s 9(2)(a) [redacted]

-12-2015.

The M.P.I review staff.

If the Ministry of Primary Industries continue to ignore what was agreed between Ngai Tahu - Government and the Ministry of Fisheries I am sure it will hasten those Parties back to Court.
I believe the only reason this has not taken place already is because there would be a lot of people who, not knowing how the Ministry has not kept staff up to speed with the Ngai Tahu - Crown fisheries settlement, would be saying "That Settlement was full and finab and here are Ngai Tahu again."

It would have been full and final if, as staff and members changed, they were made aware of the intent of what has become known as the "Sealord Deal."

Particularly the South Island Customary Fishing Regulations along with all the signed trivia that we were told "you do not clutter legislation with
I feel that some of that agreed trivia is more important than the actual legislation.

There has been so many changes made to the Ministry of Fisheries policy regarding customary fishing, without consultation with the people concerned, that it has become known as the up to date version of the injustaces of the Treaty of Waitangi.

One of the first and worst of the Ministry of Fisheries policy to be put in place without

consultation is the Process Standards for Assessing Mataitai Reserve Applications.

This was dated 21st April 2005 and the first we knew of it was when a commercial fisher came to the marae with a copy on 26th May 2006.

When Ngai Tahu did get some copies it became known by Kai Tiak as the "Prevent Test" because there are some clauses in it that prevent some from getting what was agreed to.

This was the start of all the rules being put in place, without consultation, by people driving desks in Wellington, and has meant the ruin of most areas that our people have applied for mataitai for.

Even the areas on titi islands which qualified to tick every box there was, were desicrated because of the process put in place by the Ministry without consultation.

Our people have made every offer possible to mitigate this problem but no, it will be done as the Ministry have dictated.

We have offered to delay having an area ratified until the Kai Tiaki are approved, management plan and bylaws done, but no, we must do it your way.

If the Ministry would get off the chair and leave the desk in the Office, and go out into the real World this is what they would find.

We have our agreed meetings with Community and Commercial fishers etc and the area is ratified as a mataitai and is advertised as such.
Then there is a period to nominate, elect and have the Kai Tiaki approved, even though the Papatipu Runanga concerned will have done that.

Then there is a period when the Kai Tiaki are supposed to do a managent plan for the area, and have that accepted
This has also already been done by the Runanga or people concerned because why would there be an application put in the first place, if the area was in balance and good health?

By this time the area, that was under stress, and the reason for the application, is absolutely desicrated and usually devoid of at least paua, because all paua of 125 MM would have been taken before the mataitai was applied for.

Once the area was ratified and advertised, every recreation fisher goes there because they think that because commercial can not fish there, that will be the place to go and get what they want.
Because they do not breed untill they reach the size they are taken at, and because this process has taken so long with the juvenile paua being taken as soon as they reach 125 MM and with the last one reaching that size. We now have an area with nothing left.

If there are no paua beyond snorkel diving depth in the area there is no way it can recover without re seeding.

The result of this is that with no paua to prune the seaweeds that they eat, it grows to an excessive size which gets torn from the rocks in a storm and cast ashore to rot and smell. A waste of tons and tons of paua food that could be feeding not only our food but also a resource that could earn dollars in export.

There are many other problems as well, for instance, the Kai Tiaki may want to let commercial fishers come into the mataitai to catch a certain species of fish that has become over abundant and is impacting on other species. To do this should be covered with a by law like any other mataitai management process. But no, even though mataitai were to be managed in a customary way. The staff of M' Fish that write the rules, without consultation, chose to insist that this be done with a Fisheries Regulation which takes longer, has to be signed by the Governor General, and is a lot of work for another M' Fish person to progress.

The result of this is that rule 24(3) of the South Island Customary Fishing Regulations has never ever been used! The problem fish are left there to waste because of being dealt with the usual M' Fish way. "If you do nothing, you have done nothing wrong. If M.P.I. does not deal with all the problems with fish I am sure they will learn that doing nothing can be wrong.

N Ly Metzger.

Ministry of
Fisheries
Te Tautiaki i nga tini a Tangaroa

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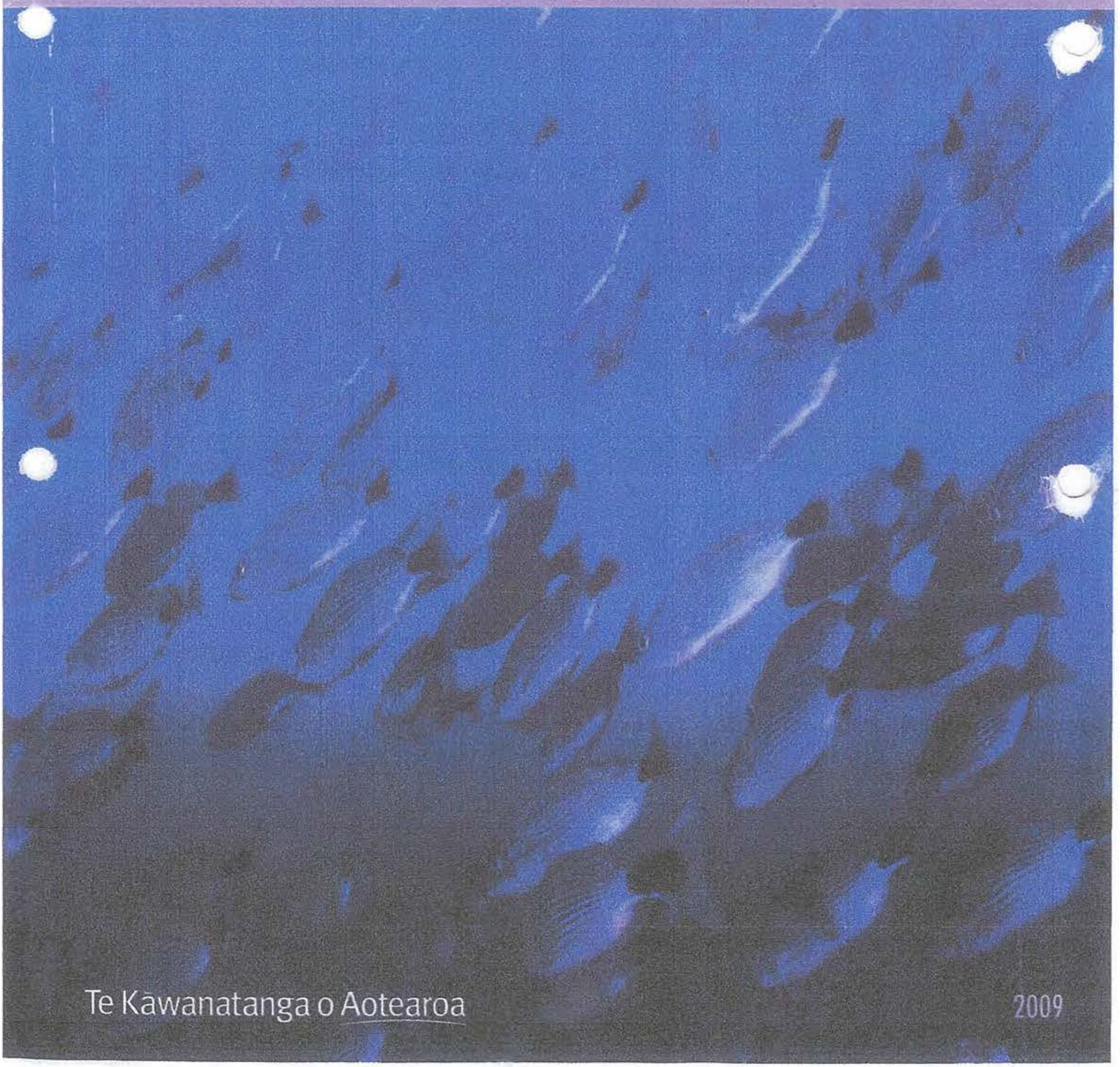
Customary Fishing Information Manual

PRINTED IN 2009 - WHAT HAVE WE NOW RETAINED FROM WHAT IS ON THE NEXT PAGE?



Te Kāwanatanga o Aotearoa

2009

Treaty Strategies

Obligations to Māori

Ensure the Crown delivers on its obligations to Māori with respect to fisheries by:

- implementing its partnership obligations
- Establishing and maintaining effective relationships
- Developing frameworks and process to implement the 1992 Fisheries Deed of Settlement
- Ensuring contemporary grievances are not created

WORKING TOGETHER

The support and active participation of all those with an interest in fisheries resources and the aquatic environment is vital to the successful pursuit of our vision. Everyone has a role to play and our success will depend on strong productive relationships. This includes the Ministry of Fisheries, other central and local government agencies, Tangata Whenua, ake holders, and the public.

TANGATA WHENUA AND STAKEHOLDERS

The role of Tangata Whenua, fisheries stakeholders and the public is to:

- Provide input into and participate in government decision-making processes on:
  - Policy and legal frameworks
  - The nature and extent of fisheries and marine bio security services
- Comply with the rules
- Take greater collective responsibility for meeting the purposes and principles of the Fisheries Act 1996 through;
  - developing and implementing fisheries plans that meet government standards delivering fisheries services to government standards and specifications

MEETING TREATY OF WAITANGI OBLIGATIONS

- Involve Māori in fisheries management decision making
- deliver 20 per cent of new quota to Māori
- provide for and protect customary fishing rights

WHY CUSTOMARY REGULATIONS ARE IMPORTANT

- The goal of this work is compliance for sustainability
  - Ensuring the fisheries are available for future generations
  - Utilising the fishery to sustain cultural practices
  - Taking steps toward partnership with Tangata Whenua
  - Preventing abuse of our natural resources
- Customary regulations offer taking and management regimes
- Treaty of Waitangi – These regulations have been developed as a result of TOW (Fisheries Claims) Settlement Act

EXISTING POLICIES TO BE CONTINUED

We will:

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- maintain the integrity of the management frameworks, statutory processes, decisions and services that underpin the Fisheries Deed of Settlement with Māori
- consult with Tangata Whenua on the management of marine bio security risks
- allocate 20 per cent of new individual transferable Quota to Māori
- facilitate the input and participation of Tangata Whenua in fisheries management processes
- work with Tangata Whenua and their representatives to enable all customary fishing to be conducted under customary fishing regulations
- implement the Ministry of Fisheries strategy for meeting obligations to Tangata Whenua
- recognise customary use, conservation and management practices.

EXISTING POLICIES TO BE MONITORED

We will monitor policies against stated operational standards and policy outcomes. Specifically, we will:

- ensure customary fishing regulations meet the requirements of the Fisheries Deed of Settlement
- monitor implementation of the Ministry of Fisheries strategy for meeting obligations to Tangata Whenua

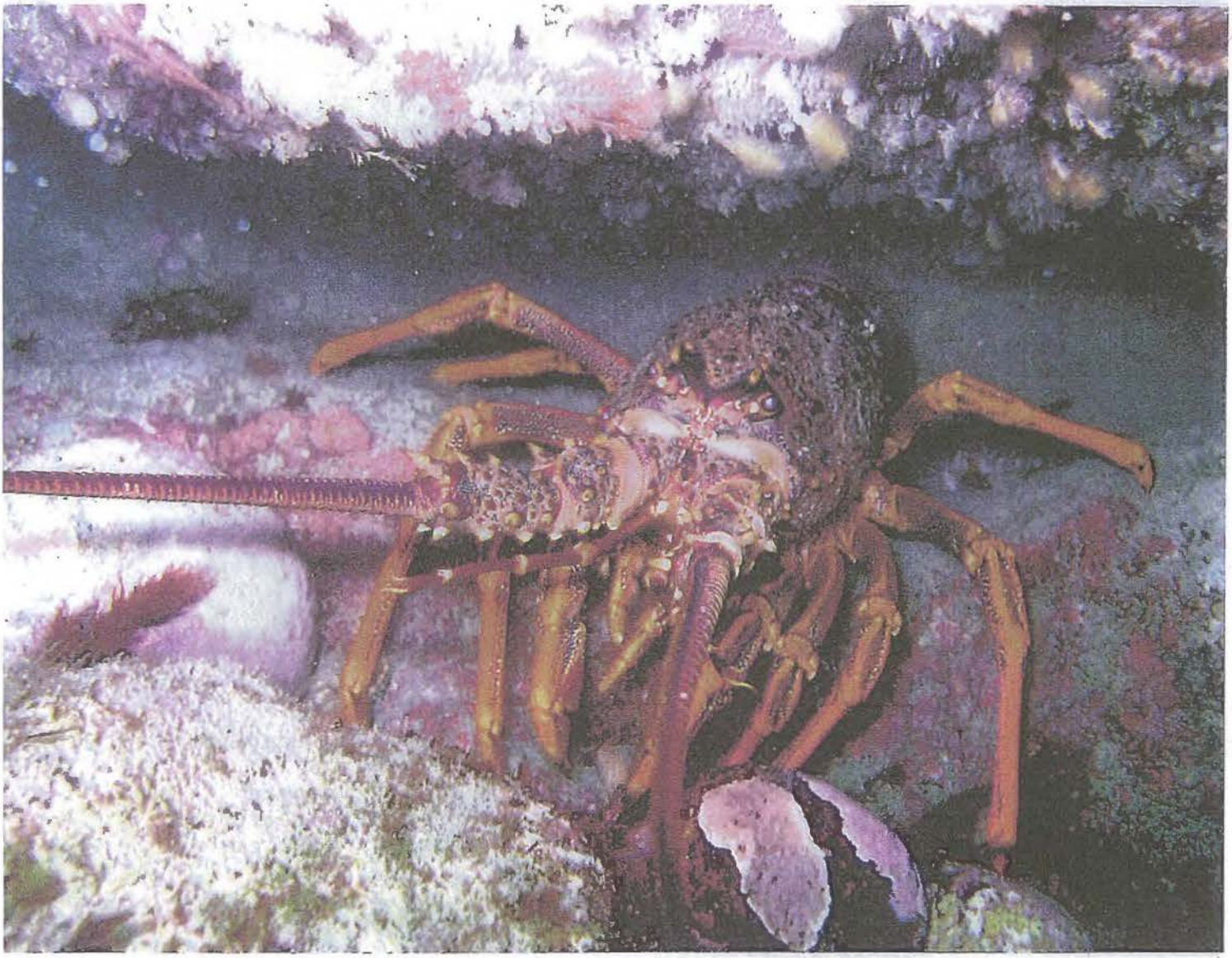
NEW POLICIES TO BE DEVELOPED

We will:

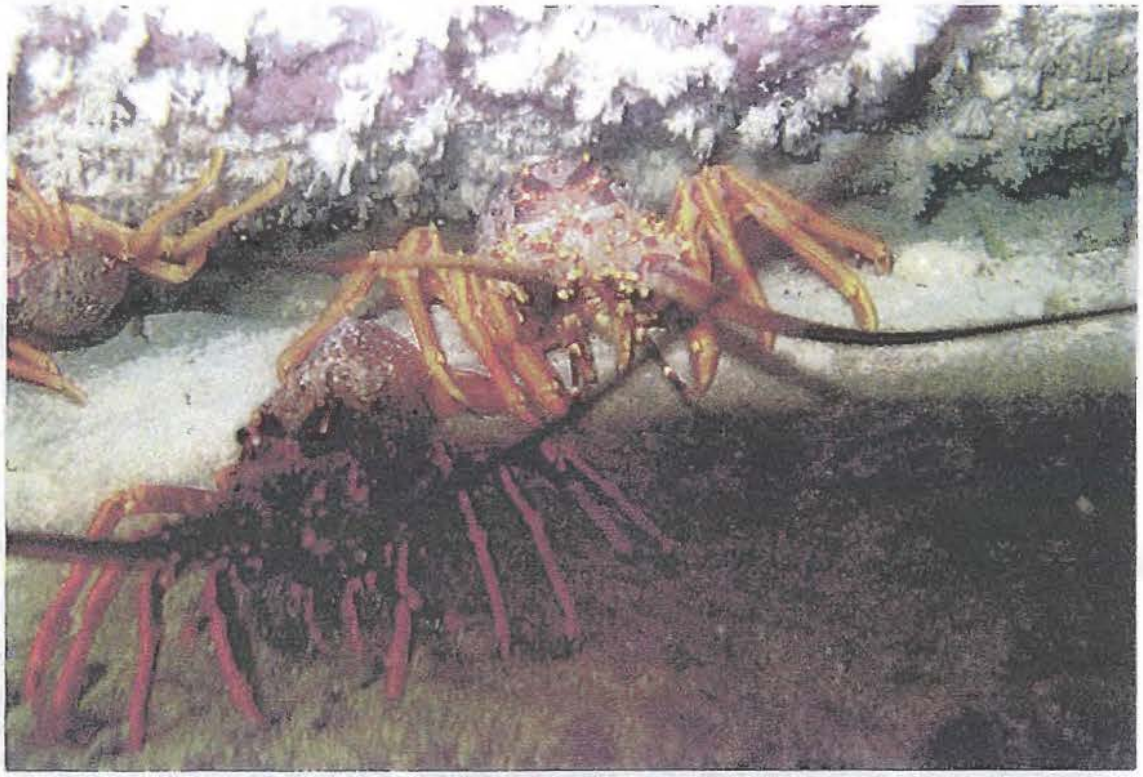
- help identify mātaitai and taiapure areas
- review and improve the framework and processes related to implementing the Fisheries Deed of Settlement with Māori
- apply Treaty principles to the development of all new policy advice

Compliance Support for Customary Regulations

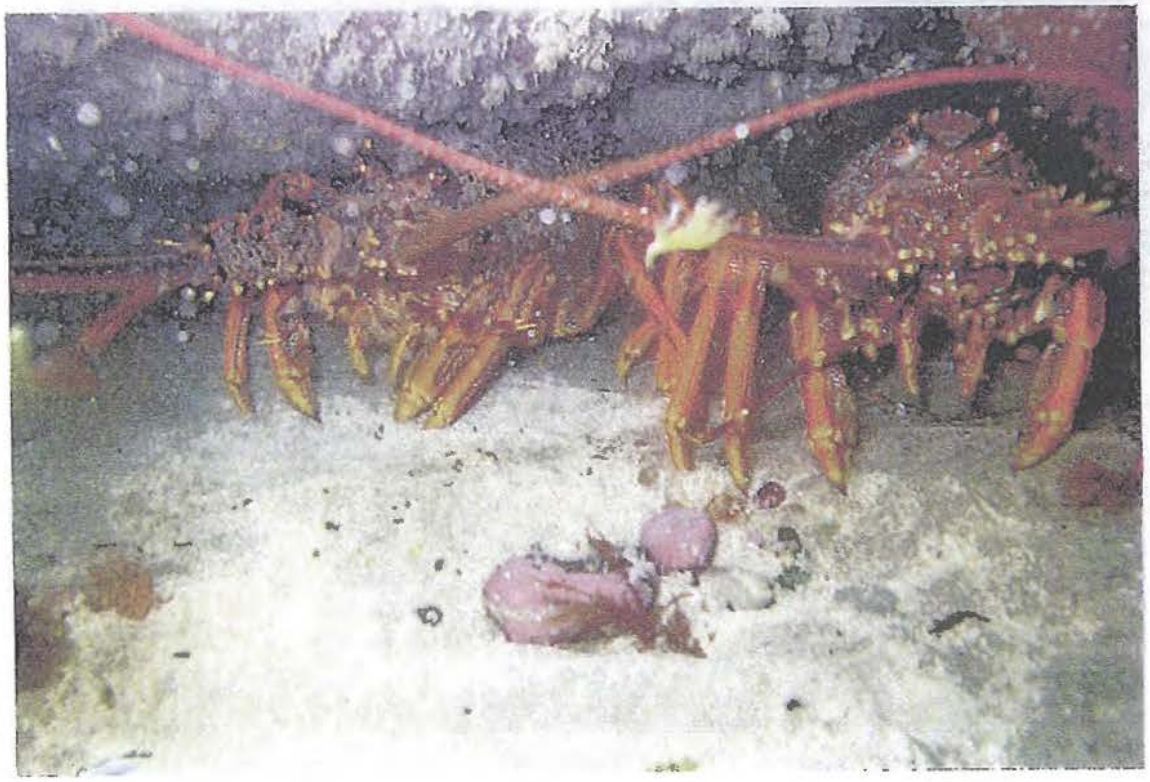
- Important that the Tangata Kaitiaki/Tiaki receives compliance support
- Iwi and the Ministry must determine what the compliance issues are for each rohe moana
- Once the compliance issues are identified discussions will need to take place as to the best way to support the issues



A few of the many crayfish in our Mataitai Marine Reserve



With the support of the Ministry of Fisheries, Storm Stanley (Paua Mac 5 representative), Malcolm Lawson (Cray 8 representative) insisted that we have this area instead of what we had appkied for, from the mouth of the Wairaurahere River to the Long Point Lighthouse, using rule 24 (3) of the South Island Customary Fishing Regulations, to let Commercial fin and crayfishermen come into the area. Malcolm Lawson has now locked the people he represents out of this lucrative crayfish area.



It was Malcolm Lawson,the Cray 8 fishers representative who insisted we have the area we now have for a mataitai,with fishers not coming inside the line.

When boatbuilding I got to know a lot of hardy fishermen, and as a leader in our sea scouts I came to know a lot of boys who are now men out there fishing as well.

They supported us with our mataitai application because we used Clause 24 (3) of the South Island Customary Fishing Regulations so they could come inside the mataitai and catch some of the ample number of cray and finfish there.

A Mataitai Marine Reserve is about fisheries management not just having an area for ourselves to get a fish.

There are plenty of cray and finfish there,it is only paua that has been fished bare.

The only reason we applied for a mataitai was because the pools and reefs once covered in paua,were now fished bare and we want to bring it back to what it once was.

This is to show those fishers who supported us ,that WE did not break our promise,and that the fault is with their own organisation,and hope that they still show the same respect for us as we have for them.

For and on behalf of the Waitutu Incorporation.

N Ly Metzger

Powers of Tangata Tiaki/Kaitiaki in Mātaitai Reserve

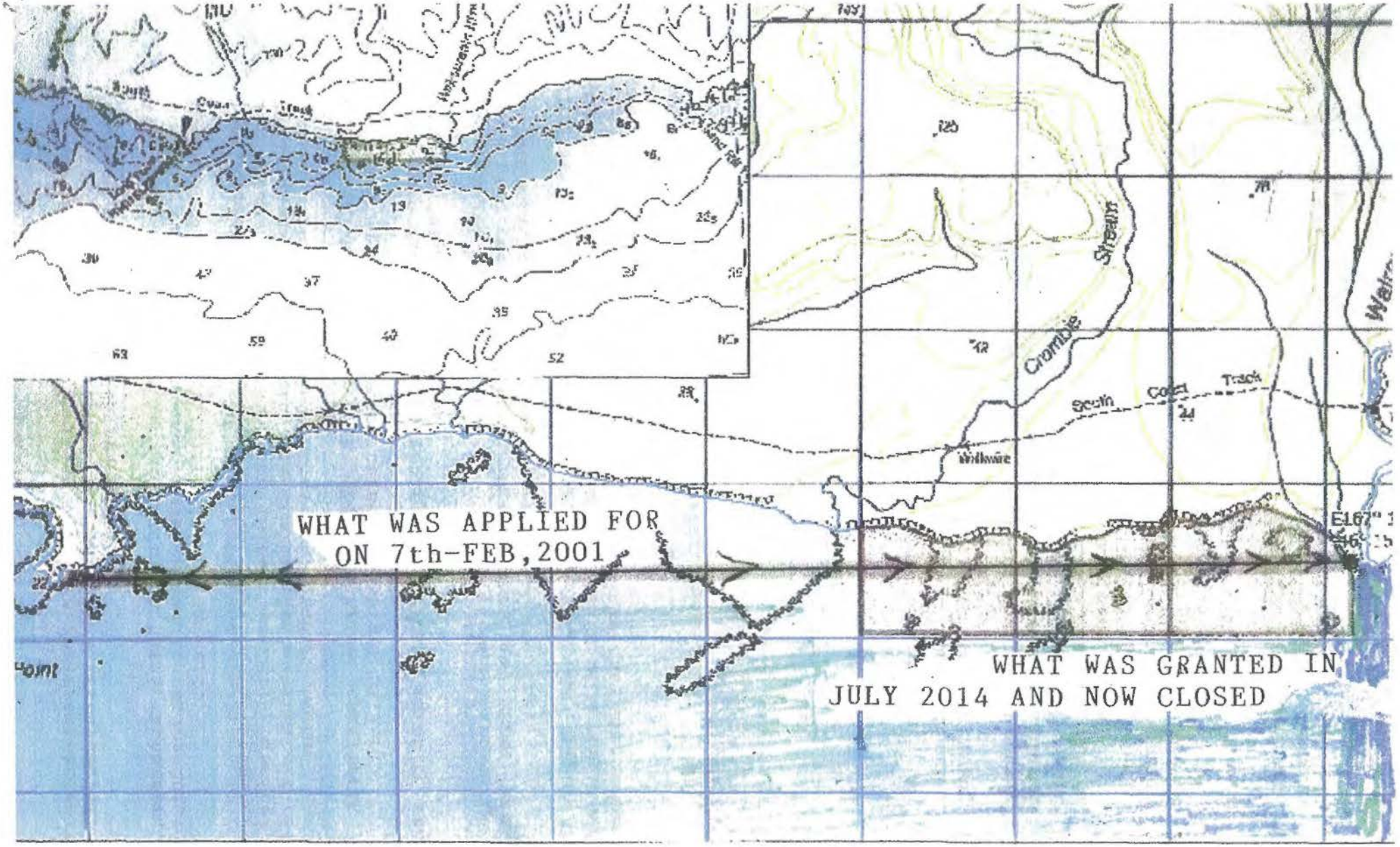
24. Fishing in mātaitai reserve—(1) Subject to this regulation and to regulations 25 to 29, regulation 11 and the Fisheries (Amateur Fishing) Regulations 1986 apply to fishing in a mātaitai reserve.

(2) No person may engage in commercial fishing in a mātaitai reserve.

(3) Despite subclause (2), the Tangata Tiaki/Kaitiaki of the mātaitai reserve may request the Minister to recommend the making of regulations to allow the commercial taking of specified species of fish, aquatic life, or seaweed, by quantity or time period, within that mātaitai reserve.

(4) On receipt of a request from the Tangata Tiaki/Kaitiaki made under subclause (3), the Minister may recommend to the Governor-General the making of regulations under Part XVI of the Fisheries Act 1996 to provide for commercial fishing in that mātaitai reserve for such species of fish, aquatic life, or seaweed in such quantities and for such time as may be requested under subclause (3).

(5) If regulations of the kind referred to in subclause (3) are made, such commercial fishing must be conducted in accordance with the provisions of the Fisheries Act 1996 and the relevant commercial fishing regulations applying under that Act.



Waitutu mātaitai reserve

PAGE 27 OF OUR ORIGINAL MANAGEMENT PLAN

BYLAWS - MAXIMUM DAILY LIMIT ON CERTAIN SPECIES

BYLAW	
Shellfish	Maximum daily limit per person fishing
Paua	Five (5) NOW CHANGED TO TWO (2)

Because the Ministry of Fisheries have now recognised that they had set the Total Allowable Catch for crayfish too high to start with, and have now reduced it to a sustainable level, and because finfish have always maintained a sustainable level in this Area, we request that the following Regulation be made:

FISHERIES REGULATION NOW DELETED

Crayfishing and finfishing will be permitted within Te Waitutu Mataitai.

Because this Mataitai will become recognised as a place where there are paua, and with paua being fished out elsewhere, people who would not normally go to Waitutu, will do so, and the fishery will still be threatened.

These Bylaws for a maximum of five per day and no aggregation are made to address that situation.

BYLAW

Only one days catch is permitted to be taken from the Area at any one time. The aggregation of each day's catch is prohibited.

13.4c *[14.1b]* The Mataitai Tangata Tiaki/Kaitiaki and Advisory Committee will prohibit fishing competitions within the Mataitai.

13.4d Special permit activities that will provide valuable research information to the Mataitai Tangata Tiaki/Kaitiaki and Advisory Committee will be looked upon favourably. Commercially orientated special permits will not be supported.

