# The Future of our Fisheries
# Te Huapae Mataora mo Tangaroa

## Submission to rebuild abundance and diversity in New Zealand's inshore marine environment

**To: The Ministry for Primary Industries**

**From: New Zealand Sport Fishing Council and affiliated members, the New Zealand Angling and Casting Association, and LegaSea supporters.**

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## MPI vision and strategic proposals

The Future Of Our Fisheries (FOOF) Vision is –

> Abundant fisheries and a healthy aquatic environment that provide for all our people, now and in the future.

There are three strategic proposals in FOOF:

a. Maximising value from our fisheries;
b. Better fisheries information; and
c. Agile and responsive decision-making.

Quick summary of FOOF proposals –

a. MPI want to solve the problem of discards and dumping with new rules and cameras.
b. MPI want to maximise the value from fisheries with better information and decision-making.
c. Value could come from new and undeveloped fisheries.
d. Integrated Electronic Monitoring and Reporting System (IEMRS) for commercial fishing.
e. Innovative Trawl Technology (ITT) to land fish in better condition.
f. MPI will establish a Technical Advisory Group of independent representatives to act as a reference group to test the next steps of the programme. Graeme Sinclair has been appointed by the Minister to provide advice on what is important to recreational fishers.
g. MPI to increase use of multi-sector collaborative forums to manage shared fisheries such as Marlborough Sounds blue cod, Snapper 1.
h. The economic contribution of recreational fishing to New Zealand and associated job figures from the New Zealand Marine Research Foundation's economic report are used in the FOOF documents.
i. MPI propose the establishment of a National Fisheries Advisory Council that reflects community, tangata whenua and shareholder aspirations for fisheries.

## Executive summary

### Positive potential from real reforms

This Ministry for Primary Industries (MPI) led review of our fisheries management system – the Future Of Our Fisheries (FOOF) Te Huapae Mataora mo Tangaroa - has been rather superficial in that it focuses on the commercial fishery, and the amendments to address three urgent shortcomings, two systemic failures and one future facing issue dogging the Quota Management System (QMS). Fish dumping, electronic reporting/monitoring and the Precision Seafood Harvesting net – these are the pressing issues in the commercial industry and occupy 90% of this Review.

The recreational fishery is given only superficial consideration with a small section on managing at high abundance, and even then the discussion lacks engaging context.

In Part 2 of this submission we consider what the future of recreational fishing could look like and the national benefits that would follow. The recreational fishery holds a value proposition for the inshore fisheries that is so compelling – generating up to 10 times the GDP of commercially caught fish, offering foreign exchange earnings with over 100,000 visitors spending money on fishing when visiting New Zealand, with unlimited growth potential.

### Tighter regulatory controls to manage discards

There is an initial attraction to nil discards given that it is simpler to monitor and detect non-compliance. Any discarding will be illegal. However, we are concerned that this will significantly increase the fishing mortality of high value species such as kingfish and southern bluefin tuna.

We submit that minimum legal sizes (MLS) applying to commercially caught fish, and the species listed on Schedule 6 need to be reviewed to ensure they are working to increase productivity. Until that review is completed there is no need or justification to alter the Total Allowable Catch (TAC) if a MLS is increased or decreased.

Applying these simple measures will go a long way to addressing discards:

1. The MLS needs to be supported by gear regulations to establish a Standard;
2. Establish area closures to protect juvenile areas.
3. All trawl technologies need to comply with a simple and transparent Standard that addresses the matters of species selection, size selection, benthic and biogenic impacts.

### Managing for Abundance

The need to increase abundance is without doubt one of the two most pressing reforms needed in New Zealand inshore fisheries management, alongside adopting the Allocation Principle (refer 3.29-3.33). Setting stock targets for increased abundance permits other higher value enterprises to flourish e.g. tourism, while providing some insurance against climate and environmental stressors.

We would define abundance as no less than 40% of original, unfished biomass (B40), and for many species that would be a minimum of B60.

## Allocation Principle to guide Ministerial allocation decisions

We submit that an additional Principle is added to Part II of the Fisheries Act. This Allocation Principle would provide Ministerial guidance and reflect what is known as Moyle's Promise - when a TAC is unable to provide both a reasonable public catch and the current Total Allowable Commercial Catch (TACC), it is the TACC that is reduced first.

**Moyle's Promise** - "where a species of fish is not sufficiently abundant to support both commercial and non-commercial fishing, preference will be given to non-commercial fishing. This position reflects Government's resolve to ensure all New Zealanders can enjoy and benefit from our fisheries." [Minister, Colin Moyle. June 1989].

## Investment in better information on new and underdeveloped fisheries

There should be no great incentive for private investment to develop new fisheries. Fisheries are public property; many economically marginal fisheries are best left undeveloped.

It is unwise to incentivise the commercialisation of all parts of an ecosystem, which is what offering economic opportunity in exchange for research tends to do. There is seldom, if ever, justification for offering exclusive opportunity in exchange for research. All research needs to be funded by Government and if yields are available then sensible royalties need to be set to generate a return to the Crown.

## Collecting harvest and socio-economic information on non-commercial fisheries

The submitters support proven and well reviewed harvest surveys such as the National Panel Survey, the aerial over-flight survey, the web camera activity recording, and boat ramp data collection. We support regular monitoring at whatever intervals generate the best cost/benefit.

The NZSFC provides good estimates of the number of marlin, yellowfin tuna and pelagic sharks landed or caught and released, nationally. New entrants to the sport fishery are encouraged to join a NZSFC affiliated fishing club and report their catch.

MPI needs to invest in more socio-economic information. A primary need is a survey to estimate the consumer surplus, which is the value fishers derive over and above what they spend. Non-extractive users and the general public will also value a lively marine environment and the ecosystem services that are provided.

Fishing tourism is growing according to the International Visitor Survey run by Statistics New Zealand. Better information on the primary purpose of an incoming trip and expenditure on fishing would help quantify this contribution to the New Zealand economy.

## Is an ecosystem approach needed for fisheries management?

Yes, although the words 'ecosystem approach' is a broad statement able to be interpreted in several different ways. We note the commitment to move to Ecosystem Based Fisheries Management (EBFM) and we support that, with caveats, recognising that this approach can easily become stalled in complexity and watered down to deliver minimal, tangible benefits.

### Should MPI use more externally commissioned research?

Our fear is that 'more externally commissioned research' is a euphemism for more industry commissioned and led research. Rather than more industry research we need less. The submitters do not support increased devolution of research and management to commercial interests, particularly with respect to stock assessment and Total Allowable Catch (TAC) setting.

The major flaw in the current MPI science process is the annual Cost Recovery system. The fishing industry sees research spending as a cost that needs to be managed, and they must have a say in what research is undertaken and how often. While the number of Quota Management System (QMS) stocks has increased 3.5 times the current MPI fisheries research budget is about 45% of what it was, in real terms, in the early 1990s.

### What fisheries decisions could be delegated and to whom?

All TAC and TACC decisions need to be made by the Minister.

There are some regulatory and technical decisions that could be delegated to the Director-General. The problem with the proposed risk-based approach is the assumption that there are unambiguous agreed management objectives.

### Should a National Fisheries Advisory Council be established?

No. There is no need and it is undemocratic to constantly strive to remove the Minister from decision-making roles for fisheries. The Minister is the representative of the New Zealand public. A Council is simply another step as MPI and the fishing industry separate the Minister from public opinion.

### Is a more flexible and responsive decision-making framework needed?

That was the question in 1982 when the QMS was being contemplated. The QMS removes the luxury of rapid response decision-making. This possibility was exchanged for defined, tradeable commercial rights and certainty. It cannot be both ways.

### Should MPI implement IEMRS?

MPI has proposed to introduce to commercial fishing a mandatory electronic monitoring and reporting system referred to as Integrated Electronic Monitoring and Reporting System (IEMRS). Its purpose is to gather more information with a focus on-

a. Monitoring and verification of catch reporting;
b. Automated geospatial position reporting; and
c. Electronic monitoring using on-vessel cameras.

The value of IEMRS must be measured against its purpose and the cost of achieving success. The paper is vague on specifying exactly what success will look like for IEMRS.

There is an obvious need for the activities on board fishing vessels to be monitored in a more transparent way. However, it is unclear how IEMRS will achieve verification of catch when it is unable to verify catch weights and species identification; these continue to be determined by fisher self-reporting.

