TERRA MOANA
natural capital know how

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19 February 2016

Dear Dave,

Fisheries Operational Review

Thank you for the opportunity to provide late comments into the review. This follows our recent discussion in Malta, during the Seafood Summit.

Terra Moana Ltd is a new niche sustainability consultancy. We focus on using natural capital and ecosystem service analysis approaches (quantitative and qualitative) to improve primary industries. Through our Partnership, between Tony Craig and Katherine Short, we blend the best of industry and non-government organisation approaches. We are the sustainability advisers to Aotearoa Fisheries Ltd and support them across their interrelated business development agenda including the development of their emerging relationship with WWF. Through co-owning Terra Moana Ltd and working together every day, we practice what we preach – business-NGO collaboration. Our major expertise is sustainable fisheries and seafood both in New Zealand and internationally. A core of our work is to move products derived from precious wild natural resources up the value chain and to highlight how relevant incentives can be deployed to restore the health and well-being of the human communities and ecosystems that underpin their production.

We are heartened by the launch of the fisheries review yet believe it needs to go much further than its current limited operational terms of reference. New Zealand does have very good fisheries management with the Quota Management System (QMS). Indeed, it was once the best in the world. Tony has been deeply involved in fisheries management in New Zealand for more than thirty years including through the creation of the QMS, the fisheries legal framework and the Maori fisheries settlement. However, we are strongly of the view that the framework can be further enhanced by modernising our fisheries management to encompass the health of marine ecosystems rather than the current narrower focus on fish stocks – i.e. shifting to an ecosystem-based management approach. Whilst New Zealand was in the 'fish down phase' our framework broadly worked. That's over now and the pressures on the marine environment, particularly within 12 nautical miles has only intensified. It is critical that the entire fisheries management system be realigned with the current operating

environment and this must include a revision of how we protect, manage and restore the marine environment that underpins seafood production, especially on the coast.

We also have deep insight and concern for the state of coastal fishing communities in New Zealand, with Tony having completed the fleet review for Aotearoa Fisheries Ltd (AFL) in 2012 and Terra Moana Ltd, in 2015, conducting a similar review for Ngai Tahu with similar findings of a severely depressed inshore fin-fish sector. Tony was also the Executive Director of the Federation of Commercial Fishermen, representing small-scale operators nationally during the early 1990's. Indeed Terra Moana's sustainable coastal fisheries views, and our comments here are predicated on the critical interrelationship between managers, rights holders, the people who fish and the state of the marine environment. The health of one depends on the other and solutions must work for all.

The emerging Integrated Electronic Monitoring and Reporting System (IEMRS) MPI is developing is a critical first step to begin to modernise coastal fisheries. Well deployed and integrated with for example the Trident system industry are developing, it should significantly enhance New Zealand's ability to manage fisheries, improving data collection and compliance across the board. This level of information is now essential for supply chain management and integrity given that premium market consumers in this data rich, social media savvy world expect and in some instances demand to be able to know who caught their fish and how. Whilst laudable, introducing this system in New Zealand is at this point playing catch up with other developed world contexts and we believe it needs to be used tactically to open up far deeper fisheries management improvements. IEMRS will underpin the shift that, at least, AFL are making to move key coastal species up the value chain. This includes developing consumer ready packaged terakihi and trevally for higher value markets and which will require clear and precise information on-pack. Sanford's 2015 Annual Report signalled similar intentions. Related to this, we recommend MPI updating New Zealand's seafood product labelling requirements to ensure our seafood can meet the significantly increased product labelling requirements of the Australian, European and American markets which have come in under the illegal, regulated and unreported fishing regulations.

Clearly, technology is never the entire answer. The people using it need support as does the environment where the fish originate. To do our bit, Terra Moana Ltd are investing in scoping a responsible fisheries training programme for especially New Zealand's coastal fishers and ask what level of interest MPI would have in collaborating on this?

We have also supported AFL to conduct the first ever ecosystem service review (ESR) of a commercial fishery, the Marlborough Sounds paua fishery. The ESR, supported by the Department of Conservation, Sustainable Business Council and Landcare Research, described the compounding stresses in the marine environment, most notably sediment which smothers paua kelp habitat. Other needs identified included: strengthening recreational fisheries management, supporting the Paua 7 fishery to manage for stronger sustainability at a finer scale and improving understanding of what's happening under the water. This was subsequently reviewed by MPI, DOC and a range of relevant stakeholders in 2015 and clear expressions of interest were made to work together to resolve what could be addressed. Through AFL an approach to MPI is underway to develop this.

Furthermore, a preliminary valuation conducted by Terra Moana Ltd with MBIE in 2015 estimated the impact of lost kelp habitat on paua quota value at $25 mio since 2002[1]. Initial estimates of two other coastal fisheries considered to be impacted by sediment indicate a further ~ $50 mio of potential lost quota value from declining catches (rock lobsters and finfish in Hawk Bay and the Wairarapa Coast

[1] Documents available upon request.

following major east coast storm events). New Zealand has one of the highest sedimented continental shelves globally (Prof. Schiel pers. comm Oct 2015). This brings into focus the role of MPI and questions how it is addressing terrestrial runoff from forestry and farming on coastal seafood? We believe there is a clear need to considerably increase the power of coastal seafood producers to 'push back on' poor land-use practices. How can the fisheries review support this? The solutions do exist e.g. riparian restoration and the sustainable forestry practices required by the Forest Stewardship Council (FSC). MPI is developing new National Environmental Standards for Plantation Forestry, are they taking account of these FSC best practices and 'raising the floor'? Will they require mitigation of forestry impacts on coastal seafood production? Clearly New Zealand doesn't yet have the right mix of policy settings to systematically incentivise this better performance such that coastal environments are able to be protected, managed and restored as/where required.

Take the Marlborough Sounds for example, how can we work together to ensure that when the next round of forestry cutting occurs there (in the next 5 years), that forest owners operate under absolute best practices because they want to, because they're aware of the impact on coastal fisheries for example and implement management approaches that take account of such impacts? What can MPI do, by integrating forestry best practices and coastal seafood production management, to address this?

As a nation, we have been fortunate to have had a relatively low population, beautiful natural environment and high natural resources. We are no longer in that position and in many situations heading for a perfect storm if we don't reset the policy and regulatory framework to enable decisions that support the range of values we seek i.e. food and fibre production, healthy natural ecosystems, recreation etc.

This is where the natural capital and ecosystem service toolbox is emerging to be important and we urge MPI to urgently and significantly build its own capacity in this space. We offer expertise to do so. We are aware that MPI is a partner in the Natural Resource Sector Natural Capital programme of work and believe that New Zealand coastal fisheries management could well benefit in being a focus to test these approaches. We can learn from other contexts where they're being used. The UK has undergone a complete Natural Capital Assessment as well as having conducted a Total Economic Valuation of the value of coastal fisheries (http://www.gifsproject.eu/en/toolkit). It is also running Project Inshore (http://www.seafish.org/industry-support/fishing/project-inshore) to use the Marine Stewardship Council process to improve coastal fisheries management around the coast. Western Australia is doing this too. New Zealand could adopt this nested set of approaches to empower coastal fisheries to take greater responsibility in addressing their local challenges.

With responsibilities for sustainable primary industries across the land/marine interface, MPI has a critical role to play in developing the innovative mix of incentives to ensure both marine and terrestrial sectors share the costs of protecting, managing and restoring the productive capacity of coastal ecosystems. What, for example, does MPI think of the use of payment for ecosystem service approaches from forestry and seafood producers to finance such actions?

Furthermore, Terra Moana Ltd believes the Government, and thus MPI must empower responsibility for healthy coastal fisheries where it matters, at the local level and according to a revised framework of responsibility and accountability. We think the time is here to force people to have to think about providing for other sectors rights and needs and to think about the impact of ones' actions upon the other. We are deeply concerned about the current levels of recreational fishing which we believe are unsustainable. It is deeply unfair on coastal commercial fishers that the only adjustment mechanism government has that works, to manage coastal fisheries, is to cut the TACC. With ever increasing

numbers of recreational fishers, this is effectively shifting catching power and the share of the catch to the recreational sector. We strongly recommend the government require salt water recreational fishing licencing and that a proportional share of the TAC be allocated to the recreational sector.

It is, we feel irresponsible to continue allowing latent recreational effort to exist in any single year that could jeopardise any single fishery through unconstrained recreational effort. The current bag limit approach is flawed and can be easily exposed for not constraining catch. Without understanding and controlling the number of fishers, bag limits are meaningless. Maximum latent recreational effort can be calculated using the number of recreational fishers in any one region multiplied by the number of fishing days available (365) multiplied by bag limits, multiplied by the average weight of a legal sized fish. We agree such a possibility is unrealistic however even small increases in recreational effort using the components outlined above make a significant difference (see figure 1 below) and not knowing this information in real time (at least annually) is an irresponsible approach to the sustainable management of our valuable inshore stocks.

Figure 1 Unit of effort increases in the Pau3 Recreational Paua Fishery

PAU 3	Estimated Tonnes Caught by Rec Sector (17,000kg)									
No Fishers	4,268	4,268	4,268	4,268	4,268	4,268	4,268	4,268	4,268	4,268
Average weight	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
	Number of fish caught (To give total kgs)									
Trips	1	2	3	4	5	6	7	8	9	10
1	1,600	3,201	4,801	6,401	8,002	9,602	11,202	12,803	14,403	16,003
2	3,201	6,401	9,602	12,803	16,003	19,204	22,404	25,605	28,806	32,006
3	4,801	9,602	14,403	19,204	24,005	28,806	33,607	38,408	43,208	48,009
4	6,401	12,803	19,204	25,605	32,006	38,408	44,809	51,210	57,611	64,013
5	8,002	16,003	24,005	32,006	40,008	48,009	56,011	64,013	72,014	80,016
6	9,602	19,204	28,806	38,408	48,009	57,611	67,213	76,815	86,417	96,019
7	11,202	22,404	33,607	44,809	56,011	67,213	78,415	89,618	100,820	112,022
8	12,803	25,605	38,408	51,210	64,013	76,815	89,618	102,420	115,223	128,025
9	14,403	28,806	43,208	57,611	72,014	86,417	100,820	115,223	129,625	144,028
10	16,003	32,006	48,009	64,013	80,016	96,019	112,022	128,025	144,028	160,031
11	17,603	35,207	52,810	70,414	88,017	105,621	123,224	140,828	158,431	176,034
12	19,204	38,408	57,611	76,815	96,019	115,223	134,426	153,630	172,834	192,038
13	20,804	41,608	62,412	83,216	104,020	124,824	145,628	166,433	187,237	208,041
14	22,404	44,809	67,213	89,618	112,022	134,426	156,831	179,235	201,639	224,044
15	24,005	48,009	72,014	96,019	120,023	144,028	168,033	192,038	216,042	240,047

Figure 1 has been constructed using MPI 2011-2012 recreational survey data. This spreadsheet attempts to back solve what would be the number of fish and number of trips needed if 10% (4,267) of the number of recreational fishers for the region (42,675 total) gathered paua. The answer **one trip per person taking their bag limit (just 10%!!).**

One additional trip per person would double the take of the sector and the impact on the fishery would be substantive. Not knowing exactly what this effort is year on year is, as stated previously, counter to best practice sustainable fisheries management. With technology advancement there is little excuse for not regulating for recreational fishers to report nowadays. We believe this urgently requires strong political will and leadership.

With this in mind, we are alarmed by the Government's current proposals to allocate the Hauraki Gulf and Marlborough Sounds to be recreational only fishing areas. This will severely disadvantage coastal commercial fishing communities reliant on these geographies and without adjustment risk increasing pressure on the next best areas. It is time the current quota based fisheries management framework be adapted to also have an area based component, at least on the coast. We are well aware that this will require much deeper redesign, with for example, the legal responsibilities of the Department of Conservation and Ministry for the Environment. It is thus overdue that New Zealand genuinely work through the reform process that is necessary to modernise our entire marine management. This took the UK a decade and resulted in a new Ministry of Marine. New Zealand has in the order of 25 pieces of legislation related to the marine environment and this urgently needs to be both modernised and inevitably, rationalised.

Whilst imperfect, the current MPA discussion recently launched by MfE is a step in this direction and we will submit on that separately. We urge MPI to be closely involved in this and seize the political reform opportunity. As a nation we have failed in the last fifteen years to have the political stomach for this reform and this is failing especially our coastal ecosystems, fisheries and communities. If we don't reform coastal marine management, we (and Quota Owners) simply won't have the catching capacity to supply sustainable coastal commercial fish species. The current fleet is on its knees and the lack of coastal planning means fisher security is failing and fishing is seen as the least preferred career option. This, when considering the QMS is regarded as a leading fisheries management regime, can only be a significant indicator of failure. There is a significant human cost to this too. We will not make up the shortfall in seafood production from aquaculture. Wild marine fisheries are a taonga that we should be able to be proud of and reap premium rewards from. The current framework is unsustainable economically, ecologically and socially and coastal fishing communities are suffering.

Do let us know if we can elaborate on any of the above and we welcome involvement in subsequent consultations.

Kind regards

Katherine Short
Partner

Tony Craig
Partner

MPI FISHERIES OPERATIONAL REVIEW

NATIONAL INSTITUTE OF WATER AND ATMOSPHERIC RESEARCH LTD (NIWA) SUBMISSION

30 NOVEMBER 2015

These detailed notes are provided in addition to issues raised and discussed during the consultation meeting held with MPI staff on 31 October 2015. We really appreciated the opportunity to discuss these issues.

As our responses to questions in the various sections had many similarities, we have structured our written submission along the key questions addressed for the meeting: positives, challenges, opportunities for change, and funding options.

1. Positives

- **The QMS has successfully provided a framework for constraining commercial catches**, not only of target fisheries but also (by default) associated bycatch that may or may not be under quota. "Deemed values" appear to have worked well to achieve the difficult balance between reducing bycatch whilst not promoting discarding.
- **ITQs are an effective means to manage fisheries to achieve economic efficiency.**
- **There have been good data collection processes for measuring commercial catch and effort of key target and QMS bycatch species;** this has been validated by reasonable levels of observer coverage in deepwater fisheries, with the differing functions of science data and compliance data collection appearing to be relatively well managed for deepwater fisheries; finer scale spatial data collection has been extended to most inshore fisheries.
- **Over 30 years of effective research and monitoring** has built up an excellent knowledge base and contributed to the successful management of many of our high value species**.**
- **Impacts of fishing on protected mammal and bird species has been, for the most part, relatively well monitored and managed** and there has been increasing recent focus on risk assessment approaches to better identify priorities for research and management.
- **Four key species have received environmental certification** from agencies such as Marine Stewardship Council (MSC); more deepwater species are in the MSC assessment process. A strong history of effective catch monitoring, research and assessment enables this to be achievable.
- **Long term trends in levels of recreational effort and harvest are estimated** through research monitoring (boat ramp web cameras, interviews and five-yearly national surveys), even though recreational catch is unrestrained.
- **The MPI Science Working Group process provides an excellent framework for review and discussion of scientific information open to all parties**. There are good examples where this process has worked well and led to agreed management outcomes (e.g., rock lobster).
- **Research planning processes that allow participation of all stakeholders and research providers**, when they have been used, provide for openness and transparency and promote good understanding of management needs and research costs that enable cost-effective monitoring and assessment programmes.

2. Challenges

Sustainability across all species/areas/ecosystems

- **The QMS has not restrained non-commercial catch** (i.e., catch of non-QMS species and juveniles of some QMS species; recreational and customary catch).
- **Validation of monitoring of inshore fisheries catch and bycatch** has lagged behind deepwater fisheries; electronic monitoring has only recently been considered and is yet to be fully implemented and evaluated.
- T**he annual recreational harvest from any fishery is poorly constrained** by daily bag and minimum legal size limits, as there is no limit of the number of fishers who can go fishing nor the number of days that they can go fishing in a year; commercial charter catches are also not effectively monitored or constrained. Also, **the management of recreational fishing is far more challenging than previously thought** due to high variability of harvest levels, often greater than for commercial fisheries; levels of recreational harvesting from some inshore fish stocks are starting to approach that taken by the commercial sector.
- **The QMS does not address local area management issues and objectives well**.
- **The Working Group process does not serve all New Zealanders well.** The only stakeholders regularly represented are the fishing industry; other sectors find it difficult to participate because of cost and time-commitment. Industry influence can strongly determine the course of analyses undertaken by the group and conclusions reached.
- **Focus on single species management may not result in the most effective management outcomes. Fishery assessments are single-species based**. There needs to be increased recognition of the potential role of species in the ecosystem when setting target and threshold levels (e.g., CCAMLR management of prey species at higher target levels). This could be similarly extended to species with high customary, cultural, or recreational value.
- **The high level of turnover of senior fisheries staff in MPI creates challenges for effective decision making on sustainability issues that are based on complex technical information.**
- **Non-fishing related anthropogenic impacts on fisheries** (e.g. climate change, land based ecosystem effects) are ignored in most assessments; yet they may have substantial impact on fisheries sustainability.
- And last, (and maybe because it's in season!), **whitebait sits outside of the QMS and fisheries regulations** as a clear anomaly in terms of research, assessment and management, and knowledge of its sustainability.

Cost recovery

- **The cost recovery model**, which has been implemented in NZ to an extent unseen elsewhere, **creates perverse incentives**; the science that supports the management is viewed as a "cost" by industry and it thereby focusses attention on minimising cost rather than achieving fishery or environmental sustainability. **There is limited incentive to fund ongoing research** when industry is happy with existing TACC as the outcome is either going to be negative or neutral. For species undergoing major declines, the disincentives for industry to invest in continued monitoring are very strong at a time when the management need can be high. It also results in industry having significant influence over fisheries management and research objectives and decisions, with other stakeholders not having comparable economic incentives, organisations, or funding to participate effectively in research and management fora**.**

- **The relationship between industry and scientists is particularly poor in areas where industry fund the research**, and remarkably better where they don't (e.g., Antarctic research). This minimises the development of effective collaborations and opportunities to leverage alternative sources of funding that science organisations may have available.
- **Industry funded research** is one industry solution to controlling research costs but tends to **focus on areas of immediate interest to industry**, and the interests of other parties, including the crown, and longer term fisheries and ecosystem sustainability interests may be less well served. Industry control of research and management (devolution) is likely to lead to reduced research and monitoring (to cut costs). For example, the management of the SCA 7 by Challenger Scallop Enhancement Co., which was initially held up internationally to be an example of successful industry management of a resource, led to a major failure of this fishery due, at least in part, to the lack of research and failure to adhere to planned management practices like rotational fishing.

Funding

- Currently, management focus is towards MSY on 'best available' (most recent) information with **little consideration of the cost of not doing research**. There needs to be a more explicit consideration of the link between reduced or no research leading to increased uncertainty, which should result in more conservative management.
- **The need for research to support management has increased significantly since the introduction of the QMS, but current research funding over the last two decades has remained static** (i.e., at best; in the current year it has significantly decreased by ~ $4M!). Allowing for inflation, it is significantly less than what it was in 1995 (i.e., about 66%).
- One consequence of the above is that there is **often no money for research on low value or non-QMS species**. This means that there is limited/no information on stock status for these species and TACCs are based solely on catch (or are constant). While this narrow focus on high value fish stocks is pragmatic, given the economics of fishing and the resources available, it undermines any shift to ecosystem based management as ecosystem components and processes are poorly monitored and understood.
- **Lack of funding for ongoing time-series for monitoring**. Time-series data contribute to understanding of fisheries variability and the factors causing it that is not possible with less frequent or intermittent surveys. They also enable a variety of "environmental monitoring" indices to be developed. But these time series are expensive and some earlier series have been discontinued for funding reasons (e.g., Southland inshore/middle depths) or proposals for new series have not been fully explored (e.g., North Island inshore). Our existing time-series have also provided much of the background information required for ecosystem monitoring, but they now risk being undermined with recent reductions in survey frequency. The lack of long-term research planning makes it easy to delay the next survey in a time-series on the basis that one more point is of perceived limited value. Time series that provide regular monitoring trends will become even more important as climate change and acidification impact marine ecosystems.
- **Increasing reliance on catch-per-unit-effort monitoring of key fisheries**, with little or no validation that the indices generated are monitoring abundance, and little data collection on the significant advance in fishing technology that improve catchability.

Effective stakeholder engagement, social license to operate

- **Achieving full stakeholder and iwi representation in science working, research planning, and fisheries management groups to ensure a balanced approach to fisheries management at all levels.** The commercial sector is the only sector routinely represented in science planning and working group meetings; science is often not well represented in management fora.

Effective research planning

- **Research planning to support fisheries management has become short-term focussed, less strategic and less collaborative**. The previous system of developing short- and medium-term research plans, in consultation with stakeholders and research providers has been discontinued or become more ad hoc in some of the key research areas. This results in considerable uncertainty for all parties, inability for providers to plan resources, and may endanger continuity of supply of key research capacity and capability (e.g., specialised vessels, equipment and staff).
- **Current research planning process.** The lack of long-term research plans makes it difficult to plan, both scientifically and for cost recovery. The introduction of a 10-year plan for Deepwater Fisheries was a step in the right direction, but this now appears to be on hold and we are back to annual funding cycles where research services are sometimes contracted or cancelled at very short notice.
- **Reducing funding (in real terms) of fisheries research** means that it is difficult to justify and plan for development and maintenance of equipment and experienced staff – especially in specialised areas like acoustics. There is a risk that we will lose "NZ Inc" capability.

<u>Future challenges in the next 20 years</u>

- **NZ marine costal ecosystems are likely to undergo significant changes in response to non-fishing related effects such as climate change and increased urbanisation**, i.e. changes largely outside the control of fishery managers.
- **Future fisheries management is likely to require the use of ecosystem based approaches** with more emphasis on how yields from the single species assessments can affect other parts of the ecosystem.
- **Social license to operate and marine certification requirements will place increasing demands on reducing the adverse effects of fishing and demonstrating an understanding of risk and impact.** This is likely to impact most on fisheries and fishing methods that impact on rare or threatened protected species and benthic habitats. Opposition to methods such as bottom trawling and use of tools such as spatial management (including marine protected areas) are likely to increase.
- **Increasing international population growth and demand for food may put increasing pressure on utilising natural fisheries resources, and aquaculture, which may then need to be more closely and carefully managed to ensure sustainability.**
- **Increased use of marine resources that might compete with fishing** such as utilisation of marine oil and gas reserves, marine mining etc. will require new approaches to management that are also likely to include spatial management.

3. Opportunities and how to fund them

Sustainability and utilisation

- **Full recognition of the extractive and non-extractive values of fisheries resources to all New Zealander stakeholders and effective management to achieve appropriate balance of their respective management objectives.** This requires full recognition that management by the commercial industry will not necessarily result in the best sustainability outcomes for the resources and past experience suggests this can to lead to reduced research and monitoring (e.g., SCA 7 by Challenger Scallop Enhancement Co.) and exclusion of other sectors (e.g., recreational)**.**
- **More integrated environmental legislation and resource management** (e.g., Regional Councils, DoC, MPI) for both marine and freshwater fisheries
- **Longer-term, more strategic research and monitoring plans** would provide more certainty for all stakeholders and allow for more cost-effective provision of research services to support management decisions (through reduced administration), and allow for more effective planning for cost recovery (e.g., spreading costs of expensive programmes across several years instead of one-off very annual high costs).
- **Shift focus from single species management and sustainability to Ecosystem-based fisheries management (EBFM) and sustainability**. EBFM standards are likely to be required increasingly in overseas markets. Assessment of impacts of fishing on ecosystem components and EBFM lags behind many other developed nations (e.g., USA, Australia). As well as monitoring impacts on adversely impacted bycatch (which is currently done) future fisheries management needs to: place higher importance on "ecosystem role" of fish stocks; consider both non-fisheries and fisheries anthropogenic effects on yield; give greater consideration to multi-species dynamics in assessments (e.g., predator prey relationships) and the role of benthic communities impacted by fishing in ecosystem sustainability. Overall; a more environmentally integrated approach to fisheries management is needed if our fishing industry is to continue to sell its products in premium world markets and for managers to adequately address questions or competing resource use (e.g., seabed mining).
- **Develop methodology to value fisheries and ecosystem services** so that there is a common metric for comparing value amongst different sectors to enable resource allocations to be made in a fair and defensible manner.
- The likely need to expand stakeholder engagement processes under **EBFM is likely to add significantly to future fisheries management costs**, especially if there is a need to fund participation in these processes. There is likely to be a need to review how much each sector group should pay and what proportion of this commercial quota owners should pay under an EBFM paradigm.
- **Continuing development of robust approaches to data management** to deal effectively with the increasing uptake of electronic data acquisition and greater use of on-board vessel monitoring systems. This includes data confidentiality, sampling bias, more efficient and integrated data collection and management systems, data quality assurance, as well as long term commitment to data provision, data consistency and comparability.
- **Development of low impact fishing technologies** to minimise the catch of undesirable species (e.g., juvenile and non-commercial fish species, non-fish species) and damage to the environment (e.g., benthic communities, especially in areas of soft sediments and vulnerable marine ecosystems).

Engagement of all stakeholders

- **Increased and more effective engagement with all New Zealanders** because of increasing public scrutiny and recognition of need for "social licence to operate". This becomes more important under EBFM as the issues and processes beyond the single species become very complex. There is a need for better engagement tools for conveying complex ideas and for comparing different sector group "world views", and better decision framework tools on which to base management decisions (decision rules) and make utility or value comparisons.
- **More representative stakeholder and iwi participation in MPI fishery assessment working group, research planning and fishery management processes** to ensure a balanced approach and better buy-in to fisheries management at all levels. Inclusion of research providers in research planning to allow for more cost-effective provision of research services.
- **Greater involvement of stakeholders in broader marine resource decision making and management** and new engagement tools and processes to support this.
- **More effective communication of fisheries management processes** (e.g., science and monitoring) and outcomes to all stakeholders and iwi. There are some really excellent initiatives and achievements that need more effective publicity to ensure more stakeholders are aware of what is being achieved (e.g., SNA 1 tagging programme will present an excellent opportunity for public outreach and positive stories).

Funding research, management and compliance

- **Alternative and more effective approaches to funding research and management need to be considered.** The current review of the cost recovery model needs to include consideration of what level of research funding are required to support effective management and how this might best be achieved (we are unsure what is included as research providers do not appear to have been engaged in the process). Are alternative options being considered? e.g., holding back a proportion of the TAC to fund research by selling the ACE on the open market; a larger government contribution, as in Seafood Innovations Limited or Primary Growth Partnership research funding. Why is there a higher government contribution to fisheries research funding for utilisation compared to sustainability objectives? There may also be benefit in reviewing how research funding is achieved internationally (e.g., the Fisheries Research and Development Corporation, Australia).
- **There are also considerable opportunities to leverage funding from other government agencies involved in environmental research**, **through effective, longer term, more strategic, and collaborative research planning**. Other government departments have interests and invest in environmental research (MBIE, DoC, MfE, LINZ), but there is no overall government strategy for marine research. Better co-ordination could help Achieve effective research prioritisation and prevent highly important research falling between the cracks, e.g., between MPI highly applied shorter-term fisheries research and longer-term strategic but perhaps less immediately applied strategic research that MBIE won't fund if it is too fisheries related. The new National Science Challenges such as Sustainable Seas provide opportunities for alignment of key strategic research objectives at a government level. Research provider organisations also have access to research funds e.g., in NIWA, we have had access to $1.5 M of MBIE core funding for fisheries related research over the last 4 years and there are considerable opportunities to align research strategies and initiatives with other NIWA centres such as Coasts and Oceans (e.g., the Sustainable Seas Challenge),

Aquaculture, and Te Kuwaha (over Māori fisheries initiatives), or other organisations (e.g., Cawthron over rebuilding Tasman and Golden Bay shellfish fisheries).

- **Costs of compliance are high relative to management and research** which appears to be a lost opportunity. We are unsure of how much effort is made to strategically address issues that fishers find difficult to comply with – in particular balancing bycatch and discarding of juvenile fish. Various schemes have been tried to address bycatch over the years (and deemed values have had some success), but discarding and/or non-reporting remains a problem. The QMS appears to lack the agility to address natural changes in abundance that can create significant catch balancing problems (e.g., SNA 7). More ability to respond quicker with effective research would reduce the need to discard and provide for more economic utilisation of the fishery. The advent of new on-board electronic monitoring systems may allow for more effective monitoring of catch on all vessels but will probably not reduce compliance costs and may not provide the information required to allow for more effective utilisation of species that are variably abundant.
- **Increased and more effective engagement with all stakeholders will increase costs.** Options to fund better engagement with the recreational sector need to be considered. They may include, for example (and we are not recommending any of these in particular), licensing, a levy on gear sales, or by increased crown funding whereby government recognises that recreational fishing contributes to NZ economy (e.g., through tourism and tax on boats, tackle, fuel etc.; note that the Recreational Fishing Council has currently contracted a US consultancy to estimate value of this contribution).
- **A more effective research funding model** that makes the best use of the excellent science capability available in NZ and fosters effective science collaboration over stock assessment research. There are excellent opportunities for collaboration between government agencies, industry, recreational, Māori, other stakeholders, and researchers and more effective leveraging of available funding, e.g., Sustainable Seas National Science Challenge will contribute about $33M towards integrated science and management across and between agencies; potential to use government-funded *Tangaroa* days for fisheries related work.

THE BIODIVERSITY AND ECOSYSTEM HEALTH WORKING GROUP
SUBMISSION
FISHERIES MANAGEMENT SYSTEM REVIEW 2015

11 December 2015

1. The Biodiversity and Ecosystem Health Working Group (the Working Group) is a working group of the Regional Water Management Committee of Canterbury Regional Council, functioning under the non-statutory Canterbury Water Management Strategy framework.
2. The Working Group thanks the Ministry for Primary Industries for the opportunity to make a submission on the Fisheries Management System Review 2015.
3. The Canterbury Water Management Strategy was signed by the Canterbury Mayoral Forum in 2009. It is a partnership between Environment Canterbury, Canterbury's city and district councils, Ngāi Tahu, and water stakeholders.
4. There are 10 water management zones throughout Canterbury – each has a committee made up of community and rūnanga appointees as well as regional and local council representatives.
5. The following submission is offered on the basis of Canterbury Regional Council's roles, functions and responsibilities under the Resource Management Act 1991 and the Local Government Act 2002. We also note our formal obligations and policies under the *Canterbury Regional Policy Statement 2013* (Chapters 9 and 10 cover ecosystems and indigenous biodiversity and beds of rivers and lakes and their riparian zones, respectively).

Background:

6. In June 2015, the Regional Water Management Committee recommended: "That the Environment Canterbury Commissioners lead a process to develop a sustainable management approach for longfin eel/tuna in Canterbury by October 2015 and is jointly agreed upon by Environment Canterbury, Papatipu Rūnanga, MPI, commercial eel fishermen, local communities, etc."
7. The Working Group has been recently been acting to explore and promote the sustainable management of longfin eel in Canterbury.
8. The Working Group has since hosted a series of workshops to inform this approach. These workshops have included presentations from commercial eel fishers, ngā rūnanga from three case-study catchments, the Department of Conservation, the Hurunui-Waiau, Selwyn-Waihora and Upper Waitaki Zone Committees, NIWA, Fish and Game, Forest and Bird, Meridian Energy, and the Hurunui District Council.

Submission Points:

9. The purpose of this submission is to provide the information gathered by the Working Group to date to help inform the Fisheries Management System Review 2015 with regards to the management of longfin eel in Canterbury.

10. The meeting notes are attached to this submission. The key themes from the meetings are:
    a. A need for local and regional communities to engage at a national level with organisations such as the Ministry for Primary Industries and the Department of Conservation.
    b. Commercial eel fishers identified key issues as habitat water quality and availability/quantity, and recruitment of eels into the fishery.
    c. Nga Rūnanga representatives noted the need for catchment-wide approaches to longfin eel management. Representatives cited habitat availability, water quality and quantity, eel recruitment, hāpua openings and commercial fishing as key issues.
    d. The Department of Conservation cited a need for better understanding of the location and size of longfin eel populations and habitat. Representatives noted that habitat, water quality/quantity and management practices were key issues.
    e. A strong and creative push on communications is needed to engage and inform the public and other stakeholders of the value of longfin eel, the threats they face, and what can be done to protect them.
    f. Consideration should be given to both short and long-term goals. Short-term goals include a potential commercial fishing restriction or ban, which was well supported amongst some parties (Rūnanga representatives, zone committee members and Fish & Game). Long-term goals include improvements to water and habitat quality/quantity.
    g. Clear regional and local management structures are required, with clear lines of accountability. Discussions to date have highlighted the need for resources, and the ability for these to be directed quickly to where they are needed.