13.4e The Mataitai Tangata Tiaki/Kaitiaki and Advisory Committee will support research and monitoring within the Mataitai that provides baseline information upon which to make sound decisions or where it promotes the protection of mahinga kai sites, biodiversity and mahinga kai species within Te Waitutu Mataitai.

Office of Hon Nathan Guy

MP for Otaki

Minister for Primary Industries

Minister for Racing

Min14-0932

22 JUN 2015

Nicholas Graham Metzger

s 9(2)(a) [redacted]

Tēnā koe Nicholas Graham Metzger

Thank you for your correspondence of 18 May 2015 regarding your proposed bylaw for the Waitutu Mataitai Reserve.

I have forwarded your letter to Ministry for Primary Industries staff for evaluation against the criteria of the Fisheries (South Island Customary Fishing) Regulations 1999, and will be in a position to let you know my decision within forty working days from 21 May 2015.

Nāku noa, nā

Nathan Guy

Hon Nathan Guy
Minister for Primary Industries

Office of Hon Nathan Guy

MP for Otaki
Minister for Primary Industries
Minister for Racing

B14-621

11 SEP 2015

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

Tēnā koe, Graeme Metzger

I am pleased to inform you that I have approved the following bylaw for the Waitutu Mātaitai Reserve:

> **Pāua Fishing prohibited in the Waitutu Mātaitai Reserve**
> Prohibition on taking of pāua (*Haliotis iris & H.australis)* - No person may, on any day–
>
> (a) take any pāua from the Waitutu Mātaitai Reserve.

The bylaw will take effect from the date specified in the approved bylaw to be published in the *New Zealand Gazette*.

Nāku noa, nā

Nathan Guy

Hon Nathan Guy
Minister for Primary Industries

Private Bag 18041, Parliament Buildings, Wellington 6160, New Zealand. Telephone 64 4 817 6821 Facsimile 64 4 817 6521

deepwater group

COMMITTED TO
HEALTHY OCEANS
SUSTAINABLE FISHERIES

14 December 2015

Andrew Hill
2015 Fisheries Management
Ministry for Primary Industries
P O Box 2526
Wellington 6140

By email to: fisheries.review@mpi.govt.nz

Dear Andy

Submission on the Operational Review of New Zealand's Fisheries Management Framework

Introduction

1. Deepwater Group Ltd (DWG) is a non-profit organisation established by the owners of quota in New Zealand's deepwater fisheries to deliver their vision that New Zealand is recognised as having the best managed deepwater fisheries in the world.

2. DWG's mission is to optimise the sustainable economic value of New Zealand's deepwater fisheries, based on the best available science.

3. DWG shareholders collectively own 91% of the quota for the fisheries for: black cardinal fish, English mackerel, frostfish, hake, hoki, jack mackerel, ling, orange roughy, oreo, scampi, silver warehou, southern blue whiting, scampi, squid, and white warehou.

4. DWG shareholders want their customers to think preferentially of New Zealand when they think of the best choice in seafood. Their customers will buy New Zealand seafood with confidence knowing that it is safe, nutritious, natural, and it is the sustainable food choice.

5. DWG welcomes the opportunity to submit in support of this Operational Review of the Fisheries Act 1996 and values the opportunity to contribute to the future proofing of New Zealand's fisheries management framework.

6. Deepwater quota owners recognise and support the Government's Business Growth Agenda, and the aspirational goal of doubling primary sector export revenues by 2025. Recognising that the known deepwater fisheries are unlikely to provide significant additional growth by volume, the increased revenues will need to come from increased product values. DWG and quota owners are actively pursuing opportunities to create further value through optimising management, ensuring New Zealand's deepwater seafood is recognised as meeting the highest international standards and meeting the needs of niche export markets.

Summary Statement

7. Fundamental to our submission is the strong belief that the New Zealand fisheries management framework as it relates to the deepwater fisheries – the legislative structure and the regulatory base – is neither broken nor is it in need of fundamental reform. However, it is now timely to update some of the provisions in order to further improve the performance and effectiveness of New Zealand's world leading fisheries management

practices and to enable quota owners to further improve the value from these national resources.

8. DWG supports Fisheries Inshore New Zealand's submission that the purpose, the principles, and the sustainability measures of the Fisheries Act 1996 (the Act) (i.e. the provisions in Parts Two and Three) "*have provided, currently provide, and will continue to provide an effective framework for the sustainable utilisation of New Zealand's fish stocks and protection of the aquatic environment. No substantive change is required to those provisions to future proof the framework to ensure sustainable fishing. The use of the maximum sustainable yield and related proxies remains a leading edge management tool for fisheries management. Stock monitoring and any proposals to adjust sustainability measures, contain analyses to address impacts on associated stocks and place the sustainability decisions in the context of the wider aquatic environment. New Zealand's fisheries management framework has evolved to take the wider the ecosystem into account".*

9. DWG considers that the performance of New Zealand's fisheries could be greatly improved with minor changes to the Act and with a fundamental reform to improve many of the operational processes by both government and industry that give effect to the Act.

10. DWG supports and endorses the core seafood industry submission co-ordinated by Seafood New Zealand entitled *"Initial Seafood Industry Contribution to Fisheries Management Review 2015-16: Creating Value 'Beyond Sustainability'"*.

11. DWG shareholders support the introduction of enabling provisions into the Act that recognise the variety of fisheries and that provide for more flexibility for quota owners (and others) to optimise the value from, and to further enhance the sustainable utilisation of, New Zealand's fisheries resources.

12. DWG acknowledges the strengths and achievements of the formal partnership in place between the Ministry for Primary Industries (MPI) and DWG. This relationship has enabled enhanced fisheries management outcomes by combining the knowledge, vision and expertise of the private and public commercial sectors at both strategic and operational levels. It is now time to move this to the next more effective level that will unlock further value from our fisheries, not just for the commercial sector but for all those that value our fisheries resources.

13. The purpose of this submission is to expand upon the content in the core seafood industry submission and to provide successful examples and outcomes of collaborative actions between deepwater quota owners, in conjunction with MPI.

Creating value for New Zealand that is 'Beyond Sustainability'

14. Quota owners in the deepwater fisheries (and now throughout industry in general) have organised themselves to act collectively, to operate responsibly, and to deliver strategic outcomes through the development and implementation of effective management schemes within the Quota Management System (QMS) framework.

15. These measure include the direct purchase of science and research, the commissioning of Management Strategy Evaluations (MSEs upon which management actions are based), and the lifting of the performance of selected fisheries to meet the standards required by the world's best independent certification schemes for sustainability (e.g. Marine Stewardship Council and Friends of the Sea). We offer these as examples of activities already successfully in place in support of a move to enable statutory provisions for the 'Approved' and 'Authorised' management approaches outlined in the core seafood industry submission.

16. Quota owners are incentivised to invest in New Zealand's fisheries beyond the requirements of 'sustainable utilisation' as required by the Act in order to optimise the value from these resources. DWG shareholders have collectively agreed to directly invest in their own research, science, management, and data collection. DWG shareholders have gone 'Beyond Sustainability' (i.e. beyond the requirements of the Act) to also satisfy market requirements for traceability and third-party certification. These markets require proof that our seafood is from New Zealand, safe, nutritious, natural and sustainable. Providing these customer assurances is becoming increasingly important in order to secure and to maintain high value niche market positions.

17. It's not enough to simply tell people that New Zealand's fisheries are sustainable. We need third-party validation of our provenance and of our sustainability credentials to obtain recognition through assessing our fisheries performances against the highest international standards. DWG shareholders recognise the value that this adds to their businesses.

18. The key benefits that DWG shareholders seek from third-party validation are:

    - Independent and objective science-based assessment;
    - Transparent processes, open to wide scrutiny and review;
    - Our fisheries performance being more broadly assessed than under the Act. Assessments against recognised international best practice standards include stock sustainability, environmental interactions, ecosystems, management and governance;
    - Our consumers can buy New Zealand seafood with confidence that it is independently assured to meet internationally-recognised sustainability standards; and
    - It enhances our social license to operate.

19. The Marine Stewardship Council (MSC) is internationally recognised as the most robust independent scientific standards for sustainable fishing. DWG quota owners have selected this programme as the best external review of our fisheries' performance.

20. DWG shareholders have collectively implemented a Fisheries Certification Programme that will progressively improve the management performance of each of New Zealand's main deepwater fisheries to a level that meets or exceeds the MSC standards.[1]

21. To date, 74% of New Zealand's main deepwater fisheries are either certified or undergoing assessment. Fisheries Improvement Plans (FIPs) are either in place or in preparation for the other fisheries to progress these towards certification assessment.

22. Assessing a fishery against the MSC standards is a rigorous, long and expensive process. The information requirements are more onerous than those required under the Act. DWG shareholders have directly invested $2.9 m since 2006, in addition to government levies, to purchase new science, analyses and assessments to meet the information and performance requirements required to gain MSC certification.

"Value is further enhanced when management is more enabling"

23. Section 2 (v) of the core seafood industry submission provides examples of successful alternative management arrangements that are more enabling of quota owners, including:

    - ***Collaborative fisheries management arrangements***;
    - ***Industry non-regulatory management measures***; and
    - ***Direct purchase of additional monitoring and research***.

[1] www.deepwatergroup.org/certification/

24. In the deepwater fisheries each of these three arrangements have been successfully implemented and these are outlined in the sections below. The delivery of these successful outcomes supports the view that quota owners can deliver under an 'Authorised Management' approach, as is proposed to be enacted through statute and as will enable further innovation, enhancement and value creation.

25. These successes have largely arisen through the visions and energies of the individuals involved. DWG shareholders now seek clarity and certainty of the fisheries management processes in New Zealand, and ask that these successes be formally enshrined into legislation and into the operational processes that give effect to the Act (by both government and industry) to take New Zealand's management framework 'beyond personalities'.

Collaborative fisheries management arrangements

26. Deepwater quota owners have acted collaboratively since 1991-92 (when ORH3B quota owners formed the Exploratory Fishing Company (ORH3B) Ltd) to provide additional scientific research, to develop new fisheries in unexplored areas and to collectively optimise the management of this large QMA. The consequent improvement in fisheries management measures led to an agreement with the Minister of Fisheries in 1992 to manage ORH3B as multiple fish stocks in designated sub-areas with separate catch limits within the overall TACC.

27. In 1994 quota owners extended the activities of the Company to cover all orange roughy and oreo fisheries (excluding ORH1) and renamed it the Orange Roughy Management Company (ORMC). The objective of the ORMC was to maximise the value of New Zealand's EEZ fisheries through improved research, management in co-operation with the government.

28. Subsequent to the successes in orange roughy fisheries, deepwater quota owners formed two further collaborative entities: The Hoki Fisheries Management Company Ltd (HFMC) and the Squid Management Company Ltd (SMC).

29. In 2005, given the commonality of interests amongst the shareholders of ORMC, HFMC and SMC, these three companies were consolidated into a single entity, DWG.

30. The QMS provides both the platform and the incentives for industry self-governance. With quota ownership comes both rights and responsibilities – the rights to annually harvest a share of the sustainable yield and the responsibility to do so sustainably. The QMS has removed competitive fishing and allowed quota owners to adjust their species mixes, fleet composition, and harvest plans to provide consistent year-round supply of high quality product. DWG's leadership has brought about further improvements through cost reductions, better stock management and co-operative actions.

31. Agreements between DWG, quota owners, the government, and the Minister have resulted in non-regulatory management controls, implemented by agreement between quota owners, which include:

    - Closing areas to fishing;
    - Establishing and maintaining sub-areas and associated catch limits within large Quota Management Areas (QMA);
    - Voluntarily reducing catches through the setting aside of quota by 'shelving' (including at times fisheries closures);

- Managing catches within discrete spatial areas (e.g. from specified topographic features such as seamounts, hills or knolls and within exploratory fishery sub-areas where science-based stock assessment information was lacking); and
- Supporting or promoting TACC changes based on the best available scientific information. In some instances, this has included setting catch limits more conservatively than the consensus recommendations of scientists (e.g. for HOK1 and ORH3B).

32. Another successful outcome of this collaborative approach is the Benthic Protection Area (BPA) network, which was conceived and promoted by deepwater quota owners as a measure to address uncertainties about the environmental impacts of bottom trawling and to enable the ongoing sustainable utilisation of deepwater fisheries. The government accepted the challenge and implemented these marine protected areas in the EEZ through regulations under the Act. The BPA network, along with the 'Seamount' Closures, serves to protect the benthic biodiversity of 31% of New Zealand's EEZ and is acknowledged for its global contribution to marine protection by the IUCN.[2] The recognition and maintenance of the integrity of the BPA network by successive governments in turn sends positive signals to the seafood industry that industry initiatives to manage the environmental impacts of fishing are a valued component of New Zealand's fisheries management regime.

33. Quota owners acknowledge that their best interests are served through the collaborative stewardship of New Zealand's marine natural capital. The success and continuation of DWG is clear recognition of this.

Industry non-regulatory management measures

34. An example of non-regulatory management measures is the ORH3B designated sub-areas successfully implemented through industry-agreed collaborative arrangements.

35. Prior to 1992, government management of the ORH3B QMA was as a single stock with the research focused on a relatively small area on the Northeast Chatham Rise. The industry was of the view that there are multiple spawning sites and stocks on the Chatham Rise and elsewhere within the ORH3B QMA, and that management within ORH3B should be based on multiple discrete fisheries stocks.

36. At this time, the stock assessments were dependent upon survey information from the Northeast Chatham Rise. These estimated the entire ORH£B stock size to be declining under the catches of 13,000 – 20,000 t and estimated the annual sustainable catch to be in the order of 6,000 t. The recommendation was to reduce the TACC for the entire ORH3B from 23,787 t to around 6,000 - 8,000 t. Quota owners responded by agreeing to cease fishing altogether within this sub-area to promote stock size rebuilding and to spread catches into other areas within the large ORH3B QMA and within a TACC larger than 8,000 t.

37. To bring this into effect, ORMC reached an agreement with the Minister of Fisheries to establish six designated sub-areas within the ORH3B QMA (i.e. Northwest Chatham Rise, Northeast Chatham Rise, South Chatham Rise, Arrow Plateau, Puysegur, and Sub-Antarctic). These designated sub-areas and their associated catch limits have been managed by agreement within industry, in consultation with the government and the Minister. At the commencement of each fishing year, quota owners partition their ORH3B Annual Catch Entitlements (ACE) into the separate sub-areas. Quota owners trade ACE (which attract differential prices, dependent upon catchability) and provide monthly reports

[2] www.protectplanetocean.org

to DWG and MPI on catches by sub-area. In effect, industry has created and operates a second tier non-regulatory quota management system within the regulated QMS.

38. Since this time, designated sub-areas and catch limits have been successfully implemented by quota owners within the QMAs for ORH1, ORH2A, OEO1, and HOK1.

39. The DWG has established clear and agreed Operational Procedures for each of these fisheries that specify the agreed management measures. These are reviewed annually to ensure they remain effective and provide for the enhanced sustainable utilisation of these fisheries resources.

40. In some areas, where populations have been assessed to be below management targets, quota owners have set catch limits at zero to maximise the stock size rebuild rates. This rebuild strategy has been successful in ORH3B East and South Chatham Rise and in ORH3B Northwest Chatham Rise, both of which have now rebuilt to within the management target range and have now been reopened. The ORH3B Puysegur fishery was closed by quota owners in 1997 and remains closed. The rebuild is being monitored closely by industry and a stock assessment is scheduled during 2016 with a view towards reopening the fishery if the science supports this.

41. Since 1992, a portion of the ORH3B TACC has also been set aside each year by quota owners to cover research survey catches.

42. Another example of successful non-regulatory measures are the management targets and harvest control rules that have been implemented by quota owners which are more conservative than required under the Act.

43. The Act requires that *"The Minister shall set a total allowable catch that…maintains the stock at or above a level that can produce the maximum sustainable yield."*

44. Deepwater quota owners have been progressively assessing the appropriateness of the existing management reference points through the use of Management Strategy Evaluations (MSEs), based on the current stock assessments. In doing so, quota owners have asked for these evaluations to not simply focus on biological considerations but to also take into account economic, operational and research considerations, including optimising catch rates, fish sizes in catches, and providing for stability of yields over time. These analyses have resulted in management target ranges being implemented that will maintain stock sizes well above the level that can produce MSY.

45. The table below itemises the deterministic MSY levels assessed for each of the hoki, orange roughy, and southern blue whiting fisheries for which MSEs have been completed, the management target ranges, and the current status of each stock, which are all managed well above B_{MSY}.

Table 1 Management targets, deterministic MSY and stock status for those stocks that have had MSEs completed

Stock	Year of Assessment	Management Targets	B_{MSY} (%B_0)	Stock Status (%B_0)
HOK1 East	2015	35-50	26	51
HOK1 West	2015	35-50	25	50
Mid East Coast (ORH2A South, 2B & 3A)	2014	30-50	25	14
ORH3B Northwest Chatham Rise	2014	30-50	25	37
ORH3B East & South Chatham Rise	2014	30-50	25	30
ORH7A	2014	30-50	25	42
SBW6I	2014	40	18	≥50

46. Further, in order to meet the rigorous requirements of the MSC standards, quota owners, with the support of MPI, have implemented Management Targets and Harvest Control Rules that are more conservative than would otherwise be required by MPI's Harvest Strategy Standard. Accordingly, quota owners have agreed to maintain stocks at higher levels and to adopt more conservative management regimes than those required by the Act.

47. The Minister for Primary Industries relies on the effectiveness of both regulatory and non-regulatory measures to ensure the sustainable management of these deepwater fisheries.

Direct-purchase of additional monitoring and research

48. Quota-based management of fisheries is information intensive. Collection of biological data from the deepwater fleet has become an important component in the scientific assessment and management of these fisheries.

49. Deepwater quota owners have collectively invested heavily in science and information, in addition to that required by the government. This need has arisen because the government's research priorities and requirements are not always well-aligned with the management needs. It is in the interests of quota owners to ensure relevant and robust scientific information is available to inform management decisions, especially when this concerns the sustainable yields from stocks, as this forms the basis for making critical economic decisions.

50. Over the period 2006-07 to 2014-15 government levies across deepwater fish stocks have totalled $175 m, an average of $19.5 m/year. During this period, in addition to government levies, deepwater quota owners have invested a further $19 m in science, research and management, an average of $2 m/year.

51. The integration of industry's research and management strategy is best illustrated by developments in New Zealand's orange roughy fisheries.

52. Orange roughy quota owners have a long history of collaborative work to improve the sustainable management of New Zealand's orange roughy fisheries and to enhance quota value. In addition to the research, science and information required by government to provide for sustainable utilisation (for which quota owners have been levied ~$100 m during the period 1984-85 to 2014-15), industry has invested an additional $31 m in order to secure the certainty that key orange roughy fisheries not only meet New Zealand's standards but also meet the more rigorous and higher standards demanded by MSC.

53. There has been a clear transition from government-only to industry-and-government and now increasingly to industry-only purchased research. Over this time, the cost per tonne of orange roughy quota for government research and management has been relatively flat while the direct investment by quota owners into research, science, and management has increased (see Figure 1).

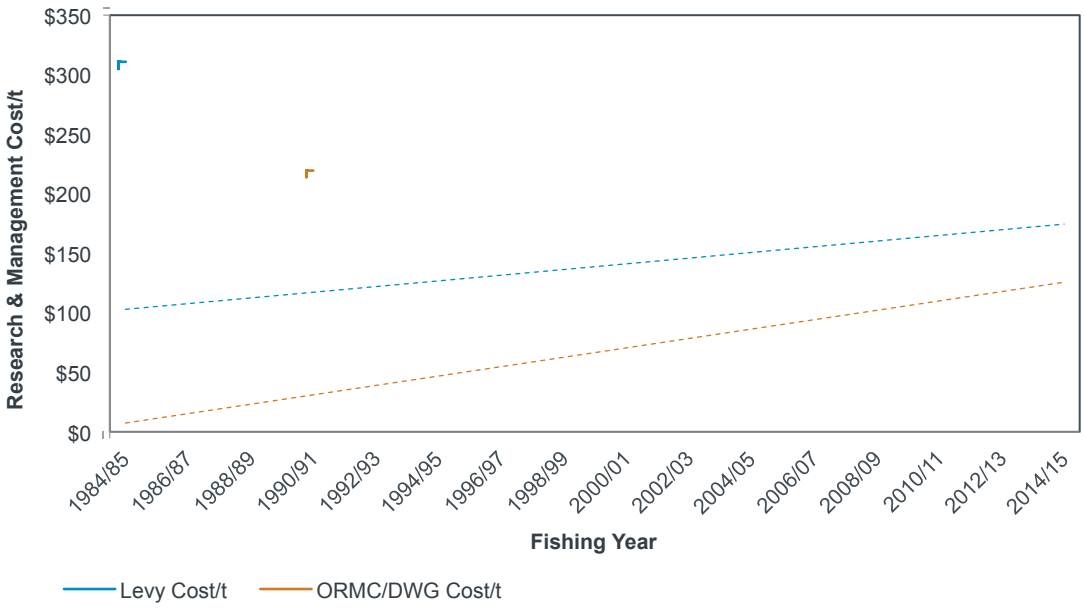


Figure 1 Government levies and industry research and management costs per tonne of orange roughy quota

54. In the direct purchase of science, quota owners recognise the need for all research to be independent and to be peer reviewed. Contracts for industry purchased science specify that research results must meet MPI's Research and Science Information Standard for New Zealand and be assessed through MPI's science working group and plenary peer review processes.

55. The Chatham Rise fishery initially focused on spawning aggregations of orange roughy between June and August. By 1992, this fishery was assessed to be below the management target and quota owners' response was to close the area known as the "Spawn Box" to fishing and to support further research to more precisely determine the stock size.

56. The "Spawn Box" closure from 1992-93 to 1994-95 resulted in the development of new fisheries within eastern and southern parts of ORH3B, a move to year-round fishing and a reduced dependency on fishing spawning aggregations.

57. A research trawl survey of the "Spawn Box" in 1994, undertaken by the Ministry of Fisheries, provided a higher estimate of current biomass than the previous surveys, but with greater uncertainty. Industry expressed concerns about the merits of using demersal trawl surveys to estimate ornage roughy biomass here, as the spawning aggregations occur in "plumes" which rise up to 200 m into the mid-water. The 1994 survey highlighted the inadequacy of this method for assessing aggregations of orange roughy and trawl surveys were discontinued in this fishery.

58. Quota owners challenged scientists to develop more effective survey methods, including the use of acoustic techniques. Industry contracted Australia's Commonwealth Science and Industrial Research Organisation (CSIRO) to undertake an acoustic survey of orange roughy on the Chatham Rise in 1998. Subsequent to the success of this survey, industry has undertaken a time-series of acoustic surveys here (between 2002 and 2010), and the government has since continued this work (2011 to the present time).

59. Most recently, a collaborative project between CSIRO and Sealord Group Ltd has seen the development of a multi-frequency Acoustic Optical System (AOS), specifically optimised to

survey orange roughy biomass and to be deployed from a vessel of opportunity on the headline of a trawl net.

60. This multi-frequency system can operate down to depths of at least 1,000 metres and can distinguish between fish with gas-filled swim bladders (e.g. oreos and Johnson's cod) and those without (e.g. orange roughy), which is a world first. More recently the research partnership has developed and deployed the ability for real-time video and acoustic linkage from 1,000 metres for viewing on-board the survey vessel. This partnership with CSIRO has seen benefits for both New Zealand and Australia, including being able to count orange roughy numbers with better certainty, which has been essential to progressing New Zealand's main orange roughy fisheries towards MSC certification.

Enabling Success

61. Deepwater quota owners, through cooperative arrangements have successfully transformed formerly competitive companies into a sophisticated, co-operative group that actively participates in science, policy and management decisions.

62. Several factors have made this cooperative approach possible, including:

- Leadership by quota owners who recognise the improved business environment under the QMS and the value of going 'beyond sustainability';
- Fisheries focused on high value, high demand products; and
- Fisheries requiring close management and facing information challenges.

63. Industry leadership and participation in the management of these deepwater fisheries has contributed to the international recognition of the success of the New Zealand QMS.

Conclusion

64. Hilborn, Orensanz and Parma (2005) observe that:

"the key to successful management of marine resources is the establishment of appropriate institutions for governance that include a reward system, so that the individual welfare of fisherman, managers and scientists is maximized by actions that contribute to a societally desirable outcome."[3]

65. Deepwater quota owners, through their collaborative entity DWG, have a long-standing and proven track record of leadership in innovative science and management that has delivered value beyond the government's requirements for sustainable outcomes.

66. These successes have largely arisen through the vision and energies of the individuals involved. DWG shareholders now seek clarity and certainty of the fisheries management processes in New Zealand, and ask that these successes be formally enshrined into legislation and into the operational processes that give effect to the Act (by both government and industry) to take the management framework 'beyond personalities'.

67. Deepwater quota owners, through DWG, are already largely self-governing but an 'Authorised Management' approach, as proposed by the seafood industry, will formalise this, provide certainty and clarity of the roles and the responsibilities of those involved, and provide a governance model that will provide the *"societally desirable outcome[s]"* that Hilborn, Oresanz and Parma suggest.

[3] Hilborn, R. Orensanz, J.M. & Parma, A. (2005) Institutions, incentives and the future of fisheries. Philosophical Transactions of the Royal Society Biological 360: 47-57.

68. In our view, this will be an essential part to unlocking the value required to meet the aspirational goals of the Government's Business Growth Agenda and to provide quota owners with the certainty and the flexibility to respond to current and emerging challenges.

Regards

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Fisheries Management Review 2015

8 December 2015

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Responses from the Environment and Conservation Organisations of NZ, ECO.

Introduction to ECO

ECO is an organization of organisations with a concern for the environment and for conservation, sustainable management and that the "voice" of the environment is heard. Established by resolution of diverse organisations in 1971, ECO has followed fisheries management in New Zealand and elsewhere for many decades.

Our interest began prior to the revision of fisheries management in the early 1980s and the trials of 1983, and then the legal establishment of the Quota Management System, and the revisions of the Fisheries Act that led to the 1996 Fisheries Act. We have watched the evolution of fisheries management institutions and law, our members continue to express concern about New Zealand Fisheries Management. Within our ranks we have a fisheries management, policy and economics expert and an expert who tracks fisheries management, by-catch and fisheries stocks.

Our Comments are in blue below.

How can the fisheries management system best ensure sustainability?

What is sustainable fishing?
Fishing in a sustainable way means:
- making sure that enough of the fish population remains to breed in the future;
- not destroying the marine habitats essential for spawning, migration and feeding.

Ensuring the sustainability of New Zealand's fisheries is the fundamental principle of the fisheries management system. It's in the legislation that MPI administers.

> "...ensuring sustainability means -
> - maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and
> - avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment".
>
> - Fisheries Act, 1996

We do not agree with your interpretation of the meaning of "ensuring sustainability" as presented in the Purpose of the Act. You have changed the language from "ensuring sustainability" to "fishing sustainably".

Your interpretation needs to have some discussion of what are the "reasonably foreseeable needs of future generations". In our view this will include non-extractive uses. These include keeping fish in the ecosystem for their ecosystem functions and services, passive use, bequest value, and existence value. Non-extractive uses also include using fish for non-extractive direct observation and simply appreciation of the existence of the fish (existence value).

The needs of future generations can and should be anticipated – as required by the Purpose of the Act: which should be central to the Ministry's administration of the Act. There are scholars and others who have thought carefully about such needs of future generations and the principles that should inform our understanding of these. For instance Edith Brown Weiss and many others emphasise that decisions with significant irreversible consequences should not be taken. Fairness of access and burden between this and other generations should be maintained. Ensuring that future generation's can exercise their own choices and preferences – subject to the constraints to allow others to do the same, is a third objective.

In our view the New Zealand fisheries management has got stuck for decades in the view of fisheries as simply something to extract, where the only consideration is very high harvests with limits well below what the ecosystem functions require, excessive consideration of commercial industrial fishing interests, insufficient recognition of the importance of recreational, snorkelling and other observational and non-extractive value from fish, and insufficient consideration of ecosystem interactions.

New Zealand fisheries management in our view could be much improved by a shift to Ecosystem Based Management, EBM. This is best practice internationally, and has been widely adopted in modern international fisheries management agreements and national management. New Zealand lags behind on this. Internationally CCAMLR is well in front of New Zealand domestic fisheries management.