The geospatial reporting is obvious. Less obvious is how this will be recorded and what this information will be used for. Being able to identify vessels in close proximity to oil spills, floating fish, etc is clearly of short term benefit, but how this data will be used, if at all, in stock assessments remains problematical.

The on-board camera technology is under development. Initial trials have been unsatisfactory. The FOOF aspirations for increased public confidence in management will never be generated while the camera data is treated as confidential, known only to industry and kept in-house.

So far it looks like another case of overreach, where claims being made about the benefits of IEMRS are aspirational and unlikely to ever eventuate, while serving in the short term as an answer to discarding and transparency.

### Enabling innovative trawl technologies (EITT)

The submitters support the principle of finding better fish harvesting technology. The existing gear is old technology and sets a low standard. MPI will need to develop simple, robust, and testable criteria to allow for the performance of new technologies to be assessed as performing at least as well as those permitted by existing regulations. Unfortunately, we have relatively poor data on the impacts of existing trawl gear to use as a "baseline".

The submitters would like the opportunity to have input into the performance criteria that would apply to the trawl method and how performance is independently verified. There remains the need for clear standards around trawl technology that serve as environmental protection and guide development of emerging technologies.

## Part 1. Introduction

1.1 On 11 November 2016 the Ministry for Primary Industries (MPI) released the Future Of Our Fisheries (FOOF) Te Huapae Mataora mo Tangaroa consultation documents with the stated intention: "to future-proof New Zealand's fisheries management system". A series of public and sector meetings were held around the country. Submission deadline is 23 December 2016.

1.2 Given the significance of these discussions it unreasonable to be given such a **short period for consultation**. As a largely volunteer organisation it has been a challenge to explain and engage with our members especially at this busy time of year.

1.3 The New Zealand Sport Fishing Council (NZSFC) Fisheries Management - Marine Protection team has reviewed the five volumes of information and issued a Preliminary View on 9 December. Feedback has been sought from members and supporters. That feedback has informed this submission. Relevant information has been uploaded online to enable easy access to the documents and our views. https://goo.gl/21jgzx

1.4 The New Zealand Sport Fishing Council (NZSFC) is a National Sports Organisation with over 33,000 affiliated members from 56 clubs nationwide and a growing number of organisations aligning with our policies and principles. Of support to this representative structure is the public outreach and supporter engagement team at LegaSea. Thanks to the Council's consistent advocacy of rebuilding abundance and public interest in our

fisheries LegaSea has steadily expanded, earning respect from people and organisations, many of whom now contribute on a regular basis.

1.5 **This submission is a joint effort** by the New Zealand Sport Fishing Council, New Zealand Angling & Casting Association (NZACA), their respective affiliated members, and LegaSea supporters, collectively referred to as 'the submitters'. We acknowledge the NZACA will be submitting separately on matters specific to shore-based fishers.

1.6 Our representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from this review and would like to be kept informed of future developments. Our contact is Dave Lockwood, secretary@nzsportfishing.org.nz.

## Part 2. Submission

2.1 New Zealanders are growing increasingly **concerned about the way our fisheries are being managed** and how this mismanagement is affecting them at a local level. In a recent independent, nationwide survey of over 2000 people nearly 70% of respondents agreed that an independent inquiry into the QMS is warranted. Only 5% felt it was not. Across five management areas MPI received unsatisfactory, poor or very poor, ratings for their performance. This is not how we want our fisheries regime to be perceived. We have the potential to be truly world leading, but that will require a serious overhaul of the current system and meaningful changes to rebuild abundance in our coastal waters.

2.2 **Restoring public confidence in fisheries management** is a common theme in the FOOF documents. However, it is not only fishers that need to be convinced, the public at large care about what is happening to our national, natural resources. John Key said it best in 2013 – more people care about the fate of snapper in our waters than care about the GCSB spying on Kiwis.

2.3 The mid-2016 revelations of widespread, illegal dumping of trawl catch during several MPI Operations where offenders were let off without so much as a warning letter has put another dent in public confidence. The subsequent Heron report simply nodded in acknowledgement that management is complex and MPI could have done better. There is a lot of work to be done to convince a despairing public that fisheries management is not just about kowtowing to commercial interests at every opportunity and we are not convinced that this FOOF process, as presented, goes far enough to turn public opinion around.

2.4 If MPI are serious about "future-proofing" New Zealand's fisheries management system the first item of business has to be a complete and independent review of the Quota Management System (QMS). Without a comprehensive review of the drivers that are influencing fisher behaviour, inhibiting innovation, and the aggregation of quota shareholdings into fewer hands, we will only achieve marginal success.

2.5 **Making claims that the majority of** "shared fisheries" **are in "*good health*" is misleading.** Our fisheries belong to all New Zealanders, so all are shared. What is the definition of *good health?* This is an ambiguous term that defies reality in many inshore

areas such as Hawke's Bay, where it takes, on average, two day's effort to catch a tarakihi, 7 days to catch a trevally, and in what used to be New Zealand's gurnard capital, it now takes an average of 3 day's effort to catch 5 gurnard. Hapuku and bass have disappeared from many offshore reefs. John Dory, tarakihi, gurnard, porae and trevally, which were once a regular catch in the Hauraki Gulf, are at best an occasional surprise in today's recreational catch. Crayfish stocks in CRA3 (Gisborne) and CRA2 (Hauraki Gulf –Bay of Plenty) are delivering similarly poor results for the public.

2.6 FOOF promotes the establishment of the **MPI Recreational Fishing Initiative** as a positive initiative to strengthen communication and engagement with recreational fishers. However, his team has actively sought to undermine the NZSFC mandate amongst our clubs, covertly and in the public arena. The submitters do not consider this initiative as being a positive development for advancing recreational fishing interests.

2.7 Furthermore, the appointment of Graeme Sinclair as the recreational representative on the **Technical Advisory Group** is similarly flawed given his clear links to commercial interests, sponsorship by Seafood New Zealand, and promotion of commercial fishing views. While we acknowledge the Minister's authority to appoint whom he chooses, it is a stretch to contemplate anything positive arising for recreational fishing interests from this appointment.

### The Future Of Our Fisheries - FOOF 2.0

2.8 This MPI-led **FOOF Review of our fisheries management system has been rather superficial** in that it focuses on the commercial fishery, and the amendments to address three urgent shortcomings, two systemic failures and one future facing issue dogging the Quota Management System (QMS). Fish dumping, electronic reporting/monitoring and the Precision Seafood Harvesting net – these are the pressing issues in the commercial industry and occupy 90% of this Review.

2.9 **The recreational fishery is given only superficial consideration** with a small section on managing at high abundance, and even then the discussion lacks engaging context. In the following piece we consider what the future of recreational fishing could look like and the national benefits that would follow.

2.10 **The recreational fishery holds a value proposition for the inshore fisheries that is so compelling** – generating up to 10 times the GDP of commercially caught fish, offering foreign exchange earnings with over 100,000 visitors spending money on fishing when visiting New Zealand, with unlimited growth potential.

2.11 If we are serious about the giving effect to the FOOF vision and objectives our inshore fisheries would be managed to achieve these conditions:

a. **Responsive management regime** – tuned to local needs, supporting local initiatives with local, engaged community management and be well resourced.
b. **An inshore zone free of industrial fishing.**
c. Research into **maximising utilisation** of fish caught commercially – Iceland has achieved 97% use of each fish caught, the fillets were now becoming the byproduct of other high end uses.
d. **Regional development** – thriving coastal communities supported by artisanal commercial fishers and recreational fishing opportunities. - high end use of resource.

2.12 While management remains obsessed with rent maximisation and cost minimisation, by maintaining the QMS monopoly, **New Zealand lacks the institutional freedom to set policy for high value outcomes.** Current policy settings are unsuited to generating value, as evidenced by the last 30 years of inshore commercial fishing.

2.13 Accepting that FOOF 2.0 is outside the narrow scope of this Review we won't make exhausting submissions on what is well known to all within MPI, and increasingly being glimpsed by politicians. Our 2015 Review submission covered many aspects that need to be addressed. Here we will simply give a case study where the beginnings of FOOF 2.0 can be seen; in the hope it will bring a better understanding to readers.