Recommendation:

11. The Working Group recommends that the Ministry for Primary Industries:
    a. uses the information provided in this submission to inform the Fisheries Management System Review 2015
    b. provides leadership to action and arrest the ongoing decline in numbers of longfin eel.

Conclusion:

12. The Working Group is pleased to offer this submission on the Fisheries Management Systems Review 2015. We look forward to further engagement with the Ministry for Primary Industries as the review is finalised.
13. For further queries please contact:

Steve Lowndes, Biodiversity and Ecosystem Health Working Group Chairperson
s 9(2)(a)

Attachments:

1. Biodiversity and Ecosystems Working Group: Longfin Eel Discussion Sessions – Meeting Notes 8 September 2015
2. Biodiversity and Ecosystems Working Group: Longfin Eel Workshop – Meeting Notes 29 September 2015

Biodiversity and Ecosystems Working Group
Longfin Eel Discussion Sessions – Meeting Notes

Date	8 September 2015
Time	15:00
Venue	Wigram Base, 14 Wigram Drive, Wigram, Christchurch.
Attendees	Steve Lowndes (Working Group Chairman), Tom Lambie, John Talbot, John Wilkie, Peter Scott
In attendance	Bill Chisholm, Clem Smith and Dominic Preece (South Island Eel Industry Association), John Henry (Arowhenua Rūnanga), Makarini Rupene (Te Ngāi Tūāhuriri Rūnanga), Mandy Waaka-Home (Arowhenua Rūnanga), Terrianna Smith (Te Taumutu Rūnanga), Dr David Smith (Department of Conservation), David Perenara O'Connell, Stephen Bragg, Peter Ramsden, Chris Keeling and Ellie McNae (Environment Canterbury).
Apologies	Jane Demeter, Hugh Canard

Key points from each group

Commercial Eel Fishers – did not support the use of Mātaitai. Identified key issues as habitat water quality and availability/quantity, and recruitment into the fishery

Nga Rūnanga Representatives – noted the need for catchment-wide approaches to longfin management. Cited habitat availability, water quality & quantity recruitment, hāpua openings and commercial fishing as key issues.

Department of Conservation – cited need for better understanding of location and size of longfin populations and habitat. Noted that habitat, water quality/quantity and management practices were key issues.

Background

This workshop, hosted by the Biodiversity Ecosystem Working Group (BEWG), formed the first step in initiating action on the Regional Committee recommendation (09/06/15):

> "That the Environment Canterbury Commissioners lead a process to develop a sustainable management approach for longfin eel/tuna in Canterbury by October 2015 and is jointly agreed upon by Environment Canterbury, Papatipu Rūnanga, MPI, commercial eel fishermen, local communities etc."

Over the course of a series of short discussion sessions, the BEWG will listen to presentations from interested/affected parties to:

- get an overview of current knowledge,
- scope possible content/process/structure/participants for a Canterbury –wide initiative, and
- stocktake the current management situation, challenges, and opportunities in 3 proposed "case-study" catchments: Waitaki, Te Waihora/Selwyn, and Hurunui – Waiau.

The first discussion sessions, covered in this document, included presentations from commercial eeling representatives, CWMS Rūnanga representatives from the three case study catchments and the Department of Conservation.

The next discussion session in this series will be held on the 29th of September, 2015.

Commercial Fishing Representatives

Bill Chisholm (South Island Eel Industry Association Consultant), Dominic Preece (South Canterbury Eel Fisherman), Clem Smith (Te Waihora Eel Fisherman)

Mr Bill Chisholm began by re-stating his position, made at previous meetings, that he is wary of a crossover in this area between the roles of MPI, DOC and ECan, and that he strongly advised staying away from closures. He stated that (in his opinion) the "best thing that the council can do for long-finned eels was to focus on habitat [creation and rehabilitation]".

Mr Chisholm noted that commercial fishers do not support the use of Mātaitai as (they believe) the approach does not protect species from customary fishing and habitat modification. The Mātaitai establishment and approval process is long and complex and (they believed) would provide a limited return from a significant outlay of resources.

Current state and information available

Mr Chisholm outlined a variety of research that is available on longfin eel (see attached PowerPoint presentation). This included a plenary report (attached to this document), and a meeting of the Ministry for Primary Industries eel working group on the 20-21 October 2015 which will include the discussion of a number of draft reports. He also noted that the South Island Eel Industry Association have a database and record of all eels over 4kg that have been caught. This is supplemented by information on area and catch per unit effort.

Mr Chisholm stated that only a small amount of the available commercial fishing area is exploited. Additionally, he believed that around 50% of stock (~6,000 tonnes) are in reserve areas and unable to be fished. This number was later challenged by Ngā Rūnanga representatives. Mr Chisholm also noted that commercial fishers do not intend to increase their purchase of longfin quota, as it is not a high-value species.

Mr Clem Smith, a Te Waihora commercial fisherman, provided an overview of the longfin eel fishery on Te Waihora. He noted that there is currently no commercial longfin take from tributaries to Te Waihora, and that there has been no commercial longfin take from the lake for ten years due to a voluntary agreement by Te Waihora fishers.

Mr Dominic Preece, a commercial fisher from South Canterbury, noted that the areas of worst quality, from a habitat perspective, were probably areas 12 and 14 in South Canterbury. He attributed this to river engineering and flood management practices.

What should be done?

The commercial fishers stated that they felt that habitat mapping and management, and linking plan rules to these habitat maps, would help longfin eels at the catchment level. In addition they suggested reviewing dam consents, giving consideration to eel passage requirements. They noted that this shouldn't necessarily be linked with punitive measures, rather that it should focus on a review of research and a subsequent review of consent conditions.

The representatives agreed that enabling the escapement of eels from lakes to the sea is a key issue. Mr Smith discussed how commercial fishers currently transfer large eels from Te Waihora to the sea – a technically illegal activity. He felt that changes to the time that the lake is opened (suggested May), as well as support from ECan in obtaining a special MPI permit to transfer eels, would help in the movement of migratory longfin from Te Waihora to the sea

At a regional level the commercial fishers felt that improving eel passage and recruitment into fisheries was a key issue, as was habitat loss due to river engineering works. Mr Chisholm thought that if the habitat was restored the eels would return in five years. In particular, he suggested reviewing plan rules, particularly around small culverts, in relation to eel passage requirements. He also suggested reviewing flood management procedures (spraying in and along rivers, and flood engineering).

Mr Chisholm closed his presentation by noting that commercial fishers agree that improvement is needed, but that 'bashing' commercial fishers is not the way to do it.

CWMS Rūnanga Representatives

John Henry (Arowhenua Rūnanga), Makarini Rupene (Te Ngāi Tūāhuriri Rūnanga), Mandy Waaka-Home (Arowhenua Rūnanga), Terrianna Smith (Te Taumutu Rūnanga).

Background and current issues

Mr John Henry (Arowhenua Rūnanga) began by addressing the issues around Mātaitai, raised by the commercial fishing representatives. He agreed that these can be difficult to implement and enforce, but believed this was due to opposition by commercial fishers. He stated that "if commercial fishers are going to lose money from the establishment of a Mātaitai they [can take] preventative measures to stop them going ahead". He also noted that Mātaitai have to be placed in areas that are historically significant to tangata whenua – there needs to be evidence that the site is a real, seasonally used customary area.

The Rūnanga representatives agreed with the commercial fishermen that there is currently a significant problem with longfin eel habitat, primarily due to flood protection activities such as spraying of vegetation and habitat modification. They disagreed with the commercial fishermen regarding gaps in the breeding cycle. Mr Henry stated that there are currently obvious gaps, citing a study by Dr Don Jellyman of NIWA as evidence of this.

Mr Makarene Rupene (Te Ngāi Tūāhuriri) stated that barriers between catchments were a particular problem for juveniles, as was a lack of water, overfishing and a lack of recruitment. He noted that commercial fishing was hitting the Waimakariri longfin populations particularly hard. In particular, he recounted episodes of commercial fishers entering tapu areas on the Ashley River and removing several sacks of eels.

Ms Mandy Waaka-Home (Arowhenua Rūnanga) provided an overview of the Meridian Energy trap and transfer scheme, which the company has run and funded for the past 12 years. There is presently a large amount of frustration linked to this approach, as commercial fishermen are currently harvesting eels that were moved to the location through the Meridian Energy scheme. The Rūnanga representatives felt that this jeopardized the schemes future, asking “What is the point of moving them [eels] to an area if they are only going to be immediately fished out?”

Mr Henry provided a brief history of the Waitaki eel management plan, noting the presence of a verbal agreement that commercial fishermen wouldn’t go into the lakes. He felt that this agreement had been broken.

What should be done?

Ms Terrianna Smith (Te Taumutu Rūnanga) noted that migration run timings are changing due to drought, and a number of other factors. As a result the timing of hāpua openings needs to be re-considered. The Rūnanga representatives also noted that there needs to be sufficient water flow in the rivers to ensure recruitment of returning elvers.

The size of eels taken for commercial catches, also needs to be reconsidered. Rūnanga representatives noted that migrating longfins were previously over 4 kg in weight, while they now migrate under this size. Commercial fishers can currently take these (<4kg eels), which could cause a problem.

Addressing water quality and quantity, along with habitat availability were cited as key issues. Ms Waaka-Home noted that there isn’t currently sufficient suitable habitat available for the eels they need to transfer.

The Rūnanga representatives proposed taking a catchment approach to longfin management. They felt that a catchment ban to commercial fishing would bring back longfin populations to the area, also noting that people are often taking longfin even when they say otherwise. Mr Henry stated that he would also fully support asking commercial fishers to “voluntarily stay away from areas” to allow populations to recover.

Mr Henry finished the Rūnanga presentation by noting that the approach the committee devises needs to be one that works for everyone. He said that he was keen to “get around a table and have a korero with everyone. Just bashing commercial won’t work. A joint approach might”.

Department of Conservation Representative – Dr David West, Freshwater Science Advisor

Background

Dr David West provided an overview of the data and research currently available, either through the Department of Conservation or collaborating organisations. This included data from the elver and adult migrant eel trapping and transfer programme, as well as monitoring of size and composition of the commercial longfin eel take per river. Information is also available on areas closed to commercial (or other fishing), the location of unfished areas,

location of fish barriers, and what would constitute 'good' adult longfin eel habitat. Further details of the research available is given in Dr West's presentation, attached to this report.

What should be done?

Dr West noted that he thought that the current programme for elver catch and transfer from downstream dams to places longfin previously were was positive. However, he noted that this could be improved by:

1. Ensuring elvers were moved to areas where longfin occurred historically, and where they wouldn't endanger nationally threatened non-migratory galaxiids, and
2. Providing passage downstream for migrating adult longfin.

Dr West thought that the programme for rescuing longfin from decommissioned water races was a good initiative, but was currently poorly resourced. This results in fish being moved to inappropriate habitat.

He also noted the industry piloted fish mapping and quota management of longfin at a catchment as positive initiatives, but cited concerns about quota management at large multi-catchment levels.

For the case-study areas, Dr West felt that better maps of longfin populations and habitats, and the pressures on these areas, would facilitate sustainable management. He also suggested that habitat creation and enhancement, such as 'Tuna Townhouses' would be beneficial, as would education of landowners and river managers about longfin habitat needs and values.

Dr West also suggested that whole catchment reserves for longfin eel would have a positive impact on populations, as would local advocacy for long-fin protection.

At a regional level Dr West proposed considering longfin eel instream habitat requirements in waterway management, as well as removing or mitigating key barriers to fish passage in lowland waterways. Dr West also noted that agency roles need to be clear and co-ordinated, with particular attention given to identifying who should carry out different parts of required holistic management.

Dr West closed noting that he fully supported the current approach being taken by the committee in involving all interested and affected parties. He suggested that this be continued by ECan facilitating a multi-agency/party regional longfin eel working group.

Attachments

Dr West (Department of Conservation) presentation

Bill Chisholm (Commercial Eelers) presentation

Freshwater Eels plenary report – provided by Bill Chisholm

BEWG Longfin Eel Workshop 29 September 2015

Meeting title	Biodiversity and Ecosystem Working Group (BEWG)
Date	29 September 2015
Time	1500-1800
Venue	Wigram Base, 14 Henry Wigram Drive, Wigram, Christchurch.
Attendees	Steve Lowndes (Working Group Chair) Hugh Canard, Jane Demeter, John Talbot, John Wilkie, Peter Scott, Tom Lambie.
In attendance	Zone Committee Representatives: David Eder, Makarini Rupene (Hurunui-Waiau), Bill Lambie, Riki Nicholas (Wairewa rep and Selwyn-Waihora), Jay Graybill (Upper Waitaki); Fish and Game: Scott Pearson and Jay Graybill; NIWA: Dr Don Jellyman; Forest and Bird: Jen Miller and Lauren Kelley; Hurunui District Council: Hamish Dobbie; Meridian Energy: Jeff Page; Environment Canterbury: Stephen Bragg and Ellie McNae.
Apologies	

Key Points

- There is a need to engage at a national level with organisations such as MPI and the Department of Conservation. Environment Canterbury and the Zone Committees do not have the statutory power required to suspend the fishery, but could act as the lead group in elevating the issue.
- A strong and creative push on communications is needed to engage and inform the public, and other stakeholders, of the value of longfin eel, the threats they face, and what can be done to protect them.
- Consideration should be given to both short and long-term goals – short including a commercial fishing ban, and long-term being improvement in water and habitat quality and quantity.
- Clear regional and local management structures are required, with clear lines of accountability. Discussions to date have highlighted the need for resources, and the ability for these to be directed quickly to where they are needed.

Background

This workshop, hosted by the Biodiversity and Ecosystems Working Group, was the second in a series focussed on gathering information to inform the development of a sustainable management approach for longfin eel/tuna in Canterbury. The first workshop included presentations from representatives from commercial eeling, CWMS ngā rūnanga reps from the three case-study catchments, and the Department of Conservation.

This second workshop, held on 29 September 2015 at Wigram Base, contained presentations from representatives from the Hurunui-Waiau, Selwyn-Waihora and Upper Waitaki Zone Committees, NIWA, Fish and Game, Forest and Bird, Meridian Energy, and the Hurunui District Council.

The Chair, Steve Lowndes, noted the need to bring in additional parties, such as MPI and other Territorial Authorities, preferably before the next scheduled (regular) BEWG meeting set down for November 10, 2015.

Current Situation

Attendees at the workshop agreed that longfin eel populations were in clear decline. Dr Don Jellyman, Principal Scientist at NIWA, described a clear reduction in recruitment in the South Island, particularly on the East Coast. For example, recruitment at the Waitaki Dam numbers a few thousand elvers, while in the Waikato it is in the millions. He cited a number of possible reasons for this, including a reduction in habitat quality and availability. Makarini Rupene (Hurunui-Waiau Zone Committee and Ngāi Tūāhuriri) agreed with these comments, noting that local fishermen in the Ashley and Waimakariri had commented on the lack of glass eels coming back into the rivers. John Wilkie (BEWG member) recalled similar situations on the Rangitata, Waiho and the Waitaki. He believed that a key reason for this could be that the freshwater bund has been significantly reduced, affecting return migration of the longfin.

Dr Jellyman acknowledged that there is a lack of robust data on the nature and drivers of the decline in longfin eel populations, and mentioned that this lack of data has been MPI's primary reason for not limiting commercial eel fishing to date. He noted his disappointment here, feeling that applying the precautionary principle would be a better approach. Dr Jellyman also recounted some basic biological facts of eel species, including their lack of suitability for harvesting and the potential for an allee effect (a correlation between the fitness of an individual and the size/density of a population) as witnessed in European eel populations. He was concerned that longfin eel populations may already be at the point of a drop-off.

Dr Jellyman stated that the best way to safeguard a species like eel and ensure a good genetic mix is to allow sufficient escapement, and that the only way of ensuring this is by having safe areas that are not fished. John Talbot (BEWG Working Group) suggested that perhaps improving escapement of longfin eels in the North Island would result in a greater pool of recruits to the South Island.

Jen Miller (Conservation Manager at Forest and Bird) reminded the Working Group of the value of longfin eel as an ancient taonga and an endemic species. Like so many of New Zealand's endemics, she commented, its decline is driven partly by the loss of habitat and decline in habitat quality. She noted that 35% of habitat had been lost to date due to fish barriers. She also noted that longfin eel is the only freshwater fish managed under a quota system through the fisheries management act, and questioned the appropriateness of this.

Scott Pearson and Jay Graybill of Fish and Game agreed with Ms Miller's comments, citing habitat quality, over-fishing and the creation of fish barriers as key issues in decline of longfin eel populations. Mr Pearson noted that Fish and Game would support any efforts to improve habitat, particularly as these would also be beneficial for the species under Fish and Game's statutory management. He also stated that Fish and Game would be willing to consider creating salmonid barriers to protect native fish populations, such as longfin eel. Dr Jellyman noted the need to consider the location of salmonids when conducting a trap and release programme. If you put eels in at the same location each time, predators will learn this and wait for them.

Dr Jellyman agreed with the importance of considering water quality, noting that fish death, an issue in Hurunui raised by David Eder (Hurunui-Waiau Zone Committee) and Hamish Dobbie (Hurunui District Council) could be related to this. In particular, he felt that the death of longfin eels was concerning as they are normally quite resilient.

Jeff Page (Meridian Energy) described Meridian Energy's longfin eel related activity to date to the Working Group. He noted that Meridian has a significant presence in some key longfin eel catchments, and that they have created a number of barriers to species migration. Consequently, the company runs a number of trap and transfer programmes with partners to support the species migration. Mr Page also referenced some work carried out with NIWA to ensure the effectiveness of these programmes. He noted that Meridian now has a good understanding of the longfin eel populations in the lower Waitaki, with research suggesting a pattern of low recruitment. He said that Meridian are now investigating the situation in the upper catchment. Dr Jellyman noted the value of these trap and transfer programmes, citing current difficulties in getting adults down-stream.

Overall, Mr Page agreed with other workshop attendees in that barriers to fish passage and habitat quality and availability are key pressures on longfin eel populations. He also noted that if Te Rūnanga ō Ngai Tahu supported the position to cease commercial fishing of longfin, then it was likely that Meridian would support it too.

Riki Nicholas (Wairewa) noted that the longfin eel issue had been raised at the last CWMS Rūnanga representatives hui, and that he intended to discuss the current workshop at the next meeting of the group. He also noted that that Ngai Tahu has a statutory responsibility to protect taonga species, and so there could be potential for them to support the initiatives of this working group to protect the longfin.

What Should Be Done

Jeff Page advised that, before diving into the particulars, the Working Group be very clear what their objective is, whether that be conservation of the species, support of mahinga kai, or another goal. He noted that the different issues will entail different management choices, not all of which are mutually consistent.

National Level:

The Working Group acknowledged the need to bring central government into the discussions, particularly the Ministry for Primary Industries (MPI).

Steve Lowndes (BEWG Chairman) referenced the Parliamentary Commissioners report in 2014 which recommended that the longfin fishery be suspended until the stocks recover. He noted that MPI had rejected this suggestion due to insufficient data, but questioned whether it would be possible to make a case for suspending the commercial fishery on the East Coast of the South Island.

Dr Jellyman felt that, in the first instance, the Working Group should collate the available scientific and anecdotal data, and use this to make their case. He felt that a strength of the Working Group is its ability to collate concerns and then act as a representative group to collectively express these concerns to MPI.

Other members of the workshop supported approaching MPI about banning the commercial fishing of longfin. Jay Graybill re-iterated his belief that this was a key short-term win, with habitat improvement being a long-term target. Peter Scott (BEWG member) noted that we need to “stop flogging them [longfin]” before they get a chance to recover.

Lauren Kelly (Forest and Bird) suggested that restricting commercial fishing to areas that currently have fish barriers could be an option. This could remove the pressure on catchments that enable free movement of longfin to the sea. Jen Miller suggested distinguishing between longfin and short-fin in recording of commercial catches, to establish a better data set. She also noted that the Department of Conservation has a statutory responsibility to protect freshwater fish. She suggested that they DOC be encouraged to develop a management plan, as councils would then be obliged to have regard to this.

Regional Level:

David Eder noted the need for a clear management structure and lines of responsibility regionally around this issue. He highlighted the instance of eel deaths in Amberley, and the lack of clarity around who the issue should be reported to and who should take responsibility for examining and resolving it. “There’s a huge gap [in terms of responsibility] somewhere”. Comments by other members of the workshop supported this view.

Jen Miller suggested that the group consider both pan-regional and local district council activities, including flood management, fencing and riparian management activities. Dr Jellyman noted that “we can’t do anything about what is happening [to longfin eels] at sea, but we can do something about the human impacts on land”. Commissioner Tom Lambie

reported that there are discussions underway to establish a multi-agency solution to biodiversity.

Peter Scott commented that the issue of habitat quantity and quality can be addressed at a Zone level. Other attendees agreed with this, with David Eder raising the possibility that some of the Immediate Steps funding could be targeted towards habitat improvement for longfin eels.

Members noted that there needs to be capacity on the ground to deal with particular issues. John Talbot queried whether current staff power could be re-directed? He noted the need to ensure that resources are available where, and when, they are needed.

Communications:

Peter Scott and Jane Demeter (BEWG member) both mentioned a need for improved communications and publicity about the current status of the longfin, and its value to New Zealand. Makarini Rupene agreed, noting that a large proportion of the public see eels as "disgusting creatures" and as such aren't inclined to care about them.

Barry Shepherd (Upper Waitaki Zone Committee) noted that increased awareness could also improve reporting of issues that may impact on longfin, and instances of dead eels. Ms Demeter noted the need to raise awareness not just with the public, but also with local government employees and hearing commissioners, to ensure that previous mistakes are not repeated.

Key Messages from Each Attendee

Steve Lowndes requested that each attendee state one thing that they had drawn from the discussions that day.

Jay Graybill (Fish and Game): noted that the group has identified the barriers and limitations. He believed that the easiest action to take to reverse the decline of longfin eel would be to restrict or ban commercial catch of the species.

Peter Scott (BEWG member): stated that "we need to stop doing dumb stuff", such as clearing drains and carrying out river engineering activities that are negatively affecting eels. He also noted that the Working Group can make recommendations for actions to the Commissioners.

John Talbot (BEWG member): noted that the Working Group doesn't have the direct power to stop the fishery. He saw an opportunity to build a local coalition to take this issue to national level, and that this coalition needs to be an element of any strategy the Working Group devises.

Bill Bestic (a member of the public from the Hurunui-Waiau Zone): felt that informed public opinion would be very much on side of suspending the fishery.

Jane Demeter (BEWG member): felt there was a need to improve awareness and understanding of longfin eels and the issues that they face at multiple levels, including the public, legislators and resource users. She believed that a critical element in the success of any strategy would be targeted, effective communication programme, including discussion of the need to stop the commercial fishery. She suggested an equivalent of Project Jonah (whale rescue organisation), but for longfin eels.

Jeff Page (Meridian Energy): acknowledged the range of values, stakeholders and current activity in this space. He reiterated his opinion that the committee needs to focus on the area where it can have the most impact.

Hamish Dobbie (Hurunui District Council): felt that lowering the available catch, rather than stopping fishing of longfin eel altogether may be a better approach.

Scott Pearson (Fish and Game): suggested identifying areas of important habitat for longfin eels and then focussing efforts on improving and protecting those areas. .

Steve Lowndes (BEWG Chair): commented on the dichotomy of agricultural intensification and declining biodiversity and ecosystem health. He believed that these two elements of the CWMS were at loggerheads, but that this could be resolved by putting a greater emphasis on habitat, water quality and water quantity.

Barry Shepherd (Upper Waitaki Zone Committee): believed that water quality and quantity issues were being dealt with by the Zone Committees, but that these were long-term issues. For an immediate action, he supported a ban on commercial fishing.

Tom Lambie (ECan Commissioner and BEWG member): supported a total ban on commercial fishing. He acknowledged that there was a lot of work going on in the catchments, but there was still a lot to do. He requested that representatives of MPI be bought to a BEWG meeting as soon as possible.

John Wilkie (BEWG member, Kāti Huirapa and Ngāti Hāteate): noted that the government had just established a large no-take zone in the Kermadec Islands, stating “if we can do that in the ocean, why can’t we do it on the land?” He supported a ban on commercial fishing, noting that “every eel that comes out of the system is one that doesn’t breed”.

Don Jellyman (NIWA): hoped that the working group could function as a lead agency for this work, collating concerns, scientific and anecdotal data from other groups. He noted that there are also significant pressures on longfin eels further south, which may impact efforts in Canterbury.

Lauren Kelly (Forest and Bird) supported suggestions for habitat improvement and a communications push. She also suggested linking fishing quotas to habitat availability.

Jen Miller (Forest and Bird) noted her frustrations with a perceived lack of regional leadership on biodiversity issues, and suggested taking the issues and messages raised at the meeting to central government. She proposed that the ECan commissioners raise the topic directly with Minister of Primary Industries, Nathan Guy.

Bill Lambie (Selwyn-Waihora Zone Committee): was completely supportive of a removal or restriction of the commercial fishery, and also of habitat improvement. He noted the need for education around the whole lifecycle of eels – both elvers and migrants.

Riki Nicholas (Wairewa): suggested that the rūnanga reps need to go back to their individual rūnanga to get support for the initiatives suggested, so that they can then mandate Ngai Tahu and partners to act.

Next Steps:

Steve Lowndes discussed next steps, which could include the establishment of a working party with various central government representatives. Peter Scott suggested that, as a first step, the Working Group pull together the discussions held to date and present these to the Regional Committee and Commissioners.

Stephen Bragg (ECan Facilitator for the BEWG) stated that an opportunity existed for BEWG to meet again briefly on the morning of 13 October 2015 just prior to the Regional Committee meeting that afternoon. He also suggested a need for a workshop of all the parties involved prior to staff working up a discussion paper on the findings and recommendations to present to the Regional Committee at their December 15, 2015 meeting.

Meeting Closed at 17:49

PAUA 2
INDUSTRY ASSOCIATION INC.
Sustainable Fisheries Management

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

11 December 2015

Introduction

1. PauaMAC 2 welcomes the opportunity to participate in the Ministry's review of New Zealand's fisheries management system.

2. PauaMAC 2 represents the commercial paua industry in the largest (by coastline) stretching from East Cape to Tirau Point Northern Taranaki. Our members include owners of paua quota and Annual Catch Entitlement in PAU 2 as well as all other commercial paua fisheries across New Zealand.

Support for core industry submissions and Authorised Management

3. PauaMAC 2 supports and fully endorses:

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

4. In particular, we wish to emphasise that the fundamental framework of New Zealand's fisheries management regime – as embodied in the Quota Management System (QMS) – is sound and has generated significant benefits for all New Zealanders. What is now required in order to further enhance the management of paua fisheries;
   - Stopping the political "race for fish" that is perpetuated by the current legislative framework. Namely the explicit recognition of sector entitlements to TAC's as defined % of the TAC. For the recreational sector (as a minimum starting point) their % entitlement should be aligned to current "allowances" made by the Minister and where those may not exist using the latest MPI recreational estimates for the Fisheries Management Areas. Such an approach immediately shifts the focus from "who should get what" to "how do we all grow the pie".
   - Is a capacity for quota owners to adopt more sophisticated fine-scale management measures for commercial fishing. The tyranny of the minority cannot and should not be allowed to prevail in instances where well-reasoned, scientifically based fishery

enhancement based projects are undermined by irresponsible behaviour or where personalities override common sense.

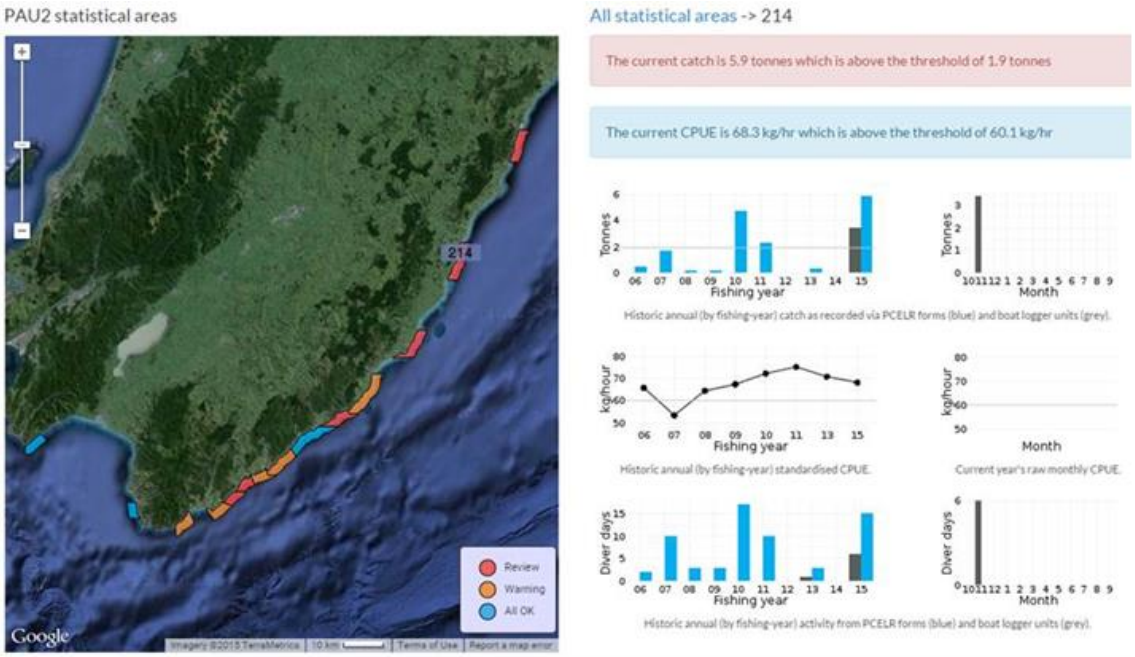
- Stability and certainty within the legislative framework to drive investment confidence to a sector looking to transition to high-end premium market products based on provenance stories rich in culture, sustainability, safety and quality.

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

6. When asked "if you owned the fishery outright would you manage it the way it is being managed today" most industry players would answer "no". It is this fundamental premise "single ownership /management" that fundamentally changes ones mind-set. When confronted with the possibility, at least our experience in paua fisheries would suggest, individuals quickly shift to intensive management options ie implementing or trialling reef scale management, catch spreading, differential size limits (within regions), temporary closures (spatial or time bound ie spawning), real time harvest changes based on real time data analysis. Authorised management provides the framework for such management thinking to prevail and hold people accountable.

7. The Paua 2 Association spearheaded the commissioning of a traffic light indicator system whereby dive team managers could log in each week and see how catch and effort was occurring across multiple statistical reporting areas in their fishery. The "trigger" indicators are based on ten year average catch rates and ten year average CPUE and were set by the divers. These are not compulsory.

Pau2 Dashboard Indicator System



Other matters

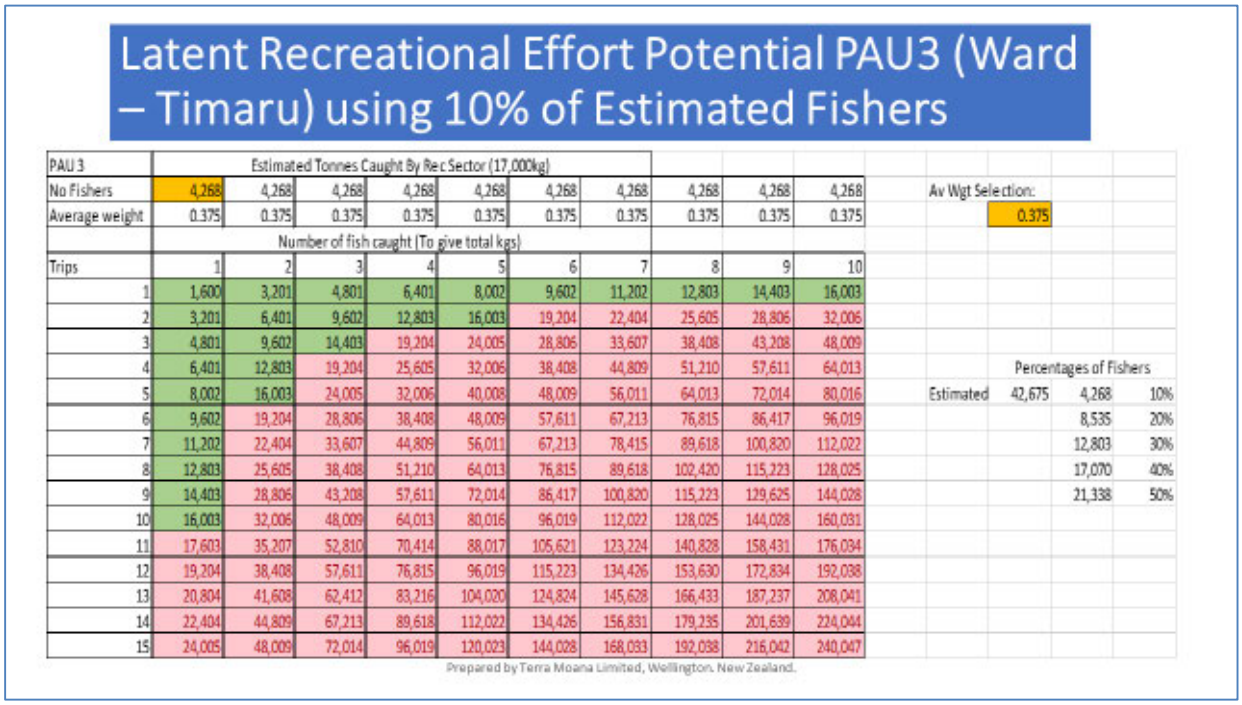
8. The main 'rub points' that we have identified in the current fisheries management regime, together with some proposed solutions, are discussed below.