The second part of the definition of "ensuring sustainability" is this:

- avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment".

The New Zealand fisheries management system has not taken this seriously, despite the Section 5 obligations including the reference to international obligations and the Section 9 Environmental Principles.

We acknowledge that there has been work to limit seabird deaths, and some work to avoid marine mammal deaths and to report by-catch. There is much more to be done.

There is nothing in the current system to regulate or to incentivise reduction of impacts on the benthos, on most invertebrates or to genuinely do environmental impact, or strategic impact assessments, or ecosystem based management. The current Act would permit such an approach, but the successive ministries have not taken this up.

The measures to protect Maui and Hector's dolphins are notably inadequate and MFish, now MPI, has opposed effective measures – and exposed New Zealand to serious international opprobrium in the process. This was especially evident in the New Zealand "no" vote against the IUCN Resolution at the 2012 World Conservation Congress relating to the protection of small cetaceans. Many other countries were the subject of that resolution – only New Zealand voted against it.

Are we fishing sustainably?

You announce that the answer to this is "Yes". We disagree.

The Ministry in announcing the answer is "yes" sidelines a central question from the Review. The Ministry's line that:

"Our fisheries management system is considered world-leading and scientific assessments show that overall our fisheries are sustainable."

- is a much used statement and much parodied line that has been the main PR line from successive fisheries managers and Ministers of Fisheries. We know that one of the most cited studies [Worm, Hilborn, Mace et al] used just 29 of the QMS stocks and explicitly excluded the orange roughy stocks from the analysis. This exclusion of consideration of the stocks of one of the most long lived and commercially exploited species with several stocks that have been decimated, and that are fished unsustainably by trawling inevitably influenced the outcome of that study. The Ministry and successive ministers have for many years spread about the myth of sustainability while not in fact considering in any substantive way ecosystem impacts. The client-driven Marine Stewardship Council assessments have reinforced this mythology, with subsidies and PR for this process provided by the government. Only those who are close to fisheries management know the shams and flaws behind this.

For example, CCAMLR and Australia applies higher levels for stocks than the current voluntary stocks standards.

Local communities and international markets are taking a growing interest in the environmental impacts of fishing. Expectations of what a fisheries management regime can and should deliver, including resource sustainability and product traceability, are increasing.

New Zealand's fisheries management system must be able to respond.

We agree, and welcome any attempt to do this truthfully and without the use of government subsidised PR and other spin.

How to ensure resource sustainability into the future

Building on this track record of sustainable fisheries management is essential to future-proofing our fisheries. How do we do this?

1 Change the Act, the management ethos, and the industry approach to Ecosystem Based Management, to implement (as required by the UN Fish Stocks Agreement);
2 Recognise the non-extractive values of fish;
3 Implement the Precautionary Principle and change S 10 of the Act to ensure this is required;
4 Recognise the greater economic benefits into the long term of fisheries management for healthy ecosystems, catch limits that maintain the harvest well above MSY, and that limit the high discount rates of fishers.
5 Set higher bottom lines for fish stocks – CCAMLR approach of 75%Bo for prey species and 50%Bo for predator species.
6 Develop and apply benthic impact assessment standards for NZ – high seas management (eg CCAMLR and SPRFMO) is in advance of NZ approach within zone.

7 Protect biodiversity (in all its forms) from fisheries impacts including benthic species, marine mammals and seabirds.
8 Avoiding, then remedying, then mitigating the effects of fishing on the marine environment.
9 Support establishment of comprehensive and representative system of marine reserves throughout the, Territorial Sea, EEZ and continental shelf.
10 Reduce risks including those from climate change and ocean acidification.
11 Establish Taiapure and mataitai reserves, and implementing customary fishing arrangements.

What aspects of New Zealand's current fisheries management system work well to ensure sustainability?

1 Some of the fisheries stock assessment and peer review of the science, and the reporting on this.
2 The fact that catch limits in TAC and TACC are set – the problem is that these are set without genuine or matching consideration of ecosystem interactions, predatory prey relationships (hence the kina barrens, for instance).
3 That the Act does allow for harvest limits that leave the stock greater than Bmsy.

What aspects of New Zealand's current fisheries management system do not work well to ensure sustainability?

1 The Ministry has never taken this seriously.
2 The institutionalized disregard for environmental considerations this includes the failure to implement the Strategy for Managing the Environmental Effects of Fishing.
3 The lack of a true precautionary Principle in S 10 which matches the requirements of the UN Fish Stocks Agreement and modern understanding that this is precaution in favour of the environment.
4 The failure to provide more than fragmentary ecosystem based consideration of and incentives to "avoid any adverse effects of fishing on the environment". Changed practices and fishing methods are needed. This means official controls on and consideration of methods of fishing, with regulatory controls to limit damage and incentivize better methods, particularly consideration of impacts of fishing on the invertebrate organisms, ecosystems and biodiversity and the benthos.
5 There is a glaring difference in the rigour of the stock assessment science to all other aspects of decision making. Management lacks the transparency, rigour and scrutiny that is applied to the science. Fisheries Managers need to ensure they attend the working groups and plenary sessions of the science.
6 We have observed fisheries managers and the industry actively suppressing scientists from explaining what the impacts of management choices may be.
7 There is significant capture of fisheries management, and increasingly of the science by the fishing industry.
8 The "revolving door" between the Ministry and the Industry, the Special Interest Effect, and direct industry pressure has resulted in endemic and reinforcing industry capture of the Ministry, to the point that those of us who consider the future-regarding, ecosystem based management and compliance with international law important are marginalized and considered to be irrelevant nuisances. In turn, many in the environment sector have given up on the fisheries managers and have instead turned to

other strategies such as public messaging and discussion with consumers and those in the supply line.

9 Within the Ministry and the industry there is a notable lack of appreciation that the job of fisheries management is for the whole of society, for the future and for the ecosystem, not solely for the industry. This bias is now so pervasive that many in the fisheries section of the Ministry and industry look askance at the assertion that non-fisher interests should be considered. We see this illustrated in the list at the end of this questionnaire: non-fishers are all consigned to "other", with no recognition even of the parties that are listed in section 12 such as Maori who care about the environment, environmental groups, local communities and many more. Such a list as that in the questionnaire sends powerful messages about the lack of legitimacy of the "others" and the lack of interest by the Ministry in these others.

As similar bias is displayed by the Ministry dubbing during Warwick Tuck's management of the environmental and future regarding elements of the Act as "the religious bits", and the Ministry's language that there are "rights holders" and "stakeholders" or "others".

Until the Ministry addresses this bias to the industry and to extraction, and against environmental concerns, we will never have well functioning fisheries management.

10 The lack of spatial management and careful environmental assessment.

11 The opposition from the Ministry and fishers to closures of access to fishing – a failure to understand that closures and regeneration of ecosystems and fish stocks will leave us all better off in the longer run.

12 The lack of an ecologically coherent network of genuine protected areas, compliant with IUCN categories I-IV in both the Territorial Sea and in the EEZ. The complicity of the Ministry of Fisheries with the fishing industry in the establishment of the largely bogus Benthic Protected Areas (widely known as Bogus Protected Areas) is an enduring testimony to the bias of the Ministry and has generated lasting distrust of the Ministry in environmental circles. The Ministry has continued to perpetuate this particular misrepresentation as "protected area" and so has misled both the public and the international community.

Unlike almost any other publicly owned resource and domain, the public are not by right involved in fisheries management. Even those included in S12 consultation obligations are often marginalized. Public participation in fisheries management must be provided for.

• What changes (if any) are needed to better ensure fisheries sustainability?

The Ministry needs to work on amendments to the Act, as discussed above, to implement:

a) Ecosystem Based management.
b) The precautionary Principle with specific reference to the purpose of such being to protect native biodiversity the ecosystems and the environment more generally.
c) Catch limits that are set to maintain ecosystem functions, abundance, relationships and resilience to stressors, both human induced and environmental such as climate change, ocean acidification and invasive species.
d) Regulatory and decision rules to provide incentives to consider and to avoid damage from fishing and the adoption of less damaging methods.
e) Public participation.
f) Recognition of the various forms of bias in the Ministry's implementation of the Act and change

the various institutions and culture of the Ministry to reset its objectives to make the interests of society as a whole, the environment and the future predominant.

g) More spatial management.

h) Set higher bottom lines for fish stocks – CCAMLR approach of 75%Bo for prey species and 50%Bo for predator species.

i) Develop and apply benthic impact assessment standards for NZ – high seas management (eg CCAMLR and SPRFMO) is in advance of NZ approach within zone.

j) Protect biodiversity (in all its forms) from fisheries impacts including benthic species, marine mammals and seabirds.

k) Avoiding, then remedying, then mitigating the effects of fishing on the marine environment.

l) Support establishment of comprehensive and representative system of marine reserves throughout the, Territorial Sea, EEZ and continental shelf.

m) Reduce risks including those from climate change and ocean acidification.

• How do you think those changes would affect the cost of fisheries management? Who should cover any additional costs, or benefit if costs are reduced?

The primary impact would be that the changes would reduce the environmental and cultural costs of fisheries management, would improve the location of the costs to those who create them, and would internalize at least some of the costs to the fishers. The benefits from this would be a shift from high discount-driven industrial fishing with low value added and high environmental costs to lower discount rate, better true priced fishing, more attention to the environmental and social and cultural costs. Internalisation of environmental costs and insistence on longer term thinking will allow for far more rational and future-regarding decision making from society's point of view. That will enhance the economic benefits, market and non-market, and remove New Zealand from the various economic irrationalities that the present system fosters.

The "beneficiary pays" principle sometimes advanced is often in fact a perversion of the polluter (or damager pays) principle, in that it becomes an equivalent to saying that if you benefit from the relief of the harm we (fishers) cause to the environment, then you should have to pay for that relief. We do not accept that approach since it amounts to a protection racket where the victims of harms have to pay to have the harm relieved.

New Zealand should though, be paid for the use by the fishing industry of the scarce resource of fish – but that does not mean that the industry should determine the research agenda. Moreover, the industry should not do the research itself because of the many conflicts of interest and moral hazards that then allow the industry to influence what is reported, and the biases within the research.

How can the fisheries management system best deliver benefits for all New Zealanders?

What our fisheries offer

New Zealand has a relatively small land area and a very large marine space. Most people live within easy reach of the coastline.

A diverse range of individuals, groups and organisations have an interest in the management of our fisheries resources, each with their own view of the benefits available from that resource - ecological, cultural, social, and financial to name just a few.

The Fisheries Act 1996 provides a framework for balancing those often competing interests so that all can benefit.

Yes, it does, but the Ministry does not manage fisheries for non-extractive values.

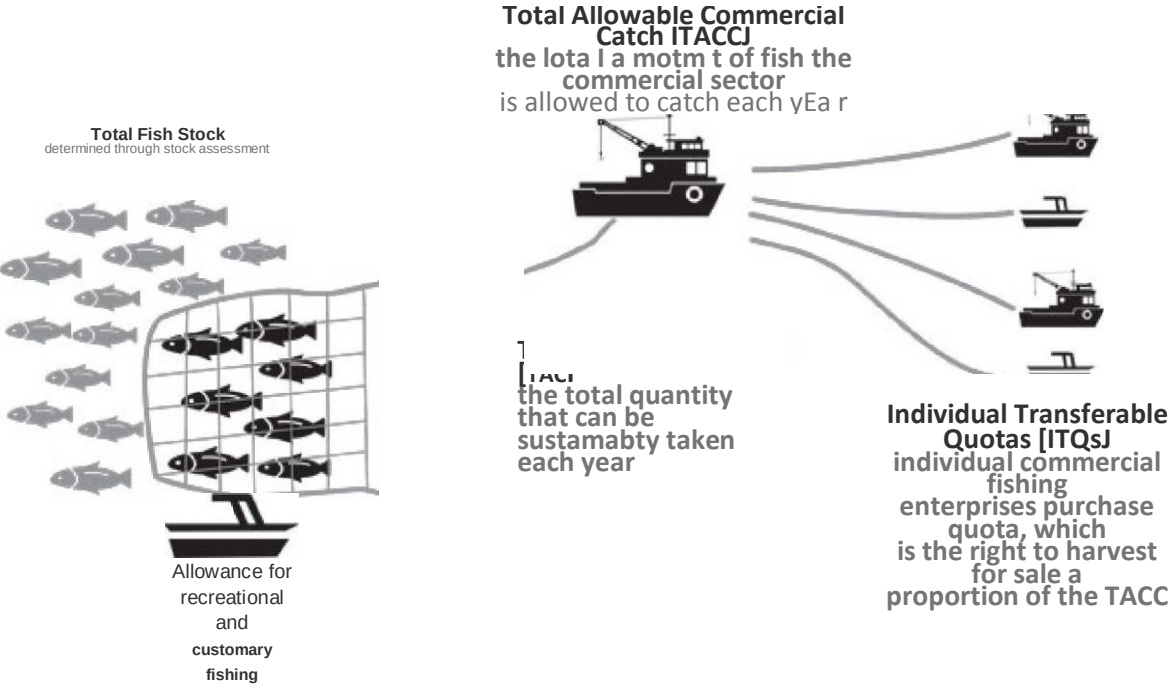
Balancing competing interests

The Fisheries Act requires that a Total Allowable Catch (TAC) limit is set for every fish stock in the Quota Management System (QMS).

Allowances for customary and recreational interests, and other fishing-related mortalities must be considered prior to setting the Total Allowable Commercial Catch (TACC) for each stock.

The QMS then provides for a market based system, quota and annual catch entitlements. These rights encourage best economic use of the commercial sector's share of the resource.

Fig 1: Simplified model of how the Quota Management System allocates fish stock between users



Demands on the fisheries resource

Over the past 30 years, the fisheries management system has come under increasing pressure as different interests seek increased benefits from the same resource.

• What benefits do you think the fisheries management system should deliver?

If the fisheries management system were managed to maintain ecosystem functions, abundance and systems and native biodiversity, with preservation of natural capital systems and the stocks, we would ALL be better off except for those with very high discount rates who want to "mine" the resource over a short period of years and then take the money and invest it elsewhere where the market returns are higher than the returns from the fisheries.

Forbearance now will allow greater total benefits, fewer environmental harms, and greater productivity and economic returns. True costing with internalization of environmental harms will give more economically

efficient outcomes, particularly if all the benefits, including non-market benefits are considered.

The financial benefit to individual companies should NOT be a consideration, instead full costing and pricing with limits to protect the environment and cultural values should be adopted. The test should be net marginal social benefit (including economic, social and cultural considerations), not financial benefits, since fisheries should be managed for the benefit of society, not for those who want just private benefits with externalization of costs to society.

Benefits into the future should include the non-market values, jobs associated with the non-extractive benefits of fishing, the high added value from recreational fishing, the cultural and social values and engagement with Treaty of Waitangi obligations that go beyond simply a share of industrial fishing.

More careful and more multipurpose fisheries management would also provide an "insurance" and resilience to other pressures on the oceans including ocean acidification, temperature rises and the spread of invasive species.

• What aspects of New Zealand's current fisheries management system work well to deliver benefits for all New Zealanders?

Catch limits via the TAC and the TACC, but these need to be set differently, with ecosystem based management.

The export values could be higher if we shifted from industrial fishing to a more value added approach.

• What aspects of New Zealand's current fisheries management system do not work well to deliver benefits for all New Zealanders?

1 The lack of environmentally sustainability;
2 The lack of a precautionary principle;
3 The absence of any resource rental payments to society;
4 The erosion of the cost recovery payments;
5 The exclusion of the public from decision making;
6 The dominance of the industrial fishers and the bias of the Ministry management in their favour.
7 The collusive behaviour within the industry to influence policy and by an oligopoly of large companies who work to disadvantage smaller operators, recreational fishers, and those concerned about the environment.
8 The Ministry allowing high discount rate driven depletion and the lack of insistence on less rapid depletion, more assertive management for recovery, and for ecosystem based management.
9 The role of Maori as mainly just another industrial fishing interest with little attention or involvement in kaitiaki and customary management.

The past system of chartered vessels and incentives on the crew of those vessels has been a major problem for sustainability as well as human rights record on board those vessels. We hope that the new system will be a major improvement but it must ensure that there is access by whistle-blowers to the Ministry.

• What changes (if any) are needed to better ensure the system delivers benefits for all New Zealanders?

How do you think those changes would affect the cost of fisheries management? Who should cover

any additional costs, or benefit if costs are reduced?

1 Ecosystem Based Management
2 Public involvement in fisheries management
3 Much more transparency about Cost recovery for research and management, and decoupling of payments for research and management from control and determination of these by the fishing industry.
4 The introduction of resource rentals with payments to Maori as original owners.
5 Implementation of the deplete and damager pays principles
6 More marine reserves and other genuine protected areas including a network in the EEZ
7 The costs of fisheries management would be located on those who deplete most, damage most and would be internalized.
8 The Crown should pay for the involvement of those who are not motivated by personal or company gain.
9 Prior environmental assessment of new fisheries and regular assessment of the impacts of current fisheries.

How can we ensure decision making processes are effective, efficient, and timely?

Add to your criteria sustainable, fair, future-regarding, and inclusive. Also add resilient to industry capture.

A greater use of a fabric of policies and spatial and marine planning would help to make specific decisions more effective and coherent.

Reference criteria should go beyond simply harvest strategies, set catch limits lower and ensure stocks are viable ecologically as well as for MSY or proxy.

Effectiveness would also be enhanced by greater transparency of management decision making and by ensuring that the large industry players do not exercise excessive influence and control. More involvement of the public would in the short term lead to longer decision making time lines but that would make the decision making fairer and in the long run more efficient.

How decisions are currently made

The Fisheries Act 1996 contains a variety of decision-making functions and powers to ensure resource sustainability and allow for utilisation by customary, recreational and commercial fishers.

This statement you have made is correct but not the whole story. **There is nothing in the Act that limits "utilization" to extractive use. This is thus a mis-statement of the Act,** and fails to allow for non-extractive uses (or for scientific uses). We draw your attention to the issue that it is simply the Ministry's habit to limit the meaning of utilization to extractive uses. We consider that this is incorrect. It is like considering that native forests can only be used for logging – not for biodiversity, for shade, for honey production, cultural and aesthetic appreciation, recreation or any other such non-extractive use. This is such a misconception that is now so old fashioned and unacceptable that we urge the Ministry to re-think its position and take ecosystem functions and all the other services from fisheries resources (widely defined as in the Act) into account, not just fishing for extraction.

Most decisions are made by either the Minister for Primary Industries or the Chief Executive of MPI. Their decisions are informed by consultation with other parties and a range of information, including scientific research. Generally speaking, the Minister sets the parameters on fishing, and the Chief Executive supplies the management services (research, compliance monitoring, enforcement, and administration).

We consider that the Ministry and Minister should remain the final decision makers but to widen their view of the meaning of the Act as to scope of fisheries resources, and also to broaden the consultation, make less of it with industry only and to ensure that there is more local and national engagement and spatial management.

We do not support the idea of "collaborative management" at this stage since that seems to result in protracted processes where the deck of participants is stacked and the outcomes are not consensus and fail to comply with the legal requirements. Moreover, only the very well-resourced can participate.

A Fisheries Council with the right to receive expert advice and with people chosen by the sectors should also be established – see below.

Decision-making must be supported by appropriate checks and balances to manage risk and protect the interests of all New Zealanders.

Agreed, but that is not all. It also must consider future generations' reasonably foreseeable needs, comply with international obligations relating to fishing – including environmental and human rights, sound labour practices and biodiversity protection (E.G. under the Convention on Biodiversity).

• What aspects of New Zealand's current fisheries management decision making processes work well?

The principle of a TACC and a TAC, the ability for the non-Maori allocation to be able to be traded, the restriction on the sale of Maori ITQ to ensure that this is not gobbled up and unavailable to Maori.

The peer review of the science.

While it would be good to know more about recreational fishing, we consider that the transactions costs of forcing the individual recreational fishers to report in real time their catch is likely to be higher than the value of the information. The value of recreational caught fish is when all associated activities are considered, likely to be much higher than industrial fishing.

• What aspects of New Zealand's current fisheries management decision making processes do not work well?

Fisheries managers need to hear the science reports and discussions, the Ministry tends to pay lip-service with stock paragraphs to the matters in Section 9 and 10, the consultation with non-fishers is often cursory. Consultation with the public is not systematic and not legally required.

The exclusion of non-industrial fishers from cost recovery discussions makes this a process where the industry gets to make end runs to knock out projects that they don't like. The cost recovery system needs review to a better model so that projects which maybe undertaken once every so many years can have the costs spread over those years – the failure to undertake regular snapper tagging surveys or the multi-million dollar cuts to deepwater research is one of the Achilles heels of the system.

Management processes that relegate environmental concerns in favour of industry wishes.

The suppression of scientist's views on the implications of management options – we've seen NIWA managers, MPI and the fishers enforce this at meetings.

The spatial dimension of fisheries management is single-stock, fails to engage with competing uses and values, and does not aim for integrated management, even within fisheries and their impacts.

• What changes (if any) are needed to better ensure fisheries decisions are effective, efficient and timely?

As above, fairness, sustainable and accountable are also criteria needed here.

To retain fisheries management decisions with the Crown;
To retain the development of research questions, commissioning of research, and full disclosure of results with the Crown is vital.

Avoidance of the conflicts of interest where the industry designs and commissions and conducts and reports research – which thus requires that they have input to the research questions with others, but do not influence the commissioning of research, the disclosure or non-disclosure of results.

A decoupling of the payments for fisheries management and research from the funding of such. That would lessen the impact and influence of the industry on these sensitive matters. Thus, the industry should fund the work but not influence who does it or what is done beyond the input of other stakeholders.

To set up a fisheries council which includes sector-nominated representatives, not Ministry chosen people, and which has say, 3 environmental reps, three commercial reps, 3 recreational reps, three tangata whenua / hapu reps, and three environmental and resource management specialists who are not advisors to any of these sectors. The fisheries Council should be advised by scientists and other expert professionals.

• How do you think those changes would affect the cost of fisheries management? Who should cover any additional costs, or benefit if costs are reduced?

The costs of the management would likely go up a bit, but the costs of bad decisions would be lessened. Trust in outcomes would be greater. Over fishing and damaging fishing would likely reduce.

Total research and its funding is less than it was 20 years ago and subsequently many answers that could be provided by multi-year trawl, acoustic or other surveys or tagging etc is not taking place. This adds risk to the fisheries and the ecosystem.

What monitoring and enforcement is needed to ensure the fisheries management system operates as it should?

The question is not simply monitoring and enforcement but also compliance. The commercial fishers should have real time VMS and Catch recording and transmission of data; 100% observer coverage of all the big commercial fisheries, untamperable on board and net or line monitoring gear, cameras transmitting in real time what is hauled aboard or discarded at sea. Cameras will not be able to replace the benefits of observers on board vessels – observers can measure and take samples that cameras cannot, and can observe in

areas where cameras cannot see.

It is likely to be unsuccessful and counterproductive to require the recreational sector to do such reporting. It is better in the long run to foster a culture of compliance, catch, photograph and release for sports fishing, limitation of catch as a social norm, and peer pressure on those who flout the rules.

The big differences in types of fishing and fisher motivation within the "recreational" sector is such that a much more nuanced compliance approach is needed. We think it reasonable to ask the recreational charter boats to report catches, but it is likely to be futile to seek to get the other recreational fishers to do so. Part of this is the culture (both of Maori and the various other sectors who do "recreational fishing") since they tend to regard recreational fishing as a matter of freedom and a "merit good" that they deserve as residents and citizens.

The multiple abuses under the QMS are partly on the water with illegal fishing practices, high grading, mislabelling and mis or no reporting and so on, but a good deal of it comes from undue pressure on officials and Ministers by some of the larger companies. There is endemic robbing of the ecosystem such as paua poaching, but the worst is the pressure to allow over fishing in TAC and TACC allocations, the sleights of hand to pretend that there is more forbearance than there is – such as the fake protected areas, the "shelving" of quota allocations to mask that the fish are gone and not available while the finance industry and political observers are misled, and other such dubious practices.

There have been significant changes in observer coverage but there are still significant parts of the industry which have not been observed. At times the accounting processes within the QMS have been so poorly funded that most companies go unaudited or can happily assume that they will not be likely to be audited for 50 years.

Monitoring, compliance and enforcement should extend beyond fish take or fish mortality, to environmental impacts, compliance with area and other closures, species protection and spatial controls. It should also cover human rights and labour practices, fair commercial and consumer practices, and bullying of regulators and others.

Monitoring and enforcement activities

MPI is responsible for administering the Fisheries Act 1996 and its supporting regulations, and takes the lead on monitoring and enforcement of the fisheries management system.

MPI invests heavily in monitoring fishing activity and in encouraging and enforcing compliance with the law. Monitoring and enforcement includes:

- patrols by fishery officers
- monitoring of fishing vessels using satellite technology, aircraft, and patrol boats to ensure their crews follow the rules
- on-board monitoring by MPI observers to record what is caught, including by-catch impact on seabirds, marine mammals, or protected corals
- analysis of fishing trends and patterns to identify future issues, for example, the increase in black-market sales of fish using social media.

MPI monitors fishing over 4 million square kilometres on New Zealand's water and does nearly 30,000 fishing patrols and inspections a year –

Some clarity as to what the 30,000 figure refers to is needed. Is this patrols or inspections? These are different

(if related) activities and we need to know what exactly it refers to. Please let us know what this really covers.

The role of fisheries officers

Fishery officers work across New Zealand in all sectors of fisheries and have the powers to monitor fishing activities and taking enforcement action when non-compliance is detected.

Vital to MPI's work is the support of volunteer honorary fishery officers who have similar powers to full-time fishery officers, including the powers to search, question, and seize.

Honorary fishery officers do about 22,000 inspections each year, detecting over 1,000 breaches of the law. Compliance activities range from education to enforcement - issuing warnings, infringement notices, or prosecution through the Courts.

It is vital to have a robust and agile compliance (monitoring and enforcement) component to support the integrity of the Quota Management System.

What aspects of New Zealand's current fisheries monitoring and enforcement arrangements work well?

It is unclear whether the balance between the numerous but relatively small infractions around the coast and the larger and more sophisticated scams by the commercial fishers is correct. We do know that enforcement in both are underfunded. Some of the compliance work needs to be fostered within the communities involved – including the recreational, cultural and commercial sectors to get changes in social norms and practices (eg from trophy hunting to catch, photograph and release in sports fishing).

• What aspects of New Zealand's current fisheries monitoring and enforcement do not work well?

What changes (if any) are needed to ensure fisheries monitoring and enforcement arrangements are optimal?

The under funding and under provision of observers;
Lack of real-time monitoring and reporting in some aspects of the commercial sector.

More help and protection for whistle-blowers is probably required.

Those close to fishing know of many scams and much sharp practice. It is unclear how much of this information, especially about what is essentially organized crime and informing of perpetrators about the enforcement actions pending from within the ranks of the Ministry is really used or controlled.

We know that there are proposals for real-time reporting by recreational fishers but we think it may work better to work within the sector to change social norms.

Monitoring and reporting on labour conditions and practices needs to be beefed up, which includes allowing whistle-blowing of bad or illegal practices.

• How do you think those changes would affect the cost of fisheries management? Who should cover any additional costs, or benefit if costs are reduced?

There are several aspects here. At the moment the costs are generalized to all with the externalization of

losses and damage. The Crown should fund compliance and enforcement as a core part of fisheries management but a levy on commercial operators should also be made – but decoupled from the control by the industry.

The benefits of improved fisheries and fisheries management are likely to make the costs worthwhile, but the social norm changes wrought by peer-led changes of attitude and culture are likely to be more durable – though will never be complete.

What challenges will New Zealand's fisheries management system need to respond to in future years?

This review aims to build on the foundations of the Quota Management System and the Fisheries Act 1996. The fisheries management system has to be able to respond to current and emerging challenges over the coming decades.

Challenges include:

- New Zealand's marine areas are increasingly busy and likely to become more so over time as our population grows. An increasing number of diverse stakeholder groups share an interest in the management of our fisheries but sometimes compete for the same space or resources.
- Recreational fishers, tangata whenua and local communities are seeking greater involvement in managing local areas.
- Interest in environmental impacts has grown.
- International seafood markets are seeking assurances that seafood products are sustainable and can be traced.
- Fisheries management has become more complex and costly as a growing number of 'one-off' arrangements are established, such as local recreational rules for the Kaikoura marine area. Improving the fishing management system's ability to respond to local interests can place new demands on information, decision-making and compliance systems.
- The effects of global warming and climate change are already measurable. New Zealand's climate and ocean acidity levels are changing.

