





FISHERI





23 December 2016

The Future of our Fisheries Ministry for Primary Industries PO Box 2526 Wellington 6140 New Zealand

by email to fisheries.review@mpi.govt.nz

Dear Sir/Madam

Thank you for the opportunity to comment on the proposals contained in the four volumes of Te Huapae Mataora Mo Tangaroa; The Future of our Fisheries.

This collective submission has been developed by a number of industry organisations, the four fisheries Sector Representative Entities (SREs)—the Deepwater Group, Fisheries Inshore New Zealand, the NZ Rock Lobster Industry Council, and the Paua Industry Council in conjunction with Te Ohu Kaimoana, and Seafood New Zealand. These organisations all endorse the analysis and recommendations made in the submission.

The submission sets out our key concerns with the MPI proposals and also provides suggestions for a different approach with three core elements that would build on the sound foundations of New Zealand's fisheries management system.

We have developed this submission within the constrained timeframe provided and further discussion is required with MPI in order to explain and expand upon this material. As acknowledged in recent communications from MPI, this submission is the beginning of engagement with you on these matters, and we look forward to further discussion in 2017 as the review process proceeds.

Yours sincerely,

Daryl Sykes

NZ Rock Lobster Industry Council Ltd

George Clement Deepwater Group Ltd Dr Jeremy Helson

Fisheries Inshore New Zealand

Storm Stanley

pastanley

Paua Industry Council Ltd

Craig Lawson Te Ohu Kaimoana Tim Pankhurst

Seafood New Zealand Ltd

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Seafood Industry response to *The Future of our Fisheries*23 December 2016

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1 Executive summary

- 1. If the proposals in *The Future of our Fisheries* (**FOOF**) are implemented, the "future" will be one in which:
 - The sustainability of New Zealand's fisheries is threatened by the erosion of incentives for stewardship and failure to undertake core fisheries management functions effectively;
 - The integrity of the full and final Fisheries Settlement is grossly undermined;
 - The value of New Zealand's fisheries is eroded as quota owners resile from management initiatives that deliver social, economic and cultural value and disinvest from fisheries in an environment of uncertainty and insecurity;
 - The benefits that all New Zealanders obtain from the utilisation of fisheries resources is reduced; and
 - New Zealand no longer has a world-leading reputation in fisheries management.
- 2. The industry's key concerns with the proposals are that:
 - Re-allocation of catch shares is a confiscation of quota rights, damages the integrity of the
 Quota Management System (QMS),¹ and is therefore also a fundamental breach of the
 Deed of Settlement and section 5 of the Fisheries Act 1996 (the Act);
 - It is not open to the Crown to unilaterally change the management target for a stock. Instead, management targets must be set through engagement with all affected interests so as to enable those interests to provide for their social, economic and cultural well-being; and
 - Government is failing to undertake its own core fisheries management responsibilities which is exacerbating uncertainty and undermining constructive incentives for stakeholders.
- 3. The stated overall objective of the FOOF proposals is to improve New Zealand's fisheries management system. However, MPI's consultation material contains no analysis of the operation of the current fisheries management framework. In the absence of a problem definition, the proposals are ad hoc and do not build on the strengths of the current management framework.
- 4. In our initial submission on MPI's Fisheries Operational Review—*Creating Value Beyond Sustainability*—the seafood industry analysed the historic and current operation of the fisheries management regime and identified a number of enhancements and adjustments to support the development and improved performance of the framework.²

The QMS is a management regime comprising output controls on all harvest, with individual transferable quota allocated in perpetuity as the tool to manage the commercial sector's catch.

² Creating Value Beyond Sustainability; Initial Seafood Industry contribution to Fisheries Management Review 2015/16, 11 December 2015.

- 5. Our analysis came to two key conclusions about how value from the use of fisheries resources can be created or eroded i.e.:³
 - Value is enhanced when management is more enabling; and
 - Value is eroded where rights are insecure.
- 6. Examination of the FOOF proposals and the operation of the current fisheries management framework identifies a third key element that is impeding good fishery management outcomes—the failure by Government to undertake some core management responsibilities.
- 7. In summary, the industry recommends that improved performance of New Zealand's fisheries management system will be delivered by focussing on the following three areas.
 - Enable stakeholders
- 8. There is significant potential to harness the ability and incentives of stakeholders to deliver outcomes by enabling collective decision making within the TACC and government standards. An enabling approach can deliver outcomes that are difficult or inefficient to achieve using core government tools such as regulation and allocation of rights. Collective stakeholder decision-making will allow real progress on issues such as coordinating fishing activity in mixed species fisheries, constructively managing interactions with other sectors, implementing sustainable management initiatives at scales smaller than Quota Management Areas (QMAs), supporting more flexible decision making and meeting market access demands. Part of enabling this direction is to support representative and accountable bodies.
 - Address uncertainty
- 9. There is no justification for progressing the FOOF proposals that erode value by creating uncertainty and undermining incentives. The proposals to forcibly re-set management targets and reallocate catch shares in the absence of clear sectoral allocations in management plans should be abandoned. Instead attention should be focused on developing a mechanism to enable transfer of catch shares between the recreational and commercial sectors that is not value-destroying, and addressing the current confusion over which government agencies have regulatory roles in fishing.
 - Undertake core management responsibilities
- 10. To support better fisheries management outcomes, MPI needs to better deliver some of its core roles including the measurement and management of recreational take, the use of existing statutory tools to ensure more responsive management, better address issues around returning fish to the sea, and engagement and advocacy in government processes to better address adverse land-based impacts on aquatic ecosystems.
- 11. MPI has also sought views on amendments to regulation to enable the use of new fishing technology and to introduce electronic reporting, vessel monitoring systems and video surveillance. The industry supports collection of good information to improve decision quality, but the information needs to be relevant, cost effective and designed to meet clear management objectives. We suggest that more analysis is required to determine how the

See Creating Value Beyond Sustainability, paragraphs 33-46.

individual components could deliver better fisheries management outcomes through work including information need analyses, comparison of options and a cost benefit analyses.

2 Process considerations

- 12. This submission is an initial high level response due to the limited timeframe provided. As noted in the MPI response to FINZ of 9 December 2016, further engagement in 2017 is essential before any decisions are made on implementing the MPI proposals.
- 13. The FOOF documents provide no analysis of the current fisheries management system in terms of the way it has successfully addressed fisheries over-exploitation and generated substantial value in the process. Nor do the documents identify problems with the operation or development of this system. To proceed in the absence of such analysis is to propose solutions without a cause.
- 14. The industry has had insufficient time to address all of the FOOF proposals. This submission focusses on key concerns and makes suggestions for how the fisheries management system could actually be improved. There are many other issues that will need to be discussed before adjustments are made to the regulatory or operational framework. We have had limited opportunities to seek clarification from MPI staff, leaving us uncertain about what is intended in some areas of the document. The public forums convened, with high level presentations, are not adequate to discuss the policy and operational implications in any detail.
- 15. For example, we are unclear as to what is actually proposed with respect to ecosystem-based management. The Act has provisions that address the sustainability of harvested species, and associated and dependent species, and any adverse effect of fishing. The definition of utilisation from the purpose of the Act requires enabling people to provide for their social, economic and cultural wellbeing. The FOOF proposals set out an intent to collect even more information and to better meet national and international obligations but there is no description of what MPI actually intends to do with this information.
- 16. There are also elements of the proposals that have some merit and appear to be well intentioned, such as enabling innovative harvest technologies, cost effective means to manage the sustainability of low information stocks, the use of externally-commissioned research that meets required standards and providing for more responsive and flexible decision making. We would welcome the opportunity to work with MPI to develop the details on how some of the issues identified could be dealt with, and the most effective means to achieve the objectives and evolve the fisheries management system without damage to the core framework. For example, regulatory mechanisms to support binding collective decisions would make a major contribution to delivering constructive management initiatives, and industry has well developed ideas to contribute to a technical working group process with MPI staff.
- 17. In considering industry's response to the FOOF proposals, please also consider the industry submissions in December 2015, particularly the collective industry submission *Creating Value Beyond Sustainability*, and the submissions from sector representative organisations including Fisheries Inshore New Zealand (FINZ), the New Zealand Rock Lobster Industry Council and the Paua Industry Council.