## *Case study*

### Kingfish A bright future for the New Zealand fishery

2.14 Yellowtail kingfish are a spectacular fish to catch. They are strong and smart and the big ones can pull eye-wateringly hard. NZSFC club records show that kingfish abundance has increased significantly over the last 20 years.

2.15 High value specialist fisheries have developed that are very attractive to fishers overseas. Over the years Epic Adventures, based in Tairua and Whitianga, has bought millions of dollars worth of business into the area, with a significant proportion coming from Australian tourists who specifically travel here for the kingfish fishing.

2.16 There is now a structural change in the North Island recreational charter boat fleet, away from large launches to trailer boats, and kingfish is a major target species for these new operators. None of this would have been possible in the mid-1990s when abundance was low and inshore kingfish and stocks were depleted.

### Kingfish fisheries and management changes

2.17 Kingfish have long been an important customary and recreational fishery, given their large size and well known haunts, while mainly a bycatch species for commercial fishers.

2.18 In the 1970s MAF, with help from Japanese fishers, trailed the use of large box nets at Whitianga, Tutukaka and North Cape. They trapped a variety of species of species but were particularly efficient at catching kingfish. Hundreds of tonnes a year were removed before the trial was discontinued. There was a noticeable effect on the recreational kingfish fisheries in these areas for many years afterwards. (Pers. Comm. Peter Saul MAF diver on box nets and charter skipper).

2.19 In 1986 kingfish were not included in the Quota Management System (QMS). There were no commercial catch limits and a restriction on fishers targeting kingfish introduced in 1991 was ineffectual. Commercial catches increased rapidly in the early 1990s as fishers tried to establish catch history in anticipation of the introduction of kingfish into the QMS. Many of the reef systems were targeted by set netters trying to catch non-quota species. This wasteful and unsustainable practice was discouraged following a review by the Set Net Task Force in 1991 which made 19 vulnerable reef species non-commercial (not for sale) and introduced set net closures in a number of areas in FMA1. A Minimum Legal Size (MLS) for kingfish of 65 cm has been in place since October 1993 for all

methods except trawl. The trawl exemption with respect to MLS was removed in December 2000.

2.20 While the inshore fishery was in decline the offshore fishing opportunities developed. The best example is the White Island fishery, 45 km from Whakatane. Rick Pollock has been running "Pursuit", a very professional charter boat business out of Whakatane for many years. Early on he realised that kingfish were hardy and with careful handle they survived catch and release well. In order to sustain the kingfish population at White Island a charter boat voluntary agreement was developed to release most of the fish caught. The kingfish catch and release ethic is now widely accepted amongst recreational fishers and charter operators and has sustained the successful White Island fishery for nearly 30 years. So successfully that Japanese rod makers and tackle manufacturers still choose the White Island fishery to develop and test new products.

2.21 Kingfish have been a major component of the New Zealand Gamefish Tagging programme for many years. This is a cooperative programme between the Ministry, New Zealand Sport Fishing Council, charter boat operators and fishers. Alongside the research objectives of recording growth and movement, tag and release offers anglers a method of formally recording their capture while contributing to the conservation of the stock. Over 22,000 kingfish have been tagged and released in the New Zealand gamefish tagging programme with 1500 recaptures. While yellowtail kingfish are capable of extensive movements (trans-Tasman trips have been recorded in both directions) more than 80% of recaptures are made within 20 nautical miles (37 km) of release.

2.22 Kingfish were introduced to the QMS in 2003. After consideration of submissions and Ministry final advice the Minister concluded *"that catch reductions where required in key fish stocks"* so the TACC was reduced by 20% from recent catch history in the main quota management areas and that the recreational MLS would increase from 65 cm to 75 cm nationwide. He also noted *"Recreational fishers have perhaps a unique opportunity to have a significant influence on the future health of the fishery by continuing to implement voluntary management measures to further improve the abundance of kingfish."* Subsequent to this decision kingfish were added to Schedule 6, the list of quota species that commercial fishers can release if alive and likely to survive.

2.23 Recreational charter boats registration was introduced in October 2010 and reporting of kingfish catch in KIN 1 and KIN 2 has been required since October 2011. There are some gaps in the data recorded in the first year but reported charter boat catch, including kingfish released, increased from 10,057 in 2012–13 to 15,340 in 2014–15 in the north eastern fishery**.** 82% of the catch was released but there is no distinction between undersize and legal size kingfish released in the charter boat reporting forms, so it is not possible to calculate a meaningful catch rate per angler hour.

2.24 Anecdotally the data quality from charter boat reporting is declining as there has been little feedback from MPI to those skippers about the data collected, what it means, and how it is used. **It is not enough to collect more information if it is not better information that is fit for purpose.**

2.25 The National Panel Survey (NPS) in 2011–12 provide updated estimates of kingfish harvest. These were 535 t for KIN 1 from a total of 662 t nationwide. The number of fish harvested is down on previous surveys (1994 to 2001 Telephone Diary Surveys) but the average size is larger, in part due to an increase in the MLS to 75 cm.

2.26 Kingfish is the third largest New Zealand recreational fishery by harvest weight, behind snapper and kahawai.

2.27 MPI monitors the status of stocks in KIN 1 by sampling the catch from recreational charter boats and avid private fishers who target kingfish. Because a large proportion of catch is released, fish must be measured at sea, and the fish that are retained are aged by counting the growth rings in the otoliths (ear bones). Estimates of total mortality and fishing mortality are generated for each region. This show that fishing mortality was lower in 2014–15 than in 2009–10, in all regions.

2.28 In 2014–15 recreational fishers paid for an economic survey of saltwater fishing through a New Zealand Marine Research Foundation project. The lead researcher was Southwick Associates from Florida who surveyed fishers to estimate the average expenditure per trip in the last 12 months on durable items. These were then scaled up using the estimates of the number of fishers and number of saltwater fishing trips by fishers in the National Panel Survey.

2.29 The economic contribution to New Zealand from the recreational kingfish fishery was estimated. These are ballpark estimates as the sample sizes were not large. The **total economic activity was about $134 million, GDP $50 million and employment 630 from kingfish related spending, including tourism.**

2.30 The latest innovation in the New Zealand kingfish fishery is happening in harbours and on sand flats. Kingfish of all sizes venture onto shallow flats in the summer months where they have gained a rapidly growing international reputation as a challenging catch for saltwater fly fishers.

Photo. Anton Donaldson New Zealand Trout Adventures, Collingwood December 2016

2.31 New Zealand attracts tourist to our world class fresh water fly fishing. Kingfish are a real trophy for any saltwater fly angler and there are now specialist guides showcasing this fishery to the world. As with the bonefish caught on fly in the tropics, 100% are released.

2.32 The guide reports that at Collingwood, *"the local camp ground is pretty much booked out every weekend in Jan/Feb by fly fisherman. The local motel is heading the same way. Good for a small town economy."*

2.33 Benefits enjoyed by Collingwood are available across regional coastal towns, provided the fish stock is abundant and the development of high dollar sports fisheries are made a

priority by Government.

2.34 The submitters are willing to partner with Government to develop high value fisheries policies.

### Lessons for FOOF from the kingfish case study

2.35 In 2003 kingfish was a low information stock with conflicting opinions on abundance and sustainability.

2.36 The submitters believe that the recreational fishery would not have recovered as it has if management action had not been taken around 2003. Those actions include applying the minimum legal size for trawl, increasing the recreational MLS and a 20% reduction in commercial catch in the main Quota Management Areas.

2.37 The fact that kingfish are robust and tolerate catch and release is an important factor, and the catch and release ethic is now widely accepted by recreational fishers.

2.38 Kingfish of sushi grade has become a high value commercial catch and Schedule 6 live releases allow commercial fishers to be more selective about which fish to keep.

2.39 Recreational fishers have volunteered their time and effort to help monitor kingfish stocks through the catch-at-age project, the National Panel Survey, the Gamefish Tagging programme, and funded the recent economic survey.

2.40 Recreational fishers will take responsibility and embrace data recording and conservation measures where they see it is useful and making a difference. The Amateur Charter Vessel reporting scheme is failing on these counts.

2.41 New, high value opportunities will continue to arise with increased abundance.

## Part 3. Responses to MPI's questions

Throughout the FOOF documents MPI pose a series of questions (marked below in blue). Our responses to those questions are outlined below (black text).

