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17 March 2019

Submission: Fisheries Change Programme

A response to *Your fisheries – your say*, Fisheries New Zealand Discussion Paper 2019/02, February 2019. FNZ's paper includes "*proposed changes to policy settings and rules to ensure more efficient and sustainable commercial fishing*". New Zealand Sport Fishing Council and Legasea have fully engaged in consultations on the Fisheries Management System Review (2015) *The Future of Our Fisheries* (2016) proposals. Many of the serious failures in the current fisheries management system have not been discussed or addressed and probably can't be addressed by the Ministry for Primary Industries or Fisheries New Zealand. That is why we will continue to advocate for an independent public enquiry into the fisheries management system. We have engaged with our members and supporters in the limited time available at this time but will continue an analysis of the issues and encourage people to offer feedback as they come to grips with the implications of the current proposals.

Recommendations

1. That the Minister acknowledges the wider fisheries management issues that need to be addressed then establishes a Royal Commission of Inquiry into the Quota Management System (QMS) and the principles of managing New Zealand's fisheries resources for the benefit of the nation.
2. The only effective means to address discards and dumping of catch is comprehensive camera monitoring of catch and an increase in resources for fisheries compliance.
3. That Fisheries New Zealand (FNZ) place more emphasis on the overarching requirement to rebuild depleted inshore fish stocks to levels that reflect contemporary best practice, in line with the first objective of *Future of our Fisheries (FOOF)* '*Abundant fisheries in our seas and a healthy aquatic environment*'.
4. That conventional bulk harvesting methods such as trawling, purse seining and Danish seining be phased out of inshore waters to protect vulnerable habitats and juvenile fish. This is essential for any meaningful progress on ecosystem based management fit for the 21st century.
5. FNZ must make provision for trawl and Danish seine fishers to record cod end net mesh size and shape for each fishing event.
6. The removal of all commercial minimum legal sizes is not needed. The Minister must delay making any changes to minimum legal sizes or catch limits until a proven, fully implemented onboard monitoring programme is operational and there is a reporting requirement to include all species returned to the sea.

7. If the Minister decides to review some size limits Fisheries New Zealand must undertake a comprehensive and transparent process to evaluate the potential impact of removing the minimum legal size on productivity of each species on a case by case basis.
8. The minimum legal size and the option of releasing live fish under the provisions of Schedule 6 must be retained for kingfish.
9. Before a minimum legal size (MLS) is removed there must be adequate at-sea monitoring and enforcement in place and there must be regulations requiring the sorting and separate reporting of catch above and below the old MLS for each fishing event.
10. If a minimum legal size is removed an alternative system that ensures accurate reporting of fish smaller than the existing MLS and removes the incentives to high grade catch would be needed. A landing charge or deemed value be paid to the Crown per kilo of small fish landed must be applied.
11. These small fish would not be landed against Annual Catch Entitlement (ACE) and an increase in Total Allowable Commercial Catch (TACC) would not be needed.
12. Once a baseline of the proportion of fish less than the existing MLS is established, improvements in fishing practice that reduce the proportion of small fish caught could be measured by species and an increase to TACC could be made.
13. A measurable reduction in illegal dumping or other illegal sources of fishing related mortality must not be used as a justification for increasing the TACC.
14. If the Crown is able to reduce mortality from illegal activity that portion of the Total Allowable Catch (TAC) could be set aside as research quota, held by the Crown to be used to bring the research cost of fishery independent surveys down.
15. Management procedures based on commercial catch per unit effort (CPUE) must not be used for inshore fisheries including rock lobster.