3 Issues with FOOF proposals

- 18. If implemented, a number of the FOOF proposals would create major adverse impacts on the fishing industry, the Settlement with Maori, and the operation of the fisheries management framework. The proposals do not take advantage of the opportunities available to develop the current fisheries management arrangements and do not clearly set out an intent to address shortcomings in current management. Most in industry feel disappointed and frustrated with the proposals, and the forgone opportunity to enhance the fisheries management system and its outcomes.
- 19. The FOOF documents state that elements of the current fisheries management system including the rights associated with quota ownership and the Deed of Settlement are out of scope for the review. However, the proposals clearly breach this intent with major impacts on these elements.
- 20. Three key concerns with the FOOF proposals are set out in the sections below.

3.1 Confiscation of entitlements

- 21. The FOOF proposals outline an intent to progressively adjust the relative allocations of the TAC in shared fisheries, using SNA1 as an example of government's intent to move to 50/50 for each of the recreational and commercial sectors. Where this allocation would be achieved by reducing the TACC, or denying an increase that would otherwise be received, the re-allocation of catch shares is a confiscation of quota rights and therefore also a fundamental breach of the Deed of Settlement, section 5(b) of the Act and the Treaty of Waitangi. The Settlement introduced new disciplines on decisions made under the Act. Other FOOF proposals impact on the management rights Maori that have as part of the Settlement. ITQ forms the major part of a full and final Settlement between the New Zealand Government and Maori to address historical grievances over confiscation and depriving Maori of use of fisheries resources. In reaching that Settlement, Maori acknowledged that quota rights could be attenuated or regulated for sustainability reasons, but did not envisage it happening for other reasons, and certainly not in order to effect a forced transfer of fishing rights from Maori to the recreational sector.
- 22. During 2016 three legal actions were lodged by Te Ohu Kaimoana, Iwi and the industry to address the loss of rights that would arise from the establishment of the Kermadec Ocean Sanctuary as proposed. It is astounding, and confrontational to all Iwi, that Government should look to exacerbate this situation by signalling even more overt steps to undermine the Settlement and create a substantial new Treaty grievance through confiscation of Fisheries Settlement assets by act and omission. This strong concern has been formally communicated to government by Iwi, through Te Ohu Kaimoana in their letters to the Minister on 1 November and 8 December 2016. Te Ohu's concerns are supported by the industry as a whole.
- 23. The proposed reallocation of quota rights, and other FOOF proposals that impede the potential of rights to deliver good outcomes, undermine the operation of the QMS. The QMS deliberately uses an economic framework (the creation and allocation of secure property rights in perpetuity) to create strong incentives to achieve sustainability of fish stocks and to fish in an economically-efficient and socially-responsible manner. Secure rights are recognised

[&]quot;Shared fisheries" are not clearly defined in FOOF but are simply referred to as "... fisheries of interest to customary and/or recreational users as well as commercial users."

internationally as a key element to ensure sustainable and efficient use of fisheries resources.⁵ The proposals interfere with those incentives and infringe the rights and freedoms under the New Zealand Bill of Rights Act 1990 and are inconsistent with common law rights to property. These are not just legal matters but go to the heart of the design of the current fisheries management framework as an appropriate resource management response to scarcity.

24. Many academics and fisheries management experts have confirmed that the success of the New Zealand fisheries management regime, recognised to be delivering outcomes that are consistently among the best in the world, 6 is in considerable measure attributable to the creation of secure property rights and the incentives this creates for strong stewardship of the resources, a motivation that cannot be effectively achieved by regulation and threat of sanction. Those incentives, and the performance of the regime, are of course undermined if there is prospect that the rights will be forcibly transferred to another interest. The only process of fisheries re-allocation consistent with the preservation of the integrity of the Settlement with Maori and the QMS is one of voluntary trade.

3.2 Replacement of the management target

- 25. The FOOF proposals suggest that the management target under section 13 of the Act for shared fisheries should be replaced with "managing for abundance". The Act provides for managing at or above the biomass that can produce the maximum sustainable yield. But in changing the management target for a stock, the decision maker must have reference to the sustainability and utilisation components in the purpose of the Act, which include the requirement to provide for social, economic and cultural well-being. The decision needs to be taken following engagement with representatives of all those with an interest in a stock. In some circumstances, there are benefits to managing stocks at biomasses higher than that which would produce the maximum sustainable yield. Indeed, the commercial sector is currently achieving this for some stocks (e.g. CRA8, CRA5 and HOK1). However, the FOOF proposals are imbalanced in that they do not acknowledge other key considerations that arise in selecting a high target biomass—for example, a reduction in overall yield. There is a need to consider the costs and benefits in the circumstances of individual stocks and the fisheries they are part of.
- 26. The proposals then set out that reductions in catch will be necessary for some time to increase the biomass of a stock, and that the issue of how these cuts in catch are to be apportioned between sectors "is discussed in more detail later in this section". The only subsequent discussion is the proposal to re-allocate catch to the recreational sector to satisfy their increasing demands. These proposals compound the impacts of the proposed reallocation of commercial and Settlement assets discussed above. It is notable that catch reductions are the only mechanism mentioned to increase the biomass of a stock. Other options such as changes in selectivity and/or increasing yield-per-recruit should be considered and may be preferable.

⁵ http://siteresources.worldbank.org/EXTARD/Resources/336681-1224775570533/SunkenBillionsFinal.pdf

Boris Worm, Ray Hilborn, *et al.* (2009). Rebuilding Global Fisheries. *Science* Vol. 325 (5940): 578–585. Jacqueline Alder, Sarika Cullis-Suzuki, et al. (2010). Aggregate performance in managing marine ecosystems of 53 maritime countries. *Marine Policy* Vol. 34 Issue 3: 468–476. Beddington et al. (2007). Current Problems in the Management of Marine Fisheries, *Science* 316: 1713.

3.3 Failure to manage

- 27. The current fisheries management system has developed since 1986, but the fundamentals of successful management have remained. One of those, as set out in the FOOF documents, is that fishers only take the amount of fish that ensures that stocks are sustainable, expressed in total as the TAC. Despite the existence of workable mechanisms to measure and manage recreational catch, their application by MPI has been patchy at best and absent in most cases.
- 28. There has been considerable focus during 2016 on allegations of "discarding" and where this is occurring, the fishing industry has acknowledged the need to improve practices. There is a wide range of circumstances that lead to catch being returned to the water, many of which are either legal obligations (e.g. fish smaller than the MLS) or are legally provided for (e.g. returning unwanted non-QMS catch to the water, the loss of catch through gear failure or concerns for vessel/crew safety). Industry has offered on several occasions to work constructively with MPI to resolve these issues—that of illegal discarding in particular—which will require revisions to some of the current policy settings. However, the Ministry is principally looking to apply a one dimensional compliance-focussed response, and is less willing to examine the circumstances underlying the situation. To date, MPI has been less willing to use the available statutory tools and mechanisms to help address the issues.
- 29. There are elements of recognised best practice fisheries management that are not being delivered, or being delivered insufficiently. Some of these relate to building on the core government role to allocate and protect rights by supporting clarity over the framework within which those rights are exercised, underpinned by the regulatory role to control catch. Many fisheries lack basic elements of a coherent management framework, such as clear management targets, decision rules to help achieve stock targets, and allocations for the sectors within the overall catch limits. When in place, these mechanisms would provide incentives to engage constructively in management, and a focus for the organisation of supporting services and information needed. Other problems arise because of inaction by other parts of government. MPI needs to pursue local government to deliver on their statutory role to address adverse land based impacts on estuarine and marine ecosystems.

4 Strategic response

- 30. The initial Seafood Industry contribution to MPI's Fisheries Management Review—*Creating Value Beyond Sustainability*—reviewed and evaluated the evolution of the QMS over the last 30 years in order to identify what we can learn from its successes and challenges. The review allowed us to identify some key lessons and opportunities to gain further value from New Zealand's fisheries resources. Without a similar analysis and problem definition, the FOOF proposals do not reinforce the positive attributes and build on the successful elements of the current framework.
- 31. We have not received any feedback from MPI disputing the basis or conclusions of the analysis in *Creating Value Beyond Sustainability*. It is therefore instructive to apply the same analytical approach to evaluate the FOOF proposals and suggest responses that are more strategic, and more likely to generate enduring improvements to New Zealand's fisheries management system.