Management of recreational fishing

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

10. The current process of estimating recreational take is outdated and simply not sufficiently "real time" to enable managers to assess year on year, season within season changes across the sector. In the Paua2 fishery for instance, the Minister of Fisheries does not make an allowance for the recreational sector? The TACC is effectively the TAC. Nonetheless, recreational diving within the fishery is significant and therefore potential substantive impact. Many people struggle to understand the latent scale of recreational fishing effort. The graph below highlights some relativity on latent potential using the Pau3 Sth Island (Ward – Timaru) and data from the MPI recreational Survey 2011-12. Using 10% of the estimated 42,675 fishers in the region and an average paua weight of 375gms identifies that if just 10% of fishers dive **once** a year taking their bag limit of 10 or dived **twice** a year taking an average of five paua (1/2 the bag limit) the estimate of 17,000kg would be reached.

11. Table A Latent potential recreational dive impacts for Pau3 (Ward – Timaru)



Latent Recreational Effort Potential PAU3 (Ward – Timaru) using 10% of Estimated Fishers

PAU 3	Estimated Tonnes Caught By Rec Sector (17,000kg)									
No Fishers	4,268	4,268	4,268	4,268	4,268	4,268	4,268	4,268	4,268	4,268
Average weight	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
	Number of fish caught (To give total kgs)									
Trips	1	2	3	4	5	6	7	8	9	10
1	1,600	3,201	4,801	6,401	8,002	9,602	11,202	12,803	14,403	16,003
2	3,201	6,401	9,602	12,803	16,003	19,204	22,404	25,605	28,806	32,006
3	4,801	9,602	14,403	19,204	24,005	28,806	33,607	38,408	43,208	48,009
4	6,401	12,803	19,204	25,605	32,006	38,408	44,809	51,210	57,611	64,013
5	8,002	16,003	24,005	32,006	40,008	48,009	56,011	64,013	72,014	80,016
6	9,602	19,204	28,806	38,408	48,009	57,611	67,213	76,815	86,417	96,019
7	11,202	22,404	33,607	44,809	56,011	67,213	78,415	89,618	100,820	112,022
8	12,803	25,605	38,408	51,210	64,013	76,815	89,618	102,420	115,223	128,025
9	14,403	28,806	43,208	57,611	72,014	86,417	100,820	115,223	129,625	144,028
10	16,003	32,006	48,009	64,013	80,016	96,019	112,022	128,025	144,028	160,031
11	17,603	35,207	52,810	70,414	88,017	105,621	123,224	140,828	158,431	176,034
12	19,204	38,408	57,611	76,815	96,019	115,223	134,426	153,630	172,834	192,038
13	20,804	41,608	62,412	83,216	104,020	124,824	145,628	166,433	187,237	208,041
14	22,404	44,809	67,213	89,618	112,022	134,426	156,831	179,235	201,639	224,044
15	24,005	48,009	72,014	96,019	120,023	144,028	168,033	192,038	216,042	240,047

Av Wgt Selection:			
	0.375		
		Percentages of Fishers	
Estimated	42,675	4,268	10%
		8,535	20%
		12,803	30%
		17,070	40%
		21,338	50%

Prepared by Terra Moana Limited, Wellington, New Zealand.

12. On one day alone local estimates placed 3,500 people in the water along the Kaikoura coastline. It is fundamentally important to be able to meet international sustainability standards to know year on year (actually within years) where recreational catch actually sits.

13. For many it is easy to suspect actual effort may rest within the red zone. However, there is also the possibility recreational take for any given year could rest within the green zone. Without knowing such there is no way of planning how that under catch may be a) banked for next year b) bag limits increased for the remainder of a season or the next?

14. PauaMAC 2 therefore recommends:

- The introduction of mandatory recreational catch reporting, including through the use of innovative technology;
- The use of meaningful bag limits and other measures so as to constrain recreational harvest within the recreational allowance and maintain the integrity of the TAC;
- The introduction of innovative self-funding models so that the recreational sector becomes a fully active participant at local, regional and National shared fishery forums.

Integration of Fisheries Act and Resource Management Act

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

16. The recent ecosystem service review of the Paua7 fishery (Marlborough Sounds) highlighted land based activity, in particular sedimentation, as a major factor in the decline of the fishery.

17. PauaMAC2 therefore recommends that processes need to be established (perhaps legislative strengthening of the Fisheries Act) to ensure that RMA decision-makers are required to assess, take account of and where required adjust/transform land-based activities that impact the health and productivity of fisheries and the ecosystems that support them.

Attachment – Paua2 Association Brochure sent to all coastal households/baches on the Wairarapa coastline (area open to commercial fishing) outlining Association lead initiatives and management approach. A response just received **"***We received one of your 'working together to maintain a great fishery' brochures in the mail. I wonder if we could have at least 4 more copies sent to us. We have 2 coastal Holiday Homes and I think it relevant to have these copies in our information folders*."

Contact Details.
Tony Craig
Chair, Paua 2 Association
s 9(2)(a)

Ministry for Primary Industries

Fisheries Management System Review

Introduction

1. Fiordland Lobster Company (FLC) is a privately owned Te Anau based company with extensive shareholdings comprising fishermen-shareholders and private investors. FLC is New Zealand's largest exporter of live rock lobster, currently accounting for 27% of the country's live lobster exports.

2. FLC considers that the fundamental framework of New Zealand's fisheries management regime – as embodied in the Quota Management System (QMS) – has provided a sound and successful basis for both ensuring sustainability and enabling the utilisation of fisheries resources.

3. However, there is one aspect of the regime that is currently imposing a restraint on utilisation and economic activity while not providing any sustainability benefits – that is, the quota aggregation limits in section 59 of the Fisheries Act 1996. This submission proposes easing the unduly restrictive aggregation limits for rock lobster fisheries so as to reduce an unnecessary barrier to the utilisation of fisheries resources.

Aggregation limits for rock lobster no longer serve a valid purpose

4. The aggregation limits in section 59(1) of the Act restrict an individual quota owner to 10% of quota shares for a single rock lobster stock. Quota aggregation limits for rock lobster are considerably more restrictive than for any other fishery – paua is the only other fishery for which aggregation limits operate at a stock level (20% of a stock) whereas for all other fisheries, limits are set at 35% or 45% of the combined TACCs of all stocks in the species or, in the case of bluenose, 20% of the combined TACCs for the species.

5. Although the purpose of aggregation limits is not specified in the Act, the most widely accepted purpose (based on Select Committee reports) is not to prevent quota concentration *per se*, but rather to avoid the unacceptable effects that could emerge from quota concentration, such as anti-competitive behaviour and disadvantage to small fishing operations.

6. While limits on quota ownership may have been an appropriate way of achieving this policy intent when the QMS was introduced in 1986, the structure of the rock lobster industry and the CRA quota market has evolved considerably in the last 30 years, meaning that aggregation limits are no longer an effective or appropriate tool to achieve this purpose. Furthermore, the Commerce Commission is now the organisation that has responsibility for enforcing legislation promoting trade competition in New Zealand markets. Dealing with anti-competitive behaviour in the Fisheries Act therefore creates a legislative overlap with the Commerce Act 1986.

7. Over the last 30 years, the main changes that have reduced the effectiveness and appropriateness of the aggregation limits in rock lobster fisheries are as follows:

i. **Statutory exemptions to the aggregation limits have increased over time**. Today, Te Ohu Kaimoana Trustee and the Chathams Enterprise Trust are completely exempt from the aggregation limits. Aotearoa Fisheries Ltd and its subsidiaries, Mandated Iwi Organisations and Asset Holding Companies are substantially exempt. All of these entities are significant rock lobster quota owners but are not bound (or only partially bound) by the aggregation limits.

ii. **Exemptions granted under section 60 have also increased over time**. There are 38 current exemptions to rock lobster aggregation limits recorded on the quota register, the most significant of which are: [1]

- CRA 3: Moana Pacific Fisheries and associated companies (32.7%)
- CRA 1: Moana Pacific Fisheries and associated companies (31%)
- CRA 5: Burkhart Fisheries and associated companies (26.89%)
- CRA 5: Ngai Tahu (26.76%)
- CRA 7: Ngai Tahu (23.32%)
- CRA 4: Moana Pacific Fisheries and associated companies (22.96%)
- CRA 2: Moana Pacific Fisheries and associated companies (21%)

iii. **The level of quota aggregation in rock lobster stocks has increased over time.** Statutory and granted exemptions have contributed to a trend of increasing consolidation of quota ownership. As a result, one of the original policy intents of aggregation limits – i.e., protection of the economic position of individual fishers or small quota owners – is in reality no longer being served by the aggregation limits.

iv. **Rock lobster is no longer an entry level fishery**. An old Ministry of Fisheries advice paper indicates that lower aggregation limits were set for rock lobster, paua and bluenose because these were seen by the Select Committee as "*nursery fisheries where new fishers can enter the industry*".[2] However, CRA quota has recently been traded at over $1.1 million per tonne and, at these values, rock lobster can no longer be considered a "nursery" fishery.

v. **The CRA quota market is not large**. The high value of CRA quota creates a relatively thin market for quota trading, as only a few companies have sufficient scale and access to capital to operate effectively in the market. The aggregation limits have made the market even thinner by constraining potential purchasers who have sufficient scale and access to capital (such as FLC) but do not have the benefit of a statutory exemption from the aggregation limits. The result is a more restricted quota market with higher potential for anti-competitive behaviour.

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[1] Report provided by FishServe, 16 July 2015. While 38 separate exemptions to CRA aggregation limits are recorded on the register, some appear to be duplicate exemptions for associated quota owners, resulting in a total of 21 distinct exemptions across all CRA stocks.

[2] Ministry of Fisheries final advice on *Application for consent for exemption from quota aggregation limits of Fisheries Act 1996 – Talley's Group Management Ltd* (11 September 2008) Appendix F

vi. **Rock lobster ACE is closely bound to quota.** Although there are no restrictions on aggregation of Annual Catch Entitlement (ACE), rock lobster ACE is tightly controlled through long-term relationships between suppliers and buyers. For example, if a quota package owned by a company supplying lobsters to FLC is purchased by another company, then the associated ACE also moves to the control of the competing company. This tight relationship between quota and ACE makes it difficult for companies that are subject the aggregation limits to retain access to sufficient ACE to achieve the necessary economies of scale, let alone purchase additional ACE when they are constrained from purchasing the associated quota. The unduly restrictive and inequitably-applied quota aggregation limits therefore result in a rock lobster ACE market that is less competitive than it would be if quota aggregation limits were to be relaxed.

8. FLC's current quota holdings in several rock lobster fisheries are such that if we wish to build and develop our business through the purchase of additional quota parcels, we are obliged to apply for exemptions under section 60 of the Act. This is a long, uncertain and inefficient process and places us at a competitive disadvantage in relation to equivalent companies that benefit from statutory exemptions from the aggregation limits.

9. It is clear, therefore, that the aggregation limits for rock lobster are no longer achieving their intended purpose – instead, the aggregation limits are now facilitating rather than preventing anti-competitive behaviour (in both quota and ACE markets) and are no longer protecting the position of small fishing operations. The gradual erosion and inequitable application of the aggregation limits brings into question the ongoing integrity and value of the regime.

Proposed solution – revert to "default" aggregation limits for rock lobster

10. FLC recommends that the Fisheries Act should be amended by deleting section 59(1)(b), which would have the effect of aligning rock lobster aggregation limits with the "default" position for most other fish stocks in section 59(1)(e) – i.e., an aggregation limit of 35% of the combined TACCs for every stock of the species.

11. We note that our recommended solution is relatively modest in that it applies only to rock lobster and simply adjusts rather than removes the aggregation limits. However, there is scope for a longer-term conversation to be held within the seafood industry (and subsequently with government) about the ultimate role of aggregation limits within a "future-proofed" fisheries management regime.

12. The benefits of our recommended solution include:

i. **A more efficient and equitable process of industry consolidation**. It is important to recognise that consolidation is a trend that will continue in the rock lobster industry, irrespective of aggregation limits, in response to economic drivers (such as opportunities for economies of scale with respect to harvesting, processing and global marketing) and fisheries management incentives (such as opportunities for greater fisheries management

responsibilities to be exercised by quota owners). However, consolidation processes and outcomes in the rock lobster industry are currently:

- inefficient because of the transaction costs involved in seeking and obtaining granted exemptions; and
- inequitable across the industry because of the preferential statutory exemptions.

Easing the level at which rock lobster aggregation limits are set will therefore enable industry consolidation to proceed in a more efficient and equitable manner;

ii. **Enhanced industry management capacity**. Gradual consolidation of quota ownership will improve the efficiency of industry collective management initiatives by reducing transaction costs among participating quota owners. Efficient collective decision-making will enhance the industry's ability to add value to the utilisation of rock lobster resources while ensuring sustainability;

iii. **Increased quota value**. The adoption of the default aggregation limits will marginally increase the flexibility of CRA quota as a property right. In particular, it will permit a freer market by allowing quota to transfer to those who can utilise it most efficiently (e.g., through economies of scale and increased capacity to invest) thereby promoting a more valuable and profitable rock lobster industry;

iv. **Reduced QMS administration costs.** Costs for both industry and government, including the costs of applying for and responding to applications for exemptions, will be reduced;

v. **Reduced legal risk and compliance costs**. With higher aggregation limits, the risk of quota forfeiture from inadvertent breach of rock lobster aggregation limits through association with other entities will be reduced. Legal costs and other regulatory compliance costs that companies incur in complying with restrictive quota aggregation limits will also be reduced; and

vi. **Alignment with the Government's Business Growth Agenda (BGA)**. Together, these changes will contribute to the BGA by increasing the value that New Zealanders are able to obtain from rock lobster fisheries, improving certainty and regulatory efficiency, and reducing business compliance costs in order to help build a more productive and competitive economy.

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11 December 2015

Andrew Hill
2015 Fisheries Management
Ministry for Primary Industries
P O Box 2526
Wellington 6140
by email to fisheries.review@mpi.govt.nz

Dear Andy

Thank you for the opportunity to contribute to the Ministry's review of New Zealand's fisheries management regime. We have appreciated the willingness of you and your team to set time aside to meet with industry representatives to discuss the review.

The industry's initial input to the review is provided in the attached paper.

The development of the paper has been co-ordinated by Seafood New Zealand in conjunction with Te Ohu Kaimoana and 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. All six organisations endorse the analysis and policy directions proposed in the paper.

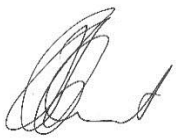
We believe that a successful review process should start from an understanding of the critical foundations that underpin the historical success of New Zealand's fisheries management system. The paper therefore begins with an overview of the evolution of the QMS, including a discussion of what has or has not worked well and, crucially, *why*. We then set out some high-level reform proposals to future-proof the QMS so that it can continue to enable all New Zealanders to benefit from our fisheries.

The paper is deliberately focused on high-level reforms which look to the future. Seafood industry participants have also identified a range of other concerns and suggestions that fall under the general heading of "enhancing the operation of the current management regime". Issues and proposals of this nature are set out in the submissions of SREs and seafood companies and, where possible, are referenced back to relevant sections of the attached paper.

While we have given considerable thought to the details of our proposed core reforms, further discussion is required both within the industry and between the industry and MPI in order to fully develop the concepts. We therefore see this paper as just the beginning of our engagement with you on these matters, and look forward to further discussion in 2016 as the review process proceeds.

Yours sincerely

Tim Pankhurst
Seafood New Zealand Ltd



George Clement
Deepwater Group Ltd

Jeremy Helson
Fisheries Inshore New Zealand

Daryl Sykes
NZ Rock Lobster Industry Council Ltd

Storm Stanley
Paua Industry Council Ltd

Craig Lawson
Te ohu Kaimoana

Initial Seafood Industry Contribution to Fisheries Management Review 2015/16

Creating Value 'Beyond Sustainability'

11 December 2015

In a nutshell…

1. The fundamental framework of New Zealand's fisheries management regime – as embodied in the Fisheries Act 1996 and the Quota Management System (QMS) – is sound and has produced remarkable outcomes for New Zealand. In stark contrast to the position in 1986 when the QMS was introduced, New Zealand now has sustainable fisheries and a healthy aquatic environment. The QMS has generated significant benefits from our fisheries; improving the opportunity for New Zealanders to catch a fish, providing a currency for settling Treaty claims, improving the quality of our marine environment and our international reputation as a responsible and innovative manager of natural resources as well as increasing export receipts, asset value and regional employment.

2. No management system is static and the QMS has evolved significantly since its establishment. It is no coincidence that each of the main reforms over the last thirty years has served to reinforce the original set of incentives behind the success of the regime. Over time, sustainability and environmental responsibility have become inextricably part of commercial harvest rights, ITQ has become more secure as a property right and, as quota owners have accepted and taken on more responsibility for administration and management of their rights, elements of the QMS have become more efficient.

3. Notwithstanding this progress, New Zealand has only started to tap the potential value that could be generated now that our fisheries are managed sustainably and in an environmentally responsible manner. The next challenge in the evolution of the QMS is how to operate 'beyond sustainability' – in other words, how to move beyond minimum sustainability standards and into the realm of value-addition. This next, critical, step will require more sophisticated, fine-scale management that is market-oriented and responsive to consumer-driven preferences in relation to the environmental effects of harvesting, human rights and social values. This step forward will necessarily involve real-time, direct control of harvesting activity which is feasible only with a high degree of engagement throughout the industry.

4. This type of management is typically local in scope (i.e., below the scale at which sustainability is ensured under the Fisheries Act) or based on value judgements that target some consumers and not others. The benefits derived are clearly in the nature of private or club goods and are not so universal as to be a public good to be delivered by Government. Enabling more sophisticated management may well enhance sustainability in the public interest (this would be a positive spinoff), but its primary purpose will be to significantly increase the benefits available from fisheries. The adoption of more sophisticated management measures for commercial fishing is therefore rightly a matter for quota owners (not Government) to pursue and take responsibility for delivering.

5. This insight forms the basis of the seafood industry's initial contribution to the review process. Simply put, in order to continue to enhance the benefits New Zealand obtains from its valuable fisheries resources, our fisheries management regime needs to evolve to enable fisheries rights owners to adjust their activities in response to changes in the demands of markets for fisheries goods and services within government-set bottom-line sustainability standards.

6. The statutory amendments proposed in this paper will enable a sustained, long-term lift in the economic contribution the seafood sector makes to the New Zealand economy by 'future-proofing' the Act so as to enable fisheries, on a case-by-case basis, to be managed under appropriate governance approaches that can deliver beyond sustainability, as follows:

- *Status quo*, whereby government makes all management decisions and purchases all the required services (e.g., research) for a fishery;
- *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.

7. With an updated legislative framework that enables smarter, more efficient fisheries management, the seafood industry can build on its current achievements, enhance its engagement and relationships with those who share and value New Zealand's fisheries and marine environment, and make an even more significant contribution to the Government's Business Growth Agenda. The anticipated outcomes of legislative and operational reform include:

- greater certainty for government and quota owners, leading to higher business confidence;
- more efficient, cost-effective and flexible fisheries management and service delivery;
- more seafood-related jobs across New Zealand, particularly in coastal communities and regions that currently struggle to achieve a spread of successful business opportunities;
- a significant boost to Māori economic development as an integral part of a successful seafood industry;
- enhanced ability for the seafood sector to produce high-value products that are responsive to market demands, thereby increasing export revenue; and
- higher levels of collaboration within the seafood sector, between the seafood sector and Government, and with communities and groups who share interests in New Zealand's fisheries resources.

8. These outcomes will establish an environment in which the industry has both the incentive and the opportunity to invest in taking New Zealand's fisheries 'beyond sustainability', thereby enhancing overall wellbeing and the value that New Zealanders obtain from our fisheries resources. The scale of these benefits is hard to predict, but is likely to be significant. For instance, a $1 billion increase in the quota value of New Zealand's fisheries (assessed by Statistics NZ at $4 billion in 2009) could be achieved through a combination of increased benefit and reduced risk. Such a change in quota value would also indicate a similar increase in wellbeing derived from fisheries by all New Zealanders.

Contents

(1) Introduction: the importance of history and context

1. New Zealand has a remarkably successful fisheries management system. The two key building blocks of this system are the QMS (introduced in 1986) and the Fisheries Act 1996. It is easy to forget the size of the sustainability crisis and the extent of destruction of potential fisheries benefit that characterised New Zealand fisheries by the mid-1980s. This generation owes a considerable debt to the politicians, officials and stakeholders who designed, implemented and fine-tuned the QMS. Not only did the QMS successfully avert the looming sustainability crisis, it also provided the foundation for over a generation of expanding fisheries utilisation benefits including the Maori Fisheries Settlement.

2. It is also easy to overlook the fact that the QMS today is far more sophisticated than its original form and that evolutionary change has been a constant theme in the story of the QMS. The current legislative review is therefore the latest of many reviews and modifications, rather than the first. This raises the issue overhanging all projects to modify sophisticated systems which is; how to avoid changes that have unintended adverse consequences? All change carries risks but these risks are reduced if we understand both what works well (and why) as well as what does not work well (and why). It is crucial to be able to distinguish 'the baby from the bathwater'. To give one example, the connection between the integrity of the QMS and the ongoing integrity of the Maori Fisheries Settlement is a compelling reason to ensure that any changes to the QMS reinforce rather than revise or undermine its original tenets.

3. In other words, we need an agreed understanding of the critical foundations underpinning the historical success of the New Zealand fisheries management system so that we can guarantee that those foundations support a new era of even greater success. The clear identification of these foundations becomes more difficult with the passage of time as the architects and builders of the original system are steadily succeeded by those who are its inheritors and present custodians. For this reason:

    - **Part 2** of this paper focuses on the evolution of the QMS and what we can learn from its successes and challenges;

    - **Part 3** contains high-level reform proposals to future-proof the QMS so it continues to enable New Zealanders to derive benefits from our fisheries; and

    - **Part 4** sums up how the reform proposals will contribute to the Government's wider objectives, including the Business Growth Agenda.

(2) The QMS: evolution, lessons and opportunities

4. With hindsight, it is evident that the success of New Zealand's fisheries management regime is due to the fact that changes over the last thirty years have carefully built upon the original foundations of the regime so that the incentives on quota owners to be mindful of sustainability and value creation have been progressively strengthened. Those incentives are embodied in the legal characteristics of ITQ and the legal security of those characteristics, all of which is firmly embedded in the Fisheries Act.

(i) The purpose of the Fisheries Act 1996 provides the foundation for the successful operation of New Zealand's fisheries management regime

5. New Zealand's first fisheries management statute was the Oyster Fisheries Act 1866. However, it was 130 years before we had a statute with a meaningful statement of purpose. It was worth the wait. Part

2 of the Fisheries Act 1996, *Purpose and Principles* provides an outstanding overall framework for the fisheries management system we enjoy. The purpose of the Act is *"to provide for the utilisation of fisheries resources while ensuring sustainability".*[1] This purpose and its associated principles provide a benchmark against which all existing or proposed fisheries management processes and actions can, and should, be assessed.

6. The concise nature of the purpose belies its wisdom about the appropriate and realistic role of Government in fisheries management in relation to **providing for** utilisation and **ensuring** sustainability. This realism is a critical success factor that sets New Zealand apart from other nations with fisheries legislation that promises far more but delivers far less in practice.

7. The Act defines 'ensuring sustainability' as "*(a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment*". On the Review website, MPI usefully paraphrases this definition as:[2]

   - *Making sure that enough of the fish population remains to breed in the future;* and
   - *Not destroying the marine habitats essential for spawning, migration and feeding.*

8. The significance of 'providing for utilisation' is succinctly explained in a 2001 Ministry of Fisheries policy interpretation of the purpose of the Act:[3]

> *… 'provide for utilisation' means, in New Zealand's liberal democracy, to provide people with the opportunity to maximise their utility (as in the definition of 'provide for their social, economic and cultural wellbeing')… This implies that the* ***core role for those exercising powers*** *under the Fisheries Act is to* ***establish the framework within which people can make their own utilisation decisions****. This framework includes sustainability constraints and* ***the specification of property rights*** *of those entitled to utilise fisheries resources.*

9. The definition of utilisation – "*conserving, using, enhancing and developing fisheries resources to enable people to provide for their social, economic and cultural wellbeing"* – reminds us of the multiple dimensions to the 'wellbeing' or benefits that can be derived from fisheries (social, economic and cultural) and that such wellbeing is produced by distinct processes (conserving, using, enhancing and developing fisheries). These processes and their associated outputs are often mutually exclusive and that is why the utilisation purpose of the Act is necessarily an enabling one. People (meaning individuals) are the only authoritative arbiters of what constitutes the right mix (for them) of all of the things that comprise wellbeing.

10. Once it is understood that the utilisation purpose of the Act includes conservation (a deliberate choice about use and non-use) it becomes clear that the sustainability and utilisation components of the purpose are not polar opposites. Rather, they denote a demarcation between two types of fisheries management processes and mechanisms:

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1 Fisheries Act 1996, Section 8 (1)

2 MPI website https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/fisheries-management-system-review/future-proofing-fisheries-management/

3 Ministry of Fisheries (2001), emphasis added. The MFish 'front end' policy interpretations were developed following an extensive programme of workshops and engagement with fisheries stakeholders.

- Determination by the Government of minimum standards for the maintenance of fisheries and the aquatic environment (sustainability); and

- Enabling choices by individuals and groups about conservation, use, enhancement and development of fisheries so as to provide for wellbeing (utilisation).

11. An important insight from this analysis is that in order for the Act to achieve its carefully calibrated purpose, the legal and operational definition of 'sustainability' must remain focused on the determination of minimum standards (as is currently the case). If 'ensuring sustainability' is allowed to expand beyond "*making sure that enough of the fish population remains to breed in the future and not destroying the marine habitats essential for spawning, migration and feeding",* there is a real risk that the total benefits available from the utilisation of New Zealand's fisheries will be compromised by government decisions that deliberately or inadvertently limit the choices that may be made by New Zealanders about utilisation.

12. This risk is apparent in the Government's proposal to close all of FMA 10 to fishing by establishing the Kermadec Ocean Sanctuary. The proposal has been erroneously characterised as a 'sustainability measure' even though the sustainability purpose of the Fisheries Act has already been well and truly achieved within FMA 10. For Fisheries Act purposes, the proposed closure of FMA 10 is correctly characterised as a tradeoff between competing utilisation objectives.

(ii) The QMS has evolved over time to strengthen the security of quota and transfer risk and responsibility from the Crown to quota owners

13. The QMS was introduced in October 1986 by way of amendment to the Fisheries Act 1983. Since that time, the QMS has continued to evolve and develop as a result of statutory amendment, litigation and case law. Although many of these changes occurred in an environment of considerable uncertainty and tension, in retrospect it is apparent that over the past thirty years the changes made to the QMS have carefully and deliberately moved the regime in a clear direction of strengthening the ability of the QMS to contribute to achieving the purpose of the Act by ensuring sustainability and providing for utilisation. The six main reforms of this period are summarised here.

i) The change to proportional quota in 1990

14. Under the QMS as introduced in 1986 quota owners received the right to a certain tonnage of catch based on government estimates of the sustainable catch. The Crown was required to pay quota owners full compensation in the event of any TAC reduction but was able to sell any additional quota generated through a TAC increase. In 1990, after vigorous debate and litigation, the industry agreed to move to a proportional quota regime – a fundamental shift in the nature of the ITQ right which shifted stock sustainability risk from the Crown to quota owners. Quota value therefore came to be related at least in part to the observed current abundance and perceived future abundance of a fish stock. As a result, the economic risk and benefit for the seafood industry was directly linked to the productivity of fisheries, further strengthening the incentives on quota owners to be mindful of stock sustainability.

15. Quota owners took on board these changes and adjusted their activities in response – for example, by taking a direct and active interest in fisheries research and management and by forming Commercial Stakeholder Organisations (CSOs)[4] through which their collective shareholdings in a fishery could be protected and enhanced. These organisations formed in recognition that, although ITQ rights are

[4] Also referred to as Sector Representative Entities (SREs).

individual, the resources are common. Industry organisations have directly invested millions of dollars in fisheries research and management, as illustrated in the attached case study of direct purchase and innovation in orange roughy fisheries (see **Appendix 1**).

ii) The settlement of Maori fisheries claims in 1992

16. Soon after the QMS was introduced, the issuing of the Maori fisheries injunctions in November 1987 heralded a period of considerable uncertainty in its implementation. Although the introduction and implementation of the QMS initially sparked the Treaty claim, ultimately it also provided the means for full and final resolution of Maori commercial fishing claims. The characteristics and integrity of ITQ (in particular, its strong property attributes such as perpetual duration), together with the sustainability mechanisms embodied in government policy and law, were sufficient for Maori to accept ITQ as the 'currency' for the settlement of claims in the 1992 Deed of Settlement.[5] The Settlement itself further increased the security and value of ITQ by removing the uncertainty that had been generated by the longstanding grievance, and setting a precedent whereby the Crown purchased much of the ITQ required for the Settlement from the incumbent rights holders.

17. Maori are now major asset owners and participants in the commercial fishing industry, owning in excess of 30 per cent of all quota (valued at over NZ$1 billion). Maori have a reasonable expectation that the Crown will maintain the value of their fisheries assets by protecting the integrity of quota rights and the QMS, not least because the settlement provided that all current and future claims in respect of commercial fishing rights were fully satisfied and discharged. These expectations align with the Crown's responsibilities under the Treaty as set out by the Supreme Court, including responsibility for 'active protection'. Quota rights, the QMS and the operation of the Fisheries Act that allows the expression of commercial fishing rights, have together become the currency of the Settlement.

iii) The replacement of resource rentals with cost recovery in 1994

18. At the time of the Settlement a system of resource rentals applied. With the claims of ownership of fish by Maori supported by the highest courts in the land, resource rentals could not be continued and changes were required. The agreed replacement – cost recovery – is not simply a mechanism to enable the Crown to recover a portion of the costs of providing fisheries services; it is an integral aspect of the economic incentives that underpin the successful operation of the QMS. The replacement of resource rentals with cost recovery in 1994 was intended to encourage greater industry responsibility, less regulation and lower management costs. The industry and government both anticipated that levies would reduce over time as cost recovery brought about efficiency gains within the Ministry and as the industry took on a more direct role in fisheries management and the purchase of research.[6] However, the anticipated changes to the operational and institutional arrangements under which fisheries services are determined and provided never eventuated, hindering quota owners in their attempts to take up these opportunities.

19. Today, cost recovery remains a 'rub point' between industry and the Government – but the underlying aggravation is, in reality, the inflexible and inefficient manner in which fisheries services are determined and provided. For example, the current recovery of costs from quota owners of around $10 million per year for commercial compliance services is inconsistent with the generally accepted notion that 'law and order' services are a public good that is provided to protect New Zealand's fisheries resources and should therefore be funded by general taxation. Furthermore, the industry is not able to influence the

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[5] "*Maori endorses the QMS and acknowledges that it is a lawful and appropriate regime for the sustainable management of commercial fishing in New Zealand*." Her Majesty the Queen and Maori, Deed of Settlement, 23 September 1992, Section 4.2.

[6] See Harte, M. *Funding commercial fisheries management: lessons from New Zealand*. Marine Policy (2007).

nature or level of compliance services that are provided by MPI and, with the removal of the disciplined systems to record effort following the incorporation of MFish into MPI, cannot assess whether the levies have been directed towards commercial fisheries compliance or other MPI activities. In this example, the ongoing recovery of costs in the absence of any opportunity to influence the level of service provision or transparency in the use of levies means that fisheries cost recovery has simply become a tax on the fishing industry.

iv) The environmental principles in the front end of the 1996 Act

20. The introduction of the new Fisheries Act in 1996 foreshadowed a suite of changes to the QMS itself, and the statutory context in which the QMS operates. For the first time, the 1996 Act set out a clear purpose and principles to guide the implementation of the QMS. In particular, the environmental principles in section 9 meant that ITQ rights were now to be exercised within the wider ecosystem context of associated and dependent species, biological diversity and habitats of particular significance for fisheries management.