What challenges do you think New Zealand's fisheries management system will face over the next 20 years?

Climate destabiisation, ocean acidification, ocean current behaviour, location and character changes and freshening are all connected but destabilizing system changes that will put huge pressures on fisheries management in several different ways. Stocks and ecosystems will shift, invasive species may flourish even more, greater risks will face those on the water and at the coastal margins. Protected areas and greater biosecurity control investment will be needed.

One central challenge, already observed in the breach, is that many in the Ministry, the industry and the Parliament misunderstand the nature of the ITQ holder rights. The essence of these are a licence to hunt for a specific tonnage of fish and to transfer that right (but only within the domain allowed, eg within a stocks or not Maori quota to non-Maori). It does not constitute a right to restrict the rights of other users and beneficiaries from using or protecting the marine environment. Various “compensations” and restrictions on others using or protecting the environment or marine space are a result of fictions fostered by the industry. Their right was never an exclusive right. The fisheries management system needs to recognise that and to make that clear.

Ultimately we need an integrated oceans policy and management regime which is capable of moving beyond sectoral silos to ecosystem-based management informed by science and truly sustainable.

The globalization of fishing, the rise of IUU fishing and other illegal practices will continue to require responses.

• What changes (if any) are needed to better enable the fisheries management system to respond to new challenges?

As before, we need to have fishing live up to genuine ecosystem based sustainability.

Fishing also needs a social licence – not something manufactured by yet more Ministry PR and subsidies to get dubious MSC certifications, but the genuine article derived of ecologically sound management, cultural sensitivity, much less of a culture of bullying its opponents within the fishing industry itself, bullying of officials and scientists and environmentalists, and of the local community.

Much more engagement with and advocacy for biosecurity issues, action on climate change, protection of species and marine areas from all the threats to the marine ecosystem on which fisheries and the aquatic environment depend.

A cessation of the licencing to fish where endangered species are concerned: whether this is various fresh water species which have great stress but are still available for ITQs, or corals, or seabirds or marine mammals put at risk of fishing.

Implementation of biodiversity protection measures and closures.

A change to respect and engage with local populations, to reassert the interests of the future and society in the success and integrity of fisheries management;

To rule out commercial fishers controlling the supply or commissioning of fisheries management and research.

To change the culture of the Ministry from seeing itself as the agent for fishers to seeing itself as the agent for society.

To change the Act to implement the Precautionary Principle in favour of the environment;

To implement an information sufficiency requirement (as does CCAMLR) to the effect that if there is no adequate data on the sensitivities of the environment, on the fish stocks and dynamics, the impacts of fishing methods and so on, then there is no fishing.

Payment to Maori of a resource rental for the fish.

Higher payments by the fishing industry for the costs of fisheries research and management but NOT control by the industry of what it is spent on.

Compulsory publicly available in a timely way environmental impact assessments and reports of fishing every 5 years with these also due before any new fishery is opened.

How do you think those changes would affect the cost of fisheries management? Who should cover any additional costs, or benefit if costs are reduced?

These measures would reset the onus of proof, would reset some of the incentives to collect data, to remove some of the more insidious biases, and might reset the Ministry's mind set. These would be beneficial, and would help to internalize now externalised costs.

• If the fisheries management system works well over the coming years, what will the fishery look like in the year

2050? How will your experience of it have changed?

There will be recovering ecosystems, higher biodiversity and fewer new incursions of new invasive species.

The fishing industry and MPI will be working hard to reduce the carbon footprint of the industry and to reduce the energy intensity of fishing. Greater abundance of recovering fish stocks as well as more use of sail and solar power will help to reduce these.

At least 40-50% of the marine area is in a network of protected areas of IUCN's I-IV classifications standing and these are observed because they are recognized as vital to marine ecosystem function, fish stock and biodiversity replenishment, resilience and the social norms have changed about flouting environmental controls.

The Ministry will consult with the public and specialists and will no longer think that somehow concerns about the environment, compliance with international obligations related to fishing and with the needs of future generations is some peculiar aberration.

Fish stocks will be retained or rebuilt to higher stocks size (ie the approach CCAMLR takes to predator and prey fisheries) and fisheries management will be ecosystem based and will regard predator prey relationships, spawning, and ecological relationships as a core part of its work.

The community will be happier with fishing, impacts of fishing will have been limited by a mix of spatial closures, gear, method and practice controls and changes, low value exports of bulk product will be reduced. Threatened species will be recovering.

Tourists and recreationalists who look but do not take will be a significant source of income and pride to sustain communities.

We appreciate your time to provide feedback. If there are any other issues or opportunities you would like to raise, please add below. Finally, a few questions about you
...Which of the following groups/sectors do you belong to? Select all that apply.

O Commercial - deepwater
O Commercial - inshore
O Commercial - shellfish
O Commercial - aquaculture
O Commercial - other
O Recreational - charter vessel operator
O Recreational fisher
O Customary
O Other – Environmental and Conservation Organisations.

In which region do you live?

All of those below.

O Northland (including Whangarei)
O Auckland
O Waikato (including Hamilton and Coromandel)
O Bay of Plenty (including Tauranga and Rotorua)
O Gisborne

O Hawkes Bay (including Napier and Hastings)
O Taranaki (including New Plymouth)
O Manawatu-Wanganui (including Whanganui and Palmerston North)
O Wellington
O Tasman (including Takaka, Motueka, and Mapua)
O Nelson
O Marlborough (including Picton and Blenheim)
O Canterbury (including Kaikoura, Christchurch, Lincoln, Ashburton and Timaru)
O Otago (including Dunedin, Oamaru, Queenstown and Wanaka)
O West Coast (including Westport, Greymouth, and Hokitika)
O Southland (including Invercargill and Te Anau)
O Other (please specify)Our Organisation is national_____

Are you...?
O Male
O Female

Surely this is something you could have elaborated – and why do you need to know? What happened to appreciation of mixed and transgender and all the other complexities?

ECO has organisations as members, so gender would have to be recorded as "all" .

Which ethnic group(s) do you identify with? Select all that apply.

N/A – varied and we do not cross examine our member groups about their members' ethnic composition.
O NZ European
O NZ Maori
O Samoan
O Cook Island Maori
OTongan
O Niuean
O Another Pacific Island group
O Chinese
O Indian
O Another ethnic group (please specify)_____
O Don't know
O Prefer not to say

Which of the following age groups are you in?

Again, probably the people range across them all, but the Organisation was formed from a meeting in 1971 and incorporated in 1972.
O18-34
O 35-49
O 50-64
O 65 or more
O Prefer not to say

Please return this questionnaire to:
ATTN: Andrew Hill
MPI
25 The Terrace
P.O Box 2526, Wellington 6140

PAUAMAC 4 Industry Association Incorporated
PO BOX 142
CHATHAM ISLANDS

s 9(2)(a)

Submission to the Ministry for Primary Industries on the Review of the Fisheries Management System

11 December 2015

Introduction

1. PauaMAC4 Industry Association Incorporated Society (PauaMAC4) welcomes the opportunity to participate in the Ministry's review of New Zealand's fisheries management system.

2. PauaMAC4 represents the commercial paua industry in paua Quota Management Area 4, the Chatham Islands. Our members include owners of paua quota and Annual Catch Entitlement in PAU 4 but also harvester crews and Licensed Fish Receivers (LFRs) associated with this fishery.

Support for core industry submissions and Authorised Management

3. PauaMAC4 supports and fully endorses:
    - The joint submission of the Paua Industry Council and the NZ Rock Lobster Industry Council; and
    - The core industry submission entitled *Initial Seafood Industry Contribution to Fisheries Management Review 2015/16:* ***Creating Value 'Beyond Sustainability'***.

4. In particular, we wish to emphasise that the fundamental framework of New Zealand's fisheries management regime – as embodied in the Quota Management System (QMS) – is sound and has generated significant benefits for all New Zealanders. We wish to submit to this Review that what is now required in order to further enhance the management of paua fisheries, is a capacity for quota owners to adopt more sophisticated fine-scale management measures for commercial fishing.

5. We consider that the improved fisheries governance arrangements proposed in the core industry submission (in particular, the enhanced ability for quota owners to manage commercial harvesting activity under an 'Authorised Management' approach) will enable the paua industry to build on our current voluntary management initiatives, strengthen our relationships with other fisheries stakeholders, and enhance the value that New Zealanders obtain from paua fisheries.

6. The Chathams Islands paua fishery has characteristics which help make good management easier to implement compared to other paua fisheries in New Zealand. There is comparatively little recreational catch due to the low population and the relatively small number of visitors and tourists. Both Imi (Moriori) and Iwi (Ngati Mutunga) have strong links to this fishery via their commercial and customary interests. Of the primary sector groups, fishing is the main income earner for the Chatham Islands. The scale of illegal fishing is not high compared to other areas in New Zealand. This means that management measures taken by industry for the commercial paua fishery can be even more effective and rewarding in delivering value. We feel that we are able to fine tune management to a greater extent without the gains being confounded by competition with other sectors.

7. PauaMAC4 considers that if we had access to Authorised Management tools we could not only better achieve the purpose of the Act, *providing for utilisotion while ensuring sustainability*, but also improve the management of paua fisheries in ways that would lead to better value being obtained for not just the industry, but the country as a whole. The following examples are not a complete list of binding industry rules that could be developed under Authorised Management, but rather to give an indication of what potential we see across a range of measures.

Type of activity	Authorised Management
Controlling overall harvest level via ACE shelving (harvesting less than the TACC)	In some instances leaving fish in the water (i.e not catching the full TACC) results in a faster rebuild of the stock. Moving towards MPI biomass targets is paramount but speeding up the rate of rebuild and balancing the corresponding reduction in PauaMAC member's incomes. During previous PauaMAC4 voluntary shelving we have struggled to get 100% compliance by PauaMAC members. Authorised Management would provide the mechanism for all quota owners to participate proportionally.
Alternative MHS at sub-QMA scale	Rules to set variable commercial Minimum Harvest Size based on an MPI agreed formula such as when a paua reaches 6 years old (at 4 years old they reach maturity plus 2 years of further growth). Their length at 6 years old varies hugely around NZ and within Pau4.
Effort/catch spreading	Establishment of management zones and rules to set sub-QMA catch limits (across parts of Pau4 that are available to commercial harvest)
Stock enhancement	Rules controlling commercial access to areas that have been enhanced so paua can grow under disturbed until they reach harvestable size. Enhancement could include reseeded stock (juveniles grown in land based hatcheries and out-planted on to the coastline) and translocated stocks (paua that have been moved from slow growing areas to fast growing areas). Establishment of "founder populations (quantities of adults moved to low recruitment areas which are left to boost recruitment)
Slot fishing rules	Rules to set slot harvest size (slot must be bigger than MLS) which targets a size range that meets market premiums but which leaves the largest of

	paua in the water to maximise their contribution to spawning events.
Catch Sampling	Rules that specify how often catch samples should be taken. Shell length frequency is an important dataset in Stock Assessments and a valuable indicator of the stock status between stock assessments.
Closed areas	Rules to close areas (eg., as part of rotational management or stock enhancement) on a monthly, seasonal of multiyear basis. In some instances "paddock" management i.e. spelling areas or limiting harvest is a highly effective method to improve productivity.
Industry data collection	Rules to make fine-scale data collection compulsory. Our data logger programme has reinforced the value of being able to run a paua fishery at applicable scales. The current system of managing a paua fishery at statistical or QMA scale is ineffective. With fine-scale data management decisions can be made at a reef or bay scale.
Industry COP	Rules that make an agreed Code of Practice (COP) binding. The COP covers such things as the types of tools that can be used to harvest paua, standards around how they must be maintained, how to look after paua once they are removed from the reef and are transported to the LFR etc.

Other matters

8. The main 'rub points' that we have identified in the current fisheries management regime, together with some proposed solutions, are discussed below.

Management of recreational fishing

9. New Zealand's management of recreational fishing is not at the forefront of international best practice. Currently, information of recreational catch and effort is incomplete, unreliable, and costly to obtain. Uncertainty about recreational catch creates problems not only for recreational fishers, but for all other users of paua fisheries. Because we don't have good information on recreational catch, we can't be confident that allowances are set appropriately. We also can't be sure that management measures such as daily bag limits are constraining recreational catch within the allowances, meaning that the QMS lacks integrity.

10. PauaMAC4 therefore recommends:

    - The introduction of mandatory recreational catch reporting, including through the use of innovative technology;
    - The use of meaningful bag limits and other measures so as to constrain recreational harvest within the recreational allowance and maintain the integrity of the QMS

Integration of Fisheries Act and Resource Management Act

11. The sustainability of paua fisheries depends upon clean and unpolluted water and healthy aquatic ecosystems. Paua fisheries are particularly vulnerable to point source pollution (e.g., sewage discharges) and non-point source pollution (e.g. run off and sedimentation from agricultural land). Activity on the land – and in particular urban development, farming and forestry activity – is rapidly becoming one of the major constraints on the productivity of paua fisheries. However, fisheries management considerations do not appear to be taken into account in decisions about land-based activities such as forestry harvesting.

12. We are fortunate in that while the Chatham and Pitt Islands have been predominately cleared for farming the peat soils provide very little sedimentation run-off. However we are very mindful that future development for different land uses could provide sources of sedimentation that would reduce the capacity of the ecosystem to support grazing molluscs such as paua.

13. PauaMAC4 therefore recommends that processes need to be established to ensure that RMA decision-makers are more aware of the impacts of land-based activities on fisheries resources, and that RMA decision-making takes into account the true costs of these activities.

Recreational fishing from commercial vessels

14. Current mechanisms for taking recreational catch off commercial vessels are unnecessarily cumbersome and bureaucratic.

15. PauaMAC4 therefore recommends streamlining the mechanisms for taking recreational catch on commercial vessels (e.g., through use of electronic reporting).

Yours sincerely

Albert Tuuta

Chairman PauaMAC4

WWF NZ Submission on the Review of the New Zealand Fisheries Management System

December 2015

WWF NZ Submission on the Review of the New Zealand Fisheries Management System

WWF New Zealand thanks the Ministry for Primary Industries for the opportunity to provide comments and ideas into the review of the Fisheries Act and the Quota Management System.

Our comments are focused on three underlying challenges with fisheries management in New Zealand:

1) The information that fisheries management decisions are based on is incomplete and limited. While it may not be possible to have 'full information', there may be improvements that can be made.
2) Fundamental theories and frameworks for management and decision-making are limited in their effectiveness to achieve long-term sustainable fisheries and should be updated to reflect the best and most recent science and management practices.
3) The purpose and objectives of current fisheries management legislation are premised primarily on utilisation and should be amended to reflect sustainability of the natural resources as the primary consideration. Furthermore, 'Sustainable utilisation' is a narrow concept that can be interpreted as being concerned primarily, if not solely, with fish stocks. Fishing in New Zealand can and should be concerned with whole of ecosystem impacts and this should be reflected in the Act.

In this submission, the issues under these three challenges are identified and recommendations for the Government[1] are made. There is also an additional issues and recommendations section (that does not fit within these three challenges), and a summary of recommendations at the end.

1 Management decisions based on incomplete and limited information

- Our scientific understanding of the marine environment, fish stocks, ecosystems, and the impacts of human use on ocean resources is limited – in part because of the practical difficulties and economic constraints of conducting ocean research; and also because of problems with monitoring and reporting fishing activity.

- WWF New Zealand recognises that the fundamental basis for good fisheries management is accurate information about fishing activity, and strongly recommend the Government use the fishing reforms as an opportunity to address issues with monitoring and reporting including:
  - Discarding and miss-reporting of catches
  - Problems with reporting location of fishing
  - Lack of reporting of recreational catch

[1] In this document 'Government' refers to the Ministry of Primary Industries and any other government ministries or official groups involved in fisheries management.

Please see Appendix 1 for detailed discussion of these issues.

1.1 Improving monitoring and reporting

- WWF NZ strongly advocates for issues of discarding and misreporting to be addressed, real-time vessel location monitoring, enhanced monitoring of on-board fishing activity, and independent dockside weighing.

1.1.1 Address discarding and misreporting

- WWF recognises that the incentives that drive fish discarding and misreporting by vessel operators are complex and difficult to solve, however these issues are of critical importance and therefore must be addressed.

- On-board observers are a proven way to minimise discarding (Arnason, 2014). WWF recommends that the Government increase funding and support for an improved and expanded on-board monitoring programme.

- WWF recommends that the Government investigate how the Quota Management System (QMS) could reduce the incentive to discard by better enabling fishers to have a mix of annual catch entitlements (ACE) that more closely reflects the species that they are likely to catch. This could include making quotas more easily transferable, making it possible to move quotas between species to some extent, and enabling fishers to obtain multi-species ACE packages for specific mixed fishery areas (sub areas in a Quota Management Area). These changes combined with fine-scale real-time reporting could enable more responsive spatial management.[2]

1.1.2 Real-time vessel location and complete trawl tracking

- WWF recommends that the Government explore the opportunities as well as the limitations of the use of electronic reporting, and in particular how it could be used to achieve: complete trawl records (including full trawl footprints of small boats as well as big); and real-time monitoring of fishing locations to more quickly and accurately inform observer programmes.

1.1.3 Electronic monitoring and reporting

- WWF is supportive of MPIs work to explore the option of introducing an Integrated Electronic Monitoring and Reporting System (IEMRS) programme. We recognise that technologies will develop and become more effective, so it is important that the Act can enable future application of technologies.

[2] Please see Arnason (2014) for further analysis and recommendations for reducing discards in IQ/ITQ managed fisheries.

- We recommend amendments to the Fisheries Act and its regulations to enable integration of electronic monitoring on fishing fleets, including the ability to require the use of certain electronic tools, systems and devices.

1.1.4 Independent dockside weighing

- Independent dockside weighing has been effective in other parts of the world (particularly Iceland) to improve accuracy of catch records[3] and we recommend the Government explore whether it would also be useful in the New Zealand context.

1.1.5 Improved monitoring of recreational fishing

- WWF considers that the first step towards improving management of recreational fishing is to enable systematic and effective monitoring of recreational fishing catches.[4] However we also recognise the cultural shift that will be required to achieve this and the time that this could take.

- We recommend that the Government continue existing work engaging recreational fishers at local and regional levels to develop bottom-up support for solutions. In addition, the Government should continue trailing new approaches for recreational fishing monitoring and potential new tools and processes such as the use of smart phone apps as part of the proposed recreational fishing parks.

2 Updating management theories and frameworks in-line with the best science and practice

- The fundamental theories and frameworks for fisheries management and decision-making are outdated and limited in their effectiveness to achieve long-term sustainable fisheries, and need to be updated.

- Single species stock management aimed at fishing stocks to their biomass at which they produce Maximum Sustainable Yield (bMSY), is not adequately ensuring that New Zealand will have healthy fish stocks in the future. The impacts of single stock management based on (bMSY) include: overfishing of target stock, changes in stock age structure and reproductive capacity, and increased stock vulnerability to environmental fluctuation and long-term climate change. Fishing also has wider impacts on the marine community and ecosystems, including: cumulative degradation of the food web, loss of biodiversity, and decreased resilience to climate change. See Appendix 1 for evidence and discussion of these significant impacts of the bMSY approach.

[3] However we realise that it will not help measure discarding at sea.

[4] Recent advice from the International Council for the Exploration of the Sea (ICES) European Union highlights the important uses of data on recreational fisheries (ICES, 2015). These include: i) Improving information used to set catch levels; ii) Design and evaluation of management measures for recreational fisheries; iii) Development and evaluation of management plans/strategies involving recreational fisheries; and iv) Marine spatial planning purposes.

- A key underlying problem with single species management under the QMS is that it largely does not account for links between species – such as the impact of fishing one species on other species, the links between fish and their environment, or the cumulative impacts of fishing and climate change.[5]

- WWF New Zealand recommends that the Government start making steps towards some changes in fisheries management that are required to bring our management up-to-date and ensure sustainability of our fish resources. This includes:
  - Creating an iterative pathway towards EBFM
  - Building more precaution into TAC setting
  - Developing the science for the effective implementation of EBFM
  - Enabling trials and studies of EBFM

2.1 Steps towards EBFM

- Increasingly around the world, fisheries management is evolving from single species stock management to ecosystem-based fisheries management (EBFM).[6] However, it is not simple and will not happen quickly. We are unlikely to ever fully understand all of the interactions within complex marine ecosystems, so EBFM should be viewed as an on-going process of improving our understanding of how ecosystems work and learning how to make use of this information in management decisions. The impossibility of perfection should not be used as an excuse to avoid trying to be better.

- New Zealand's fisheries management regime is still primarily managing single stocks, however there is well established understanding and significant agreement within the scientific community of the need to move towards EBFM. There has already been progress to build the scientific foundations required for EBFM such as indicators to monitor the marine environment and ecosystems, and there is some important (NIWA) research going on to test marine ecosystem models such as Atlantis, Ecopath and Ecoism.[7]

- While we recognise that more work is needed to develop the knowledge, experience, and science about EBFM to justify large changes to legislations, the following important initial and incremental changes should be made now:
  - Incorporate management objectives that will safeguard and build resilience of marine ecosystems (explained more in section 3.2)
  - Set more precautionary catch limits that build in consideration of the links between different species and the impacts of fishing on food webs and ecosystems
  - Enable trials of EBFM approaches, such as through functional groups and geographically based fishing communities for some inshore areas rather than the more centrally-run

[5] WWF NZ acknowledges that some multi-species management is undertaken under the QMS

[6] EBFM recognises the combined physical, biological, economic, and social tradeoffs for managing the fisheries sector as an integrated system, specifically addresses competing objectives and cumulative impacts to optimise the yields of all fisheries in an ecosystem (Patrick and Link, 2015).

[7] For example see: Eddy et al. (2015).

single species approach. This could include improving options for fine spatial (sub-quota management area) management.

2.2 Building more precaution into TAC setting

- There is a strong body of evidence showing that sustainable fisheries requires including more precaution into management decisions, which means keeping stocks larger to account for and buffer against increasing climatic variability and longer-term climate change (NOAA, 2015; Britten et al, 2015.[8]

- Fisheries managers around the world are using or testing out more precautionary management tools for setting catch levels such as Maximum Economic Yield – which leaves more fish in the sea; multispecies maximum sustainable yield (mMSY)[9] which is a move towards recognising the links between species and the wider ecosystem impacts of fishing, and which also result in stocks being kept at a larger biomass[10]; and fishing a balanced proportion of fish species from particular ecosystems to maintain stable trophic dynamics/ food webs (OHI, 2015, Hilborn, 2011).

- WWF encourages the Government to look at more precautionary models for TAC setting and at the minimum – Bmsy should be a limit for stock management in the Fisheries Act, rather than a target. New Zealand's Harvest Strategy Standard recognises the importance of maintaining stocks above Bmsy, and legislation needs to explicitly reflect this best-practice.[11]

- Bmsy as a limit needs to be set at a level that accommodates the natural fluctuations in a stock and will not result in biomass dropping below the soft limit. For example, in hoki, the Bmsy can be estimated to be around 25% of the biomass, but if it was at this level it would regularly drop below the soft limit (20% of the biomass) because of natural fluctuations, therefore Bmsy needs to be set higher (Ministry of Fisheries, 2008).

2.3 Develop the science for EBFM

- Moving towards EBFM requires building understanding and knowledge of the impacts of fishing on the wider ecosystems as well as the environmental (climatic and oceanographic) effects of fishing on fish. NIWA has produced some robust and useful analysis of the science and knowledge gaps, along with providing recommendations to improve data collection

[8] Overall, a less-heavily fished marine system, and one which shifts the focus from individual species for functional group and fish communities, is likely to provide more stable catches with climate variability and change than would a heavily fished system (Perry et al., 2010).

[9] Multispecies maximum sustainable yield (mMSY) is the highest average catch (by weight) of all target species in a region that could be caught over time without causing a decline in any single species.

[10] mMSY is the highest average catch (by weight) of all target species in a region that could be caught over time without causing a decline in any single species (http://www.oceanhealthindex.org/Components/Fisheries_Catch/).

[11] The Operational Guidelines for New Zealand's Harvest Strategy Standard recognises that "*even from a single-species perspective, maintaining stocks above BMSY can be beneficial. For relatively small sacrifices in yield, average biomass can be maintained relatively far above BMSY, resulting in reduced sustainability risks, and higher catch per unit effort and therefore reduced costs of catching fish*." (Ministry of Fisheries, 2011, p1)

about biological and environmental indicators of marine ecosystems (Pinkerton, 2010) with particular relevance to deep water fisheries (Tuck et al, 2014).[12]

- We recommend that the Government implement the recommendations of Tuck et al (2014) and Pinkerton (2010) that will build essential science for EBFM.[13]

2.4 Enabling trials and studies of EBFM

- Testing models of EBFM will be an important step for New Zealand as it has been overseas. In the USA, regional fishery management councils have developed fishery ecosystem plans that work within existing single species stock management framework (Patrick and Link, 2015).

- WWF recommends that the Government enable groups (such as Quota holders) to develop and trial fishery ecosystem management plans for specific case study sites. The existing Fishery Management Plans under the Fisheries Act could be used for this purpose, but amendment to the Fisheries Act may be needed to enable this.

- EBFM approaches for inshore areas could also trial engagement with a wider land-use stakeholder group given the impacts of agriculture and forestry on some inshore fishing grounds.[14] The Ministry for Primary Industries, which encompasses all of these industries, would seem to be in an ideal position to encourage or facilitate engagement across these sectors.

3 Amendments for better utilisation – sustainability balance

- We consider that the current purpose of the Fisheries Act is weighted towards utilisation rather than sustainability/maintaining marine biodiversity and that the Fisheries Act should be amended to reflect sustainability of the natural resources as the primary consideration.[15] One example of how utilisation is prioritised over sustainability objectives, is the poor management of the benthic impacts of fishing and the fact that destruction of benthic

[12] Measuring biological and environmental indicators supports fisheries management decisions by (1) describing the pressures affecting the ecosystem, the state of the ecosystem and the response of management to these, (2) tracking progress towards meeting management objectives, and (3) communicating trends in complex impacts and management processes (Jennings 2005).

[13] Please contact WWF NZ if you would like us to provide a summary of the two reports (Tuck et al, 2014 and Pinkerton 2010).

[14] WWF New Zealand recognises that better coordination and integration of land-based and marine natural resource legislation and policies will be necessary for effective management of land based impacts on fisheries such as marine pollution from agricultural nutrient waste and sedimentation. Through the Reconnecting Northland Programme WWF New Zealand is working in the area of freshwater ecosystem restoration which will reduce sediment inputs to the marine environment over time. WWF New Zealand is open to working with the Government to find solutions and ways to better enable these types of efforts.

[15] One example of how utilisation is prioritised over sustainability objectives, is the poor management of the benthic impacts of fishing and the fact that destruction of benthic habitats and ecosystems is allowed to occur before science has even been carried out to see what lives there (Clark and Dunn, 2012).

habitats and ecosystems is allowed to occur before science has even been carried out to see what lives there (Clark and Dunn, 2012).

- While the purpose of the Fisheries Act is carved out of the current review, we note that there is a Cabinet driven mandate to improve the clarity of the objectives of fisheries management in New Zealand.[16] We consider that this review provides the opportunity to clarify the principles and objectives, and to achieve greater balance between sustainability, conservation and utilisation by:
  - Including the precautionary approach in Section 9 of the Fisheries Act
  - Including a new objective that recognises the significance of climate change for fisheries management

3.1 Include the precautionary approach in Section 9 of the Fisheries Act

- We acknowledge that the precautionary approach is already enshrined in the Fisheries Act for the conservation and management of straddling fish stocks and highly migratory fish stocks.[17] We recommend that the precautionary approach be a guiding principle for all fisheries management, and therefore recommend it be included as an additional principle in Section 9 of the Fisheries Act with words to the following effect:

  Management decisions should be guided by the precautionary approach that ensures that lack of full scientific certainty is not used as a reason for postponing measures to prevent environmental degradation.