4.1 Recap of main findings in *Creating Value Beyond Sustainability*

- 32. The main findings arising from the historical review of the QMS are:⁷
 - The fundamental framework of New Zealand's fisheries management regime—as embodied in the Fisheries Act 1996 and the QMS—is sound;⁸
 - No management system is static and the QMS has evolved significantly since its establishment;
 - This evolution has been directional rather than random—each of the main reforms has served to *reinforce* the original set of incentives behind the success of the regime. As a result, quota owners have become ever more mindful of the twin drivers of sustainability and value creation.
 - The four key evolutionary trends are:
 - sustainability and environmental responsibility have become inextricably part of commercial harvest rights;
 - ITQ has become more secure as a property right;
 - quota owners have accepted and taken on more responsibility for administration and management of their rights; and
 - elements of the QMS have become more efficient.
- 33. Although the sustainability of New Zealand's fisheries is assured under the current management regime and the wellbeing that New Zealanders are able to derive from fisheries has increased significantly since 1986, the increases in value that have occurred have now plateaued. It is therefore worth considering how the value that can be obtained from fisheries can be further

See Creating Value Beyond Sustainability, paragraphs 1-32.

MPI cites a number of studies supporting the conclusion that "[New Zealand's] fisheries management system is considered world-leading and scientific assessments show that overall our fisheries are sustainable". See http://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/status-of-the-fisheries-resources/#foot-1

- enhanced. A value-enhancing approach is also aligned to the Government's Business Growth Agenda.
- 34. The analysis of the evolution and performance of the QMS identified two main lessons relating to the conditions under which quota value (as a proxy for total value) has been created or eroded, i.e.:⁹
 - Value is enhanced when management is more enabling; and
 - Value is eroded where rights are insecure.
- 35. Once sustainability is assured, the general courses of action to increase value in fisheries are therefore:¹⁰
 - Increasing the benefits from fisheries-
 - The most important way of maximising wellbeing is to ensure that fisheries are used in a way that reflects their 'highest and best' use at any time;
 - The second way of encouraging maximisation of benefits is to enable fisheries rights holders to adjust fisheries uses in a responsive manner—for example by adopting management practices that enhance sustainability, are fine-scale and timely, and can meet changing market demands and consumer expectations.
 - Reducing the risk to the future production of those benefits—
 - The most important way of reducing risk is to enhance the security of fishing rights by minimising the risk of expropriation.

4.2 Enable stakeholders

- 36. There is little evidence of the FOOF proposals adopting a management approach that is more enabling than the *status quo*. ¹¹ The limited use of enabling approaches is inexplicable when seen in light of the evolution of the QMS, particularly given the obvious and well documented success of:
 - the current (limited) examples of enabling provisions in the Fisheries Act for example, Part
 15A which enables the delivery of devolved and contracted services by FishServe; and
 - fisheries management initiatives delivered by the commercial sector even in the absence of enabling mechanisms for collective decision making, including:
 - ACE shelving in rock lobster, paua and deepwater fisheries to improve sustainability outcomes:
 - fine-scale (i.e. within QMA) management in paua, oreo, orange roughy and hoki fisheries;

⁹ See *Creating Value Beyond Sustainability*, paragraphs 33-46.

¹⁰ See Creating Value Beyond Sustainability, paragraphs 47 to 53.

¹¹ Limited exceptions include the proposal to amend fisheries regulations to enable innovative harvest technology and the references to the potential utility of collective decision making.

- catch reporting and monitoring programmes (including real time and fine scale reporting) in inshore and deepwater fisheries; and
- the direct purchase of additional monitoring and research in several fisheries, including an additional \$1-3 million of science annually in commercial fisheries.
- 37. The majority of FOOF proposals entail a https://niceo.com/higher-level of government regulation or other intervention, and are therefore less enabling than the https://niceo.com/higher-level of the status quo. For example, by proposing to unilaterally increase the biomass in shared fisheries, MPI is seeking to increase the "regulatory space" in which the Crown may operate at the expense of the space in which industry and other stakeholders may operate. Other FOOF proposals such as IEMRS and proposals to address discarding rely on regulation rather than enabling stakeholders to achieve desired outcomes. These proposals are therefore more likely to reduce the value that can be obtained from fisheries by not supporting what can be delivered through rights and incentives.
- 38. Creating Value Beyond Sustainability explained how greater benefit could be obtained from fisheries resources by supporting more efficient governance approaches that allow the commercial sector to coordinate and deliver outcomes in ways which would be very costly or unobtainable by government regulation, notably:¹²
 - Approved Management, whereby fisheries management measures and services for the
 commercial share of a fishery are defined in a fishery plan developed by quota owners and
 approved by the Minister, and delivered in whole or in part by an Approved Service Delivery
 Organisation (ASDO); and
 - Authorised Management, whereby an authorised group of quota owners purchases specified fisheries services and performs specified management functions for the commercial share of a fishery using binding industry-developed rules within government-set standards.

4.2.1 Addressing discards

- 39. Some of the proposed approaches for addressing discards entail a higher level of regulation and government-imposed costs, reduce the 'regulatory space' within which fishers and quota owners could better manage harvesting activity, and will inevitably result in a reduction of value in mixed species fisheries. Discarding does not pose significant threats to the sustainability of the species involved
- 40. However, there is real potential to support industry efforts to mitigate the issues. A fisheries plan prepared under *Approved Management* or a commercial harvest plan prepared under *Authorised Management* would enable TACCs to be set more effectively in mixed species fisheries, including through the use of sophisticated decision rules and innovative mechanisms to make value-maximising trade-offs in the management of species complexes (within government-set sustainability bounds). Research and data collection programmes to support the review and adjustment of TACCs to appropriate levels can be specified.
- 41. Under Authorised Management, quota owners collectively could develop a tighter relationship with ACE fishers implemented using binding collective ACE arrangements and harvest rules. For example, ACE arrangements could include requirements for quota owners to provide fishers with a particular mix of ACE, mechanisms to optimise the liquidity of ACE to help distribution across the fishery, and shelving of ACE in stocks for which the TACC is set at a level which is

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¹² See Creating Value Beyond Sustainability, paragraphs 61-70 and in Appendix 4.

incentivising discarding in other stocks. Harvest rules could include 'move on' rules to avoid areas of local high abundance of particular stocks, and real time data collection to enable responsive management across the fleet. Many of these outcomes would be very difficult to achieve by regulation. The issues related to returning fish to the sea are further discussed in section 4.4 below.

42. The FOOF proposals include the suggestion of creating a relationship of legal accountability between quota owners and fishers. Although this is superficially appealing, quota and ACE were separated for very good reasons—to support liquidity in the ACE market. Quite apart from the practical issues of trying to assign an obligation to ACE that may move between several entities in the market, impeding the exchange of ACE would exacerbate the issues of fishers obtaining ACE to cover their catch mix and therefore make the discarding issue worse. As noted in the paragraph above, a solution that enables industry to address this issue would be more effective, and more consistent with a role for government of setting standards which the industry needs to comply with.

4.2.2 Support representative bodies

- 43. Bodies that are properly mandated to represent and be held accountable to the interests they represent are of great benefit in delivering fisheries management outcomes with manageable transaction costs. Sectors that are represented by disparate, poorly mandated entities have a limited ability to engage efficiently or work to develop constructive management arrangements. There are now many examples of responsible and successful management initiated by commercial sector representative bodies working with their entitlement holders, even with the difficulties of achieving collective decisions.
- 44. The recreational sector suffers from the lack of a cohesive mandated representative body despite the efforts of some current entities. Such a body would be part of the solution to a process to support the transfer of catch shares from the commercial to the recreational sector for particular fisheries where the recreational sector value the resource more highly than commercial entitlement holders. Where that was the case, a properly representative and accountable recreational body with a clear role and mandate could act as the focus to obtain the resources and facilitate the transfer. This solution would first require confirmation of the existing baseline recreational catch allocation for stocks in particular fisheries.
- 45. The proposal to establish a National Fisheries Advisory Council could have the effect of usurping, rather than enabling, the interests of rights holders in the provision of management advice. The proposal mentions the need for "independent" advice on sustainability measures and legislation among other things. It is assumed that MPI staff are a source of advice to the Director General and Minister on such matters. The industry has properly mandated representative groups and would not welcome another body asserting they could provide advice on the industry's views and aspirations. As noted above, there is probably a role for government in supporting the formation of a representative body for the recreational sector to manage their allowance and better support their engagement with government and other sectors. MPI can obtain technical advice and expertise from a number of existing contractors and entities if needed. The NFAC would appear to be an unnecessary layer and it is not at all clear to industry what value a NFAC would deliver to justify the cost.