21. As a result, quota owners have increasingly taken on board responsibility for avoiding, remedying or mitigating any adverse effects of fishing activity on seabirds, marine mammals and the benthic environment. For example, quota owners have developed and implemented effective mitigation measures to reduce incidental interactions with seabirds (e.g., Vessel Management Plans) and New Zealand sealions (e.g., SLEDs and Marine Mammal Operating Procedures).

22. The deepwater fishing industry's initiative to establish a network of benthic protection areas (BPAs) is a prime example of the alignment of public policy objectives and private incentives for marine biodiversity protection made possible by the QMS. The BPA network was conceived by deepwater quota owners as a means to address uncertainties about the environmental impacts of bottom trawling and to enable the ongoing sustainable utilisation of deepwater fisheries. The recognition and maintenance of the integrity of the BPA network by successive governments in turn sends positive signals to the seafood industry that industry initiatives to manage the environmental impacts of fishing activity are a valued component of New Zealand's fisheries management regime.

v) The securitisation of quota in the 1996 Act

23. The 1996 Act also provided for the development and implementation of a secure quota registry system (increasing both the security and transferability of ITQ) and the ability to raise a mortgage against ITQ. These changes enabled quota owners to treat their quota holdings like any other bankable asset, and significantly enhanced the security and value of quota. This feature of the legislation supporting the QMS is envied by fishers in many other countries which have introduced quotas of one kind or another as it provides quota owners with the ability to access funding for growth and innovation.

vi) Ongoing improvements to the efficiency of the QMS

24. Many provisions of the 1996 Act were not able to be implemented immediately due to the need for new computer systems to be developed. Further legislative amendments were also required in order to address outstanding issues and allow the Act to be more fully implemented in 2001. Once the necessary changes were in place, the administration of the QMS was significantly streamlined and simplified by:

- the creation of a single catching right (Annual Catch Entitlement, or ACE) which replaced a multitude of earlier types of catching right; and
- the introduction of a new catch balancing regime.

25. These changes improved both the rigour and the efficiency of the QMS so that quota owners could focus on adding value. The establishment of an Approved Service Delivery Organisation (ASDO) under Part 15A of the Act successfully transferred QMS administrative functions from the Crown to the seafood industry and enabled the devolved and contracted services to be delivered in a more cost effective manner (as discussed further below).

Four key trends

26. This evolutionary pathway illuminates four main trends in the development of the QMS, i.e.:

- Sustainability and environmental responsibility have become inextricably part of the ITQ right;
- 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.

(iii) Thirty years after its establishment, the QMS has successfully ensured the sustainability of New Zealand's fisheries and generated significant benefits

27. New Zealand's QMS and the attributes of ITQ, as defined in the Act and associated case law, have created a set of incentives that have helped assure the sustainability of New Zealand's fish stocks and have significantly increased the wellbeing that New Zealanders are able to derive from our fisheries.

Measuring sustainability

28. As MPI confirms on the Review website, New Zealand is fishing sustainably. Dr Pamela Mace, MPI's Principal Advisor Fisheries Science, told attendees at the 2015 Seafood Industry Conference that "*New Zealand's fisheries are performing extremely well overall, at least as good as or beyond the standard of the best in the world*". She noted that around 83 percent of individual fish stocks of known status and 96 percent of landings of known status are above or well above the level where sustainability issues might be a concern.[7] Stocks of known status account for around 80 percent of total landings by weight and value and include most of the main commercial fish species. Where stock status is unknown, the best available information – i.e., commercial landings data – suggests that there is no cause to doubt that these stocks are also being fished sustainability. In the small number of cases where fisheries are considered to be below stock sustainability limits, corrective management action has been, or is being, put in place to rebuild the stocks.

29. Overseas commentators have endorsed the strengths of New Zealand's fisheries management regime. In 2009 Dr Boris Worm and Professor Ray Hilborn, along with 19 marine and ecosystem scientists from around the world, gave the New Zealand fisheries they assessed the highest possible rating for ecologically sustainable management.[8] And in 2011, the Fisheries Centre at the University of British

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7 http://www.seafoodnewzealand.org.nz/media-centre/media-releases/media-release/item/august-19-2015/

8 Worm, B., Hilborn, R., et al. (2009). Rebuilding Global Fisheries. *Science*, 325 (5940):578–585.

Columbia, Canada, rated New Zealand as the leading country among 41 surveyed for the quality of its fisheries monitoring, control and surveillance.[9]

Measuring wellbeing, benefits and value

30. Wellbeing (or, as MPI puts it on the Review website, 'benefits') is not as straightforward to measure as sustainability. In the discussion below we use the concept of *value* – i.e., a measure of what people are prepared to forego in order to achieve a benefit or a feeling of wellbeing – as a realistic and measurable proxy for enabling people to provide for their wellbeing and obtain benefits from fisheries resources. Used in this way, quota value is effectively the 'canary in the coal mine' that can tell us a lot about the value of fisheries more generally, including value that is more challenging to quantify, such as the value of a recreational fishing experience, or the value of New Zealand's international reputation.

31. Statistics NZ has calculated an aggregate estimate of quota value in 2009 of NZ$4 billion.[10] This valuation is based on a formula where value is a function of expected ACE price (annual benefit) divided by a discount rate (a measure of risk). This same general relationship also applies to the valuation of all other types of fisheries benefit – i.e., conservation, customary and recreational benefit – but there are no observed data on annual benefits or discount rates outside of the commercial sector with which to populate the valuation equation. However, it is reasonable to assume that if quota value is increasing, so too is the overall value of fisheries and hence, the wellbeing that can potentially be provided by fisheries for all users. This assumption is possible because high quota value requires sustainable, abundant fisheries and reduction of risk and uncertainty. Where fisheries are abundant and future risk to abundance is perceived to be low, the benefits able to be obtained by non-commercial users of the same fisheries (including those who favour non-extractive use) will be correspondingly high.

32. The use of quota value as a proxy for the total wellbeing from fisheries is consistent with the World Bank's guidance on national wealth accounting. Following the 2007 economic crash the World Bank recognised the need to look past GDP as a measure of economic wealth. As Joseph Stiglitz, recipient of the Nobel Prize in Economics, puts it: "*Gross domestic product, the leading economic measurement, is outdated and misleading...It's like grading a corporation based on one day's cash flow and forgetting to depreciate assets and other costs.*" New Zealand's National Accounts which, in line with World Bank guidance, have already moved beyond GDP as a measure of the country's wealth, now equate quota value with the value of the fisheries natural asset.

(iv) … but there are still opportunities to enhance the value that can be obtained from fisheries

33. The bulk of New Zealand's current quota value was generated in the first decade of the QMS as the New Zealand seafood sector went through a rapid process of value creation and cost reduction driven by individual companies but made universal through market competition. In recent years, however, aggregate ACE and ITQ value has stabilised or even declined in real terms.

34. It is therefore worth considering how quota value can be further enhanced in order to continue to achieve the utilisation purpose of the Act and enable New Zealanders to provide for their wellbeing. An

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[9] Pramod, G. (2011). Evaluations of Monitoring, Control and Surveillance in Marine Fisheries of 41 countries, MCS Case Studies Report, Fisheries Centre, University of British Columbia.

[10] http://www.stats.govt.nz/browse_for_stats/environment/environmental-economic-accounts/fish-monetary-stock-account-1996-2009/introduction.aspx

analysis of the historic and current performance of the QMS identifies two main lessons relating to the conditions under which quota value has been created or eroded – i.e., value is enhanced when management is more 'enabling' and value is eroded where rights are insecure.

(v) Value is enhanced when management is more enabling

35. Although the purpose of the Act pre-supposes an enabling approach to the utilisation of fisheries resources, much of the current fisheries law supporting the operation of the QMS reflects pre-QMS (1970s and 1980s) views on the appropriate approach to fisheries management and compliance. As a result, New Zealand still has a highly centralised model of operational decision-making which creates a cumbersome and costly fisheries management burden for the Crown and the industry and which is very difficult to reconcile with the enabling approach required since 1996.

36. A handful of successful alternative management arrangements that are more enabling of quota owners have been implemented under existing law, including:

- the devolved and contracted services performed by FishServe;
- the collaborative fisheries management arrangements under the National Rock Lobster Management Group and the management agreement between the Deepwater Group and MPI;
- industry non-regulatory management measures such as ACE shelving in rock lobster, paua and deepwater fisheries, fine-scale (within QMA) management in paua, orange roughy and hoki fisheries, and catch reporting and monitoring programmes such as the SNA 1 Fisher Agreement; and
- the direct purchase of additional monitoring and research in several fisheries, including an additional $1-3 million of science annually in deepwater fisheries (see case study in **Appendix 1**).

37. However, the uptake of these innovative approaches has not been widespread. To a large extent this is because – with the exception of FishServe – alternative governance arrangements are enabled not by the law, but only by the individual efforts and good will of the participants. In the absence of legislative support, these voluntary governance arrangements are vulnerable to uncertainty and do not encourage optimal levels of commitment and investment by either industry or government.

38. In contrast, FishServe, which is supported by the legislative framework for ASDOs in Part 15A of the Act, has not only been able to prosper and develop over time, but delivers fisheries services with significantly greater efficiency than equivalent government providers. Prior to 1999, registry services were delivered by the Ministry of Fisheries, with annual costs of around $8.6 million recovered from the industry. Following the devolution of services to FishServe in 2001, costs steadily decreased to current levels of around $4 million, with corresponding increases in customer satisfaction, technical innovation and quality of service delivery (see FishServe case study in **Appendix 2**).

39. The value enhancement achieved under non-statutory governance arrangements has not been systematically quantified but is evident from the fact that the industry continues to invest in these arrangements even though they entail upfront costs in excess of the default management settings. The higher cost of these alternative arrangements is in part a consequence of legislative uncertainty. In the absence of a firm statutory basis for alternative governance arrangements:

- quota owners are often reluctant to invest in the direct purchase of fisheries research and monitoring services out of concern they may be required to 'pay twice' for similar services; and

- the transaction costs for quota owners and commercial fishers of developing and complying with non-regulatory management agreements can be extremely high. The lack of sanctions means that non-participating quota owners and fishers benefit from the actions of those who do participate but bear none of the costs themselves (the 'free-rider' effect), which in turn creates disincentives for full participation.

40. The value that is able to be created by enabling quota owners to manage harvesting activity, and the barriers to taking this approach further in the absence of statutory support, are both illustrated in a case study of ACE shelving in rock lobster fisheries in **Appendix 3**.

(vi) Value is eroded where rights are insecure

41. A recent international study of the linkage between the security of property rights and asset value in fisheries regimes found that the market value of property rights is significantly reduced by insecurity arising from ownership disputes, illegal extraction and the possibility of government revocation of rights (Grainger and Costello 2014).[11] Grainger and Costello used data from New Zealand to demonstrate that the 1992 Maori Fisheries Settlement, which resolved a key source of insecurity in the ownership of commercial harvest rights, resulted in a marked 3.5 percent decrease in the dividend/price ratio of ITQ, signaling a significant (approximately $1 billion) increase in quota value.

42. Under New Zealand's QMS, ownership claims have now been settled and ITQ is issued in perpetuity, reducing the risk of government revocation of rights. Nevertheless, the results of Grainger and Costello's study are informative in relation to the remaining sources of insecurity of rights, which include:

- the risk that spatial access to fisheries will be reduced by government decisions to allocate marine space exclusively to non-commercial fishing sectors, non-fisheries users, or marine protection;
- the risk that the current commercial share of the catch of particular species (i.e., the TACC) will be reduced by government decisions to allocate a greater share of the catch to non-commercial fishers (exacerbated by the lack of specification of recreational fishing rights); and
- illegal fishing, particularly for high value species.

43. The very fact that New Zealand's QMS has been so successful at creating value from fisheries means that the potential costs of reallocation are now higher for all existing and future users. Any risk of reallocation of this value is now a true 'rub point' in the system. Whereas prior to the QMS competing users had little to compete for, the stakes are now more significant for everyone.

44. For example, in the CRA 5 (Canterbury Marlborough) rock lobster fishery, from 1999 onwards, quota owners decided to 'bank' the increases in rock lobster abundance and take no TACC increases in order to achieve stability, security and enhanced economic performance. As a result, stock abundance is well above statutory minimum levels. The quota owners' strategy has benefited customary and recreational fishers by making it easier for them to harvest their entitlements. High abundance has contributed to an expansion of recreational catch well beyond the recreational allowance, heightening concerns among all sectors about how the TAC will be allocated in future. Unsurprisingly, CRA 5 quota owners now feel that their long-term commitment to and investment in their management

[11] Corbett A Grainger and Christopher J Costello. Capitalizing property rights insecurity in natural resource assets. Journal of Environmental Economics and Management 67 (2014) 224-240

strategy may no longer return to them the benefits that they anticipated. Stability, security and enhanced economic performance will be compromised if increases in stock abundance are simply absorbed by other sectors in a 'passive' reallocation of fisheries benefits.

45. Grainger and Costello's findings suggest that as long as insecurity about reallocation remains unresolved, the value that New Zealand obtains from our fisheries resources, and hence the ability of our fisheries management regime to enable benefits to be provided to all New Zealanders, will be impaired. The objective is to find ways of enabling reallocation that do not destroy value.

46. The erosion of quota value is also inextricably linked to sustainability risk, particularly at the extremes. For example if quota value is declining (e.g., as a result of uncertainty about future catch allocation in a fishery with substantial recreational fishing), quota owners will benefit little from investing in the long term health of the fishery. As a result, they may become increasingly focused on short term gain at the expense of the resource, as is the case in many fisheries around the world where open and free access to the fishery resource prevails. Similarly, where quota value is increasing, the incentives to look after the capital that is creating that value (i.e., the fish stock) are strengthened. The converse is also true – i.e., for stocks subject to sophisticated (but costly) management that takes them well above and beyond bottom-line sustainability standards, significant additional value can be created – but the conditions for such investment will arise only if rights are perceived to be secure.

vii) Once sustainability is ensured, two general courses of action are available to increase value: increase annual benefit and reduce future risk

47. The lessons above about the creation and erosion of value are practical illustrations of the valuation formula used by Statistics NZ – i.e., that value is a function of expected ACE price (annual benefit) divided by a discount rate (a measure of risk). The first lesson describes ways in which annual benefit has been increased by enabling more sophisticated management arrangements, and the second shows how the risks associated with insecure rights have eroded, and can continue to erode, value.

48. Using value as a proxy for the wellbeing that can be derived from New Zealand's fisheries, it is therefore apparent that wellbeing can be maximised under two general courses of action, i.e.:

- increasing annual benefits from fisheries; and
- reducing the risk to the future production of those benefits.

49. 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. Within the commercial sector, or within the TACC, this is achieved through the provision of ITQ and ACE markets. However, New Zealand's fisheries management regime currently has no mechanisms to ensure that fisheries are being used in a way that reflects their most valued use between sectors, including non-extractive sectors.

50. In this respect we dispute the statement on MPI's Review website that "*the Fisheries Act 1996 provides a framework for **balancing** those often competing interests so that all can benefit*." Under the heading 'Balancing competing interests' MPI goes on to explain how TACCs and allowances are set. However, there is no statutory basis for equating the determination of these allowances with some indeterminate process of 'balancing' competing interests. Our earlier analysis of the purpose of the Act makes it

clear that 'balancing' of this type would destroy wellbeing and the value of fisheries resources without any sustainability benefit.[12]

51. A similar analysis applies in relation to Government decisions made under the Fisheries Act (and other legislation) that purport to 'balance' various rights and interests by spatially separating different uses (including conservation or preservation) of marine resources. Although these decisions are sometimes presented in the guise of ensuring sustainability, in a Fisheries Act context it is clear that decisions of this type are utilisation decisions as they relate to choices about how to use fisheries resources and who should use them (including choices not to use a resource). It follows that the appropriate role of Government in these circumstances is to establish frameworks to enable individuals and groups to make these choices. Any other solution will destroy wellbeing for all New Zealanders without providing sustainability benefits.

52. The second way of encouraging the maximisation of benefit is to enable fisheries rights holders to adjust fisheries uses in response to changes to the needs or wishes of markets in fisheries goods and services. These changes must always preserve the sustainability 'bottom-line' but may involve dynamic or localised changes to fishing technology, product forms or market certification – for instance, by adopting management practices that are fine-scale, timely, and ecosystem-based. Sometimes these opportunities to capture value are ephemeral, available only until competitors respond to the same opportunity. Other times they involve significant investment with long pay-back periods. In these cases, rights owners need the security and confidence to make such investments.

53. The main ways to reduce risk to the future production of benefits focus on minimising the risk of expropriation of rights through reallocation of spatial access or catch shares to other users or uses. These are political rather than biological risks, although they may have biological (sustainability) consequences, as outlined in the above discussion on the relationship between low quota value and sustainability risk.

(3) Creating value beyond sustainability

The concept

54. The narrative above describes New Zealand's fisheries management regime as having been successful in ensuring sustainability, but still having some way to go in terms of getting the best value from our fisheries resources. MPI, on the Review website, notes that although New Zealand is fishing sustainability, "*local communities and international markets are taking a growing interest in the environmental impacts of fishing"*. These matters of 'growing interest' generally go beyond what it means to fish in a sustainable way.

55. The cutting edge matters of interest in fisheries management are more and more concerned with local effects, effects of harvesting on non-target associated species, benthic effects and community values and expectations. These concerns are increasingly local in scope or based upon value judgements that are of interest to some consumers but are not so universal as to be clearly an expression of the public good. The more sophisticated handling of these issues may well enhance sustainability (this would be a positive spinoff), but its primary purpose will be to significantly increase the benefits available from fisheries management and utilisation. These are value benefits from going beyond

[12] See paragraphs 5 – 12 of this paper

sustainability and past the protection of the public interest in fisheries management which is, by its nature, always a guarantee of a minimum outcome rather than a maximum or even optimal outcome.

56. The challenge for the next stage of evolution in the New Zealand fisheries management system is therefore how to take it beyond sustainability. How do we identify and produce the 'icing on the cake' once sustainability has been ensured? From the analysis above it is clear that moving fisheries management beyond sustainability necessarily moves it beyond the realm of minimum standards, standardisation and the public interest (the role of the Crown) into the realm of enabling patterns of utilisation to evolve in a dynamic way in order to produce greater wellbeing, more benefit and higher value (the role of quota owners).

57. Statutory reform is required to enable quota owners to take these next steps, while maintaining a core government role of setting, auditing and enforcing bottom-line sustainability standards. The industry's reform concept is therefore to future-proof the Act so as to enable fisheries, on a case-by-case basis, to be managed under improved governance approaches:

- that enable greater flexibility in the way management functions are undertaken and services are purchased and delivered;
- while also providing government, industry and other stakeholders with greater certainty that service delivery and implementation of management measures will meet sustainability and performance standards set by government.

The anticipated outcomes

58. Appropriate enabling legislation will enable New Zealand's fisheries to evolve over the next decade to encompass governance and management approaches that enhance the value New Zealand obtains from its fisheries resources. For some fisheries, the Crown will continue to undertake all management functions from standard setting through to implementing management controls and delivering services. However, an increasing number of fisheries will be managed under improved governance models, in which the Crown has primary responsibility for the setting and auditing of appropriate standards and high level management strategies, and industry has a primary role in managing commercial activity within the government-set standards. Non-commercial stakeholders will share responsibilities, via mandated representative bodies, in fisheries which are also valued for their customary and recreational fishing opportunities.

59. This transition will promote:

- More efficient management systems, as a result of a focus on standards-setting rather than prescriptive management, and a stronger business focus in decision-making on commercial matters such as the purchase and delivery of fisheries services;
- Innovative and 'fit for purpose' management as a result of the statutory provision for improved fisheries governance arrangements;
- Increased annual harvestable surplus derived from the industry's $4 billion capital base in quota as a consequence of the higher level of certainty created by the use of standards and industry engagement in the management of commercial fishing; and
- Increased export returns and economic growth within New Zealand, particularly in regional New Zealand where much of the seafood industry and associated businesses are located.

60. These outcomes will not only enhance the quota value of New Zealand's fisheries – they will also enhance the wellbeing that fisheries can provide for all New Zealanders.

Overview of reform proposal

61. A snapshot of the reform proposal is provided in **Figure 1**. The centerpiece is a set of self-contained amendments to the Fisheries Act that will enable fisheries, on a case-by-case basis, to be managed under one of three governance arrangements (including the *status quo*, which will remain available). The three governance arrangements sequentially provide greater opportunity for value addition. They are:

- ***Status quo*** (default management regime), whereby government makes all management decisions and determines and purchases all the required services (e.g., research, monitoring, compliance) for a fishery;

- ***Approved management***, whereby 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 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 within government-set standards. The quota owners are authorised to use a statutory decision making tool to make rules by super-majority, subject to statutory checks and balances to prevent inappropriate behaviour. The rules would bind all quota owners and commercial harvesters in a fishery so as to provide MPI and fisheries stakeholders with confidence that industry management measures will be implemented in a transparent and enforceable manner.

62. A crucial aspect of the reform proposal is that the Crown remains responsible for ensuring sustainability, notably by setting the TAC and TACC. For example, industry measures implemented under Approved or Authorised Management could set a commercial catch limit that is lower, but not higher, than the TACC. No regulatory powers are transferred or devolved from the Crown.

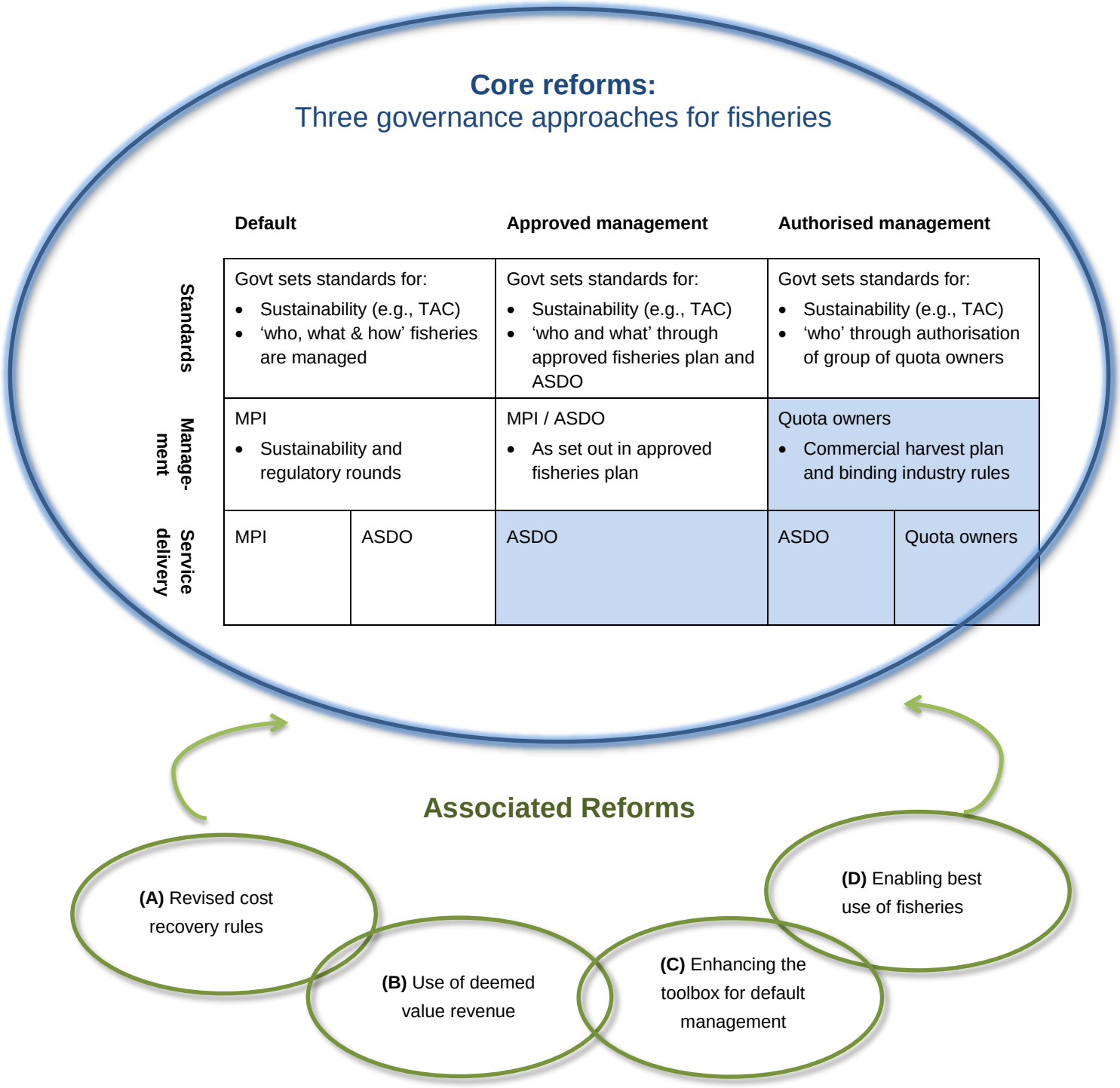
63. The enabling design of the proposed amendments means that the statutory reforms will not by themselves alter the *status quo* management approach in any existing fishery. Together, the three governance arrangements provide options for fisheries management in the future. The improved governance approaches are not intended to be progressive or sequential, but instead recognise that one size does not fit all – different fisheries face different challenges and require different management approaches.

64. Moving from left to right in Figure 1, the governance approach becomes increasingly enabling and management more sophisticated. Management becomes finer in scale, more timely, more efficient, and more responsive to contemporary market demands. For these same reasons, management at the right hand side is also likely to cost more than default management systems. More sophisticated management approaches will therefore be adopted by quota owners only where there is clear value to be gained from making the additional investment. Fisheries with insufficient value or opportunity to justify more intensive management are more likely to remain within the *status quo* regime.

65. Importantly, the scope of activities that may be undertaken by quota owners under an Approved or Authorised Management regime is no greater than the activities available to them individually today. For example, quota owners can already individually make decisions on matters such as purchasing fisheries research services, using or not using their harvest rights, deciding where and when to fish, what to catch and how to catch it (all within the constraints of regulations), collecting fisheries data beyond regulatory requirements, and protecting the aquatic environment, seabirds and marine

mammals. Access to improved governance arrangements will enable quota owners *collectively* to manage this limited set of matters which they can already manage as individuals. This means that that there is no reduction whatsoever in the ability of the Government to regulate fishing to achieve the purpose of the Fisheries Act. Instead, quota owners will be enabled to adopt improved governance arrangements that better achieve the purpose of the Act and continue to create benefits 'beyond sustainability'.

Figure 1: Snapshot of Reform Proposal



66. Details on how Approved Management and Authorised Management are anticipated to work in practice are set out in **Appendix 4**.

Targeted legislative changes

67. Amendments to enable Approved and Authorised Management can be inserted into the Act as self-contained enabling provisions, similar to the way in which fisheries plans are currently provided for in section 11A without interrupting the existing provisions of the Act. While Authorised Management will require a separate new enabling provision, the Act already goes a long way towards providing for Approved Management and the necessary statutory amendments are likely to entail only:

- minor changes to the scope of the functions, duties or powers that may be transferred to an ASDO under Part 15A; and
- linking the expanded scope of ASDO functions to a fisheries plan approved under section 11A of the Act.

68. To the extent more detail is needed to enable specific aspects of the proposed reforms (for example, the prescription around how quota owners can make decisions that will bind all quota owners and commercial harvesters in a fishery), this can be set out in regulation rather than in the Act itself.

Looking after other interests

69. The Approved and Authorised Management regimes are designed to ensure that economic benefits can be achieved without threat to other fisheries interests – in fact, as outlined earlier, the growth in quota value that is anticipated as a result of enabling more sophisticated management is indicative of enhanced fisheries benefits for all fisheries users, including those who favour non-extractive use of fisheries resources.

70. In addition to generally adding value to New Zealand's fisheries, the proposed reforms contain specific safeguards to protect the interests of other groups and individuals with an interest in fisheries resources, including:

- no changes in fisheries governance take place without the **approval or authorisation of the Minister** for Primary Industries;
- existing **consultation opportunities** for non-commercial fishers and ENGOs, such as consultation by MPI prior to the approval of fisheries plans, will continue to apply. Representatives of the full range of fisheries interests will also be consulted when the Minister is considering a request from quota owners to move into an Approved or Authorised Management regime;
- the management measures enabled under the improved governance regimes **apply only to commercial harvesting** and are **constrained entirely by government-set standards** such as the TACC, service performance standards, and the existing commercial fishing regulations; and
- rather than immediate, widespread reform, the new empowering provisions will enable a **gradual, managed reform process** which builds on existing successful initiatives.

Supporting reforms

71. The alternative governance approaches are supported by and complement four associated reforms, as follows.

A. Revised cost recovery regime

72. Revised cost recovery rules are required for *status quo* fisheries management in order to properly reflect the cost recovery principles in section 262 of the Fisheries Act and to provide appropriate incentives for each fishery to move to an optimal management approach. The industry is engaged in the concurrent review(s) of cost recovery and anticipates that these matters will be satisfactorily addressed in due course.

73. For fisheries managed under Approved or Authorised Management, services delivered by an ASDO or purchased directly by quota owners will be removed from the cost recovery regime, significantly reducing a major 'rub point' between industry and the Crown.[13]

B. Return of deemed value revenue

74. The setting of appropriate deemed value rates and the distribution of revenue from deemed value payments are two matters which are central to the effective operation of the Act's catch balancing regime. Revenue from deemed value payments is currently transferred to the consolidated fund as tax. This represents a loss of economic value to quota owners and reduces the capital value of quota across the whole fishery.

75. Ongoing discussions on a more appropriate distribution and use of deemed value revenues culminated in a proposal, jointly developed by the Crown and industry in 2005, that a portion of deemed value revenues should be returned to quota owners, as follows:

- **Commercial Only Stocks** — Deemed values for catch in excess of the TACC or agreed and binding lesser catch limit should be returned to quota owners in proportion to quota ownership;

- **Shared stocks** — The proportion of deemed values for catch in excess of the TACC equal to the TACC/TAC ratio should be returned to commercial quota holders. The remaining portion of the deemed values on catches above available ACE should be tagged for provision of research and services for the stock that improve management of recreational and customary fisheries, and might be considered for such activities that contribute to the reduction of commercial over-catch.

76. The rationale behind this proposal is that where catch for a stock exceeds the TACC, this has a negative impact on the interests of the quota owners (who are often not those catching the fish) and, therefore, that the deemed value revenue collected by the Crown for such over-catch should at least in part be paid to quota owners in recognition of such impacts.[14]

77. Once alternative governance arrangements are enabled, the returned portion of deemed value revenue could be used by quota owners to assist fisheries to transition to optimal alternative

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[13] For services jointly funded by the Crown and quota owners, the agreed Crown share of funding would be transferred to the purchasing entity (e.g., the ASDO).

[14] The purpose of the deemed value regime is to make it easier to balance catch and ACE within the TACC – not to enable catching beyond the TACC. When the TACC has been exceeded, the deemed value regime has undercut the legitimate ACE market to the disadvantage of quota owners. In 'shared stocks', customary and recreational fishers may also be disadvantaged if deemed value settings allow the TACC to be exceeded, hence the proportional treatment (using the TACC/TAC ratio) of deemed values for catch in excess of the TACC in these stocks.

governance arrangements. This is primarily a policy decision and would require only minor legislative change to implement.

C. Enhancing the status quo toolbox

78. Adding improved fisheries governance arrangements to the Act will address a large proportion of the management challenges currently facing fisheries by enabling 'tailor-made' management approaches. However, for many fisheries including those of lower value, the *status quo* is likely to remain the preferred management approach. There is therefore a need to review current management techniques, regulations and operations to determine whether minor changes to the Act or regulations (or to their implementation) can enable additional value to be obtained from these fisheries. For example, the increasing use of new technology and higher degree of transparency in fisheries operations (and, hence, more effective offence detection) means that it is appropriate to review the penalties regime so as provide a proportionate and scaled set of responses to those who break the law.

79. In particular, there remains a plethora of fisheries regulations, many of which have persisted for 30 years since before the QMS was introduced and are now redundant. These regulatory redundancies represent an unneeded business compliance cost to the industry. The introduction of improved governance approaches will put even more focus on redundant regulations. A programme of regulatory review linked to the implementation of Approved and Authorised Management would therefore be timely.

80. Further examples of enhancements to current fisheries management arrangements are provided in the submissions of Sector Representative Entities and seafood companies.