### Tighter regulatory controls to manage discards

3.1 The first matter deals with how to mitigate the dumping that has become incentivised within the QMS. There are essentially two main options:

a. Prohibit any discarding except for the purpose of vessel safety; or
b. Permit discarding under a range of conditions.

3.2 There is an initial attraction to nil discards given that it is simpler to monitor and detect non-compliance. Any discarding will be illegal. However, we are concerned that this will significantly increase the fishing mortality of high value species such as kingfish and southern bluefin tuna.

3.3 The following section deals with the other options for discarding, as suggested in the paper. In the end, with so much uncertainty about the consequences of choosing a particular strategy we propose an A/B trial be carried out with observers, IEMRS, and self reporting, used to both gather baseline data, and help make an informed decision on land all catch vs conditioned live release. It goes without saying that this trial would not be conducted by Trident or any other industry-owned entity.

MPI - Do you think it should be permissible to release live fish if they are likely to survive?

3.4 Discarding fish likely to survive is an integral part of inshore fishing. It is used to limit commercial catch and has been pivotal in maintaining high value sports fisheries such as marlin, kingfish and Pacific bluefin tuna.

3.5 However, successful discarding requires accurate and timely decisions from the skipper, who is often untrained in fish physiology. Discarding fish can be expressed as a conservation measure or an economic choice, where fish are discarded in anticipation of catching a fish of higher value. There is nothing obvious that separates these motivations from the fishers' actions.

3.6 It is a simple matter to discard moribund or dead fish with a claim that the skipper thought it would survive. Such an open-ended ability to discard provides a ready-made solution to discarding by legalising it.

3.7 Matters of depth, species, injury, and state of exhaustion all influence the fish's likely survival and there is no standard to guide the skipper's decision-making. There will be reliance on self-reporting by the skipper, with all its uncertainties.

3.8 With no means to verify survivorship of released fish we end up estimating discard mortality, and we already have concerns about the reliability of current estimates.

3.9 Discarding stressed and injured fish attracts predators. We are concerned that if live release is adopted to defend against charges of discarding new predation patterns will quickly develop, where predators identify those live release events and the unseen subsequent mortality overwhelms any theoretical savings. Marlborough Sounds blue cod is a prime example of predators quickly optimising opportunities for a freebie meal from discarded fish.

MPI - Do you think it should be permissible to discard some dead fish, as long as they are balanced against ACE?

3.10 Currently there are some non-QMS species such as striped marlin, blue marlin and shortbill spearfish that must be released dead or alive and have no Annual Catch Entitlement (ACE). It is essential this provision continues as it is a cornerstone of providing a valuable game fishery.

3.11 It is not necessary that these fish be covered by ACE, as it's pointless trying to impose economically harsh conditions on fishers when relying on self-reported data. These discards need to be recorded alongside their code. It must remain legal for damaged catch (shark attacks, lice etc) to be discarded and reported.

3.12 Furthermore, IEMRS is unproven at fine scale species identification and weight estimation so more reliance is placed on self-reported data from fishers.

MPI - Do you think that adjusting a TACC to take account of discarding would provide an incentive for quota owners to ensure commercial fishers reduce discarding?

3.13 Remote quota owners have few opportunities and even less ability to 'ensure' commercial fishers behave in a certain way.

3.14 Applying a fleet-wide impost for the transgressions of a few is unfair and counter productive. Any penalty regime must be applied against the vessel.

3.15 Adjusting the TAC also pushes the cost across to non-commercial users.

3.16 This notion responds to economic theory rather than practical fisheries management.

MPI - Do you think quota owners should be accountable for fishing behaviour?

3.17 No. The landlord can never be held accountable for the tenant's behaviour. As above, there are many drivers that influence the on the water behaviour of skippers and crews. Arguably the expectations of the Licenced Fish Receiver (LFR) and market demand has more influence than a quota shareholder unknown to the fisherman.

MPI - What measures do you think would help in discouraging catches of small fish? Is minimum legal size (MLS) needed?

3.18 The MLS is needed to protect productivity and ensure good yield per recruit.

3.19 An MLS alone does not prevent fishing in areas with relatively high numbers of sub-MLS fish. Depending on selectivity alone to minimise sub-MLS mortality is futile. Experience has shown high numbers of juveniles are often caught.

3.20 We submit that minimum legal sizes (MLS) applying to commercially caught fish, and the species listed on Schedule 6 need to be reviewed to ensure they are working to increase productivity. Until that review is completed there is no need or justification to alter the Total Allowable Catch (TAC) if a MLS is increased or decreased.

3.21 Applying these simple measures will go a long way to addressing discards:

a. The MLS needs to be supported by gear regulations to establish a Standard.
b. Establish area closures to protect juvenile areas.
c. All trawl technologies need to comply with a simple and transparent Standard that addresses the matters of species selection, size selection, benthic and biogenic impacts.

3.22 To counteract the current lack of clear policy, removing trawling and seining from inside the 12-nautical mile limit would resolve the sub-MLS issue in most instances.

3.23 To date we have heard lots of aspirational comments around Precision Seafood Harvesting, but the cloak of secrecy around this programme means we have yet to see any hard data relating to the matters above that would comply with an acceptable Standard.

## Managing for Abundance

MPI- Do you agree with the objective of managing fish stocks for abundance, to achieve higher catch rates for all fishing sectors?

3.24 Yes. We would define abundance as no less than 40% of original, unfished biomass (B40), and for many species that would be a minimum of B60. The NZSFC FMA1 Policy developed in 2014 offers in-depth discussion, objectives and strategies to rebuild the inshore marine ecosystem through diversity and abundance.

3.25 The need to manage for abundance is without doubt one of the two most pressing reforms needed in New Zealand inshore fisheries management alongside adopting the Allocation Principle (refer 3.29-3.33). Setting stock targets for abundance permits other higher value enterprises to flourish e.g. tourism, while providing some insurance against climate and environmental stressors.

3.26 It is often argued that fish left in the water above Bmsy is an opportunity cost to Individual Transferable Quota (ITQ) shareholders; that their interests are compromised. Such notions are asinine.

3.27 Bmsy is simply the smallest biomass reference point available to the Minister, in effect a minimum stock size. The maximum stock size available to the Minister is equilibrium when unfished.

3.28 ITQ shareholders have no rights to the stock – only to their share of the TACC. This is important when considering catch reductions for the purpose of increasing biomass. Nothing can rescue ITQ shareholders from such a reduction provided it has been lawfully made.

## Allocation Principle to guide Ministerial decisions

3.29 The Supreme Court has left the Minister to express Government policy when dividing the Total Allowable Catch (TAC). As the resource is publicly owned it is right and proper for the Minister to determine a utilisation strategy that is in the best, national interest. We do not see this as a problem that needs solving.

3.30 The Fisheries Act gives the Minister discretion when allocating a TAC. That discretion is largely unfettered, and provided he/she is reasonable and considers the relevant factors, then he/she can determine what particular apportionment best achieves the purpose of the Act.

3.31 We submit that an additional Principle is added to Part II of the Fisheries Act to clarify the allocation process and to support the Environmental and Information Principles, sections 9 and 10 of the Act. For example, insert an Allocation Principle into s10 and make it s10A. This Principle would provide Ministerial guidance and reflect what is known as Moyle's Promise - when a TAC is unable to provide both a reasonable public catch and the current Total Allowable Commercial Catch (TACC), it is the TACC that is reduced first.

MPI - What principles do you think should guide decisions on allocating the relative share of the TAC between non-commercial and commercial fishers?

3.32 Moyle's Promise - "where a species of fish is not sufficiently abundant to support both commercial and non-commercial fishing, preference will be given to non-commercial fishing. This position reflects Government's resolve to ensure all New Zealanders can enjoy and benefit from our fisheries." [Minister, Colin Moyle. June 1989]

3.33 The failure to legislate this Principle as originally intended lies at the root of most allocation tension. It is not important for most stocks but has crucial relevance for several inshore species, including marlin, kingfish and kahawai.

3.34 It is not the allowance or allocation proportions that are important, but the actual catches. For example, recreational catch in SNA1 would be closer to 20% of the TAC, so increasing the overall allowance to levels that cannot be caught simply gives the illusion of fairness while corrupting the system. Likewise in SNA 7, where a 250 tonne allowance exists for a recreational harvest of about 80 tonnes. The catches are not equally divided even though the allowance and the TACC are now 250 tonnes each, giving the illusion that the latest allocation decision is fair.