4.2.3 Flexible decision making

- 46. Approved and Authorised Management provide more flexible decision-making frameworks, enabling management at the scale appropriate to the particular issues being addressed. Fisheries plans prepared under Approved Management are an ideal mechanism for establishing multi-year decision-making on TACCs. Authorised Management enables binding decision making (in the commercial sector) which will facilitate agreements being reached with other sectors, as well as enabling quota owners to implement management initiatives such as those described elsewhere in this submission in a timely and flexible manner, all within government-set standards.
- 47. The FOOF proposals assert that under current arrangements it can take up to 24 months to implement a formal decision to change a catch limit. This is not the case for rock lobster fisheries, for example. Catch-rate information right up until September is used to undertake the assessment using externally-commissioned research, pre-determined decision rules are applied, consultation is undertaken, and the revised catch limit can be put in place by 1 April the following year. In some fisheries shelving mechanisms are effected in similar timeframes. These changes are achieved despite the limitations of current collective decision making. Similar and improved approaches could be applied more broadly by supporting the *Approved* and *Authorised Management* frameworks. This type of flexible and responsive fisheries management can achieve outcomes and address issues in a structured and accountable manner.

4.2.4 Improving market access

- 48. Amending the current approach to supporting market access requires careful consideration of the roles of quota owners and government. The requirements of markets are changing and, in some cases, consumers are seeking more information and evidence of performance against a range of criteria. The core role of government is to manage the fishing sectors to meet the purpose and principles of the Act as they relate to sustainability and the environmental impact of fishing. To the extent that markets require more information, the Act sets out that MPI should "enable people to provide for their... economic ... wellbeing." Amendment of the Act to support Approved and Authorised Management would enable the industry to meet the relevant certification requirements and consumer demands using a more responsive management framework. Under Authorised Management, the coordination between quota owners and fishers (collectively) can be enhanced, enabling quota owners to influence the way harvesting activity is undertaken—which is essential for reliably meeting market demands and certification requirements. For example, quota owners could develop harvest rules requiring the collection of additional information on provenance, and adopt ecosystem-based management measures above and beyond those required under the Act. ¹³
- 49. However, there may be ongoing roles for government because of the requirements of markets, or other governments, for government accreditation (for example for food safety), and building on progress made in removing market access impediments such as tariffs and quotas. There are also core roles for government, domestically and internationally, in communicating and making accessible information they have on sustainability of harvests and good management of environmental impacts of fishing. How far the government goes beyond these roles requires a

To date some 50% of the catch of finfish from New Zealand and 75% of the catch from deepwater fisheries has been assessed as meeting the Fisheries Certification Requirements of the Marine Stewardship Council (MSC).

discussion about the requirements of markets and consumers, and where the costs for new work will fall.

4.2.5 Fine scale management

- 50. The FOOF documents promote managing fisheries at finer geographic scales, which is acknowledged to add considerably to management costs. The utility of pursuing this direction needs careful consideration in terms of the objectives of fine-scale management, who is best placed to undertake it, and who should bear the costs.
- 51. Fine scale management is best progressed at the initiative of stakeholders since it is often directed at increasing utility or managing access rather than dealing with issues of sustainability. For relatively sessile species there may be advantages in maximising productivity by controlling all harvests in areas smaller than QMAs. The industry has implemented a fine scale approach where it adds value to management, despite the absence of supporting arrangements for collective management. For example, industry is currently undertaking or investigating sub-QMA management approaches in several fisheries (e.g. PAU5A, ORH3B). In these fisheries, this successful fine-scale management is not only acknowledged by the Minister, he places reliance upon these measures when making his sustainability decisions. However, while managing at sub-QMA spatial scales can be effective if implemented collectively by stakeholders, it is not a cost effective area of regulation for government.
- 52. If the current scale of management is not ensuring sustainability, then the Minister may impose the sub-division of a quota management area under section 25B of the Act.
- 53. If, as is often the case, fine scale management is sought by the recreational sector to improve local stock abundance or as part of a process to demand spatial exclusivity, then this is an issue of fisheries allocation rather than sustainability. In the case of finfish, fine scale management simply will not deliver local increases in stock abundance because of the mobility of the species. More generally, inter-sectoral arrangements entailing spatial access or local abundance, and the costs of implementing such arrangements, should be negotiated directly between the affected parties. Any finer scale management would require detailed catch data for all of the sectors involved in the fishery.

4.3 Address uncertainty

54. The FOOF proposals to "maximise the value of our shared fisheries" radically erode the security of commercial fishing rights and thereby destroy value for <u>all</u> shared fisheries—not just the fisheries that these proposals may be applied to, because of the prospect of reallocation. Potential strategies by quota and ACE owners to invest and enhance fisheries will be put to one side as no benefit may accrue. *Creating Value Beyond Sustainability* identified the centrality of certainty of rights in generating value from fisheries. This is a crucial issue for fisheries management where no amount of regulation, monitoring and surveillance can substitute for fishers who have a strong interest in the health of the resource, its value as an asset they have a stake in, and incentives to enhance that value.

4.3.1 Remove the threat of confiscation of entitlements

- 55. Section 3.1 above outlines the significant issues created by the proposal that government would forcibly or passively re-allocate from the commercial to the recreational sector.
- 56. In the absence of any effective monitoring and controls on the total allowance for recreational harvest, a decision to require a fishery to be managed at a higher biomass can effectively be a

reallocation of harvest shares within the available yield (because recreational fishers catch more fish when abundance improves, while commercial fishers remain constrained by the TACC). A policy to "recognise recreational value" when allocating the TAC is also a blatant reallocation of fishing opportunity.

- 57. The existence of these government policy preferences (even if they are not ever implemented in practice) creates significant uncertainty for quota owners in shared fisheries. There is a strong disincentive to invest in any fishery when the risk that your harvest shares will be reallocated to another sector is high. As a result, quota value in all shared fisheries will decline over time. If this situation persists unchecked, quota owners will see little benefit in investing in the long-term health of the fishery, fishers will see no benefit in exercising restraint and both will become increasingly focused on short-term maximisation of catch at the expense of the resource. In effect, the incentives acting on industry will become similar to those that apply in an open-access fishery (tragedy of the commons) with adverse consequences for stock abundance and sustainability and loss of value from the fishery. This is a huge opportunity loss when, with certainty, constructive incentives are created to generate biological, social and economic outcomes that provide benefits for all sectors.
- 58. The prospect of government intervention in this manner creates incentives for lobbying and advocacy, and avoiding responsibility and accountability. If sectors believe that to increase their share of fisheries harvest and access all they need to do is lobby government and assert their interests are greater than others, it is hardly surprising they will direct their efforts to do this. There is little incentive to work within their sector on measures to increase the value of their allocation if the easier path is to seek a greater allocation at the expense of another sector. Perpetuating such a climate is irresponsible—it encourages acrimony and competition at the cost of the sectors constructively working on improved fisheries management outcomes.
- 59. We are aware that recreational sector submissions are likely to suggest that current allocations, in the form of quota and allowances, have not been established in a manner that necessarily "maximises overall value". While there has been no explicit process directed at that outcome, the current shares of catch are the result of a long period where commercial catch has been constrained fairly effectively to a quantitative catch limit. On the other hand, recreational catch is only constrained somewhat by bag and size limits and gear restrictions, and entry by new participants is unrestricted, meaning that actual catch has not been effectively constrained. Recreational catch is often related to stock size as greater fishing success will lead to increased participation and/or increasing frequency of fishing (up to a point).
- 60. Some individuals from the recreational sector will suggest that stock sizes are inadequate. But stock size is managed under the Fisheries Act with almost all stocks at or above the biomass (or proxy) that will achieve the maximum sustainable yield—the legislative target. While maximum sustainable yield may not maximise catch rate, it does maximise catch. It is not an unreasonable starting point for a discussion about a change in management target, or a stock size that provides for utilisation by extractive sectors. The relative shares held of stocks were also extant at the time of the Deed of Settlement. Maori would not have agreed to put aside their historic grievances, and accept shares in the QMS, if there was prospect those assets

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In terms of the volume of landings of stocks of known status, by the end of 2015: 93.5% of stocks above their management targets. MPI February 2016.

would be subsequently confiscated. This perspective was well recorded by Justice McGechan who noted in his High Court decision in 1997:¹⁵

"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."