D. Enabling best use

81. Enabling fisheries to be used in a way that reflects their highest value is an issue that would benefit from further policy development and, ultimately, legislative reform. Our preliminary analysis indicates that there is significant scope for developing solutions based on the stronger specification of all types of rights in the marine environment (including recreational fishing rights and non-extractive use rights) and enabling reallocations to occur in ways that add, rather than erode, value. Successful mechanisms for allowing fisheries to transition to their 'highest and best' use must build on the foundations of the QMS, rather than – as is currently the case – detracting from it.

82. Such solutions may be beyond the scope of the current reforms, but the review process nevertheless provides an opportunity to set in place measures that can move New Zealand's fisheries management regime in the general direction of the required reforms (even if only incrementally), rather than allowing value-destroying aspects of the current regime to endure or multiply.

(4) Alignment with broader Government objectives

83. The alternative fisheries governance arrangements proposed in this paper are grounded in an analysis of the purpose of the Fisheries Act and the underlying principles of the QMS. However, the reform proposals will also enable New Zealand's fisheries resources to contribute more effectively to wider Government policy objectives. This is not surprising, given the alignment between the twin objectives of the QMS (creating value and ensuring sustainability) and the objectives of the Government's

Business Growth Agenda (BGA) – "*Improving resource base key to sustainable growth"* is the headline of a recent press release by Ministers Steven Joyce and Nathan Guy.[15]

84. The seafood industry is already committed to the BGA through a range of strategies including:

- building product value and securing international market access by gaining third party certification or other independent assurance;
- moving up the value chain from commodities to premium products, and from frozen to fresh products;
- investing in PGPs with the Government (Precision Seafood Harvesting, Greenshell mussel spat production);
- investing in new technology, facilities, plant and vessels to support regional economies and employment; and
- developing uses for all parts of fish to improve returns from more diversified products.

85. All these initiatives require significant industry investment which in turn, requires certainty in our operating environment and efficient, value-creating management regimes. We are confident that with an updated legislative framework that enables smarter, more efficient fisheries management, the seafood industry can make an even more significant contribution to New Zealand's growth. We anticipate that the reforms outlined in this paper will enable fisheries wealth to increase by NZ$1 billion within five years through a combination of increased benefit and reduced risk.

86. Consistent with Statistics NZ's valuation formula, approximately half of the anticipated increased value would arise from a reduction in the discount rate for quota. Currently discount rates of eight to ten percent are typically used to calculate net present value of expected cash flow from an investment in quota. The ability to better manage fisheries risks through more sophisticated management under improved governance approaches will immediately reduce the discount rate. Even a relatively modest one percent reduction would add around $400 million to quota value. The remaining increase in value would accrue over future years as value-adding management initiatives are implemented, generating increased annual benefits through reductions of costs (e.g., co-ordinated harvesting strategies that result in better vessel utilisation, lower labour and fuel costs) and increases in revenue (e.g., through improving fish availability and quality).

87. More generally, the proposed reforms will:

- create a **sustained long-term lift in growth rate** by future-proofing the Act with a suite of alternative management approaches, rather than providing a 'one off' growth opportunity;
- encourage **business confidence** by setting clear standards and enabling fit-for-purpose fisheries governance arrangements, both of which improve certainty for businesses. For example, the anticipated increased use of harvest control rules specified in fisheries plans or commercial harvest plans will increase certainty around commercial catch limits;

[15] Steven Joyce, Nathan Guy – 12 November 2015

- enable more **cost-effective service delivery** (e.g., for fisheries research, conservation services and observer services) by introducing alternative, more efficient means of purchasing and delivering services;

- enhance opportunities for **third party certification** of New Zealand seafood (as demanded by wealthy EU and US markets) by providing clear standards, tailored fisheries management, and improved science-based data collection and monitoring;

- create a **more certain regulatory environment** through alternative ways of making fisheries rules, ultimately improving the quality of fisheries regulation, and encouraging innovation; and

- enable a **more collaborative fisheries management environment** among firms, between government and industry, and with other fisheries users, thereby:

    - aligning Government and industry objectives;

    - taking some of the political heat out of fisheries decision-making;

    - reducing the cost of disputes for all parties;

    - facilitating industry participation in local and regional marine management initiatives; and

    - enabling the industry to pursue growth opportunities that require collaboration among quota owners (e.g., co-ordinated harvesting to make more efficient use of the fleet).

88. The proposed reforms also contribute to the cross-cutting themes of the BGA as follows:

- **Maori economic development**: The anticipated growth opportunities will provide a significant boost to Maori economic development directly through iwi quota holdings as well as through the 50 percent Maori ownership interest in Sealord;

- **Greening growth**: The 'beyond sustainability' concept builds on the existing environmental safeguards of New Zealand's fisheries management regime and will enhance the ability of seafood exporters to market the environmental pedigree of our seafood products;

- **Regulation**: The seafood sector is currently among the most highly regulated in the economy, so the regulatory reform that is anticipated to flow from effective implementation of improved governance arrangements is likely to have a profound positive effect on industry profitability; and

- **Regional economic growth**: The seafood industry provides jobs and good living conditions for local communities around the country, both directly and through flow-on effects. Around 20,000 New Zealanders are currently employed directly and indirectly by the seafood industry and a 2013 Government report identified that the bulk of these jobs are spread throughout the regions.[16] Examples of recent seafood industry investments in regions with limited employment opportunities include:

    - Westfleet Seafoods' $12 million new fish processing factory in Greymouth, opened in 2014. The 3000sqm factory is a joint venture between Westfleet and Sealord and follows the $14.5 million investment in the construction of a new wharf, the purchase of an additional vessel, and

[16] iFAB 2013 Seafood Review

an increase in quota to be caught and processed on the West Coast. The Mayor Tony Kokshoorn said at its opening that the new factory was a turnaround for the Coast and predicted fishing was among the industries that would lead the coast's future; and

- Aotearoa Fisheries' new $3 million fish factory at Waitangi on Chatham Island, due to open in December 2015. The iwi-owned company is the single largest employer on the island.

Legislative and policy reforms which enable the industry to continue to invest and grow sustainably will contribute to the BGA's focus on ensuring that regions have a spread of successful businesses.

Appendix 1: Orange Roughy Case Study – direct purchase and innovation of effective management and science

Orange roughy quota owners have a long history of collaborative work to improve the sustainable management of New Zealand's orange roughy fisheries and enhance quota value. Their direct and collective actions have been successful over a period of 24 years, through the vehicles of The ORH3B Exploratory Fishing Company (1992 to 2000), The Orange Roughy Management Company (2001 to 2005) and now the Deepwater Group Limited (2006 to the present time).

In addition to the research, science and information required by government to provide for sustainable utilisation (for which quota owners have been levied ~$100 million during the period 1984-85 to 2014-15), industry has invested an additional $31 million in order to secure the certainty that key orange roughy fisheries not only meet New Zealand's standards but also to meet the more rigorous and higher standards demanded by the Marine Stewardship Council (MSC).

Over this time, the cost per tonne of orange roughy quota for government research and management has been relatively flat while the direct investment by quota owners into research, science and management has increased to the same level (see Figure 1).

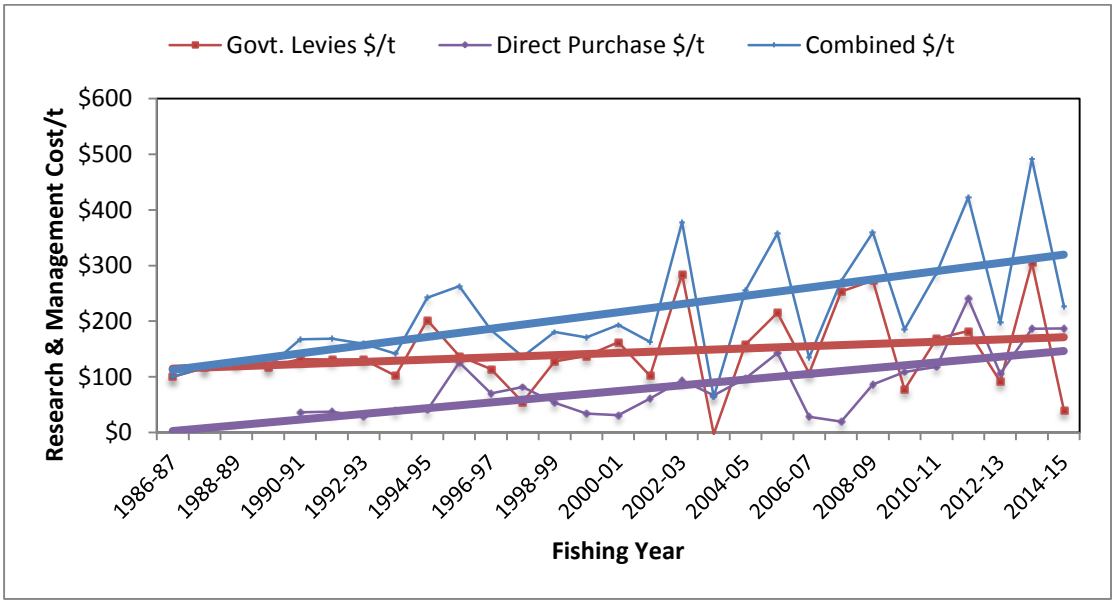


Figure 1: Government levies and industry research and monitoring costs per tonne of quota for orange roughy fisheries 1986-87 to 2014-15

Through these additional investments, orange roughy quota owners have funded and delivered a wide variety of science and management initiatives, including:

- Undertaking collaborative exploratory fishing surveys leading to the discovery and scientific assessment of new orange roughy fishing grounds and stocks;
- Implementing adaptive management approaches for orange roughy through formal collaboration with government;
- Managing separate biological stocks within the TACCs set by government, by implementing Designated Sub-areas within QMAs and carefully managing ACE and spreading fishing effort to maintain collective

catches within the agreed sub-area catch limits and TACC. Performance within the agreed catch limits is monitored by MPI and relied upon by the Minister when making his sustainable utilisation decisions. Sub-area management has been successfully and progressively implemented by quota owners in a number of key fisheries since 1992: ORH3B (currently four stocks), HOK1 (two stocks), ORH2A (two stocks), ORH MEC (three QMAs amalgamated into a single stock), ORH1 (four management areas);

- Reducing catches (i.e. below the TACC), at times including fisheries closures by quota owners, has proven to be successful in promoting rapid rebuilding where the stock size has declined below the management target. ACE has been shelved in three fisheries since 1992, two of which have since rebuilt, have been reopened and are now under assessment by MSC. In addition, quota owners collectively shelve ACE to provide an allowance for research surveys in key fisheries;

- Since 1998, commissioning research and development of innovative acoustic survey methods to estimate orange roughy biomass and target strength, consequent to the ineffectiveness of traditional trawl surveys due to the aggregated distribution of orange roughy;

- Pioneering the use of industry vessels as acoustic research platforms to undertake biomass surveys – monitoring the recovery of closed fisheries and assessing current spawning biomass for key fisheries;

- Engaging in an industry research partnership with CSIRO to develop and implement multi-frequency acoustic survey technology on the head-line of bottom trawls to better estimate biomass, refine target strength estimates, and to discriminate between orange roughy and swim-bladdered species in mixed species aggregations;

- Commissioning aging studies, environmental risk assessments, stock assessments and management strategy evaluations to address information deficiencies and to meet the environmental sustainability requirements of the MSC certification;

- Supplementing regulated management controls with non-regulated controls, implemented by agreement between quota owners with support (and verification) by government and relied upon by the Minister for their effectiveness to support his sustainable utilisation decisions. These additional non-regulated controls include measures to avoid mitigate or remedy incidental interactions with seabirds, marine mammals and benthic habitats and the engagement of a full time Environmental Liaison Officer to educate, innovate and monitor deep water fleet activities; and

- Enhancing conservation and biodiversity protection through the development and promotion of large representative spatial closures, implemented by government as Benthic Protection Areas which collectively close 30% of the New Zealand EEZ to bottom trawling.

Appendix 2: FishServe case study

Commercial Fisheries Services Ltd (FishServe) is a wholly owned subsidiary of Seafood New Zealand, which has been providing excellent registry, data management and fisheries administration services for the past 17 years.

FishServe operates under a unique set of service delivery arrangements which allow commercial participants to have increased control and authority over the administration of their property rights, while operating within a rules framework set and monitored by the Crown.

Establishment of FishServe

In August 1998, after several failed attempts, FishServe was outsourced from the then Ministry of Fisheries, when the government and the industry worked in partnership to successfully implement a new service delivery paradigm.

In the first instance, a tri-partite contract was established between the Crown, Commercial Fisheries Services Ltd and a third party outsourcing agent. For approximately 12 months this model provided the Crown assurance that the industry had sufficient maturity to take such a responsibility, but it became apparent that the incentives of the three parties were not well aligned. Industry soon realised that greater efficiencies could be made if profit was not a motivation for the service provider, and as a result agreed with the Crown that it was not necessary for the tri-partite arrangement to continue, and the relationship with the outsourcing agency was terminated.

In 2001, the next stage in its evolution was the introduction of devolved responsibility, which involved the transfer of responsibility for a large portion of the outsourced services to the designated Approved Service Delivery Organisation (ASDO). Effectively this meant that the Ministry of Fisheries no longer had any statutory responsibility, obligation or mandate to deliver the identified services, and instead the ASDO (operating as FishServe) was directly accountable to the Minister of Fisheries (in the stead of Ministry of Fisheries) for the prescribed services.

The services provided by FishServe are either still performed under contract to MPI or are devolved to the ASDO as follows:

Contracted (Crown Responsibility)	Devolved (ASDO Responsibility)
Quota Allocation	Quota • Register Management • Property Rights Transfers
Fishing Permits	ACE • Register Management • Property rights transfers • Annual Allocations
Crown Revenue Management • Cost Recovery levies • Deemed Value invoicing • Debt management	Client Registration/Management

Aquaculture Registers	ACE Balancing • Monthly Harvest Return Processing • Calculating Catch against ACE
Foreign Licensed Access and Special Approvals	Licensed Fish Receiver Licensing Returns processing
High Seas Fishing Permits	Fishing Vessels • Register Management • Certificates of registration
Catch Effort Returns • Data Entry • Validation • Overdue management	Caveats and Mortgages • Registration • Removal

Governance of the ASDO

Critical to the success of FishServe has been the rigor of the appointment process for the ASDO, which requires, amongst other things:

- Demonstrated support of the majority of quota owners;
- Financial viability – including willingness to re-invest;
- Independence; and
- Policy neutrality.

To ensure FishServe is removed from inappropriate influence and can maximise its service efficiency, its constitution determines that it must have an independent chair and none of its directors may be industry sector representative executives and only one director may be a director of its parent (SNZ).

This governance has unburdened FishServe from the potential influence of individual commercial participants and from industry politics at large.

Performance Framework

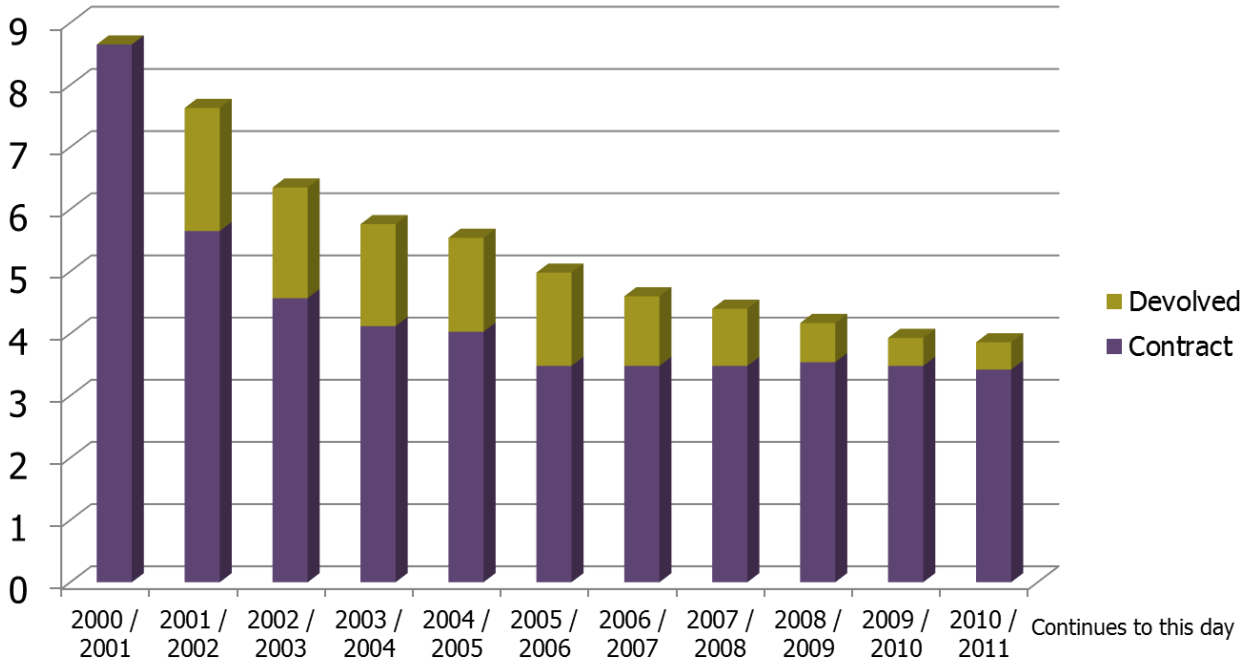
To give both the Crown and the industry confidence that the services are being delivered with integrity and to a minimum quality standard, a performance framework underpins the provision of all services.

This framework includes standards and specifications set by the Crown to determine information, process and performance minimums. FishServe must operate in accordance with these specifications and report monthly to MPI on any discrepancies. To be assured that the organisation continues to deliver according to these requirements, FishServe undertakes a comprehensive internal audit programme which traverses all aspects of its business. FishServe continues to meet industry expectations that it will provide services well in excess of these minimum standards.

The Crown has a regulatory penalty regime which it may impose for any breach of standards and specifications. In the 17 years of its operation FishServe has never been penalised for a breach of standards.

What has been achieved?

At the time of its first outsourcing in 1998, FishServe employed 85 staff and cost the industry $8.65 million. Over the past 17 years constant improvements in service delivery and investment in technology means that FishServe now has a staff of 35 and costs the industry $4 million. The following graph plots the period of the largest cost reductions. Since 2011 savings have levelled off as there is additional work to be done in improving services which are still contracted (rather than devolved), so it can be expected that there are still further benefits to be had.



One of FishServe's greatest achievements has been the establishment of its subsidiary company, FINNZ Ltd. It became apparent that following the design and build of software to support its services, FishServe staff had built a significant IT capability which could be leveraged for the benefit of industry. As a result, FINNZ was established to use those skills either offshore, or in other sectors within New Zealand, with any profits being used to offset the cost of FishServe's statutory services. Today, FINNZ makes a significant contribution to the reduction in costs recovered from industry, and in the year 2014/15 paid a dividend of $430k to FishServe.

FishServe's success would not be possible without the full support of its levy payers. The industry has on many occasions expressed its support of the organisation and its satisfaction with the quality of service FishServe provides. More specifically however, two recent situations have arisen in which industry has been asked to provide more than just lip service to this support. The first was in 2012 as part of FishServe's application to renew its ASDO status. Every sector representative entity and commercial stakeholder organisation was asked to document its support for FishServe as part of the application. Everyone did so. The second was in early 2014 when industry was asked to fund a $5 million re-investment in new systems. This required the introduction of a new levy, recovering an additional $300k per annum over the next 6-7 years. The consultation process garnered nearly 100 percent support.

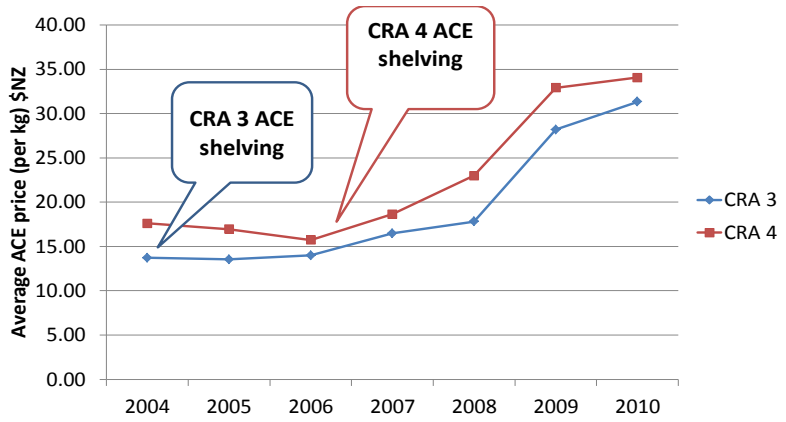
The support of levy payers allows FishServe to continuously improve its services and look for opportunities to work alongside industry to add value to the business beyond the statutory services for which it was established.

Appendix 3: Rock lobster ACE shelving case study

'ACE shelving' is achieved by each quota owner in a stock voluntarily transferring an agreed portion of their ACE to a single (non-fishing) third party so that it is unavailable to harvesters. In order to be effective, shelving requires a high level of support across all quota owners in a stock. Quota owners will not shelve their ACE unless they are confident that the other quota owners are also foregoing a share of their catch. Experience over the years has shown that where a strong case for shelving is made, obtaining the agreement of the owners of the first 75 percent of quota shares is relatively straightforward, but that significant time and effort is required to secure the support of the remaining quota owners.

In 2004, industry participants in the Gisborne (CRA3) rock lobster fishery observed that catch per unit effort (CPUE) was declining and ACE price was low. The quota owners took action and agreed to shelve around 42 percent of their ACE with the aim of rebuilding the fishery. The shelving was continued in the 2005 season. However, a difference of opinion over legal interpretation led to the Minister of Fisheries reducing the TACC from 327 tonnes to 190 tonnes – bringing it down to the level achieved by the ACE shelving. The Minister's TACC decision was perceived by the industry as indicative of a lack of government confidence in industry management. This caused the CRA3 industry group to implode. It took at least three years for a new industry group to form and gain the confidence to once again embark on industry management initiatives.

Several years later, a decline in stock abundance was observed on the Wairarapa coast. In response, the CRA4 industry participants successfully shelved 42 percent of their ACE in 2007 and in 2008 increased the level of shelving to nearly 58 percent of the TACC. In 2009 the shelving was replaced with a TACC cut. The industry agreed that a TACC cut was preferable to shelving the same amount of ACE because the localised rebuilding of the fishery meant that some individual quota owners would no longer voluntarily support shelving.



The catch reductions enabled CPUE to rebound in both fisheries, resulting in subsequent TACC increases and significant economic benefits for CRA 3 and CRA 4 quota owners. Increases in ACE and quota value following the shelving more than compensated for any loss of catch during the shelving, as shown in the diagram.

These economic benefits were greater than would have been achieved had the industry relied only on a TACC cut because quota owners were able to immediately respond to the observed decline in CPUE by shelving at the beginning of the next season, whereas the government process of altering the TACC entails a time lag of around 18 months. The ability to shelve ACE within the 'bottom-line' sustainability standard of the TAC/TACC provided greater certainty, resulting in reduced risk to the stock and higher economic value for the industry.

Appendix 4: Approved and Authorised Management in practice

Details on how Approved Management and Authorised Management are expected to work in practice are set out in 'Question and Answer' form below. While considerable initial policy development has been undertaken, further discussion and fine-tuning of the details is required both within the industry and between the industry and MPI before the mechanics of the improved governance arrangements can be confirmed.

a) What checks and balances will apply?

Standards are an important part of the framework for improved governance arrangements as they help provide certainty for all parties (government, quota owners and others with an interest in fisheries resources) that the purpose of the Act will continue to be achieved under alternative governance arrangements. Standards, together with performance monitoring and statutory consequences of non-performance, create the necessary checks and balances around the use of Approved and Authorised Management. The checks and balances need to provide certainty for both the Crown and industry, while also encouraging innovation and enabling a transition to optimal management approaches. In order to achieve the desired mix of certainty and enablement, standards should be outcome-focused and high-level.

It is therefore proposed that standards for Approved or Authorised Management should be straightforward (i.e., a relatively low barrier to entry) but the consequences of failing to perform should be significant. Severe consequences for poor performance provide a strong incentive to drive performance, rather than front-loading the system with unachievable entry criteria and prescriptive performance standards.

Consequences of non-compliance with the performance standards by the quota owner group would be specified in law and may include the ability for the Crown to remove the authority of the group and revert to *status quo* management and to implement any necessary corrective actions to ensure the purpose of the Act continues to be met.

Crucially, the Minister will continue to be responsible for setting sustainability standards. The regulatory framework will continue to operate, subject to any revisions to update fisheries regulations, as will agreed service level standards such as MPI's *Research and Science Information Standard*.

In addition, government may also set standards for the 'who, what and how' of fisheries management – i.e., standards for: *who* has responsibility for particular functions (providers); *what* is to be achieved (outcomes); and *how* it will be achieved (inputs). These additional standard-setting roles vary across the three governance arrangements as follows (and as illustrated in Figure 1):

- ***Status quo***: Government sets provider, outcome, and input standards ('who, what and how') so that fisheries users can be confident the government is delivering services efficiently and effectively. Many of these standards are already in place and working well (e.g., MPI's *Research and Science Information Standard for New Zealand Fisheries*) but in other cases greater transparency is required;

- **Approved Management:** Government sets provider standards through the approval of an ASDO under Part 15A of the Act ('who') and approval of a fisheries plan outlining management and service delivery outcomes ('what'), but the details of 'how' the services will be provided are the responsibility of the approved providers; and

- **Authorised Management:** Government sets standards that a group of quota owners must meet in order to satisfy the Minister that they have the mandate to take on this responsibility ('who'). It is

then the responsibility of the authorised group to determine what services they will purchase or provide and management measures they will implement ('what' and 'how') within the constraints of the regulatory framework.

b) How would a fishery move to a new governance approach?

Quota owners may to apply to the Minister to use one of the improved governance approaches. The application may relate to a single stock, a species, or a group of stocks in an area. Standards that must be met in order for the Minister to consent to the application will be clearly specified, as follows:

- For Approved Management, the standards that the fisheries plan must meet in order to be approved by the Minister as a basis for management of the fishery, plus any applicable standards relating to ASDO service delivery;

- For Authorised Management, the standards that the quota owner group must meet in order to operate under Authorised Management. It is likely that this will be specified as a proportion of quota ownership support – for example, section 25 of the Fisheries Act (alteration of quota management areas) currently requires the agreement of owners of at least 75 percent of quota shares in affected stocks.[17]

The Minister will assess the application against the standards, consult under section 12 of the Act and, if approved, add the fishery to a Schedule to the Act (as is the case, for example, for Third Schedule stocks managed with an alternative TAC).

The Minister's consent will identify any terms and conditions as well as arrangements for Crown monitoring of the performance of the relevant services and functions. The consent would have the effect of either:

- approving a fisheries plan under section 11A of the Act (which then forms the basis of an Approved Management regime, with specified services delivered by an ASDO); or

- authorising management by a quota owner group, including authorisation to purchase specified services and use a binding majority decision-making tool.

c) What would an application cover?

For **Approved Management**, a fisheries plan forms the basis of the application. The fisheries plan would be developed by quota owners, consistent with the requirements of any outcome standards set by MPI. The fisheries plan would specify only the services and measures necessary to manage the commercial share of the fishery.[18] The quota owners would be required to consult with MPI to ensure that the services and measures to be delivered by an ASDO under Approved Management complement the services and measures that continue to be provided by the Crown and that the division of responsibilities is specified to the satisfaction of both parties.

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[17] The required level of support may also be specified as a proportion of quota ownership as well as a proportion of quota owners (e.g., 50 percent)

[18] In an ideal world, all rights holders in a fishery (commercial and non-commercial) would participate directly in the development of a fishery plan. However, recreational stakeholders currently lack the mandate and capacity to participate in planning, fund service procurement, and implement management measures for their sector. In the longer term, non-commercial stakeholders may be in a position to participate in Approved Management.

The fisheries plan would specify:

- management objectives and strategies – including for example, harvest control rules to generate TAC/TACCs based on modelled outputs, or adaptive management programmes where a fishery is managed under a higher TACC (consistent with sustainability standards) and more intense data collection; and
- the services that will be delivered, and who will purchase and deliver the services (including identification of services to be provided by an ASDO).

For **Authorised Management**, quota owners may choose to set out their management strategies and services within a Commercial Harvest Plan, but the approval of such a plan lies with the quota owners, rather than the Minister. An application for Authorised Management would need to satisfy the Minister that the applicants:

- have secured the required level of support from quota owners;
- have worked alongside MPI to ensure that:
  - the management measures for the fishery (as specified in the Commercial Harvest Plan and any applicable MPI planning document) are compatible; and
  - the service procurement and delivery responsibilities are clearly specified and agreed between the quota owners and MPI.

For both Approved Management and Authorised Management, quota owners would be expected to develop detailed specifications for service delivery as part of their application. MPI would then evaluate the application against the relevant output standards.

d) What services can be delivered under Approved or Authorised Management?

The set of fisheries services which may be purchased or provided under the improved governance models initially includes research services (fisheries research and conservation services) and data collection (observers and other information gathering and monitoring activities), but could be expanded further in time.

Services delivered under Approved or Authorised Management would be required to comply with government-set service delivery output standards. For example, industry-purchased research would be required to meet standards for peer review consistent with those applying to government purchased research.

A fishery managed under Approved or Authorised Management need not have all services delivered by an ASDO or purchased by quota owners. For Approved Management, the fisheries plan provides for services to be delivered, as specified, by either MPI or an ASDO. For Authorised Management, quota owners are authorised to reach agreement with MPI on which services will be purchased directly and which will continue to be provided by MPI.

e) What else is required for Approved Management?

Approved Management has two key components – the approval of a fisheries plan by the Minister, and the delivery of services by an ASDO. The Act already provides for both fisheries plans and ASDO service delivery, although to date they have not been implemented in a way that fully meets the original intent and potential of the statute.

Section 11A (fisheries plans) was inserted in a 1999 amendment that was developed against a background of debate on the future role of key institutions in fisheries management. At that time the Ministry of Fisheries argued that "*rights holders should be given increased responsibility to collectively manage fisheries within appropriate sustainability and service parameters*".[19] However, the opportunity provided by section 11A was not able to be readily taken up by rights holders, in part because of significant uncertainty about the standards that a fisheries plan would have to meet in order to be approved by the Minister. Enabling an Approved Management approach therefore entails:

- a policy shift and the development of standards to enable section 11A (fisheries plans) to be used in a manner consistent with its original intent;
- development of MPI operational processes to facilitate plan approval; and
- targeted amendments to Part 15A to optimise the transfer of service provision to an ASDO.

f) How does Authorised Management differ from Approved Management?

In contrast to Approved Management– where the Minister approves a fisheries plan and a service delivery agency – under Authorised Management, the Minister authorises a group of quota owners to take responsibility for managing commercial harvesting activity within the constraints of the regulatory framework. Authorised Management enables quota owners to:

- purchase specified fisheries services (the scope of services is described above); and
- use a binding decision making tool to:
    - make rules to manage commercial harvesting – for example, rules for commercial catch spreading, area and seasonal closures, specification of harvesting practices to meet consumer expectations, data collection, and other management adjustments within the constraints of the regulatory framework; and
    - adjust annual commercial harvest levels within a baseline TACC, whereby every quota owner in the relevant stock formally foregoes the opportunity to harvest an agreed proportion of their ACE for the fishing year. For example, ACE management measures may be used to increase stock abundance or to more effectively reconcile individual stock harvest levels within mixed species fisheries.

These types of management activities are already implemented in a range of fisheries on a voluntary or non-regulatory basis. However, voluntary management measures are constrained by their inability to deal with free-riders or those who simply decide not to comply with non-binding industry arrangements. The transaction costs of obtaining and maintaining the agreement of all affected quota owners and commercial fishers to comply with non-binding industry-developed rules has proven to be extremely challenging. Successful implementation of Authorised Management therefore depends on authorised quota owners being able to make binding decisions so as to provide MPI and fisheries stakeholders with confidence that industry management measures will be implemented in a transparent and enforceable manner.

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[19] Ministry of Fisheries. *Vision for Fisheries Management* (1997)

g) How would the binding decision-making tool work?

The proposed approach to the development of binding rules is one of super-majority decision-making, whereby harvest rules approved by owners of, for example, at least 75 percent of quota shares in the affected stock bind all quota owners and commercial fishers in that stock. This type of decision making is based on company voting procedures and reflects quota owners' collective interests in the management of their harvest rights, which are akin to owning shares in a company. Industry harvest rules would be proposed by groups of quota owners, typically following discussions with harvesters.

Procedural checks and balances would ensure that the regime is not discriminatory or oppressive on any party affected by the harvest rules. For example, the legislation would provide any quota owner, commercial fishing permit holder, or industry representative body with the right to object to the introduction of a proposed industry rule that affects them. Grounds for objections to proposed industry rules would be set out in law and objections would be investigated and resolved by an independent authority.