- Specific guidelines for application of the precautionary approach as a general principle for sustainability in the Fisheries Act should be informed by the guidelines set out in Schedule 1A, Part II, Article 6 of the Fisheries Act.[18]

- Some specific management actions that we recommend are taken to implement the precautionary principle include:

[16] We note that when Cabinet approved the Fisheries 2030 strategy, it was agreed that legislative change would be required to "*improve management planning by providing clarity and certainty about environmental limits and management objectives*." (Cabinet Economic Growth and Infrastructure Committee, 18/8/2009)

[17] Fisheries Act 1996, Schedule 1A.

[18] Schedule 1A, Part II, Article 6 provides guidelines for the application of the precautionary approach in relation to the management of straddling fish stocks and highly migratory fish stocks and highly migratory fish stocks:

- (a) improve decision-making for fishery resource conservation and management by obtaining and sharing the best scientific information available and implementing improved techniques for dealing with risk and uncertainty;
- (b) apply the guidelines set out in Annex II and determine, on the basis of the best scientific information available, stock-specific reference points and the action to be taken if they are exceeded;
- (c) take into account, inter alia, uncertainties relating to the size and productivity of the stocks, reference points, stock condition in relation to such reference points, levels and distribution of fishing mortality and the impact of fishing activities on non-target and associated or dependent species, as well as existing and predicted oceanic, environmental and socio-economic conditions; and
- (d) develop data collection and research programmes to assess the impact of fishing on non-target and associated or dependent species and their environment, and adopt plans which are necessary to ensure the conservation of such species and to protect habitats of special concern.

- Actions to improve benthic protection
- Precautionary protocol for new fisheries

3.1.1 Improve benthic protection

- The high biodiversity and endemism in our deep seas make them of global interest and importance. WWF considers it important that management of benthic environments includes more proactive research and conservation to balance and mitigate the current significant fishing impacts.[19] Please see Appendix 1 section 5.3 for detail about the impacts of fishing on the sea floor. Appropriate actions include:
  - A trawl foot print freeze
  - Spatial management (including a network of open and closed areas)
  - Limits on proportion of habitat type area that can be trawled
  - Move on rules

Trawl foot print freeze

- Due to the extensive impact of bottom trawling and very slow recovery of habitats post fishing, vulnerable and ecologically important benthic habitats need protection measures in place before fishing occurs (Clark and Dunn, 2012).

- WWF strongly advocates for a freeze on the trawl footprint until adequate research[20] has been done and protection measures have been implemented to safeguard a network of representative benthic habitats and ecosystems.

Spatial management for the deep sea

- Specialists in deep sea ecology and fisheries science recommend that spatial management is the best, and perhaps the only, method to balance sustainable fishing objectives with those of habitat and biodiversity protection. This approach is best achieved by implementing a system of zones which can allow exploitation in productive fishing areas, while protecting vulnerable or sensitive species and habitats. Typically, this involves a network of open and closed areas, with closure of unfished areas where benthic communities occur in their natural state (Clark, 2015; Clark and Dunn, 2012; Johnston and Santillo, 2004).[21]

- WWF New Zealand recommends that a representative network of marine protected areas be established and we support the creation of marine protected areas framework legislation that covers the EEZ as well as the territorial sea.

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[19] There are closed seamounts and benthic protection areas that ensure a portion of our protected coral fauna in the region are not impacted by fishing. However in terms of the size of our zone and depths of some of the closed areas, the protection from trawling is not a huge in the deep-sea (Tracey, pers. comms.)

[20] The areas of required research would include habitat and fauna, biodiversity, species mix, depth range, connectivity, and capacity for recovery (Tracey, pers. comms).

[21] This assumes that some benthic habitats will be heavily impacted, perhaps even destroyed by fishing, and some will be completely protected – just as some forests are destroyed for land conversion to pasture, and preserving representative habitats in national parks and reserves. Considering that there can be many ecologically important and distinct areas within sea mounts, it is better to protect some entire sea mount areas instead of protecting a part of a sea mount (Clark and Dunn, 2012)

- We recommend that the Government lead or outsource more research concerning the impacts of fishing on the benthic environment in order to scope areas for protection. More information is needed about sensitive habitat areas and what refuges may exist for vulnerable species such as corals as the oceans warm and the ocean chemistry changes.

Trawling limits associated with benthic habitat types

- Analyses of bottom trawling impacts on different benthic habitat types (BIOMEC classification), shows that some types of benthic habitat experience much greater impact. For example, 6 out of the 15 BIOMEC classified benthic habitats have had more than 40% of their area impacted by trawling between 1989/90 and 2010/11, and 73% of one habitat type has been trawled (Black and Tilney, 2015).

- WWF New Zealand recommends that the Government establish limits on allowable bottom trawling impact to protect particular habitat types from being impacted to a level at which they can no longer sustain their associated biodiversity to a robust level. WWF New Zealand recommends that MPI fund research to inform the development of trawling impact limits for different habitat types, with the objective of protecting the biodiversity of benthic ecosystems.

Move-on-rules

- We recommend that Government explore the application of move-on-rules within New Zealand's EEZ. Currently move-on-rules are used in the SPRFMO[22] area and in the Ross Sea under CCAMLR[23] rulings to limit fisheries impacts on sensitive or rare benthic communities. If fishing vessels catch a certain amount of benthic by-catch, they must move to a new area. These rules could be useful for within the New Zealand EEZ (Tracey pers. comms).

3.1.2 Precautionary management protocol for new fisheries

- There is a particular need for precaution in the case of the discovery of new fisheries. Past experience (particularly with orange roughy) shows that fishers can develop fisheries and deplete stocks very quickly – well before scientists have had a change to study the stock or its habitat (Clark and O'Driscoll, 2003; Clark and Dunn, 2012). Establishing some protocols for new fisheries could help to ensure that this does not continue to happen.

- WWF New Zealand recommends that Government consider developing a protocol for new deep sea fisheries. This could involve:
  - Ban on bottom trawling in virgin/unfished areas until habitat and fauna has been scoped and sensitive and important benthic habitats have been adequately protected
  - Establishment of precautionary catch limits (potentially feature-based catch limits) to enable initial stock assessment research

[22] South Pacific Regional Fisheries Management Organisation.
[23] Convention on the Conservation of Antarctic Marine Living Resources.

- Require credible scientific evaluation and monitoring of the resource to justify higher catch limits, and precautionary and responsive fishery management must be implemented and enforced

3.2 Include new objective: to build resilience of marine ecosystems to climate change

- We see an important gap in the current objectives to be the lack of reference to climate change. Climate change will increasingly drive variability and change in our oceans, and marine management policies need to more explicitly address climate related challenges (NOAA, 2015; Britten et al, 2015). As outlined in Appendix 1 section 5.4, current fishing practices make fish populations and marine ecosystems more sensitive to climate variability, and less able to adapt to long term climate change (Perry, et al., 2010).

- WWF recommends that the Fisheries Act be amended to include the objective: *to build resilience of marine ecosystems to climate change.* This essential management objective will help to future-proof the Fisheries Act by guiding measures and regulations necessary to safeguard the New Zealand fishing industry from impending climate change impacts. Examples of management goals that would help achieve this objective include:
  - Maintaining demographic structure in fish population i.e. maintain large (older) individuals in exploited populations[24]
  - Maintaining spatial structure in fish populations
  - Maintaining genetic diversity and life history traits in exploited fishes, i.e. use indicators such as growth rate and age-at-maturity in target species
  - Maintaining buffering capacity of populations to environmental and ecosystem variability by keeping populations larger
  - Maintaining functional biodiversity in middle trophic level groups (Perry et al., 2010)

- Examples of management actions that would fall under the proposed objective to build resilience of marine ecosystems to climate change include:
  - Protecting representative habitats to safeguard biodiversity (biodiversity being essential for resilience)
  - Protecting other areas to enhance fishing productivity (spawning areas and nursery habitats).

3.2.1 Protecting representative habitats

- There is strong scientific evidence that one of best ways to protect marine biodiversity and maintain or build resilience of ecosystems to the cumulative effects of fishing and climate change, is to build a network of protected areas that contains representative habitats and ecosystems, as well as vulnerable and ecologically important habitats and species (endemic and rare/threatened species) (Riemer et al. 2015; Levin and Lubchenco, 2008).

[24] A balanced age structure (where the biomass is made up of numerous age classes) provides a buffering capacity to the stock, dampening the effect of recruitment variability caused by short-term environmental fluctuations, and hence minimizes the influence of the environment on the stock (Planque *et al*., 2010).

3.2.2 Protected areas as a fisheries management tool

- Protected areas are increasingly becoming used around the world as fisheries management tools.[25] Protecting structured habitats, nursery grounds, and fish spawning areas can help sustain fish reproduction, resilience and abundance of target species populations (Reimer, et al. 2015; Low et al 2003). It is for these reasons that the Southeast U.S. fishery managers are considering a proposal to protect certain areas where fish live and spawn. The proposed spawning special management zones would target small, important areas on the edge of the continental shelf.[26]

- Protections for spawning sites can maintain healthy populations and help the recovery of struggling species. In some spawning areas where resource managers have limited fishing, fish have grown larger and more numerous, and their populations expanded over a wider area, replenishing nearby fishing grounds. In these areas, fish also produced greater numbers of eggs that were more likely to survive and hatch. Additional species are attracted to this abundance, leading to the growth of robust food webs. Safeguarding spawning sites is a proven way to help fish flourish and replenish the oceans with life (PEW, 2014).

- WWF NZ recommends that the Government take active steps to implement the existing environmental principle in the Fisheries Act to protect habitats of particular significance for fisheries management.[27] Steps include learning from and implementing what has been proven successful in other parts of the world.[28]

4 Additional issues and recommendations

4.1 Reduce by-catch of protected species

- Catch of non-target species (by-catch) in commercial fishing is a significant focus of WWF NZ's work, and we are engaged in various government and stakeholder processes concerning Māui dolphins, sea lions and sea birds. We will use these worZk streams contribute to specific management and conservation work, however we wish to make some general comments regarding bycatch of protected species. WWF encourages the Government to:
  - Provide more funding for essential research identified in the Threat Management Plans for Sea Lions and Māui dolphins
  - Implement important management recommendations from the Threat Management Plans, and National Plan of Action for Sharks, and Southern Sea Bird Solutions Trust
  - Provide more support for industry efforts and programmes to improve practices and make changes that will reduce by-catch of protected species

[25] 24% of 1600 of marine protected areas in the USA are focused on sustainable fisheries (Wenzel and Brock, 2013)
[26] http://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2015/08/protecting-fish-spawning-sites
[27] Fisheries Act 1996, Section 9c.
[28] WWF NZ is undertaking further research into protected areas as fisheries management tools and can provide more information at the request of MPI.

4.2 Make required links between Fisheries legislation and Marine Protected Area Legislation

- There will need to be clear links between Fisheries Act and the Marine Protected Areas (MPA) Act to ensure the sharing of information for management decisions. For example, there will need to be estimates of the expected fishing displacement[29] from MPAs (increased fishing pressure in areas outside of MPAs) to determine whether there needs to be a "sustainability adjustment" in the QMS.

- WWF recommends that the Government take the opportunity that the reforms provide to build science for improved fisheries management. MPAs have significant research value as scientific controls, providing baseline information of un-fished areas, which can be useful to improve stock assessment (IUCN, 2008).

4.3 Ensure independence of fisheries research

- WWF New Zealand considered it essential that fisheries research remains as independent as possible. We support the existing engagement forums and other mechanisms for industry and stakeholder input into setting the fisheries research agenda, however we recommend that Government ensure that the scientists undertaking the research are independent from industry or any other stakeholder group.

[29] Displacement refers to when a closure intended to protect one vulnerable species or area may increase unintended fishing pressure on another species or areas (Wenzel and Brock, 2013).

5 Summary of recommendations

Management decisions based on incomplete and limited information

- To improve the information that management decisions are based on, WWF NZ recommends that the Government improve monitoring and reporting by:
  - Exploring ways to better enable fishers to have the correct mix of ACE to reduce the incentive to discard
  - Increasing funding and support for expanding and improving the on-board observer programme
  - Making changes to the Fisheries Act and its regulations to enable the uptake of electronic monitoring on fishing fleets, including the ability to require certain electronic systems and devices to be used in the future
  - Investigating the opportunities as well as the limitations of electronic reporting, and in particular how it could be used to achieve complete trawl records, and real-time monitoring of fishing locations to more quickly and accurately inform observer programmes
  - Investigating technological solutions for mitigating discarding (e.g. electronic recording of catch weights)
  - Developing a recreational fishing monitoring programme (and potential tools and processes such as the use of smart phone apps) for trialling in the proposed recreational fishing parks
  - Engaging recreational fishers at local and regional levels to develop bottom-up support for solutions to improve monitoring of recreational catch; and trialling new approaches for recreational fishing monitoring and potential new tools and such as the use of smart phone apps as part of the proposed recreational fishing parks.

Updating management theories and frameworks in-line with the best science and practice

- To update the New Zealand fisheries management system to more effectively ensure the sustainability of fish resources, we recommend that the Government:
  - Make steps towards EBFM
  - Build more precaution into TAC setting and, at the minimum, establish Bmsy as a limit for stock management in the Fisheries Act, rather than a target
  - Continue to build the science for EBFM including implementing some of the research recommendations of Tuck et al (2014) and Pinkerton (2010)
  - Enable trials and studies of EBFM including making the necessary amendments to the Fisheries Act to enable groups (such as Quota holders) to develop and trial fishery ecosystem management plans for specific case study sites

Achieve a better balance between utilisation and sustainability

- To achieve better balance between utilisation and sustainability the Fisheries Act should reflect sustainability of the natural resource as the primary consideration. WWF recommends that the Government amend the Act to:
  - Include the precautionary approach as a guiding principle of sustainability in Section 9 of the Fisheries Act. Management actions in the precautionary approach should include

improving benthic protection and developing a precautionary management protocol for new fisheries

- Include the objective: *to build resilience of marine ecosystems to climate change*. Management actions under this new objective should include protecting representative habitats, and protecting areas to enhance fisheries

Reduce by-catch of protected species

- WWF NZ encourages the Government to take further action to reduce by-catch of protected species through:
  - Providing more funding for essential research identified in the Threat Management Plans
  - Implementing important management recommendations from the Threat Management Plans, National Plan of Action for Sharks, and Southern Sea Bird Solutions Trust
  - Providing further Government support for industry efforts and programmes to improve fishing practices and to implement changes that will reduce by-catch of protected species

Link the Fisheries Act and the new Marine Protected Areas Act

- WWF NZ recommends that the Government make the required links between Fisheries legislation and Marine Protected Area Legislation, including accounting of fishing effort displacement from MPAs, and use MPAs to build science for improved overall fisheries management.

Ensure independence of fisheries research

- WWF New Zealand recommends that Government ensure that the scientists undertaking the research are independent from industry or any other stakeholder group.

6 Appendix 1: Impacts of fishing on marine ecosystems

Analysis of the impacts of fishing on marine ecosystems is necessary to identify issues that the fisheries management regime must address. Some of the most serious impacts of fishing on target fish stocks include: overfishing, changes in stock age structure and reproductive capacity, and decreased genetic diversity within stocks. All of these impacts make stocks more vulnerable to environmental fluctuation and long-term climate change. Fishing impacts on the wider marine community and ecosystems include: cumulative degradation of the food web, reduced biodiversity and decreased resilience to climate change. Additionally, bottom trawling causes long-lasting damage and destruction of benthic habitats and communities.

6.1 Impacts on target fish stocks

6.1.1 Over fishing

- Over fishing of fish stocks directly affects the target stock, as well as the wider food web and ecosystem. In 2010, 31% of the fish stocks in New Zealand for which there was available stock status (119 out of 633 stocks in total) were considered to be below maximum sustainable yield target levels, and almost a quarter (24%) of fish stocks experienced overfishing.[30] Nine stocks were collapsed,[31] and only three of the collapsed stocks were closed to fishing (MfE 2010).

6.1.2 Changes in stock age structure and reproductive capacity

- Fishing often targets the larger fish which can change the age structure of fish stocks, with significant affects on stock reproduction and resilience to environmental fluctuations (Brunel and Piet, 2013; Longhurst, A. 2006; Planque et al, 2010). Harvesting the large older fish is a problem because they have a higher reproductive value than those which are young and small. Large/old fish spawn over extended time periods (within a year) and over greater areas, compared to young/smaller fish. Additionally, the eggs produced by larger/older fish have higher rates of survival. A reduced age structure may therefore lead a population to literally 'put all its eggs in the same basket' by spawning highly vulnerable eggs in a reduced time/space window (Perry, et al. 2010; Wright and Trippel, 2009).[32]

6.1.3 Increased vulnerability to environmental fluctuation and long-term climate change

- When the stock age structure is truncated by fishing, with the effect that spawning is limited to a smaller season and space, the recruitment rate is extremely susceptible to climate conditions at the time of spawning, hatching and larval development (Perry et al., 2010).

[30] MfE defines overfishing as when the rate at which fish are extracted exceeds the rate that produces maximum sustainable yield (MfE 2010).
[31] Below 10% of the pre-fishing biomass, or quarter of the biomass needed to produce MSY, which ever is higher yield (MfE 2010).
[32] Studies have found that the age structure of the spawning population may be as important as its biomass in determining the reproductive potential of a stock (Planque *et al*., 2010; (Wright and Trippel, 2009).

- Fishing also leads to a spatial contraction of fish populations (they live in a smaller area), loss of genetically distinct population sub-units, alteration of life history traits, and reduced genetic diversity within populations.[33] All of these effects make fish populations more sensitive to climate variability over years and decades (Perry, et al. 2010).

6.2 Impacts of fishing on wider marine community and ecosystems

6.2.1 Cumulative degradation of the food web

- Studies have shown managing multiple fish stocks at the Maximum Sustainable Yield (MSY)[34] level (as New Zealand currently does) can potentially lead to chronic and cumulative degradation of the food web (Cury and Christensen, 2005; Jennings et al., 2002; Jackson et al 2001; Branch 2009), also referred to as ecosystem overfishing (Murawski, 2000; Coll et al., 2008).

6.2.2 Increased vulnerability to short-term environmental fluctuations

- Intensive fishing affects the wider fish community structure in ways that make communities less stable and more vulnerable to environmental fluctuations (Perry, et al. 2010). Fishing impacts of community structure include:
  - Reduced mean size of individuals and mean trophic level of communities
  - Altered patterns of predation and competition[35]
  - Decreased species richness/diversity[36]

6.2.3 Increased vulnerability to long-term climate change

- Fishing also affects the ability of species to adapt to longer term incremental climate change, by reducing the genetic diversity within and among species. Fishing can drive simplification of the structure of ecosystems by removing top predators and decreasing intraspecific and interspecific diversity (Perry et al., 2010). The presence of genetic diversity within and among species increases the ability of species to adapt to the physiological consequences of climate change and the changes in prey and predators that will also occur (Perry, et al., 2010).

[33] The potential for fishing to cause rapid evolutionary change in fish species is now well established. Changes include maturation occurring at a lower age or size (Swain, et al. 2007, Pinkerton, 2009). Life history traits of fish (age distribution, sex ratio, and age structured fecundity) are evolved to make the most of all aspects of their environment. Therefore, changes to fish physiology and age structure may reduce their natural resilience to stress associated with variably (Tuck et al. 2014).

[34] Maximum sustainable yield (MSY) is a term used in fishery management to describe the highest average catch (by weight) that does not reduce a stock's abundance over time, taking into account the stock's reproductive and growth capacities under prevailing environmental conditions (OHI, 2015).

[35] Fishing drives changes in food webs including patterns of predation and competition. By removing top predators, fishing can drive increases in the biomass and production of species at lower trophic levels. These types of changes may not easily be reversed because the now-dominant middle trophic level species is now a predator on the early life stages of the former top predator.

[36] Biodiversity is hypothesised to be a major determinant of ecosystem stability (Hooper et al., 2005).

6.3 Impacts of trawling on sea flood (benthic) habitats and communities

6.3.1 Long lasting damage/destruction of marine habitats

- There is clear evidence of a substantial impact on benthic fauna from deep water trawl fisheries in New Zealand, and the consequential need for active management to conserve these environments (Clark and O'Driscoll, 2003).[37] A study of the bottom trawl footprint on different benthic habitat types (BIOMEC classified) shows that 6 out of the 15 unique benthic habitats experience trawling over 40% or more of the total habitat area (MPI, 2015).[38]

- The practice of bottom trawling often causes substantial and irreversible harm to fragile benthic ecosystems and dependent species, presenting significant challenges for the sustainability of fisheries and broader ecosystem function and resilience (Clark et al, 2015; Williams et al. 2010).

- The recovery of benthic ecosystems after trawling is likely to take more than a year (National Research Council, 2002), and for deep sea features (such as sea mounts) that are home to long-lived and slow-growing invertebrates, recovery is predicted to take decades to centuries after fishing has ceased (Malcom et al. 2015).[39] The fauna of seamounts off Australia and New Zealand have shown no evidence of recovery to an unfished state even after 5-10 years of no trawling (fishing closures) (Williams et al. 2010).

6.3.2 Loss of opportunities for science and conservation

- The rapid rate of fisheries development in the past has seen extensive trawling damage occurring well in advance of scientific research assessing the benthic communities involved. For example, the development of an orange roughy fishery off the East Cape began with heavy fishing on one seamount, but rapidly extended within 2 years to a further 11 adjacent features. This occurred before any study of the benthic habitats in the region (Clark and O'Driscoll, 2003).

[37] The total area trawled for all species in the New Zealand oceans from 1989/90 to 2010/11 is estimated to be 383 085 km² - which is about 9% of the EEZ and TS, and 27% of the 'fishable area' (Black and Tilney, 2015). The 'fishable area is defined to be shallower than 1600 m and outside all Benthic Protection Areas (BPAs), Seamount Closure and Marine Reserve areas) (Black and Tilney, 2015). The fishable area in the TS and EEZ is 1 408 210 km² (34% of the total area of seabed in the TS and EEZ) (Black and Tilney, 2015).

[38] In 2012 NIWA produced a Benthic-optimised Marine Environment Classification (BOMEC) for New Zealand waters (Leatherwick et al. 2012). There are fifteen BIOMEC classes – representing proxies for various benthic habitats.

[39] Stony corals that dominate the biomass of seamount megafauna on seamounts and ridge structures are very slow growing and long lived, which is why it takes so long for these habitats to recover from fishing damage (Clark and Dunn, 2012).

- While the extent of virgin ground trawled each year continues a downwards trend, new areas continue to be trawled (2958 km2 of sea floor was trawled for the first time in 2010/11)[40] and the intensity of trawling is increasing (Tilney and Black, 2015).[41]

6.4 Cumulative impacts of fishing and climate change

- As sections 5.1.3 and 5.2.3 above already indicate, there is a significant relationship between climate and the resilience of fish populations. Studies have found many significant correlations between climate indices, and fish year-class strength (proportion abundance of different age groups), and annual biomass indices (Britten et al, 2015; Hurst et al. 2012; Dunn et al. 2009).

- Climate change can act synergistically with fishing to cause long-term change in marine ecosystems which can affect sustainable fisheries' yield (Tuck et al. 2014). Studies show that the strength of effect of climate variability on fish stocks is significantly increased by fishing pressure (Ottersen et al.; Perry et al. 2010).

[40] Two new areas have been trawled: in the region to the east of Campbell Island targeting southern blue whiting; and a cluster of trawls targeting oreo on the southern flank of the Chatham Rise (Tilney and Black, 2015).

[41] The mean frequency of trawls within the trawled cells increased by between 2-4% in 11 of the 15 BIOMEC classes. The areas with the highest trawl frequencies per cell occur south-east of Stewart Island and on the western Chatham Rise (Tilney and Black, 2015).

7 Appendix 2: Problems with monitoring and reporting of fishing activity

7.1 Discarding and misreporting catches

- Discarding of by-catch (non target species) or over-catch (when too many fish are caught) and misreporting catch are significant issues that have the potential to undermine the integrity of the QMS. While there have been improvements over recent decades (largely as result of on-board observers), there is strong evidence that discarding and misreporting are still significant (Simmons, et al, 2015). This means that the catch information upon which important management decisions (such as TAC setting) are made is incomplete.

- The New Zealand system of reporting largely relies on fishers filling in reports manually, which means that misreporting can occur because it is reliant upon the honesty of the fishers to report accurately. There are some strong incentives that drive misreporting. For areas where there are many species living in the same habitat (such as South Island inshore bottom trawling), it is difficult to catch particular species and not others. Often fishers do not hold the required ACE for all the species they are catching. There is a strong incentive to dump the by-catch and not report it when it is of very low value (when it is a size or species that the Licenced Fish Receiver will not accept) and in order to avoid the associated deemed values (financial penalty). Deemed values plays an important role in encouraging fishers to minimise by-catch as much as possible, however also incentivise discarding and misreporting (Simmons, et al., 2015).

7.2 Problems with reporting location of fishing

- Currently, trawl records are incomplete because vessels smaller than 28 metres long are obliged only to report the start location of trawls - not the end point (Black and Tilney, 2015). Full trawl records are important to monitor impacts of fishing on the benthos.

- There are significant delays in reporting information about where fishing is occurring. This is a particularly important issue for observer placement for protected species conservation. At the recent Māui Dolphin Research and Advisory Group, a representative from the observer programme reported that there were delays of up to three months before the MPI Observer Services Unit was notified that particular boats were fishing in areas where observers were required.[42]

- Additionally, manual reporting means that fishing crew could misreport the location of fishing in order to avoid having to accommodate an observer on board (if they fish within the area where observers are required).

[42] Andy McKay from MPI Observer Services Unit reported that there are sometimes 3 month delays between the time of fishing and information being received by the Observer Services Unit (WWF notes from MRAG meeting, 2 November 2015).

7.3 Lack of reporting of recreational catch

- Recreational fishing is not systematically monitored or reported on. This is a problem because the recreational catch is significant (particularly for inshore fisheries such as snapper, blue cod, rock lobster, kahawai, paua and scallops) and it is important that we can properly account for the total recreational catch order to set TAC limits at sustainable levels (ICES, 2015).[43]

[43] The primary driver of data collection of recreational fisheries around the world is the need to quantify the total removals from a stock for sustainable management (ICES, 2015).

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"Rebalancing" loss of spatial access for fishing

October 2015

The problem

Inshore coastal waters increasingly face multiple competing demands for the protection and use of marine resources and ecosystems. New uses of coastal space that are in the general public interest are frequently at the expense of existing fishing rights. For example, the establishment of a marine reserve displaces customary, commercial and recreational fishing that previously took place in that area, and the Government's proposed "recreational only" fishing parks will displace commercial fishing from designated areas.

In fully utilised fisheries with a strong spatial dependency (such as paua and rock lobster), displacement of fishing effort leads to localised depletion outside the closed area as fishers compete to take their existing catch entitlements from a reduced area and, consequently, a smaller resource. Localised depletion can, in turn, lead to stock-wide sustainability risks.

While these effects are most apparent in sessile and sedentary species, the same principle applies to all fisheries. The attainment of one public good policy objective (e.g., protecting marine biodiversity by establishing a marine reserve) occurs only at the expense of another public good policy objective (i.e., sustainable fisheries).

The policy solution

When the Crown makes a decision that results in a loss of access to a specific fishery, a two-step response is required to "re-balance" the system and ensure sustainability, thus:

1) a fisheries management response removes the displaced catch from the fishery (rebalancing the biological system); and

2) a market-based response ensures that affected quota owners are no worse off (rebalancing economic incentives for the effective operation of the QMS).

Why "rebalancing"?

"Rebalancing" takes the focus away from "who gets what" and keeps it firmly on making our fisheries management regime work more effectively. With this policy approach, catch reductions accompanied by market based transactions are used to enhance the operation of the QMS. The QMS places incentives on quota owners to protect fisheries resources and ensure sustainability, but these incentives can be diminished if security of access to fishing grounds is eroded over time. Rebalancing can help the QMS to function more effectively by giving quota owners confidence that the value of quota will be retained following any loss of access to fisheries. This will maintain incentives for sustainable management, thereby benefiting all New Zealanders.

Benefits of a rebalancing policy

In addition to ensuring fisheries sustainability and facilitating effective operation of the QMS, a rebalancing policy will achieve:

- more flexible solutions – e.g., a marine reserve proposal that was unacceptable in the absence of rebalancing could proceed if displaced fishing effort was removed from the system and market compensation applied; and

- better decisions – with compensation in the mix, decision-makers are faced with the true costs of their decisions.