- 61. Ensuring that fisheries are used in a way that reflects their "highest and best" use at any time requires that reallocations of fisheries be made in ways that support, rather than erode value. To achieve this, rights must be secure. The industry's preliminary analysis on this point identified significant scope for developing solutions based on the stronger specification of all types of rights in the marine environment (including recreational fishing rights) and enabling reallocations that build on the QMS, rather than undermining it.
- 62. In any other area of the economy, the government would not conscience intervening to remove resources from one extractive interest to provide to another. There is a government role in supporting transfer, but not in forcible re-allocation. Value has been suggested as a basis for consideration of transfer between sectors. However, assessing "value" is very complex and contentious. It is challenging to compile and directly compare such diverse components as expenditure on a leisure activity, employment in associated service industries and catching, processing and retail sectors, the benefit of export revenue and foreign tourist expenditure to an economy dependent on foreign exchange for its balance of trade—much less the value that people place on a day on the water, putting fish on the family table, being able to purchase fresh local fish and the lifestyle associated with commercial and recreational fishing. These are difficult and somewhat subjective considerations.
- 63. Even if such values could be calculated and compared, for the reasons noted above related to security of entitlements, the integrity of the Settlement, and incentives for constructive behaviours, it would be wrong for government to use this information as a basis to intervene and forcibly re-allocate. Rather, the government should enable a mechanism where the sectors themselves can make the decisions about the extent of the value they place on increasing catch shares. Given the extensive resources associated with recreational fishing collectively, if recreational fishers desire a greater share of a stock, those resources could be used to seek a transfer. One significant benefit of quota management of the commercial sector is the transferable and divisible nature of rights which facilitates a market based transfer approach such as through purchase or a reverse tender. This could be considered on permanent basis, or annual basis using the facility of ACE.

4.3.2 Create incentives to maximise benefit

64. Certainty creates an environment for investment and positive stewardship. Stakeholder-initiated fishery plans provide a recognised best practice mechanism to establish clear sectoral catch allocations, and the process that would be used for any change in allocations (as provided

¹⁵ New Zealand Fishing Industry (Inc) v Minister of Fisheries (CA 82/97, 22 July 1997), McGechan J.

in section 11A(3) of the Act). With such certainty, sectors could focus on how they could maximise benefit within their allocation by tuning management arrangements. In the absence of stakeholder-initiated fisheries plans there may be a limited interim role for government to facilitate the development of plans with stakeholders, to set out agreed management targets and allocation rules. There are as yet no approved stock-specific management plans in place for any inshore finfish stock that set out allocations and a process for how allocations would be adjusted between the sectors.

65. Where there is consensus about the overall benefits of managing at a higher biomass, a fisheries plan can include strategies for increasing the stock size and specifying how the catch of each sector will be managed during the build and when the new target is reached. An obvious option is that the current proportions in the fishery are maintained. Where a change in the relative proportion of allocations is sought, as discussed above, government should facilitate a process to effect a transfer between the sectors. The benefits of a clear management target include that information collection, monitoring and other services can be adjusted or designed to meet the overall objectives.

4.3.3 Confusion about who is managing fishing

- 66. The seafood industry increasingly has to invest time and resources to dissuade agencies and authorities, other than MPI, from trying to manage or otherwise intervene in fishing activity. Recent examples include so-called marine protection initiatives which seek to manage the sustainability of fishing or manage fisheries interactions with protected species, where that is already being undertaken under the Fisheries Act; new Marine Protected Areas legislation which characterises "recreational fishing parks" as MPAs when the parks are indisputably a mechanism to allocate access to fisheries between fishing sectors; and regional councils seeking to use their Resource Management Act responsibilities to control fishing (for example in the Proposed Marlborough Environment Plan). The recent Environment Court decision has exacerbated this last issue.¹⁶
- 67. In all these cases, other parties are seeking to duplicate or take over core fisheries management functions and MPI is either absent or does not effectively engage to prevent the jurisdictional creep. The result is confusion and uncertainty as to how fisheries are managed and who is responsible for management. Fisheries stakeholders, both commercial and recreational, bear the brunt of this confusion in the form of erosion of access, fishing success and asset value. We see an urgent need for MPI to step up and reclaim the fisheries management arena, including by undertaking its core management responsibilities (as discussed below) and empower fisheries stakeholders to manage their own activities. MPI should consider the need to clarify the statutory interface between the Fisheries Act and other resource management laws.

4.4 Undertake core management responsibilities

68. The current fisheries management system has been refined and expanded since 1986, but the fundamentals of successful management have remained. In some cases, core components of the operation of the current regime are not being delivered, or are being delivered only in part.

4.4.1 Manage recreational catch

69. One of the fundamentals of fisheries management is that all sources of mortality are recorded and, as set out on the FOOF documents, that fishers only take the amount of fish that ensures

¹⁶ Motiti Rohe Moana Trust v BOP Regional Council. Environment Court. 5 December 2016.

that harvests are sustainable, expressed in total as the TAC. The FOOF documents outline the best practice approaches that can be used to estimate recreational catch. However, these surveys and other monitoring are undertaken infrequently and the estimates they provide are insufficiently precise. More importantly, the available information is not actually translated into steps to manage recreational take through the mechanisms available, principally bag and size limits. Less than two thirds of inshore finfish stocks even have a recreational allowance set. Where TACCs have been amended in recent years, we recall only one case where there has been any change to controls on recreational fishing. The outcome of this chronic inaction has been unmanaged increases in pressure on fish stocks and the re-allocation of catch shares from commercial to recreational fishers, either explicitly by increasing the recreational allowance to take into account unmanaged expansion in catch (e.g. CRA5 and SNA7), or by allowing unmanaged increases while the commercial sector is constrained (e.g. PAU7).

- 70. There is also no discussion in the FOOF of the need to improve the collection of information on recreational catch taken by amateur charter vessels, an important source of removals for some species, and the need to use that information to manage extraction by that component of the recreational sector.
- 71. It is also important to note that the infrequent assessment of recreational catch compromises the accuracy of stock assessments that are used to ensure the sustainability of harvests.

 Scientists are forced to use outdated and inaccurate information which introduces unnecessary uncertainty into estimates of stock status and can compromise management decisions.

4.4.2 Use Fisheries Act tools to manage discarding

- 72. There has been considerable public focus during 2016 on allegations of widespread "discarding", driven in part by misrepresentation of the extent of the situation. The FOOF proposals to address this situation focus on tightening regulatory controls on commercial fishing, while giving some consideration to related matters. Both the government and the seafood industry have to take some responsibility for these issues not being adequately addressed to date. This submission outlines ways in which the industry can improve practices, and the need to support collective action to enable these actions (see 4.2.1 above), but the government also needs to use the available Fisheries Act tools to help manage this issue and work with the industry to develop enduring solutions.
- 73. While accepting that commercial catch should ultimately be constrained by the TACC, the actual catch taken in a mixed species fishery is both unpredictable and variable between years, and ACE may not be immediately available to cover catch. Obviously, a key consideration is whether the TACC is set at the right level. The TACs and TACCs for stocks in these fisheries should be reviewed regularly to ensure that the fishery is sustainable, but utilisation is not unnecessarily restricted. That happens too infrequently. For example, while over-catch may not indicate that a TACC is inappropriate, it is an indicator there will be incentives to return fish to the sea. Of the 32 finfish stocks that have been consistently over-caught over the last decade, generating ~\$5.8 million in deemed value revenue, only 10 have been reviewed. The TACs and TACCs for over-caught stocks should be examined before the Ministry applies additional compliance measures and fishers face additional sanctions.

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¹⁷ The SNA 1 decision in 2013 reduced the recreational bag limit from 9 to 7 fish per day and increased the minimum legal size from 27 to 30 cm. This however was accompanied by an increase in the recreational allowance of 500 tonnes.