Rules would be approved either directly or indirectly by the Minister for Primary Industries and then notified in the Gazette and to affected parties. A register of rules and proposed rules would be maintained by FishServe.

It is proposed that an independent compliance regime would operate (i.e., independent of both MPI and the quota owners who set industry rules), together with a tiered penalty system for breaches of industry rules. The exact form of the independent compliance regime requires further consideration, but key features are that it should be streamlined and efficient, fully industry-funded, well aligned with (but not duplicating) existing government compliance services, and should make use of existing structures and judicial processes where possible.

h) Where does collaborative management fit?

Although Approved and Authorised Management are focused on enhancing the management of commercial fishing, the use of explicit fisheries plans or commercial harvest plans (and, in the case of Authorised Management, binding industry rules), will facilitate alignment of government and industry management measures, and improve relationships between the commercial sector and non-commercial sectors. Once quota owners are able to bind each other and those who fish their quota to agreed management measures, the industry will have a secure and meaningful basis from which to:

- participate in collaborative management arrangements, alongside MPI and other fisheries stakeholders; and
- participate in local marine management initiatives, together with other fishing sectors and local communities.

11 Hakihea (December) 2015

Ngāti Kahungunu Iwi
INCORPORATED

Ministry for Primary Industries
PO Box 2526
WELLINGTON 6140
E: fisheries.review@mpi.govt.nz

Tēnā koutou katoa

RE: SUBMISSION FROM NGĀTI KAHUNGUNU IWI INCORPORATED REGARDING THE OPERATIONAL REVIEW OF THE FISHERIES ACT 1996

1) Ngāti Kahungunu Iwi Incorporated (NKII) is a Mandated Iwi Organisation. Ngāti Kahungunu has the third largest Iwi population (62,000[1]), and the second largest tribal rohe and coastline, from Paritū and extending inland across the Wharerata Ranges in the north, to Turakirae in South Wairarapa.

2) Ngāti Kahungunu maintains an independent position to protect and advocate the interests, rights, values, beliefs and practices of Ngāti Kahungunu whānau, hapū and Iwi. This includes a responsibility and obligation as Kaitiaki, to care and protect the taiao for future generations.

3) Ngāti Kahungunu Iwi Incorporated have received fisheries settlement assets as a result of the Treaty of Waitangi Fisheries Settlement of 1992, the Māori Commercial Aquaculture Settlement Act 2004, and the implementation of the Māori Fisheries Act 2004. These settlements provide a significant opportunity for our economic development aspirations, which we continue to balance against our obligations as Kaitiaki. Ngāti Kahungunu views these commercial fishing assets as an integral part of a successful seafood industry for generations to come.

4) Ngā hapū o Ngāti Kahungunu have maintained customary use of marine resources out to, and beyond the EEZ 12 nautical mile limit. Customary use and hapū authority has been acknowledged and gazetted, along the majority of our coastline via the 1998 Fisheries (Kaimoana Customary Fishing) Regulations. Hapū boundaries are included in these regulations, and in some cases, are applicable out to 200 nautical miles.

On behalf of Ngāti Kahungunu Iwi Incorporated, we wish to submit the following concerns regarding the Operational Review of the Fisheries Act 1996, outlined as follows:

Greater Consistency Required

5) Ngāti Kahungunu Iwi Incorporated, the Ngāti Kahungunu Asset Holding Company, the Coastal Hapū Collective, and Te Kupenga Whitirauroa a Maui, collaborated together and consulted with our constituents, Ngāti Kahungunu hapū and whānau, to develop

[1] 2013 Census of Population and Dwellings, New Zealand Kahungunu population only.

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'Kahungunu ki Uta, Kahungunu ki Tai Marine and Freshwater Fisheries Strategic Plan' which was launched in 2008. At the time of writing this plan, it was promoted by the Ministry for Fisheries as a model and example for the country. We understand this plan is now viewed as a 'Tier-Two' document by the Ministry for Primary Industries. What changed?

6) In the spirit of partnership, Ngāti Kahungunu seeks to work with the Crown and its Ministries, to explore opportunities that will benefit and enhance the lives of our people and local communities. The constant change in the policy direction of the Ministry for Primary Industries, the deliberate under resourcing of its settlement obligations to Ngāti Kahungunu, and the change in attitude to our Iwi strategic plan, creates considerable confusion to the point where we hold little confidence in the Ministries' fisheries approach. The Ministry appears confused about its role as the manager of the fishery, and appears confused about its obligations of partnership and good faith with Ngāti Kahungunu, as guaranteed under the Treaty of Waitangi.

7) From our understanding of the various pieces of fishing settlement legislation, regulations and protocols, we consider the Ministry for Primary Industries to be negligent in many of its obligations to Ngāti Kahungunu. Improving the performance of the Ministry of Primary Industries to engage with Ngāti Kahungunu over our wide range of roles in the fishery, will aid the Ministry's ability to better inform the Minister. This is a matter which needs to be addressed, regardless of the current operational review of the Fisheries Act.

Greater Leadership Required

8) The Ministry for Primary Industries is too 'hands-off' in its management of the fishery. Too much is being left to chance, or being left to industry organisations or non-commercial organisations, to provide leadership on management issues. There is an evident disconnect between the strategies being promoted by the Ministry, and the realities of the fishing sector. The purposes of the Fisheries Act are very clear on the governance and decision making role of the Minister. If the 'hands-off' management approach is to continue, then Ngāti Kahungunu insists that a rewrite of the Fisheries Act is required, to provide a suitable mechanism for Ngāti Kahungunu representation at the statutory level, to provide a greater level of leadership for the fishery.

9) Ngāti Kahungunu have recently contributed to the national review of the Māori commercial fishing structures which has resulted in a range of innovative solutions for the Māori commercial fishing industry. We consider it timely for the Government to follow iwi leadership and to make structural changes to its management regime to facilitate growth of the industry, to increase our export revenue from the fishery and to improve the overall performance of the fishery.

10) Under the current service delivery approach of the Ministry, we consider the Ministry to be negligent in its input and participation obligations to Ngāti Kahungunu whānau, hapū and Iwi. Despite having one of the highest uptake of coastal areas mandated under the customary regulations, our people receive no assistance from the Ministry to undertake their important role as Kaitiaki of the customary fishery. This situation is unacceptable. Ngāti Kahungunu requests provision for more information and

assistance to properly administer the customary regulations. Greater investment by the Ministry to support the capability of our Tangata Kaitiaki and customary fishers will improve the overall performance of the fisheries management regime. How is the Minister making sustainability decisions under the Fisheries Act, if he has no engagement process in place that meets his settlement obligations to Ngāti Kahungunu whanui?

Greater Collaboration Required

11) The current Ministry administrative regime could be more efficient and more cost-effective. There is a need for greater flexibility in the current fisheries management processes. There is also a need to improve the range of service delivery options. This can only be achieved through developing a better engagement model and a more collaborative consultation process with your commercial, customary and recreational partners and stakeholders.

12) The Government needs to actively support the growth of more seafood-related jobs across New Zealand, particularly in our Ngāti Kahungunu coastal communities. To achieve this, the Ministry for Primary Industries needs to work more collaboratively across government, so that resources are targeted at fostering growth in the fishing community.

13) The Ministry for Primary Industries needs to work collaboratively with agencies with resource management obligations, and with Iwi to improve our understanding of the environmental impacts, from land-based activities, on the fishery. We see the need for a greater understanding of the impact on fisheries recruitment within the estuarine and inshore areas from intensive land use activities. Access to an abundant inshore fishery is vital for our customary fishers and Kahungunu recreational fishers. Understanding why we are experiencing increasing levels of local area depletion, is a priority.

Greater Value Required

14) The Government needs to support the facilitation of higher value export products that are responsive to market demands, to help increase our export revenue, particularly improving a higher grade of seafood production. There is a need for greater Government support for the industry to improve the returns from more diversified products. Greater support is required to improve the value chain, from commodities to premium products, and from frozen to fresh products. Government agencies need to be more proactive in fostering Iwi growth in the fisheries sector to enhance our capability.

15) Improvements need to be made to the way TAC setting is undertaken. Greater information on recreational catch is required to improve overall TAC setting, and what happened to the discards working group? Solutions are required to reduce industry wastage. How can accurate TAC setting occur while we still have no accurate method of recording wastage?

16) The deemed value regime is a poor sustainability tool. A better system of managing over fishing is required. Over fishing reduces the value of our commercial assets and is detrimental to our customary fishing rights.

17) The cost recovery regime is inefficient. A more constructive method of paying for and administering fisheries services, such as compliance services, needs to be further developed.

18) Greater investment in research and innovation is required to improve harvesting efficiencies, and improve the grade of seafood being landed. We consider the limited investment in Area2 fisheries research to be inadequate, and consider the current stock assessment process to be unreflective of the research aspirations of Ngāti Kahungunu.

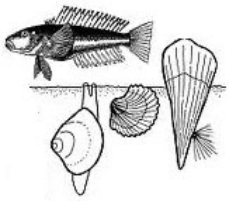
19) Finally, we believe the Government needs to be vigilant of its responsibilities for 'active protection' of the fishing settlement rights of Ngāti Kahungunu. We are concerned about the issuing of permits for deep sea oil drilling off our coast, and the potential risk an oil spill could have on our guaranteed fisheries settlement rights.

20) Ngāti Kahungunu Iwi Incorporated are supportive of other Ngāti Kahungunu Iwi, Taiwhenua and hapū organisations, submitting on this matter. Please ensure that all queries and further communication is sent to Jonathan Dick, Pouarataki/Director of Environment & Natural Resources at Ngāti Kahungunu Iwi Incorporated, E: s 9(2)(a)

We look forward to your response.

Nāku noa
Nā

Dr Adele Whyte
KAIWHAKAHAERE MATUA/CHIEF EXECUTIVE



SPECIALTY & EMERGING FISHERIES

s 9(2)(a) .

s 9(2)(a)

Andrew Hill,
Ministry for Primary Industries,
PO Box 2526,
Wellington 6140.

11th December 2015

Dear Andrew

Re: Fisheries Operational Review

This is a response to a call for feedback on the Fisheries Operational Review, which closes today. I have also responded to the on-line feedback facility, but that does not seem to record the exact details of who is making the feedback, nor allow much room to elaborate on some of the issues. Hence I have provided this letter providing more detailed feedback to you.

The Specialty and Emerging Fisheries Group currently represents stakeholders in the following commercial fish stocks:

ANG 11, 12, 13, 14, 15, 16
BCO 4, 5
LFE 20, 21, 22, 23
SFE 20, 21, 22, 23
SUR 1a, 1b, 2a, 2b, 3, 5, 7a, 7b, 8, 9
YEM 3

Please can you add the Specialty and Emerging Fisheries Group 9contact details as above) to your list of stakeholders on this process, for future consultation and submissions.

As a result of discussions with stakeholders in the above fish stocks, yourself (back in October), and the Christchurch "drop-in session", I am able to now provide some more detail on our concerns and feedback relating to this Review, and how it might affect commercial fishing rights and responsibilities. There are listed below:

1: Will the Review address recent ad-hoc Government announcements on spatial exclusions, such as the Hauraki Gulf Recreation-only Area, Kermadecs Marine Reserve and new legislation to allow a whole range of Marine Protected Areas?

MPI have said that the new Marine Protected Area (MPA) legislation is currently being drafted and is separate to the Review process. However, the MPA legislation and the Fisheries Act will need to be compatible, so it can be expected that the Review will make provision for the new MPA legislation. Considerable caution is required to ensure that this does not impinge on the current safeguards that ensure

commercial fishermen are not adversely affected by spatial closures. For example, presently there are legal safeguards which are preventing the gazettal of the Hauraki Gulf Recreation-only Area. This is a good thing, as the whole concept is nonsensical. Legal safeguards are essential to stop the ongoing spatial exclusion of commercial fishermen. There is considerable concern that the Review will seek to remove these safeguards.

2: Will decision-making continue to rely on science, or is public opinion going to have greater sway than at present?

MPI has said that the influence of the Working Groups on setting TACC's will be maintained. The science-based decision-making process will therefore be maintained for TACC's but not necessarily anything else. All decisions should be made on the basis of robust science, not "best available science" or "the precautionary principle", which are both cop-outs (regularly used by DoC) for not doing good-enough work.

There is little scientific data available for recreational and customary fisheries management. The Review should be looking at this problem.

3. Maximum Sustained Yield (MSY).

Currently, the Fisheries Act requires utilisation around MSY. However, there are other "targets" which could be used to substitute for MSY in certain circumstances, and for specific fisheries. Some fisheries do not support the MSY model, and Maximum Economic Yield (MEY) may be a better option. The Review should look at alternatives to MSY.

4. MPI's role in environmental protection

An issue which has been raised, especially by eel fisheries, is the Ministry's role in protecting fish habitats. This is essential for maintaining fisheries sustainability, yet MPI play virtually no role in advocating for fish habitats. It is largely left up to the individual fishers, and other government departments such as the Department of Conservation and Ministry for the Environment. This is a big issue for freshwater eel fisheries, as well as near-shore fisheries such as crayfish, paua and kina. The Review could look into requiring MPI to take a larger advocacy role in protecting fisheries habitats.

5. Public stakeholder forums and recreational fishing

There was some discussion on the Review providing more emphasis on "Te Korowai – style" public forums, where stakeholders (recreational, customary, commercial, NGO's etc) get together and thrash out their own management plan for a particular fishery of area. The success of the "Te Korowai" forum in the Kaikoura District was seen as something which could be emulated elsewhere. Recreational fishing will also be to the forefront of this Review. MPI should have a new initiative to consider "shared fisheries", with joint commercial/recreational fishing forums having a higher profile than at present.

6. MPI Fees, charges, loopy rules etc

There is some scope for the Review to address any situation where excessive fees or levies are charged, wastage of levied money, and rules/regulations which simply do not achieve anything. An example of this is the Conservation Services Levy. Currently, this money is paid to DoC, which uses it to fund research on species adversely affected by fishing. This is a complete waste of money, as DoC are unable to understand that conservation and utilisation do not conflict with each other. The effectiveness of their research is often questionable, and an alternative option is to have their fisheries money/research managed by independent research providers through MPI's (very effective) Science Working Group process.

7. Vessel Monitoring System (VMS)

MPI have signalled that VMS will be introduced around October 2016 for all commercial fishing vessels. The Review should look into whether this is necessary for ALL fisheries, especially those currently represented by the Specialty and Emerging Fisheries Group. VMS is unnecessary and probably unworkable for all stocks represented by the Specialty and Emerging Fisheries Group.

8. Easier rule-making/changes (upgraded system of regulations, decision rules etc)

There are opportunities for the Review to look at the introduction of easier mechanisms for making, removing and changing regulations. Also, there is an opportunity for more streamlined processes for closed areas/seasons etc and the implementation of decision rules for fisheries which have robust stock assessment and CPUE information.

9. Other government agencies' role in fisheries management

DoC and MfE are not seen as effective fisheries managers, but their influence in this field is growing. Regional Councils are also getting far too involved in fisheries management issues through the development of their coastal plans. The Review could look into requiring MPI to take a larger advocacy role in protecting fisheries habitats, and reducing DoC's, MFE's and Territorial Authorities' roles in fisheries management.

Summary and Conclusion

If you want this Review to provide any lasting improvement to commercial fisheries, then you will need to look at providing a stable investment platform for those who utilise the commercial fishery (i.e. fishermen, processors and markets). Currently, such stability is not happening because of the ad-hoc way in which decisions are made, and because non-science and bad science (especially from DoC) is being used to inform decision-making. The Review needs to look closely into these problems and deal with them.

If you would like any further information, please feel free to contact me, anytime, as above.

Yours faithfully

Bill Chisholm – consultant

SPECIALTY AND EMERGING FISHERIES GROUP

N Z RECREATIONAL FISHING COUNCIL

s 9(2)(a) [redacted]

[redacted]

11 December 2015

NEW ZEALAND RECREATIONAL FISHING COUNCIL

Submission on

The Fisheries Management System Review

Submission from Ted Howard on behalf of the NZ Recreational Fishing Council in consultation with the committee of the council.

Five themes

There are 5 themes to the review of the fisheries management system. These are about how to future-proof the system to ensure:

sustainability

benefits for all New Zealanders

decision-making processes

monitoring and enforcement

responding effectively to future challenges.

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

The output quota system is mostly working well.

The process run at Kaikoura (Te Korowai o te tai o Marokura) seems to have worked very well from a local perspective, but seems to have upset many people in Wellington, and now seems to be seen as a major threat by most central bureaucracies.

Taking the time, and putting in the effort, to build genuine understanding between all the interest groups, seems to have had significant gains in public awareness and behaviour.

Local area management, such as the subarea management used in PAU3 and CRA5, point towards effective ways of managing this shared resource that work for all stakeholders. Commercial extraction remains under the QMS, and as one gets closer to shore, the size of subareas reduces, as more of the stocks have a more significant local resident aspect to their lifecycle, and management at that level makes biological and social and economic sense. The deeper the water, the greater the degree of movement, and the more appropriate are large management areas.

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

The public are simply an interest group at present totally reliant on Government to look after our interests. If the Government wants to see public fishers become an active stakeholder group taking part in the collaborative management of our marine resources, then they need to assist in the development of independent and representative public organisations to facilitate the change.

CRA3 is an example of what doesn't work, and to be clear, it is not a whole of CRA3 issue, just an issue of extreme localised depletion close to Gisborne city.

1/ The models used for CRA3 cannot localise to historical data. It seems clear that the assumptions of spatial homogeneity fail at the scale of whole of QMA. The inshore area around Gisborne needs to be modelled separately, and other model constraints need to similarly be relaxed, if the model is to have any chance of accurately showing what is going on.

2/ Model outputs are not expressed in terms that make sense to most recreational fishers. Non-mathematicians need to see age and size class distributions (as numbers of individuals and % of biomass) if they are to make sense of what is happening. Current model outputs are available only to mathematicians.

3/ Past injustices prevent effective management. Commercial fishers experience the injustice of being shut out of the marine reserve area without compensation - thus they feel justified in pushing other things in their favour. Recreational fishers experience the injustice of the concession, which effectively gives over 80% of the males to commercial before recreational fishers get a chance (and thus feel justified in ignoring all inconvenient laws). What was agreed as a temporary measure has become permanent - so there is no trust between recreational and commercial or MPI. Conflicts between iwi are as strong as the conflicts between recreational commercial and MPI. A series of other issues going back to treaty issues raging since 1840 add further dimensions.

In a sense, it is a perfect storm.

DOC won't admit what is going on, because to do so would be against their dogma that marine reserves are good for adjacent fisheries, they cannot admit the role of the marine reserve in collapsing the fishery.

Cabinet and treasury won't admit it either, because to do so would open them for compensation claims in any future marine reserve in fully utilised fisheries.

Forest and Bird won't admit it, for similar reasons to DOC.

MPI can't deal with it, and doesn't want to admit it.

It is a perfect example of where the truth of the matter is not in the interests of most of the major players, and becomes the first casualty.

Until all players can acknowledge all the realities of all parties, no significant progress will be made.

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

Much more effort needs to go into building public awareness. The evidence is clear that, as a tool to change behaviour, laws only work effectively for about 20% of the population. For most of the rest, unless they can see both the need and the justice in those laws, the laws are simply ignored for the most part.

Complexity theory tells us very clearly that trying to put constraints on complex systems that are too rigid doesn't work - something will break. Social science tells us that as people are forced to stop using their common sense by laws that are inappropriate, then they stop using it elsewhere, and outcomes become significantly suboptimal very quickly.

Systems need to be flexible, and people need to be empowered and expected to make reasonable decisions based on the situations they face. The test of reasonableness needs to be paramount at all levels.

Blanket rules generally do not work well. People need flexibility to respond sensibly to changing conditions. That means using local knowledge. And finding a boundary between the need for consistency and the need for flexibility that works is as much art as science. It also means having

systems that really will catch and punish cheats when cheating is present, rather than punishing people who are breaking laws that were never reasonable, and never worked.

Better use of technology to gather information from fishers would help. Tools like SenseMaker (Cognitive-edge.com), to allow individual fishers (traditional, recreational and commercial) to write micro narratives and to self-signify what those narratives mean in real time, could give all sectors a more accurate picture of what is happening out there in the water.

Greater protection of bottom types that are sensitive to disturbance from the effects of bottom fishing methods - like keeping trawlers off most of the "soft foul" (coral and sponge and horse mussel beds).

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

How do you measure costs and benefits?

Money seems a poor measure. Money does not value things that are universally abundant, like oxygen in the air - arguably the most important thing for any human being, yet of zero monetary value due to universal abundance.

Markets (money) measures are a function of scarcity and demand. If scarcity falls to zero, there is no market value. There is no profit in abundance, only in scarcity.

So measuring costs and benefits in terms of money, while simple and convenient, rather misses the point if one is committed to delivering abundance.

New Zealand's EEZ is biologically capable of producing over 10 billion tonnes of biomass every year, current take is some 650 thousand tonnes. And there are many levels of very complex trophic and nutrient interactions present in those systems, some of which can easily enter into chaotic realms of behaviour.

We can do a lot better, and it won't make sense in terms of money.

Demands on the fisheries resource from all sectors, extractive and non-extractive, are likely to increase.

Over the past 30 years, the fisheries management system has come under increasing pressure as different interests seek increased benefits from the same resource. That can only get more complex. Our responses need to be creative and innovative, and not too tightly constrained by the past.

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

The major benefits need to be abundant fisheries, reasonable access and inclusive transparent consensus management involving all sectors together (building understanding and trust).

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

The QMS delivers strong benefits to corporate NZ, but is strongly biased against small scale operators. Simple statistics mean that the smaller the sample size (the smaller is one's total catch) the less predictable will be the makeup of that sample. Corporate interests deliberately prevented measure designed to make the system fair for all scales of operator, as a mechanism to force smaller operators to sell to the larger ones. It has been working, but a little more slowly than they had hoped.

There has been a general improvement in biomass in many fisheries, most noticeably the upper North Island snapper fishery, but those improvements in abundance have seen reductions in recreational bag limits. So there is a strong impression that the benefits are not being shared equally. And it is a complex reality. Improving abundance makes it easier to catch fish, which encourages more people to try - so it is a problem for management. And the recreational bags of my youth are a thing of the distant past (I saw my father bring in over 400 snapper from the Manukau harbour in one two hour fishing session). We used to often take 30 each. Numbers of people were lower then, and sounders and GPSs did not exist. It is a complex situation, and with better use of technology, it could be a much better understood and managed system.

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

There is a huge tension between the vast masses who have little money, and see their ability to catch a fish being removed (when recreational size limits are above commercial size limits), and those people who have a lot of money, lots of toys, and want to play with them.

Delivering equity in the face of such inequity is difficult (some would say impossible).

Equity (benefits for all) within fisheries is part of the question of equity within society more generally. That issue is not going to be addressed by this review, and it could be acknowledged.

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

Independent and representative public organisation(s) funded to represent public fishers interests in the collaborative management of our marine resources. Government funded and encouraged the commercial sector to coordinate and cooperate, through the Fishing Industry Board Act, and later through the commodity levies system. No such equivalent exists for recreational fisher organisations to gain funding to support a well-resourced group or groups to engage effectively with other stakeholders in a collaborative management process.

Make minimum size limits the same for both recreational and commercial sectors.

The relationship between cost of travel and local abundance virtually guarantees localised depletion around any fishing port, as it is cheaper and easier to fish locally for a little less, than to go further for a little more. And many factors around marketing and product quality make this effect even worse. Local management of inshore areas could help to reduce this effect.

There needs to be less reliance on commercial CPUE as a proxy indicator of stock health, and more focus on the age/size class distribution in the population. CRA3 near Gisborne city shows strong evidence that in years of normal recruitment, over 80% of the recruiting year class of males is harvested. This is not a sensible of ecologically stable way to manage a long lived fish like crayfish. Maximum take of any single year class needs to be closer to 30%.

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

The question kind of misses the point.

If you make something as abundant as oxygen in the air, then it has no value as measured in a market place. Yet most people ache for such abundance of things natural, particularly in the ocean.

That has to say something about the inadequacy of using market based measures of value.

Automation gives us the technical ability to deliver such abundance of a large and growing set of goods and services, but the concept of money works against it at many different levels.

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

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

The fear of losing votes mostly keeps the worst of political excess in check.

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

The loss of institutional knowledge from fisheries due to wholesale changes and staff changes has been a huge issue. MPI need an effective staff retention system that allows for effective knowledge and relationships to develop, while also allowing for new people at reasonable levels. The Te Korowai experience showed that effective relationships take about 5 years of monthly meetings to develop (building necessary trust and understanding – about 250 hours).

It was once accepted that going into public service had lower pay, but good job security. That has gone. We now face a situation where people either follow government policy (irrespective of scientific facts) or lose their jobs. And of course no one can admit that, as that would be against government policy, and they would lose their jobs (and I would not ask that of anyone).

Very few people in MPI now have much understanding of the realities or the complexity of fisheries, or the willingness to address the real issues we face.

Fisheries management is now more about politics and coded “newspeak” than it is about fisheries science, or about community benefit.

Commercial industry sees a substantial risk in the political influence of recreational fishers.

Recreational fishers see a substantial risk in the funding influence of the commercial industry.

There needs to be much more focus on cooperation for our mutual interest, which ultimately is the interest of a healthy abundant marine ecosystem (same for all sector groups).

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

Timely is only really an issue if things are going very badly, or in a few fishstocks that have very short lifecycles (like flatfish). These stocks may need agreed management procedures that can react quickly to trusted information. Building and reviewing trust levels is an important part of any management system.

Most fishstocks are quite long lived, and if managed conservatively, have several years of buffering capacity that allow for consensus management by sectors.

Becoming more effective and efficient means getting better information and making better use of the many levels of expertise that exist.

Modern smartphone technology gives us many opportunities to get much better information in real time, both about catches, and about things that individuals in all sectors see as important. We need to start making serious use of these tools. Sensemaker and FishForAll are two existing examples that could be much more effectively used.

Collaborative and open decision making processes supported by open and well-resourced science is the most effective way to achieve that.

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

If done well, benefits to all sectors should exceed costs.

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

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

For the most part, the Fisheries Officers and Honorary Fisheries Officers do a great job. They use some common sense to make the rules work in practice.

And there is always something of an evolutionary arms race between cheats and anti-cheating strategies. Elinor Ostrom got a Nobel in economics for her work around the sorts of boundary conditions that make such things work. To work effectively punishment needs to closely fit the crime. If punishment is either too harsh, or too lenient, then it will not work effectively (encourages repeat offending). Any punishment needs to accurately reflect the specifics of the situation. Blanket rules with upper and lower bounds do not work at the margins (while they may work politically for the majority in the middle – that majority is rarely the real problem).

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

Some Officers have no understanding of the gulf between legal systems and reality on the water, and apply rules in ways that are physically impossible to comply. Part of that is that we still have a lot of regulations that are simply bad law, have never been workable or reasonable, and people need to ignore them to get the job done safely.

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

The law needs to be workable and fair. Unfortunately, big chunks of it are not. As a result, there is disrespect for the law in general - probably too much so. One outcome is that anyone and everyone is subject to the vagaries of prosecution.

There needs to be a commitment to making laws workable in practice, and an open honest discussion of what is workable and what is not.

With the current laws, no one can be entirely truthful, as to be so opens oneself to prosecution.

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

It would be a reasonably expensive exercise to get the legal situation sorted out so that it was workable, and the longer term results should be worth the effort. When people experience the law as being fair and workable, they are much more likely to work cooperatively and never need to interact with it.

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

A massive increase in numbers and frequency of people wanting to go fishing.

Climate Change, with increasing variability in many aspects of the marine environment.

A total change in the economic system.

Sensor automation and megadata relating to an exponentially increasing set of ecosystem variables.

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

Better information, more open systems, more actual discussion of the real problems, rather than having to speak in code so that no one admits that what is happening now is breaking the law.

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

Justifying things in terms that measure value in scarcity, and devalue abundance, just does not make much sense. Markets and money made sense when most things were genuinely scarce. Now that automation and computers make it possible to produce a large and growing set of goods and services in abundance, measuring things in markets doesn't make as much sense as it used to. Money is becoming an increasingly less sensible measure of value. We need to start seriously investigating alternatives. The aspects of the Te Korowai process in Kaikoura can, in a very real sense, be seen as one such investigation.

If the fisheries management system works well over the coming years, what will the fishery look like in the year 2050? How will your experience of it have changed?

Fisheries will be abundant.

Enhancement will be pervasive, as automated systems monitor all aspects of the environment, and optimise as much as possible for productivity and diversity.

Currently most of the ocean is effectively a nutrient limited desert.

Recreational fishers will have strong and well-resourced voices in the shared management of fisheries.

Cooperation aimed at achieving shared values, at all levels and between all sectors, will be the dominant characteristic.

If there are any other issues or opportunities you would like to raise.

There is a major opportunity for massive raising of levels of awareness of the complexity of marine ecosystems and for more public engagement. And that process takes time and good facilitators.

An understanding of the strategic nature of evolution shows that evolving complexity is characterised by the emergence of new levels of cooperation. Axelrod showed that raw cooperation is always vulnerable to cheats, and so to be effective cooperative strategies require attendant strategies to remove any benefit of cheating (the simplest such class of strategies being the retaliator class). Wolfram has demonstrated the infinite nature of such cheating and attendant anti cheating classes of strategy.

What is clear is that if there is enough for all, then cooperation is always of benefit to all, and there will always be an evolutionary arms race between levels of cheating strategies and development of anti-cheating strategies – it seems the price of freedom will remain Eternal Vigilance.

We look forward to further engagement.

Yours faithfully

Ted Howard

President.

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Response to the Ministry for Primary Industries Fisheries Management System Review December 2015

1. Thank you for this opportunity to provide our response on the proposed Fisheries Management System Review noting that this review is wider than the expected operational review proposed by the Minister earlier this year. We would welcome further discussion on any proposals MPI may conclude from this round of submissions before formally proposing and consulting on changes to the fisheries management system.

2. Southern Inshore Fisheries Management Co. (SIF) represents 104 inshore fishstocks throughout the Fisheries Management Areas 3,5,7 & 8. In addition to representation and advocacy for shareholders the Company also invests in annual research projects and updates by approved service providers for key fishstocks (via a levy on shareholders) that are peer reviewed through the MPI science and technical working groups. This investment is over and above that already recovered from the same shareholders as part of the overall cost for services and management annual recovery by MPI and Department of Conservation.

3. SIF is a member of Fisheries Inshore New Zealand (FINZ) which is our sector representative entity to Seafood New Zealand (SNZ). Our following comments are based on a regional perspective of what may be happening and where improvements may be made. We support the submissions made by both FINZ and SNZ that address the reform at a higher level.

SUSTAINABILITY AND DECISION-MAKING

4. We believe our fisheries stocks are sustainable but the overall management framework and decision-making response mechanism needs a lot of improvement, especially at the regional level where our main involvement is.

5. For a number of years now MPI have made several attempts at developing fisheries plans (more often after an organisational restructure), with the most recent one from 2012 still in draft form. The continual changes to management frameworks has resulted in numerous delays in having stocks reviewed either due to the lack of staff resourcing or uncompleted fisheries plan formats.

6. The sustainability of our fisheries is being maintained in so far that the commercial component for SIF stocks are monitored by fine scale reporting and regular trawl surveys for the east and west coasts of the South Island. Regular analyses using this data are completed for a number of fishstocks providing a relative abundance and projected biomass. The review of our TACCs based on this information should just be a formality but the annual MPI review process is simply not well resourced nor a framework in-place monitoring these stocks. SIF does a more effective job than MPI in managing and monitoring our main stocks.

7. There are instances where MPI simply drop a TACC because of stock status concerns but there are no agreed fishery re-build plans providing management procedures or review of deemed values as stock status improves. Most of our fisheries are multi-species complexes and when a target or bycatch species status improves the TACC's are not reviewed respectively and industry are left to pay deemed values as avoidance in many cases is simply not that easy. Deemed values are reviewed separately to TACC setting which needs to be changed, as well as consideration given for regional deemed value setting.

8. However, alternatively where flatfish and red cod in QMA 3 are concerned there is an in-season model that is applied each year to assess the potential for a TACC increase based on commercial catch from the first three months of that current fishing year. Whilst some increased TACCs have been applied over the last five years in FLA3 and three years for RCO3 the timing of the decision-making for the increases is problematic. By the time the assessment has been done, agreed at a working group, sent to the Minister and passed by Cabinet the fishery season is either passed or fishers have had to move to other fisheries to complete catch plans for economic viability.

