues. This is because total catch is determined by the supply of annual catch entitlements (ACE) under the quota management system (QMS) rather than the availability of fishing space. Because the proposed MPAs are relatively small in the context of the whole quota management area (QMA), the cost impacts might be relatively small.
6. The main responses have included: (1) that the costs of changing location or method may be significant, and for some fishers may require more dangerous working conditions (eg further out to sea) or investments in new equipment that could force them out of business; and (2) that the additional restrictions and costs of effort for Māori are equivalent to a loss of rangatiratanga.
7. In response to (1), the high costs for individual fishers are not synonymous with high costs in total. The response to the introduction of MPAs may be a shift in who fishes, in addition to where or how fishing occurs. Small companies and single vessel owners may lose market share to larger companies and vessels, for example. Changes of this nature were part of the original objective of the QMS. The total costs need to be seen in the context of the whole fishery as defined by the QMAs for the individual fish stocks.
8. In response to (2), this involves considerations beyond economic evidence.

Rebuttal evidence

9. In my evidence I suggested the main impacts of the imposition of marine protected areas (MPAs) would be the displacement of fishing resulting in

increased costs of (1) fishing effort (e.g., time or fuel) or (2) costs of using alternative fishing methods, rather than a reduction in catch and revenues. This argument assumes that the quantity of annual catch entitlements (ACE) is the main limiting factor on catch levels.

10. The main responses have included: (1) that the costs of changing location or method may be significant, and for some fishers may require more dangerous working conditions (e.g., further out to sea) or investments in new equipment that could force them out of business; and (2) that the additional restrictions and costs of effort for Māori are equivalent to a loss of rangatiratanga.

Possible High Costs of Displacement

11. Mr Hore suggests the impact on commercial fishers would be significant if all the proposed marine spatial protection measures were implemented. He suggests, if fishers need to change to other fishing methods, for example from a bottom trawling prohibition, this will add to capital costs of new gear and technology and requirement to purchase ACE for different species caught in any new fishery.¹
12. Mr Clark argues that moving to other areas is not necessarily economically viable and comes with a transition period during which new fishing spaces need to be established and tension is caused in the fleet as the displaced fishers collide with the incumbent fishers in the areas to which they are displaced.² In a related argument, Mr Semmens³ and Mr Clark⁴ suggest that, if prohibited from fishing in near coastal areas, small vessels would face a more dangerous winter operating environment further from the coast, with bigger seas and stronger winds. This comment is also made by the fisheries experts' JWS, in which it is further commented that the existing areas are the most desirable locations from safety and economic viewpoints.⁵

Response

13. When there is a new method restriction, or a space closure, a fisher may purchase additional equipment or face other costs to continue fishing. This is one possible response. Another is that fishing effort shifts to another fisher already using one of the methods that fishing is limited to or already operating in another location within the same QMA. For example, effort might shift from a small vessel working near the shore to a larger vessel able to operate safely in offshore locations. This would still impose costs (otherwise we might assume that other fisher would be fishing more already), but the cost would be expected to be lower than the additional costs of equipment.
14. There are obvious financial and social costs for a small vessel fisher whose effort reduces, including potentially significant reductions in revenue, but the policy

¹ Hore EIC, Para 57

² Clark EIC, Para 134

³ Semmens EIC, Para 19

⁴ Clark EIC, Para 135

⁵ Northland Regional Plan - Topic 14 - Marine Protected Areas Fisheries Expert Conference on 11 June 2021 - Joint Witness Statement (JWS) ENV-2019-AKL-000117.

concern is largely with the costs (and benefits) for the whole community. Fishing effort, costs and revenues may shift from one group of fishers to another. Small companies and single vessel owners may lose market share to larger companies and vessels, for example. Changes of this nature were part of the original objective of the QMS.⁶ The total costs need to be seen in the context of the whole fishery as defined by the QMAs for the individual fish stocks.

15. The overall size of the cost impact depends on a set of factors that are hard to predict with accuracy. This includes: (1) the differences in catch per unit effort in different locations within the QMA for a stock, (2) the capacity utilisation of vessels fishing elsewhere in the QMA, and (3) any spillover benefits of establishing an MPA. These issues are all uncertain. Reasons for suspecting the impacts might be relatively small are the potential for shifting effort to other fishers and the relatively small size of the MPAs in the context of the QMA as a whole.

Displacement Restricted to QMA

16. Mr Hore suggests that, when I wrote “A commercial fisher with ACE, restricted from fishing in one area, can move to another”,⁷ I do “not appear to appreciate that ACE relates to a particular QMA which in itself inhibits movement.”⁸

Response

17. I should have used clearer wording. I have not used the word ‘area’ (lower case ‘a’) synonymously with QMA. Rather I have used ‘area’ in the more general sense of some other location, without clarifying that I am assuming this is within the same QMA. This is implicit in the argument that the cost is not a reduction in catch within a QMA (limited by ACE supply) but the costs of effort to catch fish consistent with the supply of ACE.