MPI - Do you agree that government should provide certification of the environmental performance of New Zealand's fisheries?

3.35 The theory of NZ Government certification via an MPI process leaves us cold. MPI is too easily influenced and readily accedes to industry demands. We cannot imagine an MPI certification process or outcome having any merit.

3.36 We have seen the ease with which the commercial industry has captured MPI, and Government eco-labeling would be irresistible. MPI would find itself rubber stamping stocks regardless of reality.

3.37 There is merit in developing a BRAND New Zealand that is Government certified. Such a structure for determining and delivering certification is at risk and would need an independent panel applying world's best practice criteria to each fishery.

3.38 Some demonstrated compliance with the US Marine Mammal Protection Act will be required if we are to continue to export fish products to the USA. Compliance for this purpose is best achieved through a NZ certification process that certifies not just a fish stock but inshore ecosystems as well.

3.39 Government pays for this certification service and charges certified fisheries a royalty. This way the unholy relationship that currently exists between industrial fisheries and MSC is avoided.

MPI - Do you prefer a non-governmental certification scheme such as that provided by the Marine Stewardship Council?

3.40 No. When initially created MSC certification was seen as better than nothing however, times have changed. The MSC is losing credibility year by year as it falls into a symbiotic relationship with industrial fishing. Industrial fishing interests pay the MSC for the right to use a mark giving the illusion of careful and safe utilisation.

3.41 Reliance on MSC certification in the future risks eventual ridicule. There is the need for a new certification process, but it is unclear who has the integrity to successfully formulate one.

3.42 The MSC label is not designed to assure consumers, but to protect traders and provide a point of difference in marketing. Except for a vocal minority, consumers are still mostly disinterested in the traceability or sustainability of their purchases.

### Providing a pathway for private investment to justify exploitation

3.43 This is a pathway fraught with danger. Verifying the accuracy and efficacy of data generated for the purpose of providing for private exploitation is almost impossible. This current Review isn't the place to promote these types of initiatives; a single purpose consultation document is needed.

MPI – Delivering value from low information stocks.

> *The commercial fishery for each fish stock is managed so that the stock is used sustainably. In situations where the status of a fish stock and its ability to support catches are uncertain, catch limits are set at low levels to ensure that fishing does not jeopardise the stock's sustainability.*

3.44 Rubbish. Many inshore stocks are depleted for example, CRA 2, HPB1, BNS1, GUR1. For most inshore stocks TACCs don't constrain commercial catch and are uncaught. To claim TACCs are set at low levels for low information stocks is bewildering. Does MPI really believe this or did it just roll off the tongue like so many of the accolades for NZ fisheries management?

*MPI - Delivery of greatest value from fish stocks requires sufficient information on stock status to ensure that catch limits are set at a level reflecting the fish stock's true potential to support fishery harvests. Where there is little information on a stock, a precautionary approach is taken, and opportunities to realise value may be lost.*

3.45 This sounds great and we wish it were true. There is no example that we are aware of where MPI has used a precautionary principle. They routinely permit heavy prosecution of stocks on a very low information base. It is MPI's responsibility to invest in science, to better understand safe levels of utilisation before enabling any. There is no evidence in these proposals that additional investment in science is proposed, making all these aspirational comments moot.

MPI - Do you agree that investment in better information on new and underdeveloped fisheries is needed?

3.46 Yes, however this is a low priority. It is unwise to incentivise the commercialisation of all parts of an ecosystem, which is what offering economic opportunity in exchange for research tends to do. There is seldom, if ever, justification for offering exclusive opportunity in exchange for research.

3.47 There should be no great incentive for private investment in the need to develop fisheries. Fisheries are public property, investing in knowledge to enable utilisation

needs Government investment. Many economically marginal fisheries are best left undeveloped. Not every living organism needs to be extracted.

3.48 All research needs to be funded by Government, and if yields are available then sensible royalties need to be set to generate a return to the Crown.

3.49 MPI need to act in a considered and deliberate way, to be both precautionary when setting TACs for low information stocks, and considerate of the wider implications of their decisions.

3.50 The submitters are concerned that high volume, low value fisheries for pilchard, anchovy and other forage species could be developed based on the available biomass. These species form a vital role in productive inshore ecosystem and must be protected.

MPI - Who do you think should invest in such research: government or the private sector?

3.51 This is Government's core role. There is no place for private research in commercial fisheries due to the implications of risk/reward and incentives for regulatory capture.

MPI - Should quota owners' investment in research be reflected in the value individual quota owners get from any consequent increase in the TACC?

3.52 No. These are common property resources and research costs and royalty income are core business for Government, as is the case when managing other natural, national resources.

3.53 This simply provides a huge incentive to overestimate yields and produce contrived assessments supporting the shareholders' interest. It is not sound business for the Government to enable prospecting on a perpetual basis.

3.54 Industrial fishing companies survive by fishing further afield and deeper, exploiting new stocks to maintain profits. This strategy may benefit the companies, but we doubt it is in the long-term interests of our nation.

MPI - Do you agree that MPI should do more to collect information on non-commercial fisheries (for example, undertaking more aerial overflights, boat ramp surveys or reviewing Amateur Charter Vessel reporting)?

3.55 The submitters support proven and well reviewed harvest surveys such as the National Panel Survey, the associated aerial over-flight survey, the web camera activity recording, and boat ramp data collection.

3.56 Regular monitoring of recreational catch by overflight and boat ramp survey is supported at whatever intervals generate the best cost/benefit.

3.57 The notion that refining catch estimates closer and closer to a particular kilo amount will add anything to management is misguided. Stock sizes, yields, productivity, catches, all these encompass quite large amounts of uncertainty. Refining one alone has an insignificant impact.

3.58 The information gap in recreational catch is overstated. We recognise that this

overstatement serves other needs such as distracting and redirecting attention from commercial maleficence.

3.59 This conversation is again not driven by a critical shortcoming, or suspected bias, or inaccuracies of the overflight estimates. In other words, it isn't directed at a problem that needs solving but it does serve as a convenient distraction.

MPI - What steps could you and other non-commercial fishers take to provide better estimates of harvest for better management of fish stocks?

3.60 There is little point in exploring alternatives to the existing catch estimate methodology unless there are known shortcomings. There may come a time when alternative methods for estimating recreational catch can generate better estimates, but at the moment there is no problem to solve.

3.61 The recent obsession and investment in fisher generated reporting via smart phone attempts to solve a problem that doesn't exist with a technology that also doesn't exist. The creation of yet another self-reported database with several million records that cannot be verified imposes only a cost for no benefit. Fisheries management needs less self-reporting, not more.

3.62 The NZSFC provides good estimates of the number of marlin, yellowfin tuna and pelagic sharks landed or caught and released, nationally. New entrants to the sport fishery are encouraged to join a NZSFC affiliated fishing club and report their catch.

### Are there benefits available from managing at sub QMA scale?

3.63 The submitters consider there are benefits from managing at a sub-QMA scale. The need is clearly there, as demonstrated by the number of localised depletion problems surfacing and the numbers of coastal communities calling for local management and shifting industrial fishing offshore ie. Hawke Bay. But this isn't a simple binary choice due to the complexity and cost division of QMAs imports. As a start it would be useful if catch and effort data was routinely published for all statistical areas. In some stock assessments this data is included and is informative, but for many stocks the analysis, if completed, isn't included in the plenary reports.

MPI - Do you agree that monitoring and management of fisheries should take place at a finer geographical scale than the current quota management areas?

3.64 Yes, although finer scale management brings its own challenges. Principally these are increased cost and lack of baseline information for areas smaller than a QMA.

3.65 Some data exists, mainly catch, and is/can be used at a statistical area level. It is unclear whether stock management by output limit is practical at this level.

3.66 Perhaps we are arriving at a point where we come up against the inherent shortcomings of the QMS. That the cost of obtaining the information needed to manage by fixed output kilo amounts is currently prohibitive for even the large Quota Management Areas. Many stocks lack even basic biological knowledge. Obviously if we go to finer scale areas the costs will balloon, or the information needs will be roughly

guessed. Perhaps finer geographical scale management would enable community involvement and decision-making, but the QMS/Cost Recovery regime prevents this.