- 74. The Fisheries Inshore New Zealand submission of 12 December 2015, and subsequent correspondence on MPI's proposed Pathways framework, focussed in some detail on such matters and advanced suggestions to remedy those issues. In response to those issues, we acknowledge and support MPI on commencing more detailed work on how to manage Low Knowledge Stocks and consider that work must proceed with some urgency so as to inform better management of these stocks and contribute to the structural solutions that are needed in many inshore fisheries.
- 75. There is a need to obtain better information on total fisheries mortality so it can be used in monitoring and management. The fact that catch reporting in some circumstances is incomplete is both a symptom and a cause of the discarding issue. Returning fish to the sea can be a symptom of incorrect TACCs and unnecessarily punitive deemed values, and may result in economic waste when the fish is marketable. As a result of discarding over time, estimates of fishing mortality and CPUE may be incorrect and stock status may therefore be incorrectly assessed. If TACCs remain unchanged in spite of increasing abundance, incentives to discard remain, and the problem perpetuates.
- 76. Minimum legal sizes for finfish create additional issues. Fish under the minimum legal size are required by law to be returned to the sea, but in most cases, there is no requirement to report this catch. A better outcome would be to ensure that information is collected on catch, and allow live fish, and fish that have no market value, to be returned to the sea. Some of the FOOF proposals would require unnecessary killing and landing of fish with no market value inevitably resulting in much of this going into landfill. This is uneconomic, a loss to the marine ecosystem, and a lost opportunity for a fisher, whether commercial, recreational or customary, to catch that fish in the future. Where there is mortality of QMS species caused by fishing, whether landed or returned to the sea, these catches should be reported and covered by ACE.
- 77. These principles apply to other fisheries. Selective retention of the desired sizes of rock lobster to meet price and market imperatives causes no issues because the level of handling mortality has been estimated and is taken into account before the TACC is set thereby creating incentives for industry to reduce that incidental mortality. However, the current management of QMS finfish bycatch in rock lobster pots is inconsistent with these principles as finfish are currently required to be retained unless smaller than the minimum legal size. There is no reason why finfish captured alive and unharmed should not be returned to the sea.
- 78. The lack of comprehensive knowledge of the circumstances and reasons for the behaviour is an ongoing problem in designing the most useful solutions. FINZ is currently interviewing quota owners, fishers and LFRs to get their perspectives on the issues and possible solutions. This process, across the industry, is important to ensure that adjustments made go as far as possible to solving the issues, not just creating a different state which does not achieve the sustainability or economic outcomes desired either. Industry strongly submits that discarding is a mix of complex issues, one where a joint working group process is needed to ensure useful outcomes.

4.4.3 Address land based impacts on the aquatic ecosystem

79. There is an urgent need for MPI to engage and advocate in local government processes to support the valuable role that they can play to address adverse land-based impacts on aquatic ecosystems and therefore fisheries resources. NIWA research suggests that sedimentation is

likely the most important land-based impact on coastal fisheries. ¹⁸ We expect MPI to work actively with Regional Councils to address this and other land based threats. This course of action would have uniform support from all fisheries and environmental stakeholders who have expressed concerns about adverse anthropogenic effects on aquatic ecosystems and their productivity.

5 Regulatory proposals

5.1 Enabling innovative trawl technologies (EITT)

- 80. MPI proposes to amend regulations relating to trawl net restrictions to enable the use of innovative trawl technologies. This is prevented by the current prescriptive wording of regulations. MPI's preferred option is to amend the regulations to allow the Director General to assess and approve new trawl technologies based on performance based criteria promulgated through regulation and circulars. The industry supports this option with the modification that the approach should be expanded to allow any new commercial fishing gear that would be precluded by the current regulations but meets the performance criteria.
- 81. The performance criteria could be used to consider approval of changes to gear not currently allowed by regulation that improve:
 - the selectivity of gear with respect to species or size of fish;
 - the extent of environmental impact (e.g., interaction with protected species);
 - the quality, and survivability, of fish landed on the vessel; or
 - the efficiency of the gear, including through fuel savings.
- 82. Such a regulatory framework will be necessary to deliver the benefits of the industry and government investment in Precision Seafood Harvesting (PSH). As with PSH, initial trials and assessment could take place using a special permit before approval for commercial use. Ongoing monitoring of the new gear would be facilitated by creating a discrete method code to be provided in statutory reporting. Notification of intent to use the gear once approved would seem unnecessary. Costs for MPI approval should be kept to a minimum so as not to discourage innovation and as improvements will benefit all sectors, the Crown should provide assistance towards such innovation.

5.2 Integrated Electronic Monitoring and Reporting System (IEMRS)

- 83. The Ministry proposes to introduce an Integrated Electronic Monitoring and Reporting System (*IEMRS*) which consists of three components—Geospatial Position Reporting (*GPR*); Electronic Reporting (*ER*) and Electronic (Camera) Monitoring (*EM*). The stated purpose of IEMRS is to provide accurate, integrated and timely reporting and monitoring data on commercial fishing activity.
- 84. MPI proposes that all permit holders will need to implement all three components of IEMRS, on all commercial vessels, with GPR and ER being active on all vessels from 1 October 2017 and with EM being implemented in a staged process from 1 October 2018. New regulations will be needed to implement the various components of IEMRS from 1 October 2017.

MA Morrison, ML Lowe, DM Parsons, NR Usmar and IM McLeod. 2009. A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. NZ Aquatic Environment and Biodiversity Report No. 37.

85. It is not stated in the consultation paper what regulation changes are proposed to implement IEMRS.

5.2.1 Summary of industry position

- 86. Robust information underpins good decision-making and the industry supports any initiative that seeks to improve decision quality. Consequently, the industry supports acquisition of robust information. However, this support is qualified by the information collected improving management by being relevant, appropriate, cost-effective, and aligned with well-specified management settings and objectives. It is also premised on developing an operating framework where decisions are considered and taken based on that information in a timely and consistent manner.
- 87. As such, while we can see some potential value in individual components of IEMRS, industry considers that the implementation of each component, severally and jointly, must be expressly targeted to improve management outcomes. We consider that more information and analysis is required to determine where and how the various components of IEMRS can deliver better fisheries management outcomes for the Crown, the seafood industry and the public. This analysis must necessarily include:
 - specific information needs, i.e. a clear definition of the management issues that require additional information—fishstock by fishstock, sector by sector, for the different catching methods and regions;
 - an assessment of the costs and benefits of using each of the three individual components of IEMRS to address the aforementioned management issues—either individually or in combination;
 - c) careful integration with—and adjustment of—wider fisheries management settings.
- 88. Therefore, while we agree with the general concept of IEMRS, that being the acquisition of better information to improve fisheries management, we consider the following matters *first* need to be addressed to focus better the development and efficacy of IEMRS:
 - a) more specific objectives for the deployment of IEMRS, linked to management objectives;
 - b) a clear definition of the information deficiencies, fishstock by fishstock;
 - c) consideration of wider fisheries management and policy settings that will influence information requirements and direct subsequent management based on better information;
 - the particular outputs sought and the feasibility of obtaining those in various fisheries;
 - e) an evaluation of the options available to obtain the required information;
 - f) a detailed cost-benefit analyses of the options available to collect the required data; and
 - g) an analysis of risks.
- 89. Central to this general position is that IEMRS is a tool to assist better fisheries management, and not an end in itself. It is not a single mechanism—it is a collection of three components that may be implemented, separately or collectively, depending on the information needs and the capacity to acquire that information using IEMRS.

- 90. The need for each IEMRS component, and its value to fisheries management, requires a wider understanding of the information requirements and management regime for specific fisheries. Unfortunately, the consultation material fails to provide that wider contextual setting which precludes any assessment of the value of IEMRS components either individually or collectively.
- 91. For example, the proposal provides no analysis of the appropriateness or capacity of IEMRS to monitor fisheries compliance, protected species interactions, occupational health and safety or scientific data collection. The ability to meet those information needs varies by fishery, fishing gear and the handling practices on the vessel.
- 92. By way of illustration, it is acknowledged that IEMRS will not be capable of several core data collection requirements. For example, the collection of length frequency data, stomach content analyses and otoliths. Human observers will still be required. That being the case, one may ask whether IEMRS provides a cost-effective information collection platform in fisheries where observers are present and where these data are necessary. The matters set out above in paragraph 88 provide a framework for making such assessments and we would value the opportunity to work through those considerations with MPI to ensure that IEMRS is an effective tool to complement a robust fisheries management system.
- 93. It is also clear from the proposals that MPI expects that industry will meet both the full capital costs of the equipment on the boats as well as bearing some proportion of the Ministry's costs in establishing the infrastructure and associated operational costs. As such this must be seen as a joint investment. There must be collaboration in its development and there should be no need for parallel systems. Such collaboration is recognised and reported as an essential prerequisite to a successful EM programme on any scale (see Sylvia et al. Annex One).
- 94. Given the scale that is proposed, it will be critical for overall system success that agreements are reached early on regarding issues such as immediate access to information supplied by the EM systems to commercial parties and sector representative bodies as agreed with the fisher.
- 95. The following sections provide additional industry views on the IEMRS proposals including the need for better problems definitions, further analysis and ongoing engagement to develop the IEMRS proposals and support implementation that will improve information and management outcomes in a cost effective manner.