9. For example, RCO3 was reviewed by the working group in February/March and it was agreed that it could sustain an in-season increase to the TACC for 2014/15. A gazette notice was supposed to be issued in April but this was delayed (no reason given) up to at least four months, it was subsequently pulled because on review of catches at that late stage it was not being caught. Fishers are not going to target a stock on the presumption that a Minister will finally sign-off on the increase and then potentially incur deemed value on that stock if turned down even if the science proved otherwise. The delay should not have happened and the official should not have cancelled the notice when an increase could have been applied. We have expressed the need for static TACCs that would provide headroom for in-season events for RCO3 and FLA3 to be applied, but MPIs lack of resource and inability to act in a timely fashion restrict any pragmatism.

10. In respect of TACC changes, the majority of the inshore stocks have not been reviewed since their introduction to the QMS. Many stocks are deemed to be low-knowledge but this should not negate MPI from developing a low-knowledge framework for management of these stocks and review them so that they can be better utilised and not become limiting bycatch to our other target fisheries.

11. The recreational catch component is not well understood as there are no requirements for this sector to report other than when involved in recreational surveys which are very infrequent. On numerous occasions we have been told that a review of a TACC could not be made because MPI did not have accurate (or any) information on the recreational extraction. This should not happen in fisheries management.

12. The general public like to know that our fisheries are sustainable but there is a disjunct between what the commercial sector is cost recovered against and what should be deemed a 'public good' and therefore proportionally more Crown funded. An example of this is the cost recovery for the east and west coast South Island trawl surveys and the minimal amount that is Crown funded. These

surveys serve the public good by providing knowledge and assurance that our fisheries are sustainable. The cost recovery rules are therefore an area that needs a review.

13. One major thing lacking in our annual review and medium term research planning phases is the need for MPI science and management to meet regularly with industry to discuss fishstock reviews and planning. Currently SIF review our stocks and inform MPI of what projects we will be putting forward to the working groups or request for TACC reviews as early as November each year. The working group processes start in February/March and the Plenary meets late April generally. MPI however do not start looking at resourcing staff to cover the drafting of consultation papers until May which then becomes problematic. We have been told each year that MPI are unable to review many stocks because of resourcing issues. Resourcing should start in November/December each year when the indicative catch totals for the previous fishing year are available, requests are initiated by CSOs and final results from trawl surveys are presented to the working groups. Management needs to be pro-active and adaptive, or alternatively MPI allow industry to do the job required and simply provide a philosophy of reasoned support.

14. SIF believe that MPI need to take more of an active role in the current marine protected areas (MPA) process. SIF is a member of the Otago MPA process and MPI are represented at the officials table, and a member of the Governance group, but it is clearly a Department of Conservation (DoC) process. The impact on the commercial sector and erosion of property rights by continual spatial exclusion needs to be addressed by MPI more formally and vocally.

15. The MPA policy and standard is not the most appropriate way to designate marine protection simply based on habitat identification and selecting one of each of these to be within a Type 1 (marine reserve) or Type 2 level of marine protection. If there are areas of significance to fisheries management and crucial biodiversity in areas then that has to be discussed and explored more fully than the current ad hoc process. Forum members are led to believe in the first instance that anything is possible including more special legislation, but this is simply not the case when talking to MPI officials direct. The MPA policy and standard are the guiding documents and they are inappropriate in their current form.

16. When the Crown makes a decision that results in a loss of access for commercial fishing, the Crown should assess the value of displaced commercial fishing rights and 'rebalance' the system through an appropriate market transaction. These are spatial planning decisions that are over and above reasons for fisheries sustainability. Market transaction approaches include; compensation, adjustment assistance, and off-setting by re-opening other areas or enhancing stocks or habitats.

17. Commercial fishing has a proven footprint within the inshore fisheries and that has shown to be very productive for a number of years. It is that footprint and access to fisheries that has to be maintained and not minimised by emotive conjecture on effects of fishing by bottom contact fishing methods. Industry capture methods are continually evolving to meet the selectivity needs of our fisheries and when considering bottom contact to minimise drag and improve fuel efficiency.

SUMMARY

18. The above outlines just some of the issues that we experience at a regional level. A more conclusive outline is included in the FINZ submission which we provided information towards, and support.

19. An outcome for SIF would be to be able to address the regional or local issues in this current year. We do not believe that they need to wait for the conclusion of the Review as they are matters that are constraining management and ongoing utilisation of our fisheries and should be part of MPI fisheries manager's priorities and planning now.

20. In summary our key points are:

- The NZ fisheries management framework does not need fundamental reform just updating and amending to improve the performance and effectiveness of the overall management system;

- Property rights need to be recognised and not eroded by ad hoc emotive, reactionary and politically positioning decision making;

- Review the MPA policy and MPA bill so that marine protection is based on nationally significant habitats and habitats of significance to fisheries management rather than being influenced by minimal percentage closures or politically motivated closures being referred to as 'a bank of ocean space' for future generations;

- The requirement for MPI and other agencies and local authorities to work more closely together to address the land-based activities and catchment area sedimentation impacting on fisheries and the marine environment;

- Implementation of policy for rebalancing the loss of spatial access for commercial fishing through compensation, adjustment assistance or off-setting;

- Better defined cost-effective management objectives that are implemented in a timely manner (e.g in-season increases and review of TACCs);

- Devolution of decision making to fisheries managers and not to Cabinet for agreed management procedures initially signed off by the Minister;

- Meaningful discards policy based on information collected on total fisheries mortality, objectives to minimise bycatch, and a pragmatic release to sea and non-retention of unmarketable fish decision making process;

- Deemed value setting as a last resort to objective based management that optimises utilisation and sustainability measures set at appropriate levels.

- Regional collaborative deemed value setting process;

- Electronic monitoring that is based on fishery dynamics and a risk-based assessment;

- Review and update the cost recovery and penalty regimes so that they are more relevant to recent technology advancements, cross sector contributions for research and more fitting to the level of compliance required;

Contact: Carol Scott

AOTEAROA
fisheries limited

11 December 2015

Andy Hill
2015 Fisheries Management
Ministry for Primary Industries
PO Box 2526
Wellington 6140

By Email: fisheries.review@mpi.govt.nz

Martyn Dunne
Director General
Ministry of Primary Industries
Wellington

Tena koe Martyn,

Re: Operational Review of Fisheries Management Systems

Included with this letter is Aotearoa Fisheries Limited initial submission in response to the operational review of fisheries management. I would be pleased to present the submission to you and Minister Guy at a time convenient to the Minister. I have copied the submission to Andy Hill for inclusion in the submission process.

Naku na

pp. Simon P. Jones.

Carl Carrington
Chief Executive Officer

cc: Andy Hill, Laws Lawson

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Aotearoa Fisheries Limited Initial Submission in Relation to the Ministry of Primary Industries Review of Fisheries Management Systems

11 December 2015

Purpose

This submission has been prepared by Aotearoa Fisheries Limited (AFL) in response to the operational review of fisheries management systems (the Review) announced by the Minister of Primary Industries (the Minister) at the Seafood NZ conference on 19 August 2015.

AFL wishes to present this submission to the Minister.

1. The Review

The aim of the Review as stated on Ministry of Primary Industry's (MPI) website is "to ensure that it's (the fisheries management system) still fit for purpose and maintains sustainable fisheries for current and future generations"[1]. MPI's website describes the scope of the Review as "to think more broadly about our key processes, regulatory, and legislative settings" and "considering the changing needs of the people who use New Zealand's fisheries to ensure that our systems are best focused to sustainably deliver on those needs". The Review encompasses the New Zealand coastline, the Exclusive Economic Zone, and fresh water fisheries, focusing on wild catch fish and shell fish.

A number of matters are out of scope for the Review:

- Sustainable utilisation of fisheries resources as set out in Section 8 of the Fisheries Act
- The QMS tools (quota and annual catch entitlements)
- The rights of commercial quota owners
- The Crown's obligations under Treaty Settlements
- The rights and interests of tangata whenua, and customary management
- The right to fish for recreation

High seas fisheries are also excluded[2].

This submission addresses those components of NZ's fisheries management system that have the greatest bearing on AFL and which fall within the scope of the Review.

2. Summary of Submission

AFL is a major player in the NZ seafood sector and forms a significant part of the Fisheries Treaty Settlement. AFL's performance as a business, and the contribution that it makes to its Iwi shareholders, is directly linked to the management of NZ's fisheries and the performance of the Minister as fisheries manager. AFL has a demonstrated track record of commitment to the Government's Business Growth Agenda and the development of the Maori Economy. AFL has made investments in the order of $60m in new processing facilities, new

[1] https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/fisheries-management-system-review/future-proofing-fisheries-management/

[2] https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/fisheries-management-system-review/

harvesting technologies, new vessels, and building its brand in NZ and international markets over the past 4 years. The willingness of AFL's shareholders to support this investment is evidence of Iwi commitment to the sector and to enhancing the value of the Settlement.

AFL supports the view put forward by many commentators that the Fisheries Act 1996 and the Quota Management System (QMS) have created an outstanding framework for the sustainable management of NZ's fisheries and have facilitated the creation of real value for society as a whole. AFL agrees that a review of our fishery management systems is timely and considers that that there is scope for Government and fishery users to work together to implement improvements to our fishery management systems that will deliver greater value from our fisheries.

AFL is primarily interested in the management of the high value low volume inshore fin fish stocks, as well as paua and lobster, which support its earnings and which, in many cases, support high levels of use by recreational and Maori customary non-commercial users. AFL wishes to see these stocks managed so as to allow it to maximise sustainable profits at lowest risk. In AFL's view, profitability and sustainability are synonymous. Managing fisheries to support maximum sustainable profits for commercial users will also maximise the benefits available to other users (extractive or otherwise) of the same fisheries within agreed allocations. Sustainable profits are only possible if fish stocks are managed to generate a predictable and sustainable flow of harvestable fish, at or near the maximum sustainable yield for each stock, at efficient cost and to international standards of sustainability. For a variety of reasons this is not the case at present for those stocks of most importance to AFL.

AFL considers that there is a real opportunity to improve the effectiveness of our fisheries management system to generate higher levels of sustainable yield for all users at lower risk. Accountability for generating improvements must be shared by fishery users, MPI as fishery manager, and the Crown (or more specifically the Minister) as statutory decision maker. Commitment is required by all parties to move to a system of fisheries management that is based on clear fishery objectives set by fishery users, integrated fishery planning, responsive management of fishery operations, reporting of fishery outcomes, equitable payment for management services based on the performance of the manager, and clear accountability. This submission provides a high level description of an integrated fishery management approach and accountabilities for delivering fishery management which sit within the current legislation. The key to delivering successful change lies in lifting fishery users' confidence in MPI as fishery manager by addressing MPI's capability and creating an operating environment in which accountability is not confused with consultation and management is not confused with science.

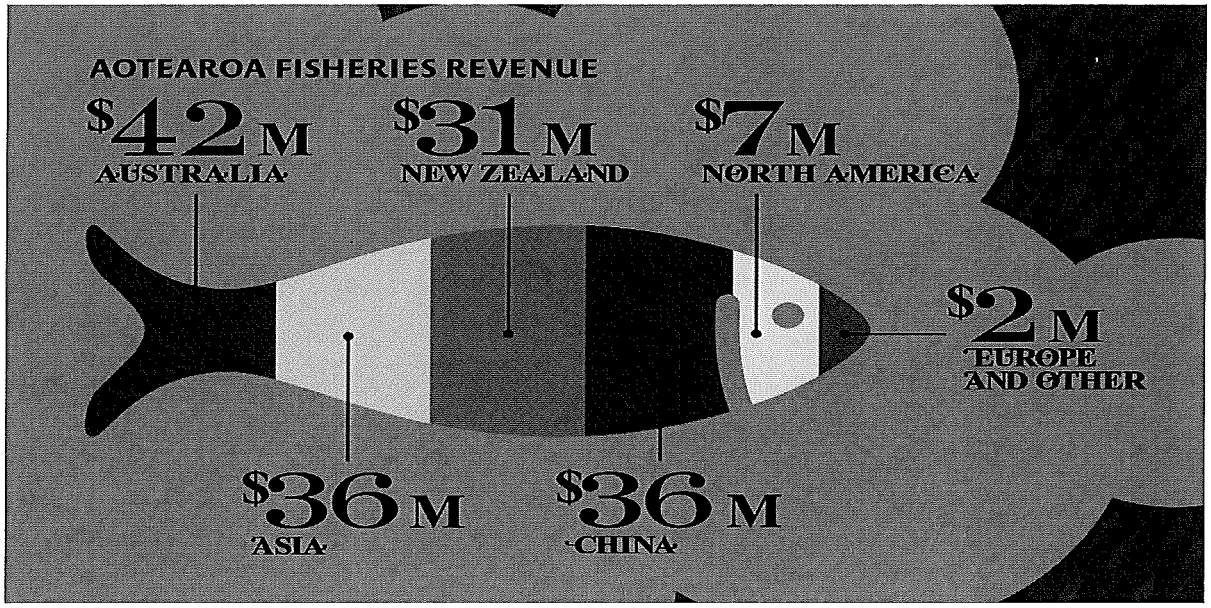
Like all businesses AFL manages risk and uncertainty on a daily basis including risks which can be addressed through effective fishery management and those which are external to the fishery management system. AFL operates in fisheries which are characterised by increasing levels of competition between utilisation sectors. AFL fully supports the shared use of fisheries but is deeply concerned at the complete lack of any mechanism for equitable decision making with respect to allocation between sectors. The current regime allows the Minister to transfer a component of AFL's future earnings, by changing allocations of the allowable catch or excluding AFL from fishing in an area or season, to another person without any of the commercial negotiation on price and terms that would normally accompany such a transaction. The potential expropriation of profits undermines AFL's ability to attract funds for investment in the development of its business and needs to be addressed.

AFL is concerned that the long term sustainable profitability of its business is being eroded by degradation of the marine environment as a result of the damaging effects of activities on land and non-fishing activity in the marine environment. Government has a statutory duty to advocate for and deliver effective protection of fishery productivity in local and central Government planning processes.

This submission is unashamedly focused on what is good for AFL. However AFL considers that what is good for AFL will also be good for all users of our fisheries, commercial or otherwise. Lifting the flow of sustainable utilisation benefits from our fisheries will lift the wellbeing of all New Zealanders.

3. Aotearoa Fisheries Limited

AFL is 100% Iwi owned with all Iwi recognised in the Fisheries Settlement holding shares in the Company. AFL was established by the Maori Fisheries Act 2004 to hold a number of businesses and assets then previously by the Treaty of Waitangi Fisheries Commission. Since formation AFL has grown its business through a combination of performance improvement, rationalisation and replacement of assets, and acquisitions. AFL is now the leading player in the inshore finfish, paua, and farmed oyster and farmed paua sectors and is a leader in the live lobster sector with its Iwi partners in Port Nicholson Fisheries. The company operates processing facilities in Auckland, Whitianga, Coromandel, Palmerston North, Wellington, and Waitangi on the Chatham Islands. AFL markets fresh, live, and processed seafood and other food products to customers in all parts of the world as shown below[3].



AFL owns approximately 10,500 t ACE equivalent of quota with an approximate market value of $0.4bn[4]. The company's quota portfolio includes holdings in all high value inshore stocks, orange roughy, lobster, and paua. Harvesting is undertaken by a number of privately owned family fishing businesses operating out of ports around the country and on the Chathams. AFL is the country's largest oyster farmer with water space in the Marlborough Sounds, Coromandel, and Northland and operates NZ's largest commercial paua farm at Bream Bay in Northland.

AFL reported a profit of $22m in the year to 30 September 2014 and has paid total dividends of $32.2m to its Iwi shareholders since inception in 2004. AFL's annual report for the year to September 2014 can be found on the company's website at http://www.afl.maori.nz/documents/AFL_AnnualReport_2014_Web_Final.pdf

[3] Aotearoa Fisheries Limited Annual Report 2014, page 8

[4] Quota volume and value excludes quota held by the Pupuri Taonga Trust

AFL is committed to the sustainable management of its business at all levels. AFL's sustainability policies cover its people, commitments to the community and Iwi, harvesting and processing operations, and guardianship of our natural resources, refer to http://www.afl.maori.nz/documents/AFLSustainabilityStategy281114.pdf.

4. Importance of MPI Fisheries Management to AFL

AFL is required by Section 61 of the MFA to manage its assets in a commercial manner and buy Section 76(2) to pay dividends of at least 40% of its net profit after tax to its shareholders. AFL's ability to pay dividends and to manage its assets in a commercial manner is directly linked to the success of MPI's management of NZ's fisheries. AFL's value to its shareholders, and its ability to pay dividends, derives directly from its ability to generate current and future earnings from its investment in quota.

AFL's ability to generate sustainable earnings is a function of a range of fisheries management factors including:

- The total allowable catch (TAC) and total allowable commercial catch (TACC) from each of its quota stocks
- AFL's ability to optimise catch by species and quality to market conditions on a daily basis
- The effects of constraints on fishing operations on catch, efficiency, cost, and product quality
- The direct and indirect cost of fisheries management
- The acceptability of AFL sourced product in local and international markets

Fisheries management drives uncertainty in AFL's future earnings reflecting:

- The potential for changes to TACs
- The degree of conservatism built into allowable catches to offset uncertainty in stock information
- The effects of new technology on the cost and efficiency of fishing and fisheries management
- Uncertainty of future costs of fisheries management
- Changes in allocation of the allowable catch between commercial and other fishers
- Reduced access as a result of spatial, time, and method segregation in favour of other users and uses
- Reduced productivity as a result of environmental degradation

The value of AFL to its Iwi shareholders will increase as sustainable earnings increase and as the risk of adverse changes to earnings decreases. Higher earnings and lower risk create an environment in which AFL's shareholders will be more willing to continue to support AFL's strategy of investing for future growth. AFL's cost of borrowing is directly linked to the lenders perceptions of risk. AFL enjoys favourable borrowing terms reflecting the value of quota as collateral and the positive trend in AFL earnings from its quota investment. It is essential for AFL that NZ's fisheries management regime supports stability of access and expanding availability from sustainably managed fisheries.

AFL is a strong supporter of Government's Business Growth Agenda and initiatives to grow the Maori economy. AFL has completed, or has committed to, investments in the order of $60m over the past four years in the seafood sector that will directly contribute to growth in export earnings and growth in regional economies and employment. These investments include:

- New processing facilities in Palmerston North to produce shelf stable food products including canned abalone
- Construction of a new export processing facility at Whitianga
- Expansion of its pacific oyster farming capacity in Marlborough, Coromandel, and Northland and investment in genetic improvement of oyster stocks and production of hatchery spat
- Participation as one of the three industry partners in Precision Seafood Harvesting
- Founding investor in researcher and fishery management systems developer Trident Systems LP

- Commitment to funding its fishers into a new class of inshore trawler
- Upgrade and expansion of its Auckland fresh fish processing facilities
- Expansion of its abalone farm facility at Bream Bay
- Construction of a new lobster export facility in Auckland
- Construction of a new export processing facility at Waitangi on the Chatham Islands
- Launch of a new brand family Moana NZ
- Participation in trade missions to China with other Maori exporters

AFL is committed to working with its Iwi shareholders to grow their investment in the seafood sector through joint initiatives such as the ICP Joint Venture and Port Nicholson Lobster and by adding value to Iwi sourced ACE. AFL's commitment to investment in the sector is underpinned by sustainable management of NZ's fisheries. In AFL's business model profitability and sustainability are synonymous.

The fisheries management regime created by the Fisheries Act 1996 (the Act) is unique in the primary sector in that the Minister and the Chief Executive of MPI have direct statutory responsibility for operational management of fisheries. AFL is consulted on fisheries management decisions but is only involved at an operational level through day to day catch management, compliance with rules set by the Minister, and contributions to cost through cost recovery. AFL's success as a business is directly dependent on the Minister's and Chief Executive's success as fisheries managers. AFL is accountable to its shareholders and its success is measured in sustainable profits and dividends. Iwi view AFL and its assets as Taonga. Provisions in the MFA mean that Iwi cannot sell their investment in AFL if the company's performance is held back by the Minister's capability as a fisheries manager.

The Minister is accountable to a broad range of fisheries constituencies and his or her success is ultimately measured at the ballot box. This Review represents a unique opportunity to achieve better alignment between these two quite different value systems. More efficient fisheries management will deliver better outcomes for all New Zealanders whether they are fishers or part of the majority of people who enjoy their fish fresh from the supermarket, confident in the knowledge that it has come from a sustainably managed New Zealand fishery.

5. AFL and the Settlement

AFL is a Fisheries Settlement entity. The importance of AFL's contribution to the value of the Settlement was affirmed by the findings of the 2015 Review[5] and subsequent decisions taken by Iwi in relation to AFL's ownership structure, governance, and role as partner to Iwi in the seafood sector. The value of AFL to Iwi and hence the value of a significant component of the Settlement will be directly influenced by the outcome of this Review. It is not possible to rule that changes to the Crown's Treaty obligations are out of scope when in practice anything other than careful minor changes to the fishery management regime will alter the value of Settlement assets, including AFL.

It is AFL's view that it is inappropriate for the Crown to trivialise the Review and its potential to affect the value of the Settlement to Iwi by characterising it as "Pulse check". If the Review is a serious attempt to improve the effectiveness of NZ's fisheries management system, then it must be undertaken in depth and with the expectation that improvements are possible. If the Crown's view is that the fisheries management system is basically OK, then it would be better not to raise expectations of change and risk devaluing the Settlement by tinkering. It is AFL's view that significant improvement is possible to the benefit of all users of our fisheries.

6. Status of Fisheries Management

NZ fisheries management is an amalgam of the requirements of the Act, regulations made under the Act, and MPI's implementation of the requirements of the Act. AFL shares the view expressed by MPI that "New

[5] Independent Review of Maori Commercial Fisheries Structures under the Maori Fisheries Act 2004, Tim Castle, 2014

Zealand's fisheries management system is sound"[6]. AFL agrees with views expressed in the submission of Seafood NZ on behalf of the whole industry (the SNZ Submission)[7] that the Act and QMS have produced remarkable results for NZ. NZ fisheries are, by and large, managed sustainably. MPI report in The Status of New Zealand Fisheries 2014 that "By the end of 2014 83.6% of our fish stocks of known status were above the soft limit" (as defined in the Harvest Strategy Standard)[8].

The SNZ Submission provides a comprehensive description of the evolution of NZ fisheries legislation and the QMS and describes how ownership of quota and the ability to freely trade in quota and Annual Catch Entitlement (ACE) have provided powerful incentives for commercial fishers to support stable and sustainable management of fisheries. The QMS has evolved since its introduction in 1986 to the point that the current Act provides a sound framework for fisheries management. Table 1 provides, for reference, a summary of the fisheries management schema established by the Act.

Table 1

Fisheries Act 1996 Fisheries Management Schema		
Part	**Fisheries management function**	**Principal decision maker**
Part 2	Lays the foundation for management of NZ fisheries by providing for utilisation and requiring sustainability, protection of the environment, and proactive management using the best available information.	
Part 3	Establishes a sustainability regime targeted at management of individual fish stocks to produce maximum sustainable yield by setting stock specific total allowable catches and by the implementation of sustainability measures to regulate the use of fish stocks. Provides for the development of fisheries management plans to guide the sustainable management of single or multiple stocks for all sectors over multiple areas and time periods.	Minister
Part 4	Lays the foundation for the utilisation of fisheries by the commercial, recreational, and customary sectors by requiring that the TAC be allocated to a TACC and allowances for the recreational and customary sectors for each stock. Provides for the generation of ACE based on quota ownership, sets out restrictions on quota ownership, and provides for deemed values to encourage fishing permit holders to manage catch to ACE held.	Minister
Part 6	Requires that all commercial fishers hold a fishing permit.	Chief Executive
Part 9	Provides for Maori non-commercial customary management of designated areas.	Minister
Parts 11,12,13	Provide for policing and enforcing utilisation and sustainability rules through observers, broad rights of investigation, and penalties including fines, forfeiture of assets, and imprisonment. Authorises the NZDF and Police to be fisheries enforcement agencies.	Chief Executive
Parts 14, 15A	Establishes the basis for sharing the cost of fisheries management between the Crown and others and for outsourcing of services, other than those functions that must be performed by the Minister, to Approved Service Delivery Organisations. The Crown must pay for those services that cannot be attributed to an individual or class of individuals. Only those individuals who benefit from or have given rise to a fishery or conservation service may be charged for that service.	Minister
Part 16	Provides for making regulations to, amongst a huge range of other matters, control fishing and processing and to deliver sustainability measures.	Minister, Chief Executive
All the above	The Minister is required to consult those classes of people likely to be interested in a decision on those matters that require Ministerial action including sustainability measures, utilisation and allocation decisions, deemed values, and cost recovery measures.	Minister

[6] https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/fisheries-management-system-review/

[7] Initial Seafood Industry Contribution to Fisheries Management Review 2015/16: **Creating Value Beyond Sustainability**

[8] "The Status of New Zealand Fisheries 2014", Ministry of Primary Industries, February 2015.

Despite the sound basis for fisheries management in NZ, AFL agrees with the Seafood NZ submission that there is room to create additional value beyond simple sustainability. AFL is primarily concerned with management of the high value low volume inshore fin fish, rock lobster, and paua stocks that make up most of the value of its quota portfolio. AFL shares the view of Fisheries Inshore NZ (FINZ) expressed in its submission that these stocks, especially inshore fin fish stocks, have been less well served by the QMS and have been relatively "under managed"[9]. There are numerous avenues for improving the success of MPI's management of these stocks, without the need to make major changes to the Act, by focusing on MPIs management structures and processes rather than the legislation.

7. Delivering Value from Fisheries Management

In AFL's view the primary objective of fisheries management should not be simply to satisfy the minimum criteria of the Act but to go beyond this to achieve objectives set by the users of each fishery through integrated planning and management of fisheries operations. AFL's specific requirements are to access a predictable and sustainable flow of ACE, at or near the maximum sustainable yield for each stock, from its quota holdings from fisheries which are managed at efficient cost to international standards of sustainability by a fishery manager that is accountable to users of the fishery. Fisheries management as currently practiced across those stocks held by AFL only partially satisfies this objective.

The Fisheries Act 1996, despite having 370 Sections across 17 Parts and 16 Schedules, does not contain a definition of fisheries management or any requirement that fish stocks be managed to a plan, despite containing provisions that specifically permit the development of fisheries plans[10] and which require the Minister to take many actions and decisions that collectively amount to fisheries management. The absence of any formal requirement for fisheries plans, coupled with broad requirements to consult, has given rise to a fisheries management system that is disjointed, inefficient for users of fisheries and MPI as fisheries manager, unresponsive to changing circumstances, cost rather than value driven, and which is largely devoid of management accountability[11].

NZ fisheries management should be focused on meeting the objectives of fishery users. To achieve this outcome our fishery management systems and process must be focused on:

- managing fisheries rather than individual fish stocks. A "fishery" should be defined as those fish stocks which are utilised as a single economic unit
- achieving a compatible set of agreed economic, utilisation, sustainability, cultural, and environmental objectives for each fishery which reflect the goals of the primary users of the fishery
- formalised planning to deliver the agreed objectives through specific, costed, time bound plans against which the fisheries manager can be held accountable
- management of fisheries operations at a physical scale and to time frames geared to the fishery to deliver the fishery plan, including the collection of management and fisheries performance data and the enforcement of the rules and regulations required to achieve plan outcomes
- operationalisation of fisheries data collection, analysis, and stock status reporting
- formal reporting of fishery management outcomes including catch, fisheries status, management cost, compliance, and the performance of the manager
- performance based payment for management services
- independent certification when required by the commercial users of the fishery

[9] Fisheries Inshore New Zealand Response to the Operational Review of the New Zealand Fisheries Management Framework, 11 December, 2015

[10] Fisheries Act 1996, Section 11A

[11] There are draft National Fisheries Plans for Inshore Finfish, Inshore Shellfish, and Freshwater Fisheries all dated July 2011 and an approved Plan for Deepwater and Middle Depth Fisheries also dated 2011 published on the former Ministry of Fisheries website. The most recent annual operating plan, required by each Fisheries Plan, for any of these fisheries is dated 2012. Hardly a record of commitment to fisheries planning.

Fisheries management should be an integrated process that occurs on a continuum from the daily decisions made by individual fishers (commercial, recreational, or customary non-commercial) on where, when, and how to fish through to decisions that impact all users of a fishery such as setting and allocating allowable catches. Integrated fisheries management requires decision making in time frames ranging from real time to long term. Decision making should be responsive to the requirements of the fishery rather than the requirements of information providers. Information collection and analysis is an operational function of fisheries management, not "science" or "research", and should be driven by the scale, value, and status of the fishery.

Fisheries management is not just about managing fish stocks. The ultimate purpose of fisheries management is to maintain and if possible to increase the value of the fishery under management to the users of the fishery. Fishery management decisions should be economically rational, based on factual analysis of the costs and benefits of specific actions, with costs shared equitably across users of the fishery, including the Crown as representative of societal good. "Cost recovery" seriously misconstrues the purpose of charging for services. Fishery users should pay directly for services on the basis that the services are efficiently delivered and are required to deliver agreed fishery plans. Payment for services should be conditional on service performance.

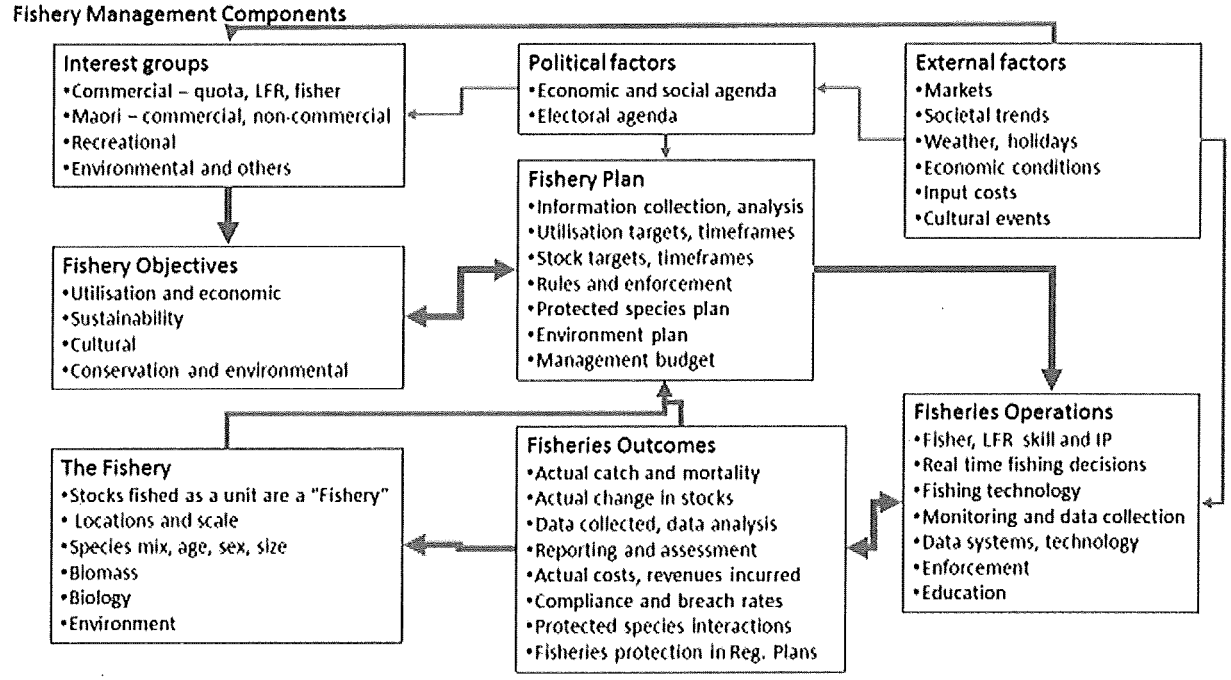
Fisheries management does not take place in a vacuum. Fisheries management decisions will reflect factors that are external to the fishery and its users. Changes in market conditions and prices influence the species and quantities targeted by commercial fishers on a daily basis. The introduction of new technology will influence the efficiency of fisheries information collection, fishing operations and the ability of fishers from all sectors to target their catch by species and size. Political considerations will continue to impact fisheries management decisions including allocations between utilisation sectors, whether by changing allowances or spatial or temporal segregation.