MPI - Who should contribute to the additional costs associated with monitoring and managing at finer geographical scales?

3.67 The costs and benefits of managing the New Zealand marine estate have been corrupted by the application of the Cost Recovery principles and practices. Benefits are gauged in respect of the ITQ shareholders and not the benefits available to NZ Inc.

3.68 While investment in research is so tightly bound to Cost Recovery no progress or real national value adding options are available. It is to generate higher returns for New Zealand that drives the NZSFC policy on allocation, meeting the costs of research, and implementing a fair resource rental regime.

3.69 The Government must cover the costs of fisheries management and set meaningful royalties to generate a return to the nation, and ultimately makes the decision on geographical scale.

3.70 The imposition of the Cost Recovery regime has been a disaster for fisheries management. It has stifled research spending and led to decisions being made on lower quality information. It is ludicrous to talk about costs without first acknowledging the cost to New Zealand by the strangling of the research budget.

3.71 Funding is now concentrated on stocks where an increase in the TACC is most likely, not where the knowledge gaps exists E.g. SNA7 not SNA2.

**Would greater socio-economic knowledge enable greater value to be extracted from NZ fisheries?**

3.72 Clearly the preoccupation with single species stock assessments to inform management settings is both ecologically risky and results in decision-making at low information thresholds. Socio-economic research sits alongside ecosystem research as the management iterations urgently needing implementation.

MPI - Do you agree that MPI should invest in more socio-economic information?

3.73 Yes, a lot more. Being content to rely on economic efficiency and sustainability alone, which the QMS does, has transferred a huge cost to regional New Zealand and ignored the plethora of socio-economic benefits available from fisheries management including those associated with a thriving recreational fishing industry and regional economies.

MPI - How would you describe value for non-commercial fishers and for people who do not fish?

3.74 The submitters anticipate that stocks managed to much higher abundance levels will alleviate most of the localised depletion plaguing inshore areas. The economic value of the non-commercial fishery is only now being explored and contributions to GDP and the consolidated fund are clear indicators of value.

3.75 Higher abundance will also require a change in fishing culture. Fish will be much easier to catch and people will need to embrace conservation values and practices, which can be

addressed by targeted educational programmes. Additionally, higher abundance satisfies most of the non-extractive values by preserving ecosystems and strengthening diversity.

3.76 About 20% of New Zealanders consider themselves to be fishers and often their catch is shared, benefiting family and friends. These fishers are looking for a quality and rewarding recreational experience. There are many choices for citizens in how to occupy their spare time and for many a fishing trip satisfies the need for separation from daily experience, social interaction, the thrill of the hunt, and a feeling of success. It is impossible to put a real value on the gift of fish one receives from a grateful niece, nephew or grandchild. For some, it is a means of staying sane when compared to their crazy, busy lives. Recreational fishing is a readily available activity where skill, innovation, passion, education, and culture are able to be expressed.

3.77 MPI needs to invest in more socio-economic information gathering. A primary need is a survey to estimate the consumer surplus, which is the value fishers derive over and above what they spend. Non-extractive users and the general public will also value a lively marine environment and the ecosystem services that are provided.

3.78 Fishing tourism is growing according to the International Visitor Survey run by Statistics New Zealand. Better information on the primary purpose of an incoming trip and expenditure on fishing would help quantify this contribution to the New Zealand economy.

### MPI - Do you agree that an ecosystem approach is needed for fisheries management?

3.79 Yes, although the words 'ecosystem approach' is a broad statement able to be interpreted in several different ways. We note the commitment to move to Ecosystem Based Fisheries Management (EBFM) and we support that, with caveats, recognising that this approach can easily become stalled in complexity and watered down to deliver minimal, tangible benefits.

3.80 An ecosystem approach can take many forms. We know that Government has committed to EBFM, but in the interim how best to consider the ecosystem when determining management settings?

3.81 In our view the best short-term approach is to simply use the minimum stock size (B40) as the lowest a stock can go before ecosystem services are compromised. This isn't an evidence based assessment, rather an acknowledgement that we must set a proxy for ecosystem maintenance.

3.82 There is all the time in the future to refine an ecosystem based assessment methodology that suits New Zealand, but in the interim we must strive for higher abundance on the assumption that it will provide ecosystem resilience.

### MPI - What principles and values would you like to see underpin an ecosystem-based approach?

3.83 As above. A minimum stock size or age composition that acts as a proxy for B40 or above for all species. It is unacceptable to treat low value fish as unimportant and unworthy of research or preservation. Their value extends beyond their worth as a meal, or fishmeal.

## MPI - Who should pay for the additional costs of implementing ecosystem-based fisheries management?

3.84 Only the Government, combined with its eco-certification can gain credibility, be trusted, and a fair royalty can then be struck.

### Should MPI maintain it's own science capability or rely more on external research?

3.85 Our fear is that 'more externally commissioned research' is a euphemism for more industry commissioned and led research. Rather than more industry research we need less.

3.86 Trident has taken over most of the catch sampling projects in fish factories, has won the contract for a 3-year camera deployment on trawl vessels in FMA1, and could have a major role in the multi-million dollar snapper tagging programme that is now overdue. There is public concern about a fishing industry owned company being responsible for the collection of research and compliance data on their own. For a long time the fishing industry have been asking for devolution of more Ministry functions to commercial entities that they own. Looking at some of the FOOF submissions from commercial interests they clearly intend to go further down this path.

3.87 The submitters do not support increased devolution of research and management to commercial interests, particularly with respect to stock assessment and TAC setting.

3.88 It is clear to all involved that the National Rock Lobster Management Group got it wrong in CRA2. The recreational fishery has collapsed, commercial fishers are shelving quota, and there is no action in sight as a 5-year Management Procedure with inappropriate decision rules is in place. This is not a scenario we want repeated in other inshore fisheries.

3.89 The major flaw in the current MPI science process is the annual Cost Recovery system. Numerous issues were raised in many of the submissions made in 2015 yet the topic is studiously avoided in these FOOF proposals.

3.90 The tension in the current Cost Recovery model is between the short-term business horizons of commercial fishers and long-term fisheries management objectives. The fishing industry sees research spending as a cost that needs to be managed and they must have a say in what research is undertaken, and how often.

3.91 The fishing industry has succeeded in capping research spending. While the number of QMS stocks has increased 3.5 times the current MPI fisheries research budget is about 45% of what it was in real terms in the early 1990s (Wage –corrected to 1992 purchasing power).

3.92 The situation is particularly dire for data collection and stock assessments of inshore stocks because a substantial portion of the research budget is now allocated to deepwater fisheries, recreational harvest estimates, the effects of fishing on the environment, and biodiversity research.

MPI - Do you agree that MPI should make more use of externally commissioned research?

3.93 Of more urgency than external research is external analyses. If all the data used in fisheries management was publicly available far greater value would accrue by external agencies undertaking their own analysis.

3.94 Externally commissioned research lacks credibility in the inshore. We have seen the debacle of the MPI/Trident programme for SNX, with data deliberately hidden from public scrutiny (refer case study). There is no basis for withholding New Zealand commercial catch data from the public or potential industry entrants. This data would allow some social science inputs into management alongside the marine science inputs. It is useless for MPI to continue to ask the industry for cooperation. MPI are the regulator and must demand cooperation.

3.95 There is no case for an industry to undertake it's own stock assessment research when there are potentially large incentives to produce a particular result.

3.96 Most fisheries research is dogged by uncertainty, requiring a range of assumptions to be made, and at the mercy of the programme design; these functions are best carried out by MPI and a trusted research institute, with expertise and stakeholder oversight.

3.97 MPI do use research results from regional fisheries management organisations in plenary reports and management decisions. There may be other instances where University or MBIE funded projects are useful, but these are likely to be on environmental or ecosystem research.

MPI - Should the principles of the Research and Science Information Standard be applied to all research? Should any additional principles apply to externally commissioned research?

3.98 The Research and Science Information Standard for New Zealand Fisheries is geared toward stock assessment data and research used in fisheries management decisions. There must be some flexibility for research from other disciplines such as environment, ecosystem or socio-economics.