Types of closures subject to the rebalancing policy

The rebalancing policy applies to Crown decisions to close an area to commercial, customary or recreational fishing {or to all fishing):

- for public good reasons – e.g., marine reserves and MPAs;
- to implement Treaty settlement obligations – e.g., mataitai reserves; and
- for club good reasons – e.g., to provide for recreational fishing. In this case, the Crown should ultimately recover the costs of rebalancing from the benefitting party.

The rebalancing policy does <u>not</u> apply to:

- closures for fisheries sustainability reasons {because closures necessary for stock sustainability are supported by quota owners and fishers); or
- closures for other commercial uses such as aquaculture, other marine structures, seabed mining, cables and pipelines {because in these cases the private beneficiary should negotiate a rebalancing arrangement directly with affected quota owners and other fishing interests).

Trigger for rebalancing

The underlying principle is that rebalancing is implemented when displacement of catch from a closed area may adversely affect stock sustainability.

In sessile and sedentary fisheries, *any* displacement of catch will trigger the need to rebalance the fishery. For example, paua and rock lobster are fully utilised fisheries with a strong spatial dependency, so any displacement of catch, no matter how small, will increase stock sustainability risks. By not specifying a minimum threshold of displacement, the policy seeks to ensure that numerous small displacements will not have cumulative adverse effects on fisheries sustainability.

If the rebalancing policy is applied to more mobile or less fully developed fisheries, consideration will be given to how the underlying principle can be translated into an appropriate trigger reflecting the characteristics of these fisheries.

Rebalancing mechanism step {1}: Removing displaced effort

When the rebalancing policy is triggered:

- the amount of displaced commercial and non-commercial catch is assessed;
- commercial catch: a commercial catch reduction equivalent to the amount of displaced catch is implemented {by a TACC cut or, possibly, shelving);
- recreational catch: management measures to reduce recreational catch are implemented if necessary {e.g., daily bag limit reductions);
- customary catch: no formal measures are taken, but Tangata Tiaki/Kaitiaki may choose to adjust levels of customary take.

Rebalancing mechanism step {2}: Correcting economic incentives

The Crown compensates quota owners in the affected stock(s) on a *pro rota* basis for the market value of quota shares equivalent to the foregone commercial catch.

The compensation will normally be in the form of a cash payment, but quota owners may also be open to negotiating alternative non-cash compensation of equivalent value (e.g., re-opening of other closed areas).

Rationale for rebalancing mechanism

Rebalancing requires a catch reduction in order to remove the displaced catch from the fishery, thereby helping to ensure sustainability. For commercial catch, reductions can reliably be implemented by cutting the TACC. However, for recreational catch, changes in other management settings (e.g., bag limits, or MLS) are likely to be required to implement a meaningful catch reduction. For customary catch, customary fisheries managers (Tangata Tiaki/Kaitiaki) are best placed to implement any necessary measures.

Compensation is provided to quota owners (rather than commercial fishers) to reflect the underlying purpose of the policy – i.e., to ensure the sustainability incentives the QMS creates for quota owners continue to operate as intended.

A *pro rota* market-based compensation payment ensures that all quota owners in an affected stock are compensated, reflecting the collective effect of the closure on quota value and incentives. The alternative approach (i.e., the Crown buying quota on the market and then "retiring" it) is not preferred because it results in Crown ownership of quota shares, reduces the number of quota shares available for trading, and compensates only those who sell quota and not those who remain in the fishery.

The rebalancing policy does not include correction of economic incentives (financial compensation) for non-commercial fishing sectors because non-commercial sectors are not subject to a management regime that is reliant on economic incentives (i.e., the QMS).

Assessing displaced catch

The participating parties will agree on a methodology for assessing the amount of displaced catch. Factors to consider include:

- data sources, including appropriate use of fine-scale industry or iwi-collected data;
- length of time over which catch is averaged (e.g., five years);
- extent to which historical catch represents likely future catch foregone; and
- appropriate recognition of collective industry management measures (e.g., effect of voluntary catch-spreading, shelving, or closed areas).

Assessing market value of quota

The participating parties will agree on a process and methodology for assessing the value of quota equivalent to the displaced catch. A prescriptive methodology should be avoided and the valuation process should, as far as possible seek to replicate a free-market transaction.

Because of the compulsory nature of the transaction, quota owners are likely to require a multiplier to be applied to the calculation of quota value in order to include a solatium (i.e., a payment for other losses paid to an injured party over and above compensation

paid for damages). For example, the aquaculture compensation methodology that applies under the Fisheries Act when the "undue adverse effects" test is exceeded specifies a multiplier of 1.2.

Relationship to statutory tests

Some closure decisions have a statutory test – e.g., the "prevent" test for mataitai reserves and the "undue interference" test for marine reserves. The rebalancing policy:

- does not detract from the operation of statutory tests, where they exist;
- operates where displacement is below the threshold of the statutory tests; and
- may also operate where displacement exceeds statutory thresholds of displacement, but only with the agreement of the affected quota owners.

Adjustment assistance for displaced fishers

Adjustment assistance is:

- a payment made to displaced ACE-dependent commercial fishers to assist them to move from an existing lawful use that is now considered to be unacceptable to a societally-desirable new use of an area;
- provided for social reasons, not in order to help the QMS function more effectively, and is therefore ***distinct from*** the rebalancing policy.

In circumstances where rebalancing is used, the relevant quota owners, where appropriate, may collectively fund and provide adjustment assistance to affected fishers (because quota owners collectively benefit from the removal of excess effort from the fishery).

However, the existence of a rebalancing policy does not prevent the Crown from providing adjustment assistance to commercial fishers affected by decisions made by the Crown, including in circumstances beyond the scope of the rebalancing policy.

Mahinga Kai Hi lka Komiti
Fisheries Regime Review ideas
December 2015

1. Rebalancing: The Fisheries Act needs a mechanism to recalibrate the fishing in a OMA when for example DoC establishes marine reserves (at the moment these MPA are established without any thought to displaced fishing effort and the impact of this on the remaining fishery, and without any thought to compensation). The Fisheries Act must cater for both of these steps – refer to the Rebalancing Policy;

2. Customary Protection Area (CPA) improvements:
    a. The Taiapure mechanism needs to be brought in to the 21[51] century by removing the Maori Land Court and the Minister of Maori Affairs from the establishment process, allowing scope for establishment in freshwater areas and offshore tauranga ika and the potential for management measures other than regulations that must go through Cabinet (bylaws if and when appropriate perhaps).
    b. Section 1868 temporary closures: Allowing for a matauranga or ecological-based approach to setting the closure period rather than the current fixed two-year term (that has proven not to be appropriate for fisheries such as paua – for example, the s186B closure in Kaikoura has been rolled over 7 times so far).

3. Recreational fishing modernisation:
    a. The Fisheries Act needs a mechanism to modernise recreational bag limits and accumulation limits for individual fishers (the current limits were set with far fewer fisher numbers in mind and they were largely not set with any regard to the fisheries resource in question. Generally the limits were set based on the number of fish that could fit in to a catch receptacle – a sugar sack, a fish bin, a kerosene tin. The limits were certainly not set with regard to what constitutes a decent 'feed')
    b. The Fisheries Act needs a mechanism to introduce vessel limits for recreational fishing (both private and charter)
    c. The Fisheries Act needs a mechanism to require recreational reporting of catch and effort
    d. Section 111 of the Fisheries Act (permits for recreational fishing on a commercial vessels) needs to be tightened considerably

Discussion notes for MPI fisheries review

6 November 2015

BIG PICTURE ISSUES:

Need to start with the broader question: What should a fisheries management system be achieving in the public interest? Then assess the system against the answer.

A second more focused question is: What did the QMS seek to achieve when it was put in place and to what extent has it achieved that? [Not relevant to request]

A third big question should look at ecosystem based management and the extent to which we are moving in this direction in NZ, and/or have lagged behind where other countries are getting to on this (eg I am aware that NOAA in the USA has recently put out a discussion document on this topic and they seem to be a lot further down the track). [Not relevant to request] [Not relevant to request] [Not relevant to request]

SUSTAINABILITY OF FISH STOCKS:

[Not relevant to request]

- **Setting the management goal** – MSY? Or something better incorporating more precaution and therefore building more resilient stocks (see Alaska) [Not relevant to request] [Not relevant to request]
- **Localised depletion** - major issue that needs to be resolved; requires management at smaller spatial scales; some obvious ones are crayfish in Hauraki Gulf, almost disappeared from inshore areas and where historically very prolific (has associated problem of kina barrens); also apparently flatfish are a real issue in Kaipara etc, but lots of examples [Not relevant to request]
- **Intertidal and coastal shellfish** – basically not currently managed, its plunder, closure, plunder closure cycle which is destroying shellfish beds. Very real issue in Auckland with large, increasing population and new ethnic groups. Only need to look at what's happening at Kawakawa Bay presently.

[Not relevant to request]

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[Not relevant to request]

- **Reef fish** – currently being plundered by recreational fishers and not well managed at all, species such as hapuku are disappearing; reefs degrading; reef fish not resilient to fishing pressure so need to be managed in a different way than large scale quota.

[Not relevant to request]

- **Habitats of importance to fisheries** – major gap here as no-agency addresses, major losses through sedimentation and historic trawling/dredging activity; eg Hauraki Gulf, Tasman Bay

[Not relevant to request]

ENVIRONMENTAL FACTORS: [Not relevant to request]

- **Direct bycatch of protected species** – being addressed in some areas though concerted effort, so a success to a large extent, except NZ sea lions. [Not relevant to request]

[Not relevant to request]

Indirect impacts on protected species – seems to be largely ignored, main issue is food sources; harvesting levels of bait fish and predators that drive them to the surface (kahawai, king fish) need to be set at levels that ensure sufficient food sources and aggregations in boil ups for seabirds and marine mammals. Don't think this is currently considered in a quantitative manner. Eg evidence that seabirds are having to forage much further which reduces chick survival rates so not good. NZ sea lions likely short of food. [Not relevant to request]

[Not relevant to request]

[Not relevant to request]

Benthic impacts – need to look at issues around trawling especially in fish nursery grounds and other sensitive habitats. Currently not managed well (and where trawled fish can be caught by less destructive methods such as longlining the system should incentivise this as it provides higher quality fish and therefore higher value overall from a limited resource,). What we know indicates a long time for recovery to occur after trawling stops and therefore at the very least need to have a system to control trawling in areas which have not been previously trawled (ie consent should be required before going into new areas to enable the impacts to be considered). Also need spatial management of trawling and MSP (see later) could help with this

[Not relevant to request]

[Not relevant to request]

- **Trophic cascades** – also seems to be largely ignored in fisheries decisionmaking but major impact certainly on the NE coast of North island with kina barrens as a result of fishing down top predators. Problem could be solved if snapper were caught on the flats and not on the reefs and crayfish population allowed to recover – hard to believe that the crayfish population on the NE coast is at sustainable levels as the species is pretty much absent from most areas and scientists have concluded it is 'ecologically extinct'.

ECONOMIC FACTORS: [Not relevant to request]

Key issue here is does the system provide the right incentives to maximize overall value from New Zealand's fisheries resource. Some potential issues:

[Not relevant to request]

- **Extent of market dominance** (and amalgamation of quota): quantify the extent of this and how it is impacting on outcomes/incentives/reinvestment/innovation

- **Separation of ownership of quota from people who catch the fish**: extent of this and what behaviours it is driving – lack of reinvestment; potentially poor practice on the water; inability of good operators to access fish etc

- **Investment in innovation**, both in terms of fishing equipment that produces high quality and minuses environmental impacts (bycatch, benthic damage etc). Note that no current investment in reducing impacts of scallop dredging equipment and precision seafood harvesting hasn't addressed seabed damage issue (so no drivers in place here)

CULTURAL AND SOCIAL FACTORS:

- **Localised depletion**: this is a major issue as it impacts on the ability of iwi/hapū and local communities to harvest fish in their areas.

- **Local management**: communities feel estranged from fisheries management and decision-making and there are too few fisheries officers on the ground to enforce, so need to look at some alternative models for local involvement in management on a smaller spatial scale.

[Not relevant to request]

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- **Mātaitai and Taipūre**: good to review these mechanisms to see if they are delivering and/or if thet need to be amended in any way, particularly if they are going to be rolled out around the coast

MANAGEMENT SYSTEM:

[Not relevant to request]

- **Is the management system cost effective**? Are there alternative management approaches that could achieve a better result at less cost? Are the funding arrangements appropriate: ie levies?

- **Conflict resolution**: current decision-making process is highly conflictual at times and there is a need to look at alternative processes to address conflict in a more constructive manner (eg when SNA1 working group was set up it specifically excluded environmental interests; result is a narrow conversation and potentially heightened conflict between those in the room; including all stakeholders results in a more balanced conversation)

- **Links with marine spatial planning**: MSP provides a mechanism to apply an ecosystems-based approach to fisheries management as it looks at all the interconnections. The review needs to look at the role of MSP in fisheries management, how it can add value to fisheries and how the two can be effectively linked, especially as there is a good chance MSP will be applied more broadly in NZ once the Hauraki Gulf process is completed.

[Not relevant to request]

[Not relevant to request]

SEALORD

11 December 2015

Ministry for Primary Industries
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Wellington 6011

Written Submission on Fisheries Management Operational Review 2015/16

Thank you for the opportunity for stakeholders to provide views on the current state of New Zealand's fisheries management system. Sealord fully supports the submissions made by the New Zealand seafood industry, but also want to emphasise some key points for the review.

Sustainable fisheries are a core value, and as we have grown with the QMS, and challenged the way we operate, we have taken on more responsibility for significant aspects of the management system to ensure our access to markets is enhanced and protected. In more recent time, more of our operational activities have been driven by changes in the market and consumer reactions. This will continue to have a major influence on our business in the future.

We note that the cooperative approach with MPI in Deepwater Fisheries over recent years has been very important in protecting our property rights and access to markets, most notably with the MSC certification of several orange roughy stocks. For these fisheries, MPI has set the standards, Industry conducted the research and MPI audited the results. We need to continue this successful model with other species and fisheries.

Sealord wishes to see more emphasis on a core reform that will enhance Authorised Management, so that we can continue and increase our purchase of specified fisheries services to deliver sustainable fisheries. We need cost effective and prompt delivery of best science that can meet our commercial needs. Under Authorised Management, industry can purchase specified fisheries services and perform specified management functions for the commercial share of a fishery, using binding industry-developed rules within government-set standards.

Sealord seeks better alignment between MPI and industry on commercial imperatives and timetables. A recent case in point it the growth in market demand for orange roughy, including whole fish. We now need to modify our fishing operations/fleet configuration to take advantage of these changes while also ensuring that the fisheries are performing at their optimum harvest levels. Planning horizons should be based on industry needs for better utilisation, rather than science provider needs set over a 10 year horizon that is orientated to asset availability.

The current cost recovery regime in our view is not transparent. It is the one part of our business that we have no direct understanding of whether this provides value for money as we cannot measure it. We also invest substantial monies in our own research every year, from fisheries assessment work using our own vessels as research platforms, through cooperative research in the Deepwater Group, and through precision harvesting, and all these costs are transparent to us.

Kaitiki! Kaitora!
SWIM for LIFE
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Significant public attention has turned on the environmental effects of fishing, both nationally and internationally. Sealord has continued to invest in new technology to reduce and minimise significant adverse impacts, and the review should consider how MPI can contribute to this development.

A core component of the QMS is the commercial property right which is supported by catch balancing. Deemed values aim to reduce the extent of overfishing on a species. Any overcatch of a TACC is ultimately paid for by rights holders, as this catch is part of the yield avalable. The deemed value revenue in Sealord's view should be used to compensate those quotaholders whose rights have been diminished, not as a windfall for the Crown. For example LIN7 deemed value revenue should be used to reduce research and management costs attributed to LIN7, or to fund new research on this stock. We do not support the concept of using deemed value revenue to either subsidise the Crown or to assist general fisheries governance or research.

Historical decisions, competing demands for spatial access, and conflicts with access for commercial fishing have a major economic impact on our business. We need a framework within the QMS to ensure that value is not destroyed by spatial closures which prevent utilisation, and that MPI fairly accounts for the economic impact of decisions on displacement of fishing effort. Referring to BPAs, Kermadec, Seamount closures, DOC Sub Antarctic and regional Coastal Plan, Hauraki Gulf and growing MPAs.

The offences and penalties regime that under pins the QMS is one based on the inherent difficulty of enforcing a self policing system that operates to a great extent over the horizon. Heavy monetary penalties and forfeiture of property and quota for persons or companies who offend against its provisions prevail as a result. Over time however the difficulty of detection has been diminished by what is now a sophisticated enforcement, monitoring and detection capability within MPI and its supporting agencies. A review of the framework for offences and penalties regime in light of the changes that have occurred is supported by Sealord.

Yours sincerely
SEALORD GROUP LTD

Doug Paulin
General Manager
Sealord Fishing

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[Not relevant to request]

SEALORD

11 December 2015

Ministry for Primary Industries
PO Box 2526
Wellington 6011

Written Submission on Fisheries Management Operational Review 2015/16

Thank you for the opportunity for stakeholders to provide views on the current state of New Zealand's fisheries management system. Sealord fully supports the submissions made by the New Zealand seafood industry, but also want to emphasise some key points for the review.

Sustainable fisheries are a core value, and as we have grown with the QMS, and challenged the way we operate, we have taken on more responsibility for significant aspects of the management system to ensure our access to markets is enhanced and protected. In more recent time, more of our operational activities have been driven by changes in the market and consumer reactions. This will continue to have a major influence on our business in the future.

We note that the cooperative approach with MPI in Deepwater Fisheries over recent years has been very important in protecting our property rights and access to markets, most notably with the MSC certification of several orange roughy stocks. For these fisheries, MPI has set the standards, Industry conducted the research and MPI audited the results. We need to continue this successful model with other species and fisheries.

Sealord wishes to see more emphasis on a core reform that will enhance Authorised Management, so that we can continue and increase our purchase of specified fisheries services to deliver sustainable fisheries. We need cost effective and prompt delivery of best science that can meet our commercial needs. Under Authorised Management, industry can purchase specified fisheries services and perform specified management functions for the commercial share of a fishery, using binding industry-developed rules within government-set standards.

Sealord seeks better alignment between MPI and industry on commercial imperatives and timetables. A recent case in point it the growth in market demand for orange roughy, including whole fish. We now need to modify our fishing operations/fleet configuration to take advantage of these changes while also ensuring that the fisheries are performing at their optimum harvest levels. Planning horizons should be based on industry needs for better utilisation, rather than science provider needs set over a 10 year horizon that is orientated to asset availability.

The current cost recovery regime in our view is not transparent. It is the one part of our business that we have no direct understanding of whether this provides value for money as we cannot measure it. We also invest substantial monies in our own research every year, from fisheries assessment work using our own vessels as research platforms, through cooperative research in the Deepwater Group, and through precision harvesting, and all these costs are transparent to us.

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TE OHU KAIMOANA

MĀORI FISHERIES TRUST

Fisheries Act Review

SUBMISSION FROM TE OHU KAIMOANA

DECEMBER 2015

Contents

Introduction

1. This paper sets out the matters Te Ohu Kaimoana (Te Ohu) considers should be addressed as part of the review of the Fisheries Act.

2. This is the first time since the Act's commencement in 1996 that such a review has taken place. We welcome the opportunity reinforce those matters that are working well and those that need to be addressed to:
    a. improve the management of our fisheries
    b. ensure the management system is responsive to the protection and enhancement of the Fisheries Settlement.

3. At the September 2015 Seafood Conference, the Minister for Primary Industries announced the Ministry for Primary Industries (MPI) would undertake an operational review of the New Zealand fisheries management framework. As we understand that it will look at improving our fisheries management but the following aspects of our management system are deemed out of scope:

    - sustainable utilisation of fisheries resources as set out in Section 8 of the Fisheries Act
    - the QMS tools (quota and annual catch entitlements)
    - the rights of commercial quota ownership
    - the Crown's obligations under Treaty settlements
    - the rights and interests of tangata whenua, and customary management
    - the right to fish for recreation
    - our international obligations and the systems that apply to New Zealand enterprises fishing in international waters and
    - aquaculture.

4. We understand that you (MPI) has also identified that if there is to be change to the way we manage our fisheries, it could be through changes to:
    a. the Fisheries Act
    b. regulations under the Act
    c. the processes used by the Ministry to undertake its work - including greater collaboration with iwi in fisheries management
    d. a combination of these.

5. Improving our fisheries management is important to us. Collectively, the fishing rights held by all Fisheries Settlement entities, (Mandated Iwi Organisations (MIOs), their Asset Holding Companies (AHCs), Te Ohu, Aotearoa Fisheries Limited, the Sealord Group, kaitiaki and other Maori :

    a. are a significant portion of all commercial quota shares across all fisheries (approximately 33% overall but more in some fisheries and overall valued at around $1.45B);
    b. all customary non- commercial communal fishing
    c. a substantial portion of amateur fishing (estimated by some to be more than 40% of that catch).

6. The settlement entities have been and are a significant part of the "coalition of the willing" can-do innovators seeking to enhance New Zealand's fisheries management and the outcomes

produced by that. We have been and are involved in actively implementing a myriad of initiatives to deliver better fisheries management outcomes and reduce impacts on the marine environment, many of which are voluntary, including:

- gear modification to improve fishing selectivity – this involves both:
  - Precision Seafood Harvesting(PSH)- AFL and Sealord are 2 of the 3 industry partners involved in the $52M PSH project
  - Te Ohu has been funding trials over the last 5 years of different mesh size and orientation in the lengthener and cod ends for inshore finfish trawl nets
- implementing bird mitigation practices to reduce risk of interactions
- closing large areas to bottom-impacting fishing gear - Sealord and Te Ohu were two of the key quota owners that established BPAs
- avoiding areas where juvenile fish congregate and implementing move-on rules – in SNA1
- refining and implementing sea lion exclusion devices
- investigating the use of sub-marine line setting
- initiating experiments with trawl doors to reduce seabed contact
- developing and using suitable software that can be used on robust electronic tablets to record far greater amounts of information on fishing activity and catch – including deepening the amount of information for statutory reporting with more precise location
- developing and using bespoke software to better assist kaitiaki to collaborate with the commercial industry on Pataka whata and also reporting of customary non-commercial authorisations to fish
- Implementing voluntary closures in conjunction with the recreation groups and examining wider causes for near shore depletion
- investigating alternative high value products from what is currently largely waste streams
- installing and using VMS devices on inshore fishing boats and
- camera monitoring on inshore vessels.

7. In addition to this, Te Ohu participates in most of the science working group processes and other government forums associated with fisheries management as well as belonging to and participating in nearly all industry groups and forums. Many other settlement entities participate in those government and industry processes as is appropriate for them.

8. As part of this involvement with industry, Te Ohu is familiar with, contributed to and broadly endorses the Aotearoa Fisheries, Fisheries Inshore New Zealand, Deepwater Group and Seafood New Zealand's submissions on this review.

9. We note that while we welcome this opportunity to improve the system, the review could create significant risks to Fisheries Settlement rights. Any changes to the Fisheries Act need to be advanced carefully. If the Settlement is to be appropriately protected, there is much about the Fisheries Act that should not be tampered with and extreme care is needed where change is promoted. We think it is important that we set these issues out from the start and as Treaty partner, iwi (with Te Ohu as their advisor) would expect significant involvement in developing any changes.

Our starting point

Iwi are not ordinary stakeholders

10. Iwi are the ***Treaty Partners*** with the Crown. The New Zealand courts have indicated to government that it has responsibilities of active protection (of resources – *particularly those that are the currency of a settlement*) and consultation with settlement parties that could be affected by the Crown's exercise of its Article 1 powers. These responsibilities apply to the Fisheries Settlement.

11. Irrespective of the Settlement and their Treaty relationship, the Crown and iwi should collaborate because they share ***common perspectives and drivers***:
    a. They have an inter-generational time horizon when considering fisheries management. While short-term decisions are important, they should be taken in manner that supports the long-term. They are not about an immediate maximum short–term return (though decisions should support ongoing commercial viability), but more about an investment for the future – "*We don't inherit our world from our ancestors, we borrow it from our grandchildren*";
    b. They are required by their constituents to develop a balanced position across the harvest sectors – commercial and non-commercial including both recreational and customary communal, having each recognised that durable outcomes are not achieved by addressing a problem for one sector but doing so in a manner that creates a grievance for another "*We don't solve one problem by creating another*".

12. There should be ***far greater collaboration between the Crown and iwi (aided by Te Ohu) in managing fisheries***. This collaboration should begin when identifying problems and continue through the policy development process to implementation and monitoring.

The Fisheries Settlement

What instigated it?

13. Maori took the Crown to court in 1986 after the Crown introduced the Quota Management System (QMS) with its Individual Transferable Quota (ITQ) rights and at the same time deleted s 88(2) of the Fisheries Act (1983) that had stated that "*Nothing in this Act affected Maori customary rights to fishing"*. Maori challenged the Government's right to allocate the perpetual ITQ rights on the basis that the Crown did not own the rights in the first place – as Maori had never ceded them.

14. The New Zealand Courts heard the action and Justice Greig of the High Court in 1987 reported

    I am satisfied that there is a strong case that before 1840 Maori had a highly developed and controlled fishery over the whole of the coast of New Zealand, at least where they were living.

    That was divided into zones under the control and authority of hapu and tribes of the district. Each of these hapu and tribes had the dominion, perhaps the rangatiratanga, over those fisheries.

    Those fisheries had a commercial element and were not purely recreational or ceremonial or merely for the sustenance of the local dwellers".

15. Further the Courts noted that Article 2 in the English version of the Treaty of Waitangi sets out, in as explicit form as set down anywhere in English law, what a property right entails and in doing

so clearly set out ownership of fisheries by Maori. The Courts recommended to the Government that it enter into negotiations with iwi/Maori.

What was agreed to?

16. The Crown agreed that customary fishing rights :
    a. included both commercial and non-commercial dimensions
    b. were not limited to historical take, using earlier technology but involved opportunities in the past, present and future with customary rights holders able to take up development opportunities as they saw fit
    c. involved genuine ability to manage all fishing activity within kaitiakitanga.

17. At the time of the settlement negotiations with Maori, the Crown promoted the concept of the QMS as having the following advantages:
    - it was a means to cap total catch and therefore protect overall sustainability
    - the property rights Maori would receive in the form of ITQ would be perpetual and therefore were robust and enduring
    - an express purpose of allocating ITQ was to give security to ITQ holders which would allow them to plan and invest for the long-term with greater confidence.

18. Maori and iwi accepted and endorsed the QMS because the rights were granted in perpetuity and came with them significant incentives to contribute to the sustainable management of fisheries and their supporting environment.

19. In light of their acceptance of the QMS and the agreed form of management, and in exchange for their customary fishing rights Maori were granted:
    - Quota (10% of species introduced in 1986 and up to September 1992 & 20% of species introduced after September 1992
    - Sufficient cash to buy a half share in Sealord
    - An undertaking that the Crown would provide regulations and assistance that enabled Maori to manage their non-commercial customary fishing activities; and
    - Opportunities to participate in statutory bodies and processes making decisions on fisheries management.

20. Maori accepted that, as part of the Settlement, the level of catch for any fishstock would go up or down on the tides of sustainability. Maori welcomed that having practised it as kaitiaki to protect their resources. Further they considered the perpetual rights under quota provided the incentive to manage for the longer-term. For example, if they set some fisheries to 'fallow' in the short term, they would be able to access those fisheries in the longer term when they were healthier.

21. When iwi/Maori discuss customary rights, it is the full bundle of rights recognised by the New Zealand Courts and Government and agreed to be respected and translated through the Deed of Settlement – not just the customary non-commercial rights referred to in the legislation (with the label then often shortened further to 'customary' rights.) This can often cause misunderstandings on the extent of issues being considered and the breadth of solutions needed to get 'balanced' answers – ie that work across sectors and communities.