5.2.2 The problem definition

- 96. A precise problem definition should provide the rationale for IEMRS, drive its development and target the implementation of its various components. However, the problem definition provided by MPI is vague, generalised and does not convincingly bridge the gap between the outcomes being sought and the monitoring system proposed.
- 97. MPI state as the principal rationale for IEMRS, that there is no sure way to verify catch-effort and protected species reporting by vessels, and that the absence of real-time or near real-time reporting hinders the speed at which MPI can analyse information and taken action where required.²⁰
- 98. It is said that these problems result in a range of undesirable outcomes such as:

¹⁹ Vol III, page 24.

²⁰ Vol III, page 13.

- a) uncertainty regarding discarding, and other sources of mortality, meaning TACs may not be set correctly;
- b) constrained progress resolving protected species by-catch;
- c) undermined confidence that fishers are operating with minimal or acceptable impacts;
- d) limited opportunities to add value through lack of traceability and third-party certification;
- e) long turn-around times through paper-based reporting.
- 99. The problem definition then lists several reasons why Observer coverage is difficult and expensive to obtain in some fisheries. Yet there is no discussion of the need for that Observer coverage, what specific information is required, what level of coverage is necessary and the extent to which IEMRS can collect the information currently obtained by human observers. Again, this demonstrates a lack of specificity about the information needs in various fisheries and the options for obtaining those data.
- 100. The document then asserts that IEMRS will solve these issues (implying all of them) through increased data collection. While in some instances additional data may be useful, asserting that all three IEMRS components are needed across the whole commercial fleet operating is a very blunt and expensive management response to a complex suite of challenges. Each fishery only has a limited ability to invest more money towards better fisheries management. This means there is a high opportunity cost for expenditure and we need to be sure that the investment proposed represents the greatest joint industry/taxpayer return.
- 101. It is not apparent that IEMRS will solve the issues identified or that it represents a good investment for industry or the Crown. MPI's assertion to the contrary ignores the reality that these issues are the consequence of a range of management settings and incentives that must all be solved together through active fisheries management as opposed to making changes only to increase monitoring and data collection.²¹
- 102. Considering some of the above scenarios is instructive in assessing the efficacy of IEMRS in addressing some of the issues identified, for example:
 - a) There appears to be little current reason why MPI would require real-time or near real-time reporting when almost all management decisions are based on annual or multi-annual cycles. What is the analysis and action MPI envisage that would justify this information need? For which fishstocks is this potentially needed?
 - b) While IEMRS would provide an incentive to reduce some forms of discarding, how can the various components of IEMRS be used to address the underlying causes of discarding and deliver better fisheries management outcomes? For example, what are the drivers and incentives that result in undesirable discarding? How could all these best be addressed? To what extent does better information assist any or all of them compared with other measures? How should that information be used to improve management settings and

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We are not convinced that the active management required would be delivered through the other initiatives discussed in *The Future of our Fisheries* papers. We consider that New Zealand's fisheries management system is fundamentally sound and significant fisheries management gains can be obtained through more effective management of the existing regime (see *Fisheries Inshore's* submission of 12 December 2015). This does not preclude the view that developing other management options such as those discussed in response to Volume II of *The Future of our Fisheries* should not be progressed to further improve fisheries outcomes.

- thereby reduce incentives to discard? What undesirable incentives could IEMRS create and how can these be avoided?
- c) One questions how onboard cameras will verify catch effort reporting? Inshore trawl skippers are required to provide an *estimate* of catch for the top eight species landed. It is unclear how obtaining video footage of that catch being retrieved, sorted and stored would verify the accuracy of the skipper's estimate. What value is there in obtaining a better *estimate* of catch? Similarly for large volumes of catch onboard deepwater vessels where the catch is tipped directly in the pound. In contrast, there may be value in finer-scale spatial data and more detail being collected through GPR and ER.
- d) If there is constrained progress resolving protected species by-catch, in which fisheries is a lack of information the impediment? Can the necessary information be collected using IEMRS, e.g. speciation of seabird captures? Can the required coverage be targeted in time and space to optimise efficacy and cost?
- 103. These examples, and there are many more, illustrate that if the Ministry and industry are to jointly improve fisheries management by adopting IEMRS in one form or another, a more considered and targeted approach is required. The matters referred to in paragraph 88 above provide a starting point for properly assessing how and where the various components of IEMRS may provide a useful tool—to be used in conjunction with other management measures—to improve fisheries outcomes (see also Sylvia et al. in Annex One). A key recognition must be that for IEMRS to assist in achieving the desired outcomes, it will need to be accompanied by a range of other measures that address the issues in a cost-effective way.

5.2.3 Consultation

- 104. The submitters appreciate the opportunity to comment on the IEMRS proposal at this early stage of its conceptual development. However, as set out above, there is little provided by way of rationale or the detail of the specific purpose of IEMRS that would allow us to provide a more useful response.
- 105. In particular there is insufficient information on the costs of the proposed IEMRS system and how these costs would be recovered. It is conceivable that the capital and operating costs of IEMRS would be very considerable indeed.
- 106. Furthermore, there is no information provided about the particular regulatory changes that are proposed. A non-exhaustive list of regulations is provided that would require amendment but without any further information.²² It is also stated that "new infringements relating to new reporting and monitoring requirements" are within scope of the consultation but are not discussed in the consultation paper at all.²³
- 107. The courts have considered consultation in some detail. A key component of which is a requirement that the party consulted will be (or will be made) adequately informed to enable it to make an intelligent and useful response.²⁴
- 108. Similarly, and with particular regard to consultation with Maori, the Court has held that "Those consulting need to impart enough about the proposal that those consulted are able to respond

²² Vol III, page 26.

²³ Vol III, page 8.

²⁴ Wellington International Airport Ltd v Air NZ [1991] 1 NZLR 671 (CA).

- with appropriate and accurate information on the potential effects on affected Maori, so that it may be considered by the decision maker."²⁵
- 109. In considering specific instances regarding the adequacy of consultation, the Regulations Review Committee has stated that a party under a duty to consult must provide a reasonable amount of information, as those consulted must know what is proposed before they can be expected to give their views.²⁶
- 110. It follows that Volume III of *The Future of our Fisheries* regarding IEMRS is simply an articulation of an idea that may warrant further development. Given the lack of specifics, it is difficult to consider the information provided, and process to date, as consultation in a legal sense.

5.2.4 Further analysis required

111. The Treasury has provided detailed information on preparing Regulatory Impact Statements that must accompany all proposals for regulatory change. The Treasury note the following as required information:²⁷

Identify the full range of practical options (regulatory and non-regulatory) that may wholly or partly achieve the objectives. Within the regulatory options, this includes identifying the full (viable) range of regulatory responses.

For each feasible option:

- o identify the full range of impacts (including economic, fiscal, compliance, social, environmental and cultural) and provide an appropriate level of quantification
- describe the incidence of these impacts (i.e., who bears the costs and the benefits) and assess the net benefit compared with the status quo.
- 112. The information provided about IEMRS in *The Future of our Fisheries* documents does not contain the analysis required. We consider that this level of analysis should be part of any proper consultation process such that those impacted can understand the proposal and provide a considered response.
- 113. Given that MPI would be required to conduct this analysis as part of advancing a regulatory process, there should be little impediment to conducting the required analysis and sharing that information publicly.

5.2.5 Other matters

114. In addition to ensuring fisheries management applications are optimised by any IEMRS system, there are peripheral matters that also require attention. These relate to the use of camera monitoring onboard vessels.

Privacy and the Official Information Act 1982

115. Despite the increase in camera monitoring in the workplace, it remains relatively uncommon. It is even more uncommon for that video monitoring to be a compulsory requirement by the Crown and hence subject to release under the *Official Information Act 1982* (*OIA*). In many instances a fishing vessel is not just a crew member's workplace, but also their home. Many

²⁵ Beadle v Minister of Corrections EnvC A74/2002, 8 April 2002 [549].

²⁶ Report of the Regulations Review Committee: *Investigation into the Biosecurity (Ruminant Protein) Regulations 1999.*

²⁷ Regulatory Impact Analysis Handbook, Part IV. The Treasury, July 2013.

fishers are understandably concerned about breaches of personal privacy and are wary of the protections afforded by s 9(2)(a) of the OIA.

Penalty regime

- 116. The ease with which an offence can be detected is a consideration when determining the nature of the resultant penalty. During its consultation in 2011 on *Improvements to Administrative Commercial and Recordkeeping Requirements* the Ministry stated that "... when setting specific penalty levels account must be taken of ... the 'ease' with which the offence can be proved and the level of compliance [resource] required to achieve this."
- 117. Following the Ministry's principle, it would be consistent to also review the penalty regime under the *Fisheries Act 1996* to take account of the vastly increased ease of detection and ability to prove non-compliance that video monitoring may provide. We would have expected this work to be signalled in *The Future of our Fisheries* documentation as a necessary precursor to that component of IEMRS.