3.99 There is zero confidence that MPI can set and monitor Standards, be fully transparent, and remain not captured by the provider. History informs us that to enable industry research to MPI Standards is a pathway to failed programmes that will be covered up or manipulated to achieve a particular outcome.

3.100 The lack of transparency and public accessibility to research data coupled with the partnership arrangement that MPI now enjoys with industry proves fatal for anything other than independent research.

MPI - Do you agree with a risk-based approach to determining what decisions could be delegated and to whom?

3.101 There are some regulatory and technical decisions that could be moved to the Director-General. The problem with the risk-based approach is the assumption that there are unambiguous agreed management objectives. Our experience in the SNA1 Strategy Group and Sea Change process is that management objectives get "dumbed down" or generalised so agreement can be reached amongst the various stakeholder interests. For

example, what does "*maintaining ecosystem capacity"* mean? Who has measured it? What is the natural range? Many people would argue that bottom contact fishing gear and sedimentation has significantly reduced ecosystem capacity already.

MPI - What do you think about the approach we have suggested to guide delegation decisions?

3.102 All TAC and TACC decisions need to remain with, and be made by, the Minister.

MPI - Do you agree with the establishment of a National Fisheries Advisory Council?

3.103 No. There have been too many iterations of advisory committees over the last 30 years to seriously contemplate yet another. Rather than serve as a serious Advisory Council this iteration is clearly a shallow attempt by industry to further capture the Ministerial advice stream and further delay meaningful reforms to the current management system.

3.104 There is no need. It is undemocratic to constantly strive to remove the Minister from decision-making roles for fisheries. The Minister is the representative of the New Zealand public.

3.105 If MPI were able to unshackle themselves from the industry and offer impartial advice in the national interest the perceived need for an Advisory Council would vanish.

MPI - What do you think should be the purpose of a National Fisheries Advisory Council, and what skills should its members have?

3.106 There is no need for the Council, and such a Council is simply another step as MPI and the fishing industry separate the Minister from public opinion. These committees have been established and subsequently abandoned on several occasions over the last 30 years. Ministerial advisory groups are the go-to tool when there is a need to delay and obfuscate.

3.107 There is growing public dissatisfaction with fisheries management and this Group will simply aggravate the frustration and be seen for what it is – a cheap shot by industry and MPI to capture the dialogue going to the Minister.

MPI - Do you agree that a more flexible and responsive decision-making framework is needed?

3.108 That was the question in 1982 when the QMS was being contemplated. The QMS removes the luxury of rapid response decision-making.

3.109 This possibility for quick decision-making was exchanged for defined, tradeable commercial rights and certainty that cannot be altered on a whim. It cannot be both ways.

3.110 Fisheries management in general isn't well served by constantly changing management settings. It isn't possible to measure and attribute short run changes made by constantly fiddling at the margins. Sensible, conservative settings needing infrequent change is the best long term strategy for the national interest.

MPI - What do you think would make the decision-making process more efficient?

3.111 A revamp of MPI following an independent review of the Quota Management System and decision-making processes. While MPI act as industry partners the decision-making processes are controlled by the industry's self interest. This leaves other interested parties as little more than bystanders.

3.112 There is more to management than efficiency, and success can only be measured against purpose and achievement. Many social and economic failures can be attributed to being preoccupied with efficiency.

MPI - What do you think the role of standards and decision rules should be in guiding decisions in fisheries management?

3.113 Standards are useful if clearly designed for a single purpose that is easily measured. For example, the use of a fishing method in a particular area. Minimum legal size and concomitant escapement, injury, mortality Standards remain useful.

3.114 Predetermined decision rules that describe a response to a particular scenario increase the risks. The data required to operate the rule is invariably capable of interpretation, enabling increasing exploitation rates while stocks are falling. E.g. CRA2.

3.115 The pursuit of maximum catch that can be justified makes using decision rules very dangerous, notwithstanding the theoretical elegance.

## Part 4. Should MPI implement IEMRS?

4.1 MPI has proposed to introduce to commercial fishing a mandatory electronic monitoring and reporting system referred to as Integrated Electronic Monitoring and Reporting System (IEMRS). Its purpose is to gather more information to support decision-making and value-adding, by focusing on-

a. Monitoring and verification of catch reporting;
b. Automated geospatial position reporting; and
c. Electronic monitoring using on-vessel cameras.

4.2 The value of IEMRS must be measured against its purpose and the cost of achieving success. The FOOF paper is vague on specifying what exactly success will look like for IEMRS.

4.3 It is unclear how IEMRS will achieve verification of catch reporting. The monitoring is unable to verify catch weights and species identification, these continue to be determined by fisher self reporting. No doubt with sufficient investment analysts could be trained to reconcile self-reported data with video data within useful bounds, but this would require hundreds of trained employees and is certain not to happen.

4.4 The geospatial reporting is obvious. Less obvious is how this will be recorded and what this information will be used for. Being able to identify vessels in close proximity to oil

spills, floating fish, etc is clearly of short term benefit, but how this data will be used, if at all, in stock assessments remains problematical.

4.5 The on-board camera technology is under development. Initial trials have been unsatisfactory. The FOOF aspirations for increased public confidence in management will never be generated while the camera data is treated as confidential, known only to industry and kept in-house. So far it looks like another case of overreach, where claims being made about the benefits of IEMRS are aspirational and unlikely to ever eventuate, while serving in the short term as an answer to discarding and transparency.

4.6 There is an obvious need for the activities onboard fishing vessels to be monitored in a more transparent way. Perhaps IEMRS can take us to that level, but with the benefits largely tailored for companies (catch reporting by event, control of discards for MSC certification, etc), the benefits for fisheries management purposes are not clearly laid out.

4.7 It appears as if IEMRS suffers from the same overreach that claims around the Precision Seafood Harvesting (PSH) net suffered. PSH was promoted by the PR firms as the answer to all selectivity issues; it would be possible to sort the catch on the sea floor, making all concerns about juvenile catch and discarding redundant. Look no further, the solution is at hand.

4.8 We are hearing similar rhetoric around IEMRS. It is revolutionary and will be able to bridge the knowledge and compliance gaps. It is a one-size-fits-all solution to discarding and filing false statutory returns – all will be revealed and verified once IEMRS is operational. It has that ho hum ring to it – heard it all before. The truth will not be known for several more years.

4.9 The public will not have any confidence in IEMRS unless there is vastly more transparency around the information that is produced. Treating the public as if they are not a shareholder in commercial fishing continues to undermine public confidence.

4.10 Data collection and analysis behind closed doors with summary reports released periodically simply begs the question what secrets are being hidden? What is going on that the public shouldn't see? Such operational secrecy has weakened MPI and the fishing industry's credibility, and largely destroys any merit for IEMRS.

4.11 Historic changes to the catch effort forms has led to difficulties interpreting CPUE trends. The benefits of detailed IEMRS data will not be immediate, and it may be five years before there is a sufficient time series to show trends in abundance rather than behavioural changes by fishers.

4.12 There is no demonstrated ability of reducing waste, managing the environmental impacts of fishing, verifying catch, supporting compliance interventions and restoring public confidence.

4.13 MPI's opening bid for this aspect is that, "*we provide the public with open access to all research data and findings, and support the usability of our research and science information".* This is patently untrue. Below we provide a case study from our last submission.

4.14 Public access to some IEMRS data and recreational harvest survey data is essential for a more transparent fisheries management system. Hiding behind the cloak of commercial sensitivity is no longer acceptable.

4.15 The Declaration on Open and Transparent Government**,** which was approved by Cabinet on 8 August 2011, states that government data and information should be open, readily available, well managed, reasonably priced and re-usable unless there are necessary reasons for its protection. Personal and classified information will remain protected. Government data and information should also be trusted and authoritative.

4.16 Active public data supply is becoming business as usual for most central government departments with open data programmes. The 32 central government departments are increasingly seeking and responding to user and stakeholder demand for open data in accordance with the Declaration on Open and Transparent Government.

4.17 Data must be released in a re-usable, machine-readable format, preferably in their original state. The current 'Guidelines for the Release of Information from Fisheries Databases' were developed in the 1990s and last reviewed in 2005. The world, our Government and public policy have moved on, but not so in fisheries.