Good fisheries management need not be based on exhaustive consultation provided the primary users of the fishery are directly involved with the manager in setting fisheries objectives and plans. Consultation is not a surrogate for accountability and cannot take the place of professional management. Confidence in the manager is a prerequisite to confidence in fisheries management outcomes. The fisheries manager must be:

- highly regarded as a competent professional manager
- able to enforce fisheries decisions
- held to account for the delivery of fisheries objectives
- subject to independent audit and verification to accept standards of performance
- paid fees based on the specific costs of the services provided to the users of the fishery

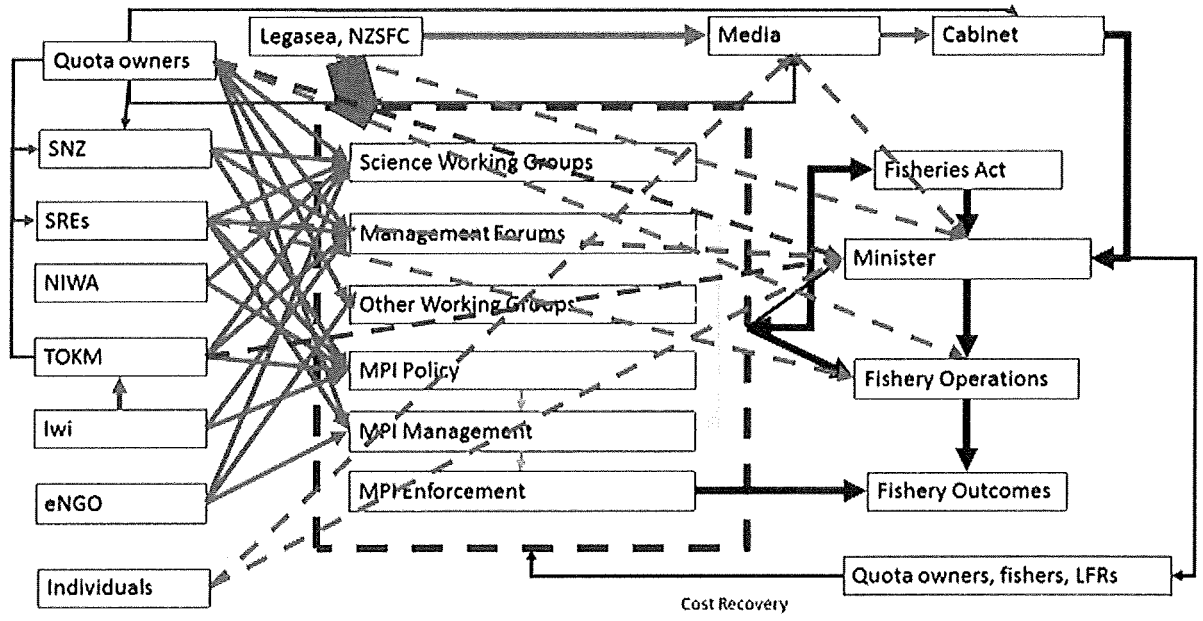
The main components of fisheries management discussed above, and the linkages between them, are illustrated in Figure 1 below:

Figure 1
Fishery Management Components



Current fisheries management arrangements, particularly for inshore fin fish, deliver some of the components but little of the integration shown in Figure 1. Current institutional arrangements for managing fisheries, depicted in in Figure 2 which if anything understates complexity, are a response to the specifics of

Figure 2
Fishery Management Organisation Status Quo



the Act, successive reorganisations of fisheries management agencies including industry representative bodies, resourcing, the number and diversity of groups with an interest in fisheries management outcomes, and a politicised and litigious decision making environment that lacks accountability. It is not surprising that MPI is unable to deliver the integrated and responsive management required to deliver the outcomes that AFL and others are seeking.

8. What Must Change

The Act is in effect an outsourcing agreement between quota owners and other fishery users and the Crown for the supply of fisheries management services. Unfortunately, as described in Section 7, the "agreement", while containing all the essential components, is not well structured and does not deliver clear standards of performance and accountability between client fishery users and MPI as service provider. The fact that the "agreement" is multi-client creates further complexity for MPI as it must balance competing requirements across its client base.

In AFL's view the key to improving the value delivered by MPI's management of NZ's fisheries lies in developing a common understanding of what constitutes fishery management and designing our institutional arrangements to deliver on the common understanding. The outsourcing agreement between the users of a fishery and MPI as manager should be crystal clear.

Accountability for Fishery Management

Figure 1 of Section7 sets out AFL's view of the main components of a fishery management system. The issue then is to define how the people and organisations involved in delivering and using fishery management services should work together to deliver responsive integrated fishery management. Accountability for fisheries management is not just a matter for the Crown. Accountability is shared between users of the fishery, the manager, and the Crown. AFL's view of these accountabilities is:

Fishery Users

Fishery users fall into four main groupings i.e. commercial (quota and permit holders), recreational, Maori customary non-commercial, and the Crown representing the wider interests of society in non-utilisation fishery outputs. The fisheries in which AFL has the highest economic interest are shared fisheries attracting high levels of interest from all four groups. Fishery users are accountable for four major components of fishery management:

- setting and committing to objectives for the fishery. Fishery users may need to organise themselves into representative bodies to facilitate the process of setting objectives. Commercial users have representative bodies in place for many fisheries. Recreational and Maori customary non-commercial fishers may need assistance and funding to establish appropriate bodies for some fisheries.
- managing their day to day use of the fishery in response to external factors and in compliance with rules required to achieve agreed fishery objectives including restricting utilisation to agreed allocations. There should be no room for freeloaders, fishers from any sector who benefit by refusing to adhere to rules governing their fishing activity whether the rules are voluntary or regulatory.
- assisting the Crown to satisfy its obligation to consult with fishery users in an efficient manner
- paying for services

Fishery Manager

The Fishery Manager, who might also be a fishery user, is accountable for achieving the objectives set by the fishery users which entail:

- setting objectives for the fishery in conjunction with fishery users
- developing fishery plans to achieve the objectives
- ensuring that objectives, plans, and services are compliant with the requirements of the Act
- managing fishery operations, including the collection and analysis of information, to deliver the plans
- enforcing compliance
- reporting on the status of the fishery and adjusting objectives, plans, and services as the fishery and external factors require

- reporting on its performance as manager against standards identified in the fishery plan
- charging for services based on actual services delivered and performance standards achieved

The Crown

The Crown is a participant in fisheries management as a user, manager, and as the statutory decision maker on a wide range of matters. The Crown's accountabilities as a fishery user and as fishery manager are defined above. The Crown's primary accountabilities as statutory decision maker are to:

- act on the advice of fishery users and the manager when making decisions that must be made by the Crown in relation to a fishery (for example setting the TAC for those stocks included in a fishery)
- act as arbitrator on those matters, including allocation of the available catch, that the fishery users cannot agree between themselves when setting objectives for a fishery
- organise its fisheries management resources into a single, identifiable, efficient, dedicated, single purpose, fishery manager
- pay for those fishery management services that it uses as a fishery user including those services provided for the benefit of society as a whole
- advocate for New Zealand fisheries and fisheries management in all forums of central and local Government and on the international stage.

Overall Accountability

The Crown as both fishery manager and statutory decision maker must have overall accountability to fishery users for the successful management of each fishery. Successful management means attainment of agreed objectives for each fishery for the benefit of fishery users. Accountability means public reporting of the outcomes of the Crown's management against internationally accepted performance standards.

Institutional Arrangements to Deliver Accountability

Current institutional arrangements, refer Figure 2, do not deliver effective fisheries management or accountability. In AFL's view changes should be made to increase the chances of fisheries management meeting the expectations of fishery users. Institutional arrangements should:

- Facilitate the process of setting objectives for a fishery that are agreed by all fishery users
- Provide flexibility for fishery user involvement in management
- Enforce accountability on the manager, fishery users, and the Crown
- Reflect differences in complexity, scale, and value between fisheries
- Include the Crown as statutory decision maker and as sudden death arbitrator between fishery users

AFL's requirements of NZ's fishery management institutions are to access a predictable supply of ACE from fisheries that are managed to deliver their maximum sustainable yield at efficient cost with costs shared equitably across all users of the fishery. AFL's requirement to be invloved in fishery management, either directly or through industry bodies, reflects factors ranging from the importance of the fishery to AFL, the complexity of the fishery and the extent of cross sector interest in the fishery, the ability to have a material impact on fishery management decisions through involvement, AFL's confidence in the manager, and the practical ability of fishery users to hold the manager accountable.

At present AFL is more inclined to seek involvement than to be hands off reflecting the current lack of accountability in the management system. A single approach to incorporating these requirements into fishery management institutional arrangements is unlikely to be possible or desirable. Appendix 1 presents

two possible approaches reflecting differing requirements for direct fishery user involvement in fishery management. AFL would be pleased to discuss these concepts with MPI.

9. Fishery Management and Risk

As noted in Section 4 the value of AFL as a commercial entity is a function of earnings and risk. Risk primarily relates to those factors that create uncertainty in AFL's future earnings. NZ's fishery management regime has a major bearing on AFL's business risk through decisions that:

- reduce certainty of access to fishery resources and the predictability of allowable catches from those resources
- reduce flexibility to manage fishing operations and technology to optimise short and long run returns
- impose unanticipated costs on the business through changes in levies and taxes and restrictions on permitted activities
- erode the value of fisheries through the effects of marine and land based activity that degrade the capacity of the marine environment to support commercial fish stocks

The high cost of uncertainty to fisheries users from all sectors is illustrated by the propensity of users to challenge fishery management decisions in the courts if decision process (generally following months of consultation and "engagement") did not deliver their expectations. AFL's primary concerns are with uncertainty over access, stemming from allocation decisions and decisions to close areas of a fishery to commercial utilisation, and uncertainty over long term productivity as a result of degradation of the marine environment. Uncertainty with respect to movements in the TAC, costs of fisheries management, and operational flexibility can be managed through improvements in fisheries management processes and accountabilities as discussed in Section 8.

Loss of Access

The Minister, when setting the TACC, is required to make allowances for the recreational and Maori customary non-commercial catch and other fishing related mortality, in effect to allocate the total allowable catch across the utilisation sectors[12]. The Minister's allocation decisions have a very material bearing on the value of shared fisheries to each utilisation sector, especially in those fisheries where commercial and recreational utilisation are converging e.g SNA1. Changes in allocation between sectors that do not maintain proportionality immediately result in value transfer between sectors. The issue is compounded by the potential for the benefits created by the actions of one sector, for instance a planned under-catch by commercial fishing interests to build abundance, to be transferred to another sector and the difficulty faced by the fishery manager in managing non-commercial catches to the appropriate allowance.

Allocation changes also arise through differential restrictions between sectors on spatial and temporal access to a fishery or the closure of areas to all commercial fishing. Not all closures result in an absolute reduction in potential catch however all restrictions reduce fishing efficiency and increase cost. Unexpected closures such as the recently announced Kermadec Ocean Sanctuary and the use of Marine Protected Area legislation to create recreational fishing parks add to the general sense that access to fisheries is subject to significant uncertainty. This issue is compounded by an emerging trend for Local Government and an increasing number of Central Government agencies to become directly involved in fisheries management.

Allocation between sectors lies at the heart of managing fisheries for the benefit of "all New Zealanders". The Minister is required to allocate access, however, the Act does not provide any guidance to the Minister

[12] Fisheries Act 1996 Sections 20 to 23

on the allocation process. AFL agrees with the SNZ Submission that while the Act provides for allocation of the TAC between sectors it does not provide any framework for making the allocation in a rational manner. In essence allocation decisions either go unnoticed because they are de minimus in effect, are resolved through the Courts or, increasingly, the media, an approach that is unlikely to maximise benefits for all New Zealanders.

From AFL's perspective the issue is straight forward at a commercial level. AFL cannot be certain that its current level of earnings is sustainable, reducing its capacity and appetite for investment, and ultimately increasing its cost of funds employed, all of which reduce the value of the business. Loss of access to a fishery as a result of reallocation by any means other than with AFL's agreement is an expropriation, without payment, of AFL's future profits to benefit another person, a process more usually encountered in cases of fraud and theft.

Under normal circumstances such a transfer would involve a "willing buyer willing seller" negotiation of price and other terms and conditions satisfactory to both parties. AFL does not want a compensation regime for expropriated earnings. AFL's preference is for expropriation to stop and for normal commercial rules to be introduced for transfers of catch entitlements between sectors. For instance conversion of the recreational fishing allowance to ITQ which, although it would pose some challenging practical issues, would allow the market for ACE and ITQ to extend to most of the allowable catch. Catch entitlements could then flow to the optimal solution for all users of the fishery, the "highest and best use" solution discussed in the SNZ Submission, based on willingness and ability to pay. In the absence of market allocation, competing utilisation sectors will continue to fall back on the "unalienable right to go fishing" argument which, while it is true for Maori, is definitely not true or relevant for other people. The argument is more about how much fish a person is allowed to catch than whether or not they can fish at all.

Environmental Degradation

Fisheries, particularly inshore fisheries, are impacted by land and marine activities that cause reduced fishery productivity. In the long run potential loss of productivity through environmental degradation, including the effects of global warming, creates more uncertainty for AFL's business than any specific fisheries management issue. The Crown is the only entity with the reach and resources to materially reduce the risk of substantial long term loss of earnings from fisheries as a result of environmental degradation.

AFL's view is that MPI as the Crown agency responsible for ensuring the sustainability of fisheries has a statutory duty to engage directly in all local, regional, and central Government planning processes to secure the protection of fisheries from the adverse impacts of non-fishing use of the marine environment and terrestrial land use. Individual fishery plans as discussed in Section 7 and 8 must contain specific objectives and plans to protect the long term viability of the fishery from environmental degradation. Fishery users, including AFL, have to be accountable for minimising the environmental effects of their operations. AFL is committed to managing its operations in a sustainable manner, refer to Section 3.

10. Benefits

It is one thing to assert that change is necessary, it is another to quantify the benefits that change will deliver. The improvements to NZ fishery management described in this submission will generate incremental rather than step changes in fishery performance. The first benefit from the review process must be to lock in gains already banked and to not make decisions or changes that are likely to result in reductions in the value of NZ fisheries.

The value of AFL will increase as earnings (current and future) increase and risks decrease. Earnings will increase as a result of higher volumes, higher prices, and lower costs. The cost of risk will decrease as future earnings become more certain. Improvements in value from implementing the types of change

discussed in Section 8 will be cumulative as individual businesses and individual fishers benefit from improvements in fishery management. Table 2 provides examples of the types of actions which could be made possible in a shared fishery by implementing the changes discussed in Section 8 and the type of benefit that they might be expected to generate.

Table 2

Examples of sources of benefit from improved fishery management				
Action	Benefit type			
	Volume	Price	Cost	Risk
Bundled TAC reviews for associated stocks	Y			
TAC review periodicity driven by value	Y		Y	
Fisher managed localised closures to avoid subMLS	Y			
Artificial restocking	Y		Y	
Recreational fisher catch targeting app	Y		Y	
Market based daily change in MLS		Y		
Provenance based branding		Y		
Direct purchase of services			Y	Y
Commercial / recreational catch balancing				Y
Reduced consultation			Y	

Quantifying the scope and extent of benefits will be a challenge. AFL does not have access to the information or resources required to quantify the monetary and wider social utility benefits these types of actions are likely to deliver. AFL would be willing to work with MPI and fishery user groups (commercial and recreational) to develop an estimate of benefits in support of the case for the changes put forward in this submission.

11. Implementation

In this submission AFL has presented its views on those aspects of NZ's fisheries management system that could be changed to enhance AFL's profitability and value as a business on the premise that what is good for AFL will, cumulatively across all fishery users, increase the wellbeing of all New Zealanders. The changes proposed by AFL do not require rewriting the Act, in fact AFL agrees that the current Act provides the core elements of a world class fisheries management system.

AFL is focused on working with MPI to improve the efficiency of our fishery management institutions and processes so that MPI can become a highly successful fishery manager. Successful fisheries management translates into business growth for AFL. Irrespective of the management model adopted the key success factor is MPI's ability to deliver as a professional fishery manager. AFL does not consider that this is the case at present as a result of continuous change in organisation and staffing and allocation of effort to initiatives in a relatively ad hoc manner:

- MPI fisheries management staff have been subject to almost continuous reorganisation. As a result there has been progressive loss of experienced staff and high levels of staff turnover. It is not possible to deliver professional management without staff with the appropriate skill, experience, and motivation.
- MPI's organisation does not support fisheries management. Staff are scattered across multiple functions and locations which do not facilitate good management. Staff that were previously dedicated to fishery management may now have multiple responsibilities.

- loss of experienced staff has allowed service providers to capture undue influence over the collection and analysis of fisheries management information and fisheries management decision making under the guise of "science".
- fisheries management activities have become bogged down in protracted consultation processes so that straightforward decisions are delayed and key processes, for instance fisheries planning, annual operating plans, and reports remain uncompleted.
- despite expenditure of $78m[13], fishery management appears to be under resourced when judged by the timeliness and efficiency of fisheries management services as evidenced by the issues canvassed in the submission of FINZ.
- various initiatives proposed by industry, for instance the FINZ Six Point Plan for Inshore Fisheries[14], remain largely unprogressed.

Implementation of the proposals put forward in this predicated on progressive improvement in MPI's ability to perform as fishery manager which will require a review of MPI's fisheries management structure covering organisation, resources, core skills and capability, and budgeting coupled with an international search to find and recruit experienced and capable fisheries management staff.

The process may be facilitated by the establishment of a Fisheries Management Agency as a Crown Entity, independent of the policy and statutory decision making functions of MPI, governed by a Board drawn from fishery users and the Crown, and subject to the usual commercial disciplines applicable to all commercial service providers. The Agency would undertake the Crowns fisheries management functions under the Act following the models discussed in Section 8 of this submission.

12. Conclusion

AFL's success as a business is directly linked to the effectiveness of NZ's fisheries management system. AFL requires access to a sustainable supply of ACE from its quota holdings to maintain its earnings, its ability to pay dividends to its shareholders, and to support continued investment in the growth of its business. AFL agrees with the view expressed by MPI and others that the Fisheries Act 1996 and the QMS have delivered outstanding benefits for all New Zealanders from our fisheries. AFL also agrees with the SNZ Submission that further gains are possible by improving the efficiency of fishery management systems. AFL considers that this can be achieved by:

- establishing a common understanding of what fishery management encompasses
- placing accountability for developing objectives for fishery management on the users of the fishery
- holding MPI as fishery manager accountable to fishery users, including the Crown on behalf of society as a whole, for the attainment of agreed fisheries objectives
- maximising the ability of fishery users to optimise their use of fisheries within agreed fishery plans and rules
- enforcement of compliance by all fishery users with fishery plans and rules to eliminate freeloading
- paying for fishery management services based on negotiated fees for delivery of agreed fishery plans contingent on actual performance
- adopting institutional arrangements that create appropriate accountabilities and allow for fishery user participation in the delivery of management services

AFL has put forward for discussion alternative institutional models for delivery of fishery management which deliver clear accountabilities and accommodate different levels of fishery user participation in the

[13] MPI Annual Report 2014/15, p75 and76, Statement of Departmental Expenses and Capital Expenditure Against Appropriations

[14] A Six Point Plan for Inshore Fisheries, Fisheries Inshore NZ, 2015

delivery of management services. Successful delivery of improvements in fishery management outcomes, irrespective of the model adopted, is contingent on lifting MPI's capacity and capability as fishery manager.

AFL's value as a business reflects uncertainty in its future earnings. The risk of loss of future earnings as a result of loss of access to ACE from AFL's quota holdings through reallocation or long term reduction in fishery productivity is real. AFL strongly advocates a move away from Ministerial largesse to a commercial model to facilitate trading in catch entitlements between sectors and Crown acceptance of its statutory duty to secure protection of fishery sustainability in local and central Government planning.

This submission is specifically focused on AFL's views and requirements however AFL agrees with the SNZ Submission that improvements in the performance of commercial fishery users is indicative of improvement in the value of fisheries benefits avaiable to all New Zealanders.

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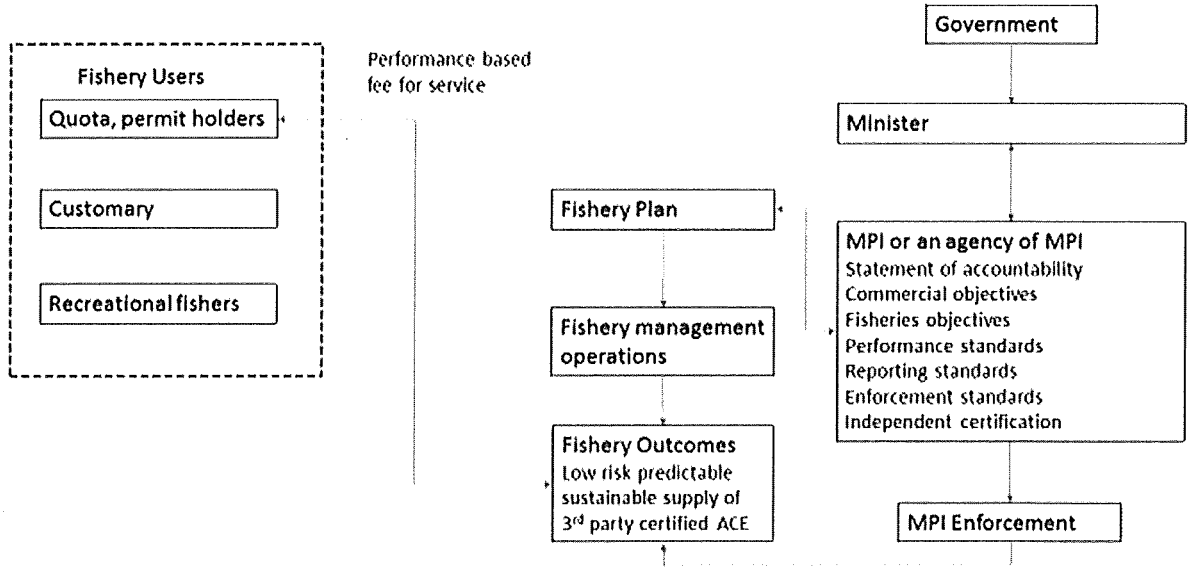
APPENDIX 1
FISHERY MANAGEMENT INSTITUTIONAL ARRANGEMENTS

Two models are presented, representing opposite ends on a continuum of increasing fishery user involvement in management. The first model, Contract Management, assumes that individual fishery users wish to treat the supply of fishery management services as a standard commercial service requiring negotiation of the terms of supply but limited involvement in provision of the service other than to take delivery i.e. to have minimal direct involvement in fishery management other than running their own operations and complying with rules governing the fishery. The second model, Joint Venture Management, assumes that individual fishery users wish to be directly involved in the business of fishery management in conjunction with all other fishery users.

1. Contract Management Model

AFL relies on many suppliers of good and services to successfully operate its businesses. AFL has contractual arrangements with its major suppliers that set out AFL's and the supplier's respective obligations for the supply of a specified service and consequences for failure to supply. In most cases AFL, for instance with respect to the supply of air freight services, does not involve itself in the business of its suppliers but relies on the supplier to manage delivery of the service in a competent, efficient manner in compliance with the terms of the supply agreement. In some cases, for instance the supply of chilled landed snapper, while the degree of integration is higher, the fisher remains accountable for the management of his fishing operation. Figure 3 sets out a pathway for bringing the same disciplines to the delivery of Fishery Management services:

Figure 3
Fishery Management Institutional Arrangement Contract Management



- Fishery user accountabilities and MPI's accountabilities as fisheries manager are described in broad terms in Section 8.
- A commercial fishery user's interest is in receiving a low risk, predictable, supply of sustainable, possibly third party certified, ACE supported by the information required to demonstrate

sustainability to its customers with the flexibility to manage fishing operations in response to changing market and other external conditions.

- In return a commercial fishery user will commit to paying its share of management costs, subject to the fishery manager's performance, and to managing its operations in compliance with the fishery plan. The fishery manager would be required to enforce compliance on all fishery users to protect the capacity of the fishery to supply the TACC and other catch allowances.
- The commercial fishery user will rely on the fishery manager to develop an agreed fishery plan that satisfies the requirements of all fishery users to the greatest extent possible based on direct negotiation with all fishery users.
- An individual commercial fishery user would not need to engage with other fishery users other than to negotiate changes in access to the allowable catch to the extent that the fishery manager is unable to resolve competition for access.
- An individual commercial fishery user would not need to be involved in the detail of fisheries planning and operations management other than to negotiate management fees but would rely on the fishery manager delivering the approved fishery plan to an agreed level of performance.
- The fishery manager would be accountable for obtaining statutory decisions required to implement the fishery plan. All fishery users would agree to facilitate statutory decision making by agreeing that participation in the Contract Management arrangement constituted adequate consultation.
- The consequences for an individual commercial fishery user (or a fishing permit holder using ACE) of failing to meet its obligations are codified under the Act.
- Defined consequences would be required for breaches of the fishery manager's performance standards and targets.

All fishery users would participate in the fishery in the same manner, either directly or through representative bodies.

Contract Management imposes standard commercial disciplines on the relationship between fishery users and the manager. Negotiation of fisheries objectives, management accountabilities, and fees will force clarity into performance standards and required outcomes for all parties. The nature of the relationships will focus attention on efficiency, cost management, and performance but will tend to reduce flexibility and adaptability as management processes become standardised to reduce cost.

The Contract Management approach is based on MPI fulfilling the role of Fishery Manager. Implementation would require dismantling the consultative bodies and processes currently operated by MPI, relying on the development of the contract management arrangement for each fishery to deliver effective consultation, organising MPI fisheries staff to deliver as fishery manager, and building capacity and capability to deliver to a higher standard of accountability. The approach accommodates MPI outsourcing components of the management service to third parties including groups of fishery users depending on the nature of the fishery and fishery objectives.

The approach will not be successful if fishery users do not have confidence in MPI's ability to deliver as fishery manager or if MPI is not able to manage the process required to deliver effective management. The model also relies on the bodies representing groups of fishery users being mandated to make and enforce decisions on behalf of their constituencies and on the fishery manager being able to enforce agreed fishery rules.

2. Joint Venture Management Model

Joint management implies a process of joint development of fisheries objectives and plans involving direct collaboration between fisheries users and the fishery manager. There are examples of joint management such as the National Rock Lobster Management Group (NRLMG) and the most recent Memorandum of

Understanding between the DeepWater Group and the then Ministry of Fisheries signed in 2010. The SNA1 Strategy Group, a multiuser group established by the Minister following a fractious review of SNA1 management settings in 2013, has just (8 December) completed 24 months of discussion to develop a jointly agreed plan for management of the SNA1 fishery.

Joint venturing is a standard approach to achieving efficiencies between businesses with aligned interests and operations. The basis for the joint venture, its purpose, and rules of operation are usually documented by contract between the joint venture parties. The contract sets out the obligations between the parties and the consequences for breach. The commercial joint venture model can be applied to fishery management as shown in Figure 4.

Figure 4
Fishery Management Institutional Arrangement Joint Venture Model

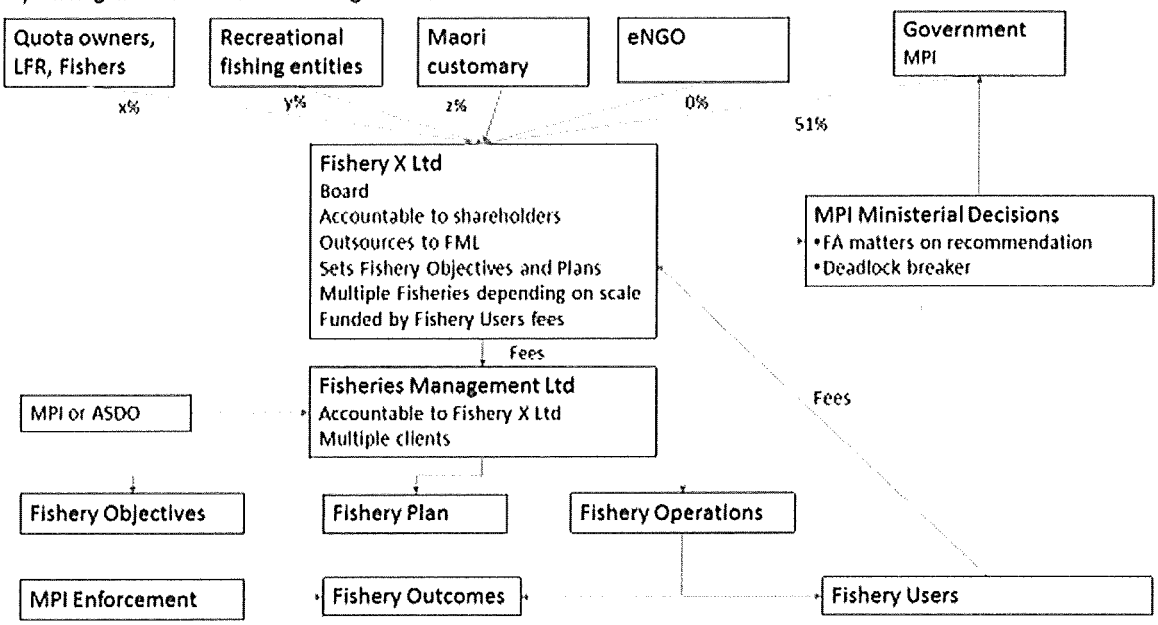


Figure 4 assumes a joint venture between the commercial, recreational, Maori customary non-commercial, and social (represented by the Crown and an eNGO) interests in a fishery or collection of fisheries. The joint venture would operate according to the following principles:

- The parties would own shares in Fishery X Limited which would be accountable to them for the management of Fishery X and potentially other fisheries in which the parties have an interest.
- The Crown would hold the majority of shares in Fishery X. The remaining shares would be allocated equally to representative bodies for each of the utilisation sectors. The Board of Fishery X would be appointed by the shareholders in proportion to shareholding. Board decisions would be unaniminous.
- Fishery X would be responsible for setting objectives and approving plans for each fishery under its management. Fishery X would outsource the delivery of fishery management to a Fishery Manager, either MPI or a third party ASDO under the Act, subject to the same performance criteria as would be the case under the Contract Management model. The fishery manager would be accountable to Fishery X for the delivery of the agreed fishery plan and objectives for each fishery. The fishery manager would need powers to enforce fishery rules. This would be the case if MPI is the fishery manager but would need to be addressed if the manager were a third party either by MPI remaining in the enforcement role or by legislative change to allow the members of Fishery X to set and enforce fishery rules.

- Fishery X would charge users of the fisheries under its management a fee for service and would in turn use the funds collected to pay the fishery manager. Payment of fees would be subject to performance.
- The Crown would retain its role as Statutory Decision Maker, acting on advice received from Fishery X. Advice received from Fishery X would be deemed to satisfy the Crown's obligation to consult on decisions made in its role as Statutory Decision Maker. The Crown would also act as deadlock breaker in the event that the parties in Fishery X were unable to reach agreement on any matter.
- Participants in Fishery X would need to be in a position to organise and fund participation and to meet their obligation to pay fishery management fees. Non-commercial participants are likely to require Crown assistance to fund participation and fees.

The Joint Venture management model delivers clear accountabilities for fisheries management but places the primary accountability for negotiating and setting objectives for a fishery on the users of the fishery rather than on the fishery manager (MPI) as would be the case under the Contract Management model. Joint objective setting is desirable for shared fisheries but has generally been difficult to achieve in practice. The NZ Sports Fishing Council's submission on the April 2015 review of sustainability measures for Rock Lobster[15] demonstrates a degree of frustration with the NRLMG processes for receiving, considering, and adopting recommendations despite the representative nature of NRLMG membership.

The joint venture approach is equally applicable to fisheries that have limited or no recreational or Maori customary non-commercial use. Fishery X would become a quota owner fishery management vehicle with continued Crown involvement representing society's utilisation of the fishery for nonextractive purposes. The fishery manager could either be MPI or a management body owned by quota owners.

Joint management will only be successful if the representative bodies holding shares in Fishery X are able to make decisions on behalf of their constituencies. There is little point setting up a joint management structure if the Crown is still required to run broad consultation processes and is forced into the role of decision maker on a regular basis to resolve deadlocks between the parties.

As is the case for the Contract Management model, the underlying requirement for delivering improvements in fisheries management is improvement in the effectiveness of the manager. Implementation will require MPI to organise its resources to be able to deliver the required level of professional management.

3. SNZ Submission

The SNZ Submission provides a detailed discussion of the merits of devolution of components of fishery management services to quota owners under Authorised or Approved management arrangements with the Crown. AFL agrees with the view expressed in the SNZ Submission that MPI's management of fisheries to provide for utilisation and to maintain sustainability underpins the value of fisheries to all New Zealanders. AFL supports the concept of quota owner engagement in fishery management as a means to delivering the accountabilities set out in Section 8 of this submission. The management models discussed above are compatible with the proposals contained in the SNZ Submission in that they:

- Focus on enhancing status quo management by MPI to create a platform for the implementation of Authorised and Approved management

[15] NZ Sport Fishing Council submission on the review of Rock Lobster sustainability measures for 1 April 2015, 18 February 2015

- Create structures within which Authorised or Approved management can be implemented in a manner that reflects the extent of shared use and management of a specific fishery