Lack of Quantification and Impacts on ACE and Quota Value

18. Mr Mitchell notes that I have not provided analysis of the efficiency or effectiveness of this is provided or a quantification of the costs or the impact that may have on customary, recreational or commercial fishing, as contemplated by RMA section 32.⁹
19. In my evidence, I set out my opinion that the net effect of increases in the costs of effort depends on whether it is compensated either by a reduction in the price of ACE or by an increase in the price of fish, while suggesting these effects are unlikely for small marginal changes in allowed areas.¹⁰ Mr Drummond argues that

⁶ Part of the original objective of the QMS was to obtain efficiencies in the fishing industry, including reducing over-capitalisation, ie too many boats resulting in inefficient capacity utilisation. Allowing trading of quota shares and ACE enables the rights to be aggregated by larger companies able to maximise capacity utilisation. See discussion in: Sharp BM (1997) From regulated access to transferable harvesting rights: Policy insights from New Zealand. *Marine Policy*, 21(6): 501–517.

⁷ Denne EIC, Para 19

⁸ Hore EIC, Para 56, n21

⁹ Mitchell EIC, Para 86

¹⁰ Denne EIC, Para 21

the reduction in the value of ACE (and of quota in turn) may be significant, and that this has impacts on Māori as owners of quota.¹¹

Response

20. I have not attempted to produce a section 32 analysis and it is not my role to do so. The data do not exist to quantify the costs and benefits. I am therefore restricted to describing the effects qualitatively.
21. Whether the change in costs is significant depends on the factors discussed in Paragraph 15 above.

Reduction in Revenue

22. Mr Clark argues that 490 tonnes of fish caught in the Te Hā o Tangaroa areas by the methods that would be affected by the appellants' propositions has a revenue value of \$520,000 each year, and (using multipliers), a potential \$1.2million annual contribution to the local economy.¹² He also suggests, with bottom trawling, danish seining and purse seining prohibited from Te Mana o Tangaroa areas, 580 tonnes of fish caught annually by those methods will no longer be possible, with potential revenue loss of \$500,000.¹³ I note that these numbers have been updated (reduced) in the Fisheries Agreed Statement of Facts in light of the appellants' narrowed relief.

Response

23. This argument is based on a revenue estimate. In my opinion, revenue will not necessarily change. What is more likely to change is the cost of fishing to obtain that revenue from fishing in other areas or using different methods.
24. The use of multipliers alongside revenues to demonstrate the extent of flows of money in the local economy, does not provide evidence of how total economic activity might change with reduced revenue. It provides a static picture, but the economy adjusts to changes in activity in one industry. People find different employment; revenue comes from alternative sources and money continues to flow in the local economy. There may be a period of adjustment and some overall reduction in activity, eg some may move to jobs in other areas, but revenue plus multiplier estimates do not provide useful guides.
25. NZ Treasury suggests that, apart from unique circumstances of specialised employment, "multiplier effects do not exist", recommending that they are ignored unless there is high unemployment,¹⁴ and NZIER note that "multipliers overestimate the impacts of a change in a particular industry on the rest of the economy", while noting that "NZIER no longer offers multiplier-based analysis

¹¹ Drummond EIC, Paras 116-117

¹² Clark EIC, Para 129

¹³ Clark EIC, Paras 139-140 (and at 148 also)

¹⁴ NZ Treasury (2015) *Guide to Social Cost Benefit Analysis*.

to our clients as they no longer align with our independence and reputation for delivering high quality, data-driven analysis.”¹⁵

Loss of Rangatiratanga

26. Mr Drummond argues that Māori rights in fisheries under the Fisheries Settlement are customary (commercial and non-commercial) rights as guaranteed by Article II of Te Tiriti. In addition, customary rights, extend not just to the right to harvest but also rangatiratanga to manage the fishery. He suggests that MPA establishment has costs for customary fishers, including loss of rangatiratanga, and that this reduces the value of the rights that have been otherwise recognised.¹⁶ Similarly, Mr Knight argues that my analysis has underestimated both the social, cultural and commercial impacts on iwi/hapū and mandated iwi organisations (MIOs).¹⁷

Response

27. I acknowledge that in my evidence in chief I did not explicitly identify and recognise the full set of Māori commercial interests in fisheries as an element of customary fishing and partly the issue of scale, i.e., whether the effects are large or small. However, there is also a question over whether it is reasonable to attribute a loss of rangatiratanga to the introduction of the proposed controls. I acknowledge that this is a question that goes beyond economics.

Tim Denne

22 June 2021

¹⁵ de Morel L, Gämperle D and Siddharth P (2019) *Economic impacts of 2019 Review of Sustainability Measures – East Coast Tarakihi. A Computable General Equilibrium analysis and forecast model*. NZIER report to Fisheries New Zealand.

¹⁶ Drummond EIC, Para 114

¹⁷ Knight EIC, Para 10.2