### *Case study*

4.18 A recent example of the withholding of data from the public relates to the catch of undersized snapper (SNX) in Snapper 1. The SNX data collection and reporting was an integral part of the Minister's decision following the 2013 review of SNA1, on the North Island's northeast coast. A trial with cameras, observers, and self reporting (using the code SNX) was to be overseen by MPI and the results analysed to learn what level of sub-legal snapper was taken, by vessel and location, and time.

4.19 Three separate data sets would be generated. First would be the observer reports with matching self-reported data, these are detailed and would be the most reliable. Second would be the camera verified self reported records, and finally there would be a set of self reported records.

4.20 There is no need to keep any of this data confidential. Vessel names are easily changed to numbers to make them anonymous, and numbers of undersized fish in the catch and locations are hardly intellectual property.

4.21 In August 2015 MPI and commercial interests reported very low levels of sub-legal snapper catch – an average of 3.3% by weight across all the fleet and all methods. http://www.mpi.govt.nz/news-and-resources/media-releases/new-information-on-important-fishery/

4.22 The submitters are concerned about the results because the summary estimated SNX at a level that was about a third of all previous sampling programmes.

4.23 At a meeting of the Snapper 1 Strategy Group in August 2015 the NZSFC formally requested two simple metrics to better understand what is going on. The first was the number of times zero SNX catch was reported by method in the data used. A high proportion of zeros would lower the average significantly. The second was the number of times the SNX catch was reported as 15% of legal snapper catch. This was the trigger for the voluntary move-on rule and would provide a rough guide to the effectiveness of this

measure. SNX reporting and the move-on rule were both measures being considered in the Draft SNA1 Management Plan. Both measures underpinned a package agreed by the Minister and commercial interests as part of the 2013 Snapper 1 decision.

4.24 After three further meetings of the Snapper 1 Strategy Group without answers the NZSFC lodged an Official Information Act (OIA) request in October 2015 to obtain a copy of the data extract used by MPI, to do their own analysis. After all, it is publically owned data, generated and reported for the Minister. What could be the problem?

4.25 When the OIA was received MPI contacted commercial interests to let them know a request had been made for the Ministry-held data set. NZSFC and commercial interests had a short meeting where it was revealed there are indeed shortcomings in the data and some fishers were deliberately under reporting, but their records remain in the data set and are used to generate the average catch of undersize snapper published in the public summary.

4.26 The NZSFC was also asked by commercial interests to withdraw the OIA request so a collaborative solution could be found.

4.27 MPI extended the OIA timeframe to allow for more consultation with the industry, apparently due to confidentiality agreements made between MPI and commercial interests.

4.28 Commercial interest offered to provide their own, more detailed analysis of the SNX data at a Northern Inshore Working Group meeting in December 2015. The submitters wanted to ensure that the fundamental principles of MPIs Research and Science Information Standard (April 2011) were met. These are Peer review, Integrity, Objectivity and Reliability to "ensure that the quality of scientific methods, results and conclusions meet the accepted standards and best practices of the scientific community.[1]" The Standard clearly has not been achieved.

4.29 On the 22 December 2015 a partial data set was released to NZSFC. Fields containing vessel registration numbers, form numbers and statistical area were removed. Also this was not the original data set. The OIA response letter stated "*An earlier version of the information sheet released in August 2015 contains errors in the way the data was compiled…The Information sheet, the tables and the data released to you have been updated to exclude events from March 2015 and reporting the PSH fishing method."*

4.30 This withholding of data and subsequent revelations about the veracity of the data is compounded by the blatantly political video produced and released on Sanford website two minutes after MPI put the summary data online.

4.31 Rather than judge on the facts above, we will leave it to the reader of this submission to decide if there were conflicts of interest, collusion, orchestration and if the Minister and public of New Zealand have been misled to achieve a managed outcome that best suits a particular sector, and what the primary motivation might be. This against a background where stakeholders, bureaucrats and politicians are calling for more transparency and a collaborative approach to fisheries management.

[1] MPI Research and Science Information Standard April 2011

4.32 Our concern is that the first time this new model of electronic monitoring and reporting of SNX discards is tested we come up against long delays, new confidentially agreements and lack of peer review prior to releasing the data. This hardly bodes well for a new era of transparency in commercial fishing or mainstreaming the culture of open Government.

4.33 We face a daunting future with the spectre of extractive industries gathering their own data and self-selecting what will be reported to Government and how. Treating the public as a body with no rights to know how their fisheries resources are being used is to treat the public with contempt.

4.34 Section 10 of the Fisheries Act is the provision for providing full transparency in all aspects of New Zealand's fisheries. The Act must have a new provision in section 10 that specifies all data used to manage fisheries is publicly available in machine readable form. This would comply with whole of government aspirations to conform to common standards across departments and leverage greater value from government data and national resources.

## Part 5. Enabling innovative trawl technologies (EITT) for use in New Zealand's commercial fisheries

5.1 The proposal is to amend the regulations to allow new trawl technologies that breach the current regulatory requirements for trawl nets. These have been trialed under Special Permit conditions but cannot generally be used by commercial fishers.

5.2 MPI's preferred option would see the Director-General able to approve the use of particular gear types. Commercial fishers would have to make an application with supporting evidence that the new gear performs better than the current mesh nets at sustaining stocks and improving the quality of fish harvested.

5.3 MPI will need to develop simple, robust, and testable criteria to allow for the performance of new technologies to be assessed as performing at least as well as those permitted by existing regulations.

5.4 A weakness is the relatively poor data we have on the impacts of existing trawl gear to use as a "baseline".

5.5 The submitters support the principle of finding better fish harvesting technology. The existing gear is old technology and sets a low standard.

5.6 The submitters would like the opportunity to have input into the performance criteria that would apply to the trawl method and how performance is independently verified. There remains the need for clear Standards around trawl technology that serve as environmental protection and guide development of emerging technologies.

5.7 There are a large number of inshore fish stocks that are monitored and assessed using trawl CPUE, even though trends in abundance can be difficult to distinguish. A change in trawl technology, the reporting system and the introduction of large new boats will

disrupt the CPUE time series. Now is the time to start a fisheries independent "standardised " survey method for relative abundance in North Island inshore fisheries.

5.8 The cost of an independent survey could be alleviated if the Government held research quota for the main species in the survey.

## Part 6. Strategic Proposal 3: Agile and Responsive Decision-Making

6.1 There is an apparent desire to move some decision-making from the Minister to the Director-General of MPI. Most of these decisions relate to stock management settings, the TACCs. A couple of FOOF pages discussing decision-making management theory misses the point. It is not finding a suitable decision tree that fits with the latest fads in management theory that is needed. It is the absolute acceptance that New Zealand's fisheries resources are the common property of the citizens of Aotearoa.

6.2 To even include the term Agile in the paper discloses incoherence. Agile refers to a highly structured management process, usually employed in innovation projects. It has no context in FOOF.

6.3 All exploitation of New Zealand's fisheries resources must be sanctioned by the Minister, who will always remain responsible for his/her decisions via the ballot box.

6.4 To suggest the Director-General can operate impartially and in the interest of the fisheries, the people of New Zealand, and our visitors is laughable. The Director-General relies on fishing industry advice and is constantly lobbied to favour their interests. It is inevitable the Director-General will simply action the rationalised proposals promulgated by commercial fishing interests. To imagine anything else is infantile.

6.5 There is no problem statement identifying what actually in reality is being achieved by the proposed changes. The current process has been working effectively for decades and while charges of being slow and cumbersome are leveled, these attributes are mostly inseparable from fisheries management. Fish stocks tend to change slowly and are resistant to extinction, obviating the need for institutional rapid response to management settings. Very often in fisheries it is preferable to pause for confirming data before altering settings.

MPI – Do you agree that a more flexible and responsive decision-making framework is needed?

6.6 No. The need is for decisions providing for the implementation of precautionary settings for low information inshore stocks. Uncaught TACCs are undermining the QMS.

MPI – What do you think would make the decision-making process more efficient?

6.7 Investment in MPI capacity. In the end you get what you pay for, and if rapid decision-making on uncertain, imperfect, and unreliable information is provided for then standards will also fall. Quantity or quality? Without substantially increased investment the quality of decisions will drop with an increase in the speed they are made.

MPI – What do you think the role of standards and decision rules should be in guiding decisions in fisheries management?

6.8 There is no real long run example of where other standards or decision rules have been effective. They are not unilaterally rejected, but approached with great caution and suspicion.