Access to data

- 118. Industry bodies are already collecting additional information through cooperative arrangements with fishers; this includes detailed information about catch and effort and fine-scale VMS information. The regimes are well-developed and collect high-quality data well in excess of statutory requirements. These arrangement have considerable advantages in that they have the cooperation of participants and thereby incentives to provide good quality data. Participants have ownership of the data and the results that stem from the use of those data (in a literal and figurative sense). There is considerable potential to build on that model, especially with support for collective decision making within industry, and provide the necessary core data to MPI to support assessments.
- 119. Any IEMRS system should allow that information to continue to be collected and for industry to have access to those data as they require tem. In our view it is essential that any version of IEMRS that is progressed complements rather than frustrates those initiatives.

Event-based reporting

- 120. We would welcome more discussion on event-based reporting. While we have no fundamental issue with moving to event-based reporting, the designation of an "event" needs careful consideration. In some circumstances the nature of fishing activity lends itself well to defining and reporting fishing events. However, this is fishery-specific and the converse is also true.
- 121. The same considerations also apply to production events. In some fisheries, production is a continuous process and discrete fishing events cannot be linked to a corresponding production event.
- 122. As with the more substantive matters raised in this paper, the reason(s) for moving to event-based reporting require more detailed rationale and analysis so those objectives can be accommodated in the most appropriate and practical way; having regard to the operational differences among fisheries and individual vessels.

All fish taken to be reported

123. We support better reporting of catch, including by the recreational sector and amateur charter vessels. However, Volume III suggests that rather than providing an estimate of the top five or eight species on catch returns, that all QMS and non-QMS species be recorded. In some

- fisheries this may be scores of species and is entirely impractical, in some circumstances impossible, and technically unrealistic for fisher-reporting of non-QMS species.
- 124. We consider that the catch/effort return is not the correct mechanism to obtain that additional information. At present it provides a simple estimate of catch that allows for general reconciliation with LFR Returns and MHRs.
- 125. As with other considerations in this submission, the analysis set out in paragraph 88 should be applied to understand the need for that additional information, the precision required and the most appropriate mechanism by which to obtaining it.

5.2.6 Dual process

- 126. The short discussion above illustrates that the use of EM requires consideration of a number of specific matters including, but not limited to: preservation of personal privacy, information release, and the adaptation of the penalty regime.
- 127. Given these issues, we consider that any regulatory process should be split with the ER and GPR components progressing first while further consideration is given the more complex legal and policy questions relating to EM. Given the stated intention to progress EM at a later date, this would provide the opportunity to address those questions.

5.2.7 Next steps

- 128. We consider that the IEMRS concept has significant potential to provide valuable information that could improve fisheries outcomes. The information provided in the *Future of our Fisheries* is limited and further discussion is necessary to develop the IEMRS concept and thereby provide the necessary detail to allow for meaningful consultation in the future.
- 129. To allow for further development and better understanding, we submit that a joint MPI / industry / Maori working group be established to address the matters raised in the IEMRS discussion paper. Until such time as the substantive questions about IEMRS are addressed and the specifics articulated we are unable to provide a more supportive endorsement of the IEMRS concept.

Annex One

The Environmental Defense Fund, a US-based eNGO, contracted a review of electronic monitoring drawing particularly on North American experiences.²⁸ The learnings from that review, and the various trials that preceded it, should be studied carefully and as we consider the use of similar technology here.

The key findings of the Environmental Defense Fund's Report are summarised below:

The use of EM for fisheries MCS is still uncommon: The use of EM is still rare although significant industry, NGO, and government agency interest exists in exploring its application. In the US EM is still primarily in the "experimental" stage.

EM technology is maturing and operationally robust: EM technology has been tested, utilised, and compared to human observers in many different applications. EM can directly substitute for many human observer functions, can perform some functions to a higher level of accuracy (such as monitoring of sporadic events that occur over long time periods), but is also restricted, as a standalone technology, of performing some of the essential tasks performed by human observers (such as biological sampling). Similarly there can be major challenges with EM when individual retained or discarded species need to be identified in mixed fisheries.

EM is part of an integrated fisheries management system and not just a data collection technology: Implementing EM is also about creating new management and information systems with attendant governance regulatory and structural change.

Clearly articulated objectives for EM reduce costs and increase effectiveness: Defining the objectives of a monitoring program that are clearly articulated and developed in conjunction with EM providers, fishermen, and fishery managers can foster cost effectiveness, especially when moving from a trial phase to an implementation phase. Clearly stated objectives should be used to refine monitoring needs, e.g. the necessary precision required.

The structure of EM costs differs from observer costs – scale is critical: The costs of observers to a fishing vessel are normally realised as purely "variable" costs—they are paid for on a "per day" basis. EM, however, requires significant initial investment in equipment, installation, and training as a fixed cost. EM is not necessarily cheaper than observers as it depends on required video review rates, storage costs, number of fishing days and the required level of coverage.

EM and observer costs can differ significantly: The literature review and financial analysis shows that EM may be within 50% to 150% of the costs of observers depending on 1) program objectives, 2) characteristics of the fishery, 3) the scale, diversity and distribution of the fleet, 4) organisation, cooperation, and sophistication of the fleet, and 5) type of resource management system.

Who pays for EM and observers can differ; incentives are important: The implementation of a new, potentially less expensive method of fishery monitoring brings with it the opportunity for change,

Sylvia G, Harte M and Cusack C, 2016. Challenges, Opportunities and Costs of Electronic Fisheries Monitoring. Environmental Defense Fund, Newport Oregon USA. Last accessed 19 December 2016 and available at: http://www.edf.org/sites/default/files/electronic monitoring for fisheries report-september 2016.pdf? ga=1.16173875.422670097.1480651050.

innovation, and greater focus on cost effectiveness. There are a variety of potential incentives to drive successful development and adoption of EM including: 1) developing EM in conjunction with experimental fishing permits that provide additional quota to fishermen; 2) using EM to verify logbook data accuracy that can support use of fisheries dependent data in science and management; 3) encouraging fishermen to design efficient systems based on their ideas and transparency in costs and standards, rather than being burdened with costly and inflexible systems designed by others; 4) rewarding good behaviour and record keeping with lower review and video audit costs; and 5) receiving financial remuneration for providing EM data to science centres, universities, and other organisations.

The marketplace for EM and observer services is complex: The marketplace for EM products and services is relatively small but has the potential to grow significantly. EM is not always a substitute for observers but in the future we should expect to find creative combinations of EM and observers to best meet regulatory compliance and data needs at the lowest cost levels.

The presence or absence of clear standards can fundamentally lead to the success or failure of EM initiatives: Standards for EM are complex because they must be applied to many elements of the EM process including data requirements, monitoring equipment, data confidentiality, data ownership, etc. But well-defined and cooperatively developed standards can help provide a coherent framework for building successful EM programs.

Expectations need to be reasonable and aligned with the capacity, regulatory environment, and culture of management agencies and industry: Agency, NGO and industry views about the capabilities of EM as a technology and the ability to integrate EM with existing fishing and agency management practices can often be too optimistic. EM introduction is often hampered by uncertainty caused by changes in costs, overall agency and wider industry commitment to EM programs, and shifting goal posts during introduction. In order to develop cost effective and innovative EM systems, management agencies should support innovation based on understanding markets for monitoring systems, as well as incentives within their own fisheries and agencies to drive down costs and improve performance. A fundamental principle is that poorly managed and financially stressed fisheries cannot support effective EM or observer monitoring.

Collaboration is essential to the implementation of EM: The greater the collaboration between scientists, enforcement officers, managers, technologists, and industry during the trial, implementation and operational phases of an EM project, the greater its chances of success. Each player must strive to understand the perspectives of other team members and realise the trade-offs that may be inherent in balancing the quantity/quality of the data and the costs to achieve different levels of "compliance". By structuring the program using a collaborative approach, players will discover approaches for aligning incentives and increasing trust among the participating partners.

Learning from the experience of others: There have been many EM experimental programs and pilot projects across U.S. fleets, regions, and fisheries. These programs did and are providing important information, experiences, and ideas. We recommend conducting a national survey of participants in EM programs to determine experiences, lessons learned, approaches for improving programs, and ideas for reducing costs.