The system is generally working well

22. We consider that on the whole our fisheries management system is working well. There is no doubt that New Zealand's fisheries management framework is progressively delivering sustainable fisheries management. By the end of 2014, for the stocks with known status:[1]
    - 96.4% of the landings were from stocks above the 'soft limit'
    - 99.5% were from stocks above the 'hard limit'
    - 95.9% were from stocks below the 'overfishing threshold', and
    - 90.3% were from stocks above their management targets.

23. The number of stocks with known status has increased but more pragmatic monitoring approaches are necessary to provide confidence in sustainable use.

Iwi and stakeholders take responsibility

24. Te Ohu has always taken a long-term view and put the fishery first. The cuts in the TACC for Hoki in the early 2000s, called for by Te Ohu, AFL, Sealord and the rest of industry (ahead of officials), are examples of this. All of industry – quota owners, LFRs, and fishers were concerned for the ongoing health of the stock. Subsequent to making those cuts, to make sure the pattern wasn't repeated, industry considered different management strategies for hoki and chose a conservative proposed management range for the fishery well above what was considered to be B_{msy} at the time – further evidence of the growing maturity of industry. While B_{msy} was considered to be 24% at that time, the industry chose to position the fishery in a management range of 35-50% B_0. This was intended to make sure that if the fishery has another consecutive set of bad recruiting years (the cause of the earlier problem), the biomass would still not reduce significantly and require substantial TACC cuts. The fishery has recovered well and the current biomass is now above 50% B_0.

25. There are many other instances where based on concerns held by quota owners and fishers, industry has taken precautionary action to restrict catch to less than the TACC limit set by the Minister. These examples show that the incentives built into the QMS do translate into real stewardship by quota owners and fishers.

26. Within the customary non-commercial sector, it is well known that kaitiaki refuse to grant authorisations where they consider the fishery is not in good health – demonstrating they are exercising their kaitiaki responsibilities.

Practical initiatives to obtain better information and mitigate fishing effects

27. Te Ohu has also been directly involved in establishing Trident –a seafood research company looking to *develop innovative cost-effective solutions to* industry and ***fisheries management issues***. In the last 2 years Trident has developed a modular set of improved electronic observation options for inshore boats. Depending on the issues, quota owners, licensed fish receivers and vessel owners can install a New Zealand manufactured Vessel Monitoring system (VMS) suitable for small inshore boats. These units provide 24/7 tracking of fishing vessels as required by the Minister in his SNA1 decision. The units have now been installed through cooperative action by Te Ohu, AFL, Sanford and other quota owners. AFL has already found these units invaluable in showing MPI precisely where their vessels are (and have been) when issues arise. Trident also has the ability to add New Zealand made Snap-IT cameras on inshore boats. These were used to

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1 MPI. *The Status of New Zealand's Fisheries*, February 2015.

investigate the extent of under-size snapper caught in SNA1 (less than 5%) and these cameras are now installed on all SNA1 trawlers.

28. Te Ohu has also been active over 5 years investigating whether simple modifications to the size and orientation of the mesh in the lengthener and cod-end of the trawl net on an inshore boat in Hawke Bay can significantly increase the release of small unwanted fish. These results have been significant for round shaped fish like gurnard (50-80% of small fish released with minimal loss of target size) but are not yet effective for elliptical shaped fish like Snapper. Further trials continue. We have also begun to investigate alterations to trawl doors and rigging to reduce seabed contact.

29. In addition we have developed an improved electronic reporting application that can be fitted on robust electronic tablets to record far more data far faster and more accurately than the paper based version used by inshore boats. This can also fit in a modular form to the Trident system.

30. In addition we have been ***instituting mitigation measures for fishing's impact on the broader ecosystem.*** For example deepwater quota owners have placed sealion excluder devices (SLEDS) on squid nets. The devices are effective at ensuring Hooker Sealions escape the squid nets. Other initiatives include extensive work on mitigation of bird interactions with trawl nets and longlines (including the work done by Southern Seabirds Solutions. Te Ohu has been a trustee of Southern Seabird Solutions from its inception).

Key provisions of the Fisheries act

31. We consider there are many provisions in the Act that should not be changed, including all of Part 2 of the Act. In the past Te Ohu and iwi campaigned successfully against changes proposed to s10 which would have made it more cautious but without any disciplines over its exercise. Subsequently we supported changes to s 13 of the Act to provide greater flexibility and more pragmatism in setting management targets and thresholds.

32. We support the current balance in the Act that indicates that in making choices on allocation of the TAC between sectors the Minister must consider each case on its circumstances. While we favour a priority for the customary non-commercial sector, in practice its level is so small in relation to either the recreational or inshore commercial catch, that it is unnecessary to formalise it in the legislation. We would oppose any changes to the legislation that gave primacy to recreational allowances. Our thoughts on this were well summed up by Justice McGechan who noted in his High Court decision in 1997:

    "It is clear Maori negotiators in 1992 were aware that ITQ held by the Commission, and further ITQ to be received by the Commission and Maori, would be subject to reduction along with the TACC on biological grounds. Likewise, it might be increased. That risk and potential benefit, were known and accepted.

    I accept Maori did not envisage, or accept, that TACC and quota might be reduced simply to enable a greater recreational allocation of the resource. It is highly unlikely Maori would have agreed to surrender Treaty rights for the better gratification of Auckland boatmen. The thought did not cross the tangata whenua mind."

33. Another key aspect of the Fisheries Act that affects the Settlement is section 262 – the cost recovery principles. While there are concerns with how these principles have been applied

including through the regulated rules, the principles set out in the legislation provide a useful discipline on the Crown.

34. While the **New Zealand fisheries management** system has much ***merit*** and changes to the legislation need to be carefully crafted, there remains a great deal of work to do to build on the system so that it performs as well as we might like and can afford (when justifying it to our grandchildren). The ***current*** system is ***necessary but not sufficient***. It is now time to develop a more cohesive and responsive fisheries management system.

Areas that need to be addressed

35. You (MPI) have asked for comment against the following themes:
    a. Sustainability
    b. Benefits to all New Zealanders
    c. Decision-making processes
    d. Monitoring and enforcement
    e. Responding effectively to future challenges.

36. We identify the issues we consider need to be addressed in light of these themes, recognising that a number could be categorised under more than 1 theme.

Sustainability

37. If we are to build on our confidence in the sustainability of our fisheries, we need to find smarter ways for all sectors to contribute better information. Some initiatives are already being taken on the commercial and non-commercial customary sector in endeavours to do just that. However for these actions to bear fruit, they must eventually be connected into more responsive management.

38. Pamela Mace of MPI reports that, based on the science processes, stocks of known status are within or above the harvest strategy standards set within our management system, and that these stocks are continuing to improve. However the Ministry only has the capacity to review less than 20 fishstocks in any year. Even though we have good information for fishstocks that represent 72% of overall landings, this means that even for those fishstocks, there is very limited ability to respond to changes that could threaten sustainability.

39. Furthermore, in respect of the inshore finfish stocks:
    - 86% of QMS stocks have never had a formal TAC/TACC review since their introduction to the QMS[2]
    - Less than two-thirds of inshore stocks have a recreational allowance set
    - There is no approved over-arching Fisheries Plan in place for inshore fin fish
    - There are no documented, stock-specific plans in place for any inshore fin fish stock (although progress has been made on SNA1)
    - The medium-term research programme in place is not informed by specified management objectives for inshore stocks.

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[2] We acknowledge that many of these stocks have nominal TACs and that have yet to be proved up (though some of these may be important opportunities for iwi). If these developmental opportunities stocks are removed (i.e. 10 t or less) for the purpose of this rough analysis, the number of stocks that have never had TAC changes reduces to 62%. This is still too high.

40. While that does not mean the other 28% of landings come from stocks that are being fished unsustainably, it does mean that we have yet to specify appropriate management and monitoring measures to provide that information so as to prove its sustainability (or otherwise) in a cost-effective manner. There are in excess of 200 inshore fin fishstocks that individually have small volumes and the quota owners and Crown struggle to pay for the research deemed necessary to provide the level of information considered necessary for robust stock assessment using traditional methods for even the most valuable stocks – whether measured in the market, or recreation preferred retained catch or taonga species for customary non-commercial.

41. This is exacerbated by the system used by the Ministry to purchase research. To try to ensure independence (and presumably to have sufficient research critical mass in NZ) most research services are purchased from NIWA. NIWA as a large commercial organisation but accountable to a Minister and Parliament as a Crown Research Institute has its own overheads along with a required rate of return (>12%) to its shareholding Minister. On top of this are the MPI processes to ensure appropriate administration that result in overhead costs of more than 22%. All are subject to ongoing inflation even where this is low. Cumulatively the final result of this is that over time there is now far less effective research resulting from the same level of expenditure than 10 years ago, and the 10 year level of research was significantly less than 20 years ago.

Cost effective innovative options for management

42. For less valuable fishstocks we need to find more cost effective ways to gain appropriate data that can be used to make decisions on the adequacy or otherwise in the management of the fishstock.

43. As a first step Te Ohu, in cooperation with FINZ, has been encouraging quota owners to better identify their objectives for a fishery. Where this is done collectively, a suitable management and monitoring regime can be agreed and industry data can be gathered in a cost effective manner and provided as input data to allow assessment of the optimal cost effective management procedure for the fishery.

44. Responding to feedback from LFRs and skippers, Fisheries Inshore New Zealand contracted Trident to take a further look at our bluenose fishstocks (which are managed by MPI as if they are a single fishstock). This additional work backed up anecdotal information from skippers that the fisheries were in better shape than identified by the 2011 assessment. The Trident work – taken through the Inshore Science Working Group- was able to demonstrate that a proposed 3rd set of cuts to the Bluenose TACC from 1100 to 660 tonnes/ annum across all Bluenose fisheries was not needed to ensure the sustainability of the fishery.

45. We consider the approach of developing a suitable management procedure for the Bluenose fishery could be applied across a wide range of other low knowledge inshore stocks. More comprehensive reporting by fishers using the app reported in para 28 above would enhance the data available for of this technique – see also monitoring below.

46. To ensure the investment is cost effective, quota owners and fishers need to be assured that if the information is collected and applied in a manner that meets the science standards it will then be used for management purposes. We would welcome further discussion of this.

28N rights

47. Rights granted under section 28N of the Fisheries Act 1983 undermine the Fisheries Settlement and act as a disincentive for commercial parties to collaborate to improve the management of stocks subject to those rights.

48. When the QMS was introduced, the ITQ for each fishstock under it set out the tonnage limit of that fishstock that could be caught by each quota owner in the fishery. After the Quota Appeal Authority completed its deliberations and awarded more quota, it soon became apparent that the resultant total allowable catch for a number of fisheries exceeded the capacity of those fisheries.

49. The Crown acted to reduce the catch. The regime at that time required the Government to buy quota back to retire it. The Government chose to change the law and provide quota owners with the choice of reduced compensation (compared with the market price) or the ability to put a denoted level of their quota effectively on hold until the TACC for the fishery increased through the fishery recovering, at which point that 'quota on hold' would have priority to the increase. Once 'refunded' in this way, that quota is normalised and holds the same rights as other quota. This means if there is a subsequent decrease in the TACC, its proportional decrease is the same as any other quota. This quota and the associated rights and processes were set out in Section 28N in the Fisheries Act 1983.

50. Most affected quota owners took the latter path of having the amount of their quota the government wanted reduced declared to be subject to 28N conditions. Subsequent to this, the Crown made other changes to the Quota Management System that changed the basis of quota being volume based to proportional shares of the TACC. The effect of this last change, when combined with s28N rights, means that when a TACC increases for fisheries where some quota owners hold 28N rights, all the increase transfers to those quota owners (until the total of the 28N rights for that fishery is exhausted). Because there is only a fixed number of shares in the fishery, this can only be achieved by increasing the number of shares held by the 28N rights holder and decreasing the shares held by other quota owners.

51. Nearly 30 years after the change there are still significant amounts in 28N rights in a number of fisheries. The policy change from volumetric quota to proportional shares of the TACC has had the effect of transferring liability for this quota from the Crown on to the rest of industry. This has created perverse incentives among industry participants and the ongoing existence of s28N rights is working against better fisheries management. All quota owners in these fisheries must pay their proportional share for research programmes to assess whether the TAC and TACC should be adjusted. However with any gains only going to those quota holders with 28N rights (but any subsequent reductions meaning all quota holders are affected) there is a reluctance to invest in programmes for these fisheries compared with others.

52. The existence of and ramifications of 28N rights was not made known to the Maori negotiators for the Fisheries Settlement by the Crown. Rather than gaining 10% shares of all the fisheries first introduced in to the QMS as promised by the Government, it has the effect of initially transferring the 10% but then eroding away those entitlements under the Settlement as with every TACC increase in these fisheries, iwi lose quota shares.

53. We consider that the Crown should look at and address this problem. It should regularise these fisheries so they are subject to the same policies as all other fishstocks. It must resume its responsibilities and deal with 28N rights holders in a principled way.

Recreational / amateur fishers

54. Fishing is an important recreational activity for a large number of New Zealanders. The most robust survey of recreational harvest concluded that 530,100[3] people fished on a recreational basis in 2011-12, an average of 11.9% of the population. While a far broader section of the population eat fish (88% of New Zealanders who eat fish at least once every month, with some 45% of us enjoying it at least once every week), it is nevertheless a significant group that in Fisheries Management Area 1 in particular catches a significant share of all fish.

55. Te Ohu considers that our fisheries management regime must provide satisfactory outcomes for all harvesting sectors as well as those who wish to ensure that our biodiversity is maintained. Some of the key inputs for fisheries management decisions and outcomes is linked to the questions of "How much fishing? How many fish caught? Where?"

56. For this, information is key. For recreational fishing estimates, currently the Crown funds the Large Scale multi-species (LSMS) offsite survey every 5 years and proposes that there be some lesser level of surveying within that period along with ramp surveys and over-flights.

57. However recreational catch is a substantive part of the total catch overall in some fisheries particularly FMA1 where presumably the much higher population in the region and its regional weather pattern creates more opportunity for larger numbers of fishers – recreational fishing activity is concentrated from October to April with 75% of recreational fish being caught over that period (January has 20%).

58. For FMA 1 looking at the top 8 fishstocks preferred by recreational fishers, the detailed 2011/12 survey shows the total to be just under 39% (5839 tonnes) of the total take in those fishstocks. When balancing sustainability this is not at the margins, it is significant.

59. In addition we know that the recreational catch is the most volatile – the fishing activity being strongly correlated with the weather conditions and the total take with the proximity of target size fish close to shore.

60. For our significant fisheries – with high value measured across all dimensions – and therefore high harvesting pressure, it is important that these are regularly reviewed and management measures/ settings adjusted based on the efficacy of the management at achieving the goals. Many want this to be at intervals no greater than 5 years.

61. Te Ohu does not consider that having one solid estimate every five years of recreational catch (with the rest an interpolation) to be adequate for management assessment when this most volatile type of catch is close to 40% of the total.

62. This one estimate every five years contrasts with

    a. <u>every</u> catching event in the commercial fleet (at least 1 every day) being recorded and
    b. every authorisation for customary non-commercial communal purposes requiring reporting.

[3] This represents the mean of between 479,400 and 581,700 people with those limits equating to between 10.8% and 13.1% of the New Zealand population at that time,

63. With the population increases forecast for the Auckland, Waikato and Bay of Plenty regions over the next 30 years, and the projected doubling of recreational boats in the region in that time, the recreation pressure will increase further.

64. Te Ohu considers there should be more frequent LSMS surveys for FMA1 - we suggest that these be undertaken every 3 years. To keep alignment across the country that could mean the national survey then happens every 6 years.

65. Recreational fishers do not consider that individual reporting will provide the same level of accuracy as the current LSMS survey. They seem to consider it only as an alternative.

66. Te Ohu considers there is one group involved in recreational fishing that could and should provide detailed accurate data each trip – that is the recreational charter fleet. While some reporting has commenced, it is not across all species and all areas and is yet to commence for the fish most caught and retained by all recreational fishers across the country – snapper.

67. Te Ohu also considers that the Ministry as part of a pro-active campaign to increase the quality of estimates should provide each charter boat with a robust tablet with the report programme set up to easily allow operators to record catch. The device could be set up to automatically feed the records into a confidential database that only MPI and approved researchers could use in aggregate form. Programmes could also be set up to deliver easy-to-read reports back to individual operator about his data – feedback is important. Delayed aggregate data could also be provided. Te Ohu would be pleased to assist with this work given our experience with both commercial and customary non-commercial communal kaitiaki.

68. Te Ohu considers that there are additional benefits from fishers recording catch. In practice many recreational fishers do this now - some have log books going back decades. Fishing clubs record catches from members on a regular basis. It helps put facts on opinions - on whether we are having a good (or bad) fishing year, what the long-term trends are etc. All of this is important information for involvement in fisheries management. It also assist get far better location and seasonal information.

69. Te Ohu does not see individual reporting as a substitute for LSMS surveys but as an additional input that can make individuals better informed and able to consider alternatives in management. Effectively managing recreational pressure is going to be a key challenge in some parts of New Zealand going forward. This will not be solved by ignoring other sectors – it must be done in collaboration with others.

70. Te Ohu notes that, as for most activities, the 80:20 rule applies for recreational fishing ie 80% of the fish are caught by 20% of the anglers. These committed passionate fishers will be the most knowledgeable about recreational fisheries, fish stock location, seasonal fishing opportunities etc. They will likely have the most effective gear for the fishstocks they pursue. Information from these fishers when aggregated will also likely provide an accurate picture of the state of each fishery from a recreational perspective.

71. In Te Ohu's experience, each sector has the best knowledge of its conditions and options and those that are the most informed (and motivated) will generate the best solutions for their sector.

72. There is going to be a need for recreational fishers in aggregate to adopt the best husbandry and fisheries handling practices championed by the top and most passionate anglers. Encouraging individual fishers to report catch is a step towards each taking greater responsibility for their

actions that will help ensure their grandchildren have the same (or greater) opportunities to catch fish in another generation's time.

Better catch information

73. Te Ohu has been involved for a number of years in projects that seek to gain better information on total fisheries mortality and use that information to make management decisions about particular fisheries. Some of this work has arisen from the net trials in Hawke Bay but it is recognised that this is only a point sample in one fishery. This lead to more work conducted in collaboration with MPI.

74. Our work was seeking to have more selective nets that reduced the amount of small fish caught that were not rewarded in the market. Though technology and techniques have improved over time, there has always been unwanted catch when fishing. It is likely that there was significant levels of discarding under earlier fisheries regimes and when the quota management system was established.

75. There are a variety of situations that fishers find themselves in – in some cases Minimum Legal Sizes (MLS) have been declared requiring fishers to throw undersized fish over the side without the system ever requiring a record of these catches – or enabling that – until the recent (2014) sun MLS snapper (SNX) reporting. In other cases fishers are legally required to land fish that are much smaller than the sub MLS fish even though there is no market for this.

76. The lack of recording means that we are consistently under-estimating the productivity of the fishery, but also not recording the full level of mortalities.

77. From a Maori perspective, discarding is highly undesirable as it represents unnecessary waste.

78. The absence of more comprehensive catch reporting is both a symptom and a cause of undesirable activity. Discarding fish can result from TACCs being set low and with fishers wanting to avoid high levels of Deemed Value payments.

79. As a result of discarding, estimates of fishing mortality are inaccurate which results in incorrect CPUE and uncertain stock status information. If TACCs and DVs are not adjusted to reflect increasing abundance, TACCs remain incorrect and the cycle continues unabated.

80. Te Ohu considers this work vitally important to the future management of our inshore fisheries. We continue to consider that this issue must be addressed systematically so that we progressively obtain information for all key complexes across the country through a representative group of boats in each region operating under special permits and recording all fish. This will require collaboration between quota owners, fishers LFRs, observers, scientists and managers at MPI.

81. It is highly likely that for each region the amount of small fish will vary with different locations, different times of the year and between years. Such variations are normal in nature and it would assist our inshore management to have better knowledge about these productivity surges. This however should not deter efforts to better understand the fishery. We will need this information to make changes to policy settings. Once we better understand the factors driving the current behaviours we can develop changed settings that create ongoing incentives for all participants to assist better fisheries management.

82. Te Ohu does not consider an acceptable responsible stance by MPI given its sets of responsibilities and how it has discharged them to date to take a 'black letter law' approach.

83. Te Ohu considers a more responsible attitude would be collaborate over investigations, work with industry to adjust the policies applying so there are sensible incentives for minimising discards and assist with investigations into the range of methods that assist in avoid small uneconomic fish. With this work aiming to change attitudes and behaviours established over time to the current policies, a realistic timeframe will need to be allowed to see change. As with all programmes looking to achieve substantial change, this requires collaborative effort using a VADE approach.

Land etc effects on estuarine and inshore fisheries

84. Another key factor impacting on the productivity of our inshore fisheries are the effects of contaminants entering our estuaries and near shore from activities on land and both point and non-point discharges. Research By NIWA has shown that both suspended sediment and other contaminents reduce fishery productivity.

85. Over time these impacts could lead to far more substantial changes to the safe yield from our fisheries than many fisheries management initiatives.

86. We consider that MPI along with Regional Councils should, as the agencies with responsibilities in managing land water, estuaries and fisheries, work together to investigate and manage these threats.

87. Te Ohu expects that this would include actions, both regultory and non-regulatory, to ensure that land based activities and other marine activities do not detrimentally affect the productivity of our inshore fisheries in our estuaries and the near shore environment.

88. As the agency that works with other parts of the primary sector we expect MPI to be able to identify best practice options for land users activities and encourage uptake of these.

Benefits

Changing Sector allowances

89. We noted earlier in this submission that quota owners have on many occasions either voluntarily reduced catch or have requested the Minister to reduce the TACC to look after the fishery. We consider this positive behaviour to protect long-term interests in the fishery important to encourage.

90. From a settlement perspective it is important to look long-term and make sure that progress steadily moves towards better outcomes. One 'rub point' for the commercial sector that creates perverse incentives towards short-termism is the discretion in the legislation that allows the Minister, at the time of setting any TAC and TACC decision, to alter the allocations between sectors.

91. That flexibility, if fully exercised, signals to participants in that fishery (and all other fisheries with significant recreational fishing- ie all inshore fishing) that precautionary protective behaviour now by quota owners collectively that aim to strengthen the fishery can not only go unrewarded but you may also be penalised - you have forgone catch (and income) for some years to build the

fishery, only to have the increase transferred to other sectors that have not contributed to that rebuild or paid for any of the science and analysis on the state of the fishery.

92. This climate obviously then affects all other ancillary investment into improved gear and practices as well as stock husbandry. This is not good policy. It doesn't encourage the behaviours wanted from all participants in a fishery.

93. Te Ohu considers that the policy associated with the operation of these parts of the Act be looked at – while the policy is discretionary and we think it should remain, we also consider it should only be used in a manner that provides the greatest rewards for positive investment action aimed at strengthening the fishery by a sector.

Decision-making

Locus of decision making

94. As we set out in paragraph 28 above, the current processes used means that MPI generally only examines about 20 stocks a year. With 620 stocks in the QMS the cycle time for all these is unacceptable – we will either have sustainability issues or be forgoing significant economic benefit because the system is not nimble enough.

95. With a number of major fishstocks being reviewed regularly, the cycle time for other fishstocks expands out further.

96. Te Ohu considers the current system as inadequate and in need of improvement.

97. There are few regimes administered by Government that requires Ministerial approval to the level of detail currently required of the Minister for Primary Industry with fisheries matters.

98. We consider the Minister must remain accountable for the overall system and should set the overall strategic direction / objectives for a fishery and any plan developed to achieve those objectives.

99. However most of the detail below this should be able to be delegated to the Director General (DG) and his officials or under conditions fixed by the Minister to mandated representative bodies.

100. This delegation should be a discretion that the Minister will decide the extent of at any time. The Minister could set out processes and thresholds to be achieved under the delegation to ensure sound and fair processes. The delegation would also be able to be passed back to Minister where as a result of particular conditions, the Minister demands it.

101. There may also be virtue in providing the Minister as an optional appeal path where participants consider the DG has not acted reasonably in the exercise of his powers.

Rapid measures in response to pressure on shellfish and reef fish that could be subject to intense use from high population of users

102. One issue that requires the ability to move quickly and bring in stringent controls is where there is heavy population pressure on largely sessile stocks. Without this ability, a large number of users may not perceive their cumulative impact and 'strip' the bay or reef. It is not clear that effective action can be taken quickly in these circumstances currently.

Multi-year settings with delegations

103. One option used with our international fisheries is to set multi-year limits and then allow the country to decide the allocation of catch over those years eg a 3 year total with 33% able to be caught in the first year, 34% in the 2nd year, and 33% in the 3rd year but equally possible catch 40% year 1, 25% year 2 and 35% year 3.

104. This may offer some useful flexibility with little extra complexity in setting the 3 – 5 year totals in other New Zealand fisheries.

Shelving

105. One way of addressing the issue set out above on cross sector allowances could be to provide better recognition of shelving. Shelving occurs when industry agrees to set aside some of the TACC and each quota owner transfers ACE into an independent 3rd party's ACE account so it cannot be fished by industry participants. This is positive behaviour taking precautionary measures to assist the overall fishery – all sectors benefit from this as it increases abundance for everyone.

106. Te Ohu understands that there may be a difficulty in the Minister being able to formally recognise this as a management measure when he considers whether any action is needed to protect the fishery. If that is an issue, Te Ohu requests that you examine changes that allow these collective measures to be recognised so as to encourage precautionary action.

107. If there are other factors at play we would welcome discussion as we seek to provide positive long-term incentives for all harvesters.

Mixed fisheries – managing complexes

108. Our fisheries management system manages each fishery separately. While the examination of issues considers the impact on other fisheries and their effect on the fishstock being considered, there is no attempt to consider them as a complex.

109. Many of the issues associated with fisheries management however arise because fish are caught as complexes. Market demands, fisheries abundance, deemed values all affect fisher behaviour meaning the same fisher fishing with the same gear in the same month of the following year may have a very different strategy on how he catches certain target species. One year he may target species A while catching a little of species B. The next year however he may be targeting Species B and operate in a different manner knowing he will still catch sufficient of Species A as a bycatch. Unless the different fishing strategies and factors driving them are fully reported, it is highly unlikely that the science will be able to unravel the causes for the significant change in CPUE for the same species. This means the science analysis is then likely to conclude that the abundance has changed and management needs to change the TACC.

110. Te Ohu considers there is a need now to begin exploring how we manage complexes. There were attempts at this 10 to 15 years ago. The problems with the mechanisms discredited those techniques and no other techniques have been explored or brought forward since.

Fisheries and effects of fishing managed through Fisheries Act

111. A key principle in the Fisheries Act is to manage all the effects of fishing so that fisheries resources are used sustainably. The Act should be the only mechanism used to manage fishing

and the effects of fishing on both the fishery itself and its supporting environment.

112. Te Ohu is concerned that a number of 'initiatives' are appearing and seemingly supported that suggest additional measures, in addition to those applied under the Fisheries Act, are needed to achieve sustainability.

113. We do not accept that these additional measures are, in practice, needed to achieve sustainability. Sustainability is in practice achieved through the Fisheries Act measures.

114. Society always however has the right to decide it wants greater levels of conservation than those provided under the Fisheries Act. In those circumstances however, quota owners and fishers could rightfully expect compensation if their lawful sustainable activities are to be prohibited.

115. Te Ohu also considers that decisions between harvest sectors is a matter that should be decided under the Fisheries Act. This applies whether the decision is about sharing the Total Allowable Catch between the sectors or decisions that aim to restrict access by one or more fishing sectors while allowing it for others.

116. Te Ohu considers that multiple compatible uses are preferred, where possible, over single exclusive uses of areas as they can give rise to greater benefits at less cost. Exclusive use areas come with ongoing 'rub points' with one being the edge of the zone: "Is this sized zone adequate for my interests?" and the other being the suitability or otherwise of management in adjacent areas that could affect the fish in the zone: "We can't do what was promised in our zone because 'they' are affecting the fishery - they should not be allowed to do that and should have to do more of this" etc.

117. The broader question of allocation between fisheries sectors should be dealt with under the fisheries management regime as part of a shared fisheries policy. Within that context we would note that New Zealand has a history of communities working together to reach accommodation of one another's interest. There are numerous non-regulatory agreements that restrict commercial fishing in certain areas at certain times of the year to better allow for recreational interests. In this vein, there is some good work happening between the commercial and recreational sectors in Hawke Bay where collaboration to improve harvesting information is evolving. Incentives for greater collaboration of this type is needed.

118. In addition to this, as officials will know there are substantial areas all around New Zealand where access by commercial fishers is restricted in various ways from complete prohibition using all methods for the full year to seasonal closures by a method through regulation.

119. Te Ohu therefore does not favour or support recreation fishing only zones. If however Government wants to establish such zones the mechanisms for this should be included in the Fisheries Act. We would expect to see similar provisions on compensation as applies to competition for space between commercial fishing and aquaculture in any policy that establishes any recreation fishing only zones.

120. The management of recreational fishing in these zones / parks needs to be improved. If the government was to press ahead with recreational fishing parks, there should be a requirement on the recreational sector to report harvesting activity within these parks.

121. Te Ohu is also aware of regional councils and unitary authorities looking to use the Resource Management Act to manage the effects of fishing on the environment. We consider this to be entirely inappropriate. Regional Councils and Unitary authorities do have responsibility for managing the effects of other activities on fishing under the RMA but they should not have a role in limiting fishing because of harvesting. There are already measures in the RMA to this effect and Te Ohu considers this Review should take the opportunity to provide greater clarity by making clear that is not with Regional Council and Unitary authorities' powers under the RMA.

Monitoring and enforcement

122. As set out above Te Ohu has been active in developing electronic reporting by users to assist fisheries management. Te Ohu considers that all harvesting sectors should take advantage of relatively low cost technology to increase the amount of data routinely recorded. The greater depth of data should assist better fisheries management.

123. There are a number of challenges in this collection and use that need to be sensitively and sensibly worked through to address ownership and access. The SNA1 programme has shown both industry and MPI have the maturity to address these issues. The FINZ submission sets out the key questions to address and agree joint answers.

124. Given the New Zealand psyche, there is a real need for collaboration over this. Te Ohu considers that there is a need to agree on the objectives of any new system and standards set on that basis. Any system must be flexible with the ability to use a variety of different hardware and software ie we should as much as possible adopt a 'plug and play' approach. We should not be held ransom by one system.

Future Challenges

125. Two key challenges are able to be identified

a. Minimising the impact of land use on our estuaries and near shore fisheries; and
b. Determining the possible effects of climate change on our fisheries so that we can manage the consequences.

126. We have discussed earlier better management of land use practices to minimise any impacts on our inshore fisheries above – this will be a major challenge in some regions.

127. Little can be said currently about the medium or long-term effects of climate change on our fisheries. At present there is a dearth of information on what its effects will be. At one level it is likely that there will be more volatility in the weather and the resultant storms will lead to even greater sediment loads, thereby increasing the problems from land use.

128. What is unknown at present is the extent of change both in decreased productivity of some fisheries or increased productivity with others. Only the Crown has the resources and international networks to be able to adequately investigate this. We expect this will be a challenge that will need to be faced within the next 10-20 years.

Customary Non-commercial customary rights and management

General

129. We have chosen to report this aspect of our fisheries management regime separately. It applies only to Maori and though its benefits are often shared with a far wider community, its management generally only involves Maori. The adequacies or otherwise of the regime largely rebound on Maori. Being kaitiaki often involves putting the fishery first and the people involved often do not want to push an agenda.

130. As noted elsewhere when describing issues, it is also possible that they could be characterised under a number of different starting gates and also by different mechanisms for improvement. That is particularly the case here – there are problems under benefits, decision-making and monitoring and enforcement. It is also likely that solutions will need to consider some refinements in the law, certainly it is expected that regulations will need to change as will the processes used by the Ministry and others in this work.

131. There is widespread dissatisfaction among iwi and hapu with the customary tools and processes provided through Part 9 of the Fisheries Act and allied regulations. The Crown guaranteed in the Deed of Settlement to set in place a regime under which kaitiaki could manage customary fishing including providing sanctuaries (mataitai) or communally managed areas (taiapure). The current set of measures attempt to do this but are badly thought through and cause problems both between Maori and across sectors.

Regulations

132. The current basepoint is a set of transitional regulations that continue to apply across substantial parts of the country. These regulations have a number of inadequacies including not linking authorised kaitiaki to the area of the coast where they can approve fishing for customary communal purposes and an inadequate reporting regime. However the reason many parts of the coastline are still operating under this set of regulations is because of problems initiating the transfer into the Kaimoana Regulations in the North Island. Under these regulations there are two significant problems with initiation:
    - The first step is to agree who will manage customary fishing (before developing any agreement on how collectively it will be managed) i.e. the system requires the acceptance of the manager without any knowledge of the intended management regime
    - Secondly, there is no effective process to resolve objections to nominations for kaitiaki. The Crown ill not generally action and gazette kaitiaki where objections to that person remain. In the event of stalemate, the transitional regulations persist.

Reporting authorisations and catch

133. Another key difference between the transitional and Kaimoana regulations is that under the latter all catch is required to be reported back to kaitiaki granting the authorisations with the requirement that kaitiaki report aggregate catch at 3 monthly intervals. The Crown undertook to provide assistance to Maori to fully develop and implement the customary non-commercial regime but the assistance provided has been both inadequate, variable and now almost non-existent. This is not aiming to discredit some hard-working staff at MPI but the overall system and the way it is organised is inadequate for a modern regime.

134. The assistance currently given to kaitiaki is a printed book to authorise permits for customary communal fishing. The book includes sufficient copies of each authorisation for each participant in the system to have a paper copy to demonstrate they are carrying out a lawful activity. When

a book is full, it is replaced. There is no system that provides feedback to each kaitiaki or to all the kaitiaki in a region to show the cumulative total of approvals or catches. Nor is this information generally used to feed into all stock assessment processes. Given the lack of feedback to kaitiaki, it should be no surprise to learn that few provide full details consistently to the Crown.

135. Te Ohu, through its joint work with Waka Digital, has developed an online recording system for customary authorisations that can automatically provide cumulative totals to each kaitiaki. Where kaitiaki in a region agree to share information, the system can generate regional totals by species and months. The system can also aggregate data and provide it directly to the Ministry where the kaitiaki (or mandated iwi organisation where it is coordinating this activity on behalf of kaitiaki) wish to do this on a regular basis. This approach would quickly lift the quality of data available from customary communal fishing. The aggregate information would be valuable for stock assessment purposes and also to kaitiaki by:
    - giving them information on which to base future approvals
    - enabling them to consider developing any other customary tools,
    - informing cross-sector discussions on fisheries management, and
    - informing discussions with MPI on the adequacies or otherwise of fisheries management of taonga species in their region.

Pataka whata

136. Te Ohu has developed a collaborative system – ***Pataka whata*** - between the commercial and customary communal sectors that has the commercial sector authorised to catch and store fish that can then be used for customary purposes particularly tangi. Where this has been instituted it has led to significant further collaboration between the sectors and very positive endorsement by hapu and marae. To ensure the system meets robust standards of management, Te Ohu developed an electronic tracking system for each fish that operates as one module of our IkaNET system. This has now operated for more than 5 years in the Taranaki region and Ministry personnel involved with it have sufficient confidence in the system that they have recently extended the ability to continue using it and provided that ability for an indefinite period. The underlying regulations it operates from in Taranaki is the transitional regulations – the iwi in Taranaki intend to collectively move onto the Kaimoana regulations in a collaborative manner. However the differences between the regulations mean that there cannot be a seamless transfer on to that new base.

Mataitai

137. There is also a need to adjust the policies and processes for establishing ***mataitai*** – these are able to be implemented to protect customary communal interests provided they do not unduly affect commercial fishing. The process requirements for these do not require iwi or kaitiaki to precisely identify the issues a closure seeks to address and in some cases this has led to requests for very large areas to be included, leading to a high level of impacts. This may subsequently result in applications for reduced areas but it would be helpful in the first instance for applicants to discuss any proposals with their MIO and AHC before lodging an application. In many cases, iwi are not seeking to stop all commercial fishing but only for some particular species. However irrespective of the intended measures by iwi, the system requires an assessment of the effect of complete prohibition of commercial activity. This inevitably works against cross sector collaboration.

Section 186 closures

138. The Fisheries Act allows iwi and hapu to call for s 186 closures. However these are temporary with research requirements to demonstrate whether the fishery is recovering. In many cases the

time period is too short for recovery. Sufficient time is particularly important when attempting to protect shellfish beds in areas of high population – whether permanent or transient as in holiday locations. The length of restrictions should be examined.

Conclusion on Customary Non-commercial customary rights and management

139. Given all these problems, we propose that a working group between the Crown and iwi (assisted by Te Ohu) be established to examine each issue and develop suitable solutions. While each issue will need to be addressed and solved, it is critical that the set of measures work together in a coherent way. We therefore propose that no change be advanced until there is agreement across the board – it will help no one to be caught in another unsatisfactory transitional regime. Until such time as the full suite of changes are agreed, this work will be solely between the Crown and iwi. Once an agreed set of proposals is concluded, there should be the opportunity for industry organisations and the recreational sector to comment. The joint Crown- iwi working group will consider all submissions and make recommendations to Ministers and iwi leaders –including the Te Ohu Board.

Overall concluding comments

140. Te Ohu considers this review provides a timely opportunity to strengthen and improve our fisheries management system and build on the common interests of iwi and the Crown in durable outcomes.

141. To that end we would welcome a collaborative approach between the Crown, iwi and Te Ohu to ensure this common goal can be achieved.

Resolving the unacceptable by-catch of Salmonid sportsfish from set nets in estuaries and rivers.

Current Situation

1. The use of set nets in estuaries and lower rivers varies in popularity throughout the country. In the South Island net fishers are generally targeting flounder species, while in the North Island fishers also target species such as mullet and kahawai.

2. In some areas use of set nets in estuaries has increased significantly as a consequence of the ban on their use inshore to protect Hectors Dolphin.

3. There are few restrictions on use of nets; nets must be named, not staked, not longer than 60m, not within 60m of another net, not exceed ¼ of a channel and not leave fish stranded at low tide.

4. There is no restriction around how far into freshwater it is permissible to set a net, nor is there any requirement to check your net within a certain time period, other than for commercial fishermen who have to check their net within 18hrs.

Impact of current activity

5. New Zealand's trout fisheries are justifiably world renowned. This is particularly true for southern 'headwater' fisheries, where very large brown trout occupy habitat in clear water, enabling anglers to spot trout and cast to them. Research by fisheries scientists has shown that these iconic larger trout attain their size by feeding in the lower rivers and estuaries, where the warmer temperatures and larger prey enable them to grow rapidly, prior to migrating to our headwater fisheries.

6. Unfortunately, trout (and salmon where they occur) are very vulnerable to capture in set nets, either as by-catch or intentional targets. Evidence suggests that such capture in river estuaries is more likely to occur during overnight sets, or during turbid conditions. A trial in Southland found that overnight sets caught four times more trout than daytime sets of the same duration.

7. Survival rates of salmonids released from nets are low, especially when not handled carefully. In North America, incidental capture of Salmonid species is a significant problem and the subject of considerable scientific research. For example, Buchanan *et al.* (2002)[1] researched methods to reduce gill-net mortality in coho salmon *(Onchorhynchus kisutch)*, a close relative of rainbow trout *(Onchorhynchus mykiss)*. They used well-trained operators, who handled fish as carefully as possible to minimise abrasion, gill damage and air exposure, and cut the net where necessary. Also, once removed from the net, they placed the fish in recovery boxes with an increased oxygen supply. Once swimming well, fish were placed in recovery pens and monitored for 48 hours. They found that with a 'soak time' (the time the net is in the water) of only 40 minutes, estimated mortality was 6.7%. However, with a soak time of 140 minutes, mortality increased to over 60%.

8. This result shows the extreme importance of the duration of net entanglement for salmonids. When the mortality rate was as high as 60 % for a soak time of only 140 minutes, careful handling of the fish and the use of recovery tanks, it is easy to accept that

high mortality will occur for trout and salmon caught for longer periods and treated less sensitively. If nets are set over night the duration of entanglement is likely to be well in excess of 140 minutes. Therefore, even if well intended people release sports fish as carefully as they can, their chances of survival are slight at best.

9. While numerically the 'by-catch' mortality of these large trout may not always appear significant, it must be remembered that their contribution to our trout fisheries is disproportionate to their abundance. They represent the most highly valued aspect of our headwater fisheries.

10. Headwater fisheries may only have one or perhaps two large trout per pool, which are thought to remain after their previous spawning. Very restrictive bag limits are required to ensure that they are not over harvested; otherwise the fishing would rapidly deteriorate before the next spawning migration of estuarine-type fish.

11. The regime of restrictive regulations and low harvest in our headwaters is in stark contrast with the indiscriminate mortality of these same fish through set netting in estuaries and lower rivers.

12. Our iconic headwater fisheries are the primary attraction for foreign trout fishermen, and trout fishing related tourism generates very significant revenue.

13. Chinook salmon are very highly valued by anglers and are often caught in nets in close proximity to where many recreational salmon fishermen are fishing at river mouths. Many salmon anglers may not actually catch a single fish in a season, so each fish becomes a highly valued 'trophy'. Consequently, when nets are set legally in circumstances where they are likely to catch salmon, anglers can become quite exasperated.

14. Unfortunately, this frustration can lead to them taking matters into their own hands and undertaking illegal actions, with known examples of anglers removing nets and cutting them or burning them. There are cases where the New Zealand Police have had to investigate charges of wilful damage as a consequence of such actions (Appendix 1).

Extent of the problem

15. While there are issues in some North Island regions, capture of sports fish by commercial and/or recreational set netters is primarily an issue in the South Island and is of concern in all regions. Some Fish & Game Councils receive almost weekly complaints about such nets during the summer.

16. In rivers like the Wairau (Marlborough) where fisheries are reliant on large brown trout and salmon migrating freely between river and sea, fishers ostensibly targeting flounder frequently net trout and salmon by netting in the estuary and lower river. One net fisherman who was eventually prosecuted admitted that he regularly caught large numbers of trout and salmon for years, up to 20 in a night.

17. In the Motueka River, Fish & Game receive frequent reports of illegal capture of trout. Fish & Game Officers recently spent four trips trying to catch a man known to keep trout from a net, but were unsuccessful. Later information identified he removed his net at 3am to avoid detection. Frustration of locals resulted in the illegal removal and destruction of what was a legally set net.

18. In Canterbury estuaries and lower rivers, large sea-run brown trout and Chinook salmon are frequently observed and/or reported captured in set nets. These nets are generally set in close proximity to the river mouths, which are the most popular areas of these fisheries to target sea-run brown trout and Chinook salmon. As a consequence, use of nets often causes significant altercations (Appendix).

19. On the West Coast set netters frequently catch sea-run trout. Set net users have expressed surprise to Fish & Game that they are still allowed to fish in such a way because they catch so many trout.

20. Fish & Game staff in Otago receive frequent complaints from anglers who observe trout and perch being captured in set nets from rivers such as the Taieri and Clutha.

21. Fish & Game's Southland Region receives numerous complaints, primarily regarding the recreational use of set nets, in the Waikawa Harbour, Haldane Estuary, Toetoes Harbour, Invercargill Estuary, Waimatuku Stream, Taunamau Stream, Riverton Estuary and Waiau River Estuary. Unfortunately numbers of complaints are increasing and issues appear to be escalating.

22. Two of these Southland rivers have headwater trout fisheries that are protected by Water Conservation Orders which recognise the river and its attributes as "Nationally Outstanding". The fact that the large sea-run and estuarine brown trout that these fisheries rely on are so vulnerable to set nets is concerning.

Efficacy of current regulations

23. Unfortunately, the current regulations allow people to legally set nets in such a way that they will catch sportsfish. An offence is only committed if sportsfish are retained, whether dead or alive.

24. The ability to set nets indefinitely, with no requirement to check them, makes it very difficult to apprehend those people who are deliberately targeting sportsfish as they are known to check their nets after dark.

25. A number of prosecutions have been attempted by various Fish & Game regions, with limited success. It is common for Judges to accept that any retained sportsfish were dead as a mitigating factor in the offence and there are examples of cases where Defendants have been discharged without conviction as a consequence.

Proposed new regulations

26. Fish & Game considers that there are two possible approaches that would resolve the issue of sportsfish mortality resulting from the use of set nets.

    A) An extension to the ban on set netting to all South Island waters inland from either 2 nautical miles (NM) on the West Coast, or 4 NM on the East Coast. This is the favoured option for Fish & Game, as it is the simplest to enact and easiest to enforce and would ensure complete cessation of by-catch of sports fish and other non-target species.

    The impact and efficacy of this approach is self evident, so the following discussion will focus on option B.

B) A restriction on set netting methods requiring nets to be 'bagged' to ensure they do not extend more than 300mm above the bottom at any point and not be set more than 500 metres from the sea (or confluence of any estuary and the sea). Additionally, nets should not be set or left in place over night, but be set after sunrise and removed before sunset.

27. Previously MFish has published a code of conduct for use of set nets, which included the following extracts:

"When targeting species that swim close to the bottom, such as flounder, unwanted bycatch can be minimised by bagging the net. To do this you should tie down the floatline of the net to the lead line to a height of approximately 30 cm at regular intervals along the net. Alternatively, use low, loosely slung nets which are made of light materials.

Avoid overnight set netting in certain areas
Avoid set netting overnight, especially in areas where it is difficult to retrieve your net if conditions deteriorate. There is a much greater risk of the loss of nets and fish wastage during overnight setting because of the long fishing times involved. If you do fish in the dark, set the net for the shortest practical period."

28. Fish & Game submits that aspects of this code should become mandatory throughout the South Island.

Specifically,

- No overnight setting (No net is to be set in the water any earlier than half an hour after sunrise or any later than half an hour before sunset)
- No net set within freshwater to extend more than 30cm above the bed on which it is set
- No net is to be set more than 500 metres upstream from where the waters of a river or estuary meet the waters of the sea

Impact of new regulations

29. Sportsfish are more likely to be caught at night and more likely to be caught more than 300mm off the bottom. Therefore, these new requirements will significantly reduce mortality of sportsfish and therefore improve the value of our fisheries for both domestic and tourist anglers.

30. The requirement for daytime sets will also ensure any sportsfish that are captured are likely to have a much shorter period of entanglement and therefore are more likely to survive their release.

31. The requirement for daytime sets will also make enforcement of the requirement to release sportsfish much simpler, as well as making enforcement of other fisheries regulations much simpler. For example, fishermen who may be using more than one net become much easier to identify.

32. The impact of the proposed regulations will be relatively minimal for those who currently use set nets to capture flounder, as they will still be able to do so, but in a manner that will not result in significant damage to sportsfish resources.

33. Fish & Game staff have fished with a commercial set-net user on the Invercargill estuary who already uses a bagged net as he finds it catches more flounder and less weed (Picture 4). He also finds that he captures very few trout because his net is bagged and because he never sets overnight.

34. Numerically, the number of people who use set nets is generally extremely low in comparison with the number of fishermen who are utilising these areas to target sportsfish legitimately. For example, some of the Canterbury rivers that seldom have more than a few set nets, receive tens of thousands of angler visits annually.

35. Fish & Game is required by legislation to manage, maintain and enhance the sports fish resource (sec 26Q of the Conservation Act 1987). The proposed regulations will assist Fish & Game in these statutory functions.

36. The proposed regulations will also further MPI's objective to *Minimise adverse effects of fishing on the aquatic environment, including biodiversity*.

Alternatives to proposed regulations

37. Over the years, there have been various attempts at local non-statutory agreements between Fish & Game, MPI's preceding organisations, set-net users and recreational fishermen. Unfortunately, these are time consuming to achieve for individual rivers and they have not been successful in preventing irresponsible use of set nets. For example, Fish & Game have previously negotiated an agreement to avoid setting nets in part of the lower Wairau River due to significant capture of sportsfish. Some fishermen are now ignoring this and stating that instead they will return any sportsfish. These same fishermen are thought to be retaining trout and salmon from their nets at night, but catching them doing so is very difficult.

Implications for enforcement

38. Various Fish & Game Officers have held Fisheries Officers' warrants previously, myself included, primarily assisting with set net matters. I am sure that where MPI deemed it appropriate Fish & Game Officers would be prepared to become Honorary Fisheries Officers to assist MPI educate the public to these changes and enforce the new requirements where necessary.

In Summary

39. New Zealand's world class trout fisheries are to varying degrees dependent on migration of large trout from our lower rivers. While it is illegal to keep trout or salmon taken with a set net, it is currently legal to set a net in such a way that their capture is highly probable. Once captured salmonids suffer a high mortality. Unfortunately, experience suggests that some fishermen specifically target trout and salmon with their nets, but enforcement is difficult because many offenders remove fish at night.

    Regulating aspects of what is currently recognised as ethical practice for use of set nets has the potential to dramatically reduce the extent of the problem, while allowing set net users to continue to target flounder, with moderate changes to their method.

Reference

Buchanan, S., Farrell, A. P., Fraser, J., Joy, R. and R. Routledge (2002). Reducing gill-net mortality of incidentally caught Coho salmon. *North American Journal of Fisheries Management* 22:1270-1275.

Appendix

Picture 1. Example of a legally set net removed illegally by frustrated salmon anglers. The net fisherman was known to target salmon, but Fish & Game had not been able to catch him with them in his possession.

Picture 2. An example of a legally set net, in habitat where it is unlikely to catch flounder, containing a number of trout.

Picture 3. Evidence seized for a prosecution, as the net fisherman had retained the fish. The Defendant was discharged without conviction with the Judge noting in mitigation that the fish were already dead. Costs of $250 were awarded; legal costs Fish & Game incurred in pursuing the prosecution exceeded $900.

Picture 4. An example of a 'bagged' net being used by a commercial fisherman on the Invercargill estuary in Southland. The regulation changes proposed encompass his current fishing methods and would not restrict him.

IWI COLLECTIVE
PARTNERSHIP

INITIAL FEEDBACK ON

FISHERIES MANAGEMNET SYSTEM REVIEW

14 DECEMBER 2015

Maru Samuels
General Manager
Iwi Collective Partnership
Auckland

14 December 2015

Attn: Andrew Hill
2015 Fisheries Management
Ministry for Primary Industries
P O Box 2526
Wellington 6140 **Email:** fisheries.review@mpi.govt.nz

Tēnā koe Andrew,

RE: INITIAL FEEDBACK ON FISHERIES MANAGEMENT SYSTEM REVIEW

1. Introduction

The Iwi Collective Partnership (ICP) welcomes the opportunity to provide initial feedback on the "Fisheries Management System Review" (Review) as advertised on the website of the Ministry for Primary Industries (Ministry).

The website states that the Review is a high level and principled review. Therefore our submission does not provide specific or detailed comment. Instead it offers feedback on the broad principles and concepts that work well within the Fisheries Act 1996 while identifying areas for improvement.

We understand that the Ministry intends to release a second document that will provide another opportunity for detailed comment. We intend to also submit on that second opportunity.

The Ministry has started a review of New Zealand's fisheries management system to ensure "*it's still fit-for-purpose and maintains sustainable fisheries for current and future generations"*.

The Ministry has recently provided more detail on their five themes for the review:

- Ensuring sustainability;
- Benefits for all New Zealanders;
- Decision-making processes;
- Monitoring and enforcement; and
- Future challenges.

The period for providing feedback on the Review closes 5pm, 11 December 2015, however, an extension was approved for the ICP to submit by 4pm, 14 December 2015.

2. Who we are

The ICP was formed in 2010 to create scale, cost efficiencies and general collaboration for our 14 Iwi Members. The ICP manages 16,936 metric tonnes of ACE annually (3,482 mt April fishing year ACE and 13,454 mt October fishing year ACE). The traditional rohe of our 14 Iwi Members are located throughout the North Island (refer Table 1 below).

In addition to the 16, 936 ACE owned by our 14 Iwi Members, and collectively manged by the ICP, the ICP shares interests with other iwi located in the South Island and Chatham Islands, the most significant of which is our joint ownership in lobster export company, Port Nicholson Fisheries (PNF).

Iwi	Region
Te Arawa	Bay of Plenty
Ngati Tuwharetoa	Bay of Plenty
Ngāi Te Rangi	Bay of Plenty
Whakatohea	Bay of Plenty
Ngāti Awa	Bay of Plenty
Ngāi Tai	Bay of Plenty
Ngāti Manawa	Bay of Plenty
Ngāti Ruanui	Taranaki
Ngā Rauru Kiitahi	Taranaki / Whanganui
Taranaki Iwi	Taranaki
Te Rarawa	Northland
Ngāti Porou	Gisborne
Te Aitanga a Mahaki	Gisborne
Rongowhakaata	Gisborne

Table 1: ICP Iwi Members

The ICP and its constituent Iwi Members prides ourselves on being active participants in the management of our New Zealand fisheries. Our participation stems not only from our commercial ownership of quota but more importantly from the unique position of our Iwi Members and their respective beneficiaries, as the original inhabitants and fisheries managers of Aotearoa New Zealand. Our beliefs are embodied in our purpose to, *"share sustainable Māori seafood with the world"*.

3. Treaty Rights

While the Review states that the *"Crown's obligations under Treaty settlements, and the rights and interests of tangata whenua, and customary management"* are outside the scope of the Review, there remains nonetheless the potential for these rights and interests, and obligations of the Crown, to be undermined in an indirect and unintended manner. For example, if the Minister was to unilaterally reallocate commercial fishing rights to the Recreational sector, this could be classed as an indirect attack on our rights as recognised in the fisheries Treaty settlement.

The Crown must exercise caution not to reallocate those rights to other sectors of the industry or diminish the rights, whether in a direct or indirect manner, without giving due consideration to and consulting with the holders of those rights.

Our participation in the New Zealand fishing industry stems from our position as tangata whenua and Treaty partners under Te Tiriti o Waitangi.

As noted in the industry submission by Seafood New Zealand, *"all change carries risks but these risks are reduced if we understand both what works well (and why)"*.[1]

The fisheries settlement has rightfully placed Iwi (Māori) in the position of owning approximately a third of all quota. It is our reasonable expectation that the Crown will not do anything to undermine this asset base, in fact the Crown has an obligation to "actively protect" these interests.

[1] Page 4.

4. Tools for Improvement

With the enactment of the Māori Fisheries Act 2004, Iwi now have the infrastructure to better govern the internal interactions and relationships between the various customary non-commercial and customary commercial interests. Te Ohu Kaimoana, Aotearoa Fisheries, Sealord and the 57 Mandated Iwi Organisations and Asset Holding Companies, collectively provide a strong network and infrastructure within which to manage those interests. This network did not exist at the time the Fisheries Act was enacted and so synergies could not be recognised.

Therefore we would like the Ministry to consider an improved framework which encourages intra-Iwi and inter-Iwi collaboration between our various customary interests, while ultimate responsibility remains with the Crown in terms of its obligations under the Treaty. The rights might remain as separate customary non-commercial and customary commercial, but the framework that manages the interaction of these rights can better encourage collaboration.

5. Conclusion

The ICP holds direct representation on Deepwater Group Ltd and via that directorship, holds indirect representation on the board of Seafood New Zealand. Our 14 Iwi Members are also shareholders in Aotearoa Fisheries Limited and are members of Fisheries Inshore New Zealand and the Paua Industry and Rock Lobster Council. Therefore we have had the opportunity to provide input into, and state that we fully support the submissions made by Deepwater Group Ltd, Aotearoa Fisheries Ltd, Fisheries Inshore New Zealand, the combined Paua Industry Council and NZ Rock Lobster Industry Council submission, and the industry submission coordinated by Seafood New Zealand.

In particular we note the following points highlighted in the various submissions noted:

- The "Rebalancing" policy promoted in the combined PIC RLIC submission in that 1) a fisheries management response removes the displaced catch from the fishery (rebalancing the biological system); and 2) a market-based response ensures that affected quota owners are no worse off (rebalancing economic incentives for the effective operation of the QMS),
- Deepwater Group's support for the Business Growth Agenda and the goal to double primary sector export revenues by 2025. We particularly recognise the job opportunities that will be supported in the attainment of this goal, and
- FINZ's statement of believe that the New Zealand fisheries management framework … is not broken, nor in need of fundamental reform. However, it can be updated and amended to improve the performance and effectiveness of the overall management system.

I would be happy to answer any queries you might have.

Ngā mihi,

Maru Samuels
General Manager
Iwi Collective Partnership

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