The submitters

16. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the current proposals to change the management of New Zealand's commercial fisheries, with submissions due 17 March 2019. The discussion document was released on 4 February 2019 giving a consultation timeframe of about 30 working days. This time frame has allowed only limited consultation with local recreational interests and clubs. There is little detail about how changes will be implemented and enforced.
17. The New Zealand Sport Fishing Council is a recognised national sports organisation with over 35,000 affiliated members from 55 clubs nationwide. In 2012 the Council initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment, as well as to encourage people to help resource the NZSFC engagement and participation in marine fisheries management, marine protection, advocacy, research, education and alignment. On behalf of our members, LegaSea Partners, Sponsors, contributors and supporters we, together, are 'the submitters'.
18. The submitters are committed to ensuring that sustainability measures and environmental management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996, including "maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations..." [s8(2)(a) Fisheries Act 1996].
19. Our representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from this review and would like to be kept informed of future developments. Our contact is Helen Pastor, secretary@nzsportfishing.org.nz.

Introduction

20. The discussion document was released on 4 February 2019 giving a consultation timeframe of about 30 working days. On 25th February, 21 days after the surprise and rather rushed launch of the consultation, the NZSFC Fisheries Management Standing Committee circulated a [Preliminary View](#). The feedback received and subsequent discussions have informed this submission. Officials are well aware that for much of February and March matters of this nature are the last thing many caring people wish to deal with - as evidenced by the abysmal attendance record of the MPI roadshow. We note how fundamental these reforms are to an output control driven fisheries management regime aimed at Maximum Sustainable Yield. We also note the unfair and inadequate consultation time frame. To that end, whilst this Council will submit on time (Sunday evening, 17th March) this will be the first time for many people to really understand what is being consulted upon. We will encourage people to offer feedback and/or copies of their submissions. It is expected that the NZSFC Fisheries Management Standing Committee will offer officials the benefit of this ongoing inclusive process we have with our members, supporters and aligned organisations.
21. This process has gone through several stages. In August 2015 the Minister for Primary Industries announced the Fisheries Management System Review to look broadly at key fisheries management processes, regulatory and legislative settings. It was an opportunity to review new technology and society's expectations of how fisheries management operate to ensure it continues to deliver for all users. NZSFC took this opportunity to [submit](#) where we discussed some of the key failing in the QMS and how it was implemented.
22. A year later the Future of Our Fisheries (FOOF) documents were released for consultation with a vision of "Abundant fisheries and a healthy aquatic environment that provide for all our people, now and in the future." The NZSFC made a [comprehensive submission](#). Four objectives were listed in the FOOF:
 - Abundant fisheries in our seas and a healthy aquatic environment.
 - Everyone plays their part in managing New Zealand's shared aquatic resources.
 - Everyone can share fairly in the social, economic, cultural and environmental benefits of our aquatic resources.
 - The fisheries management system is widely trusted in New Zealand and internationally.
23. Since then the Ministry of Primary Industries and Fisheries New Zealand have begun phasing in the Integrated Electronic Monitoring and Reporting System (IEMRS) on all commercial vessels and have amended the fishing regulations to allow new trawl gear such as the Precision Seafood Harvesting cod ends.
24. The overall objective of the current process is less clear and changes proposed will make little difference to how fishers operate without further steps to ensure compliance and better record keeping. It is not clear whether the Future of Our Fisheries objectives still apply.
25. It is clear from the submissions made to FOOF and lobbying since then that a large part of the industry has categorically dismissed having cameras on board for any purpose. Some industry leaders are on record as stating there will be a Supreme Court challenge to any regulatory proposals to install cameras on their vessels.
26. With that in mind we remain sceptical that effective monitoring at sea can be introduced in a timely manner. The use of electronic monitoring to enforce rules around how catch is to be sorted on deck and reported appears to have been replaced by a dependence on incentives and voluntary compliance to address long standing problems with both legal and illegal discarding and dumping.

27. Articles in the scientific literature have separated out dumping of unwanted catch into the following categories for analytical purposes (Catch Reconstruction 2016, p.35)
- Intrinsically unmarketable, valueless, or low value
 - Physically damaged
 - Less than the minimum economic size
 - Oversized
 - Degraded
 - Lack of hold/refrigeration space
 - Incompatible with target species
 - Uneconomic catch quantity
 - Quota induced
28. The variety of reasons that catch is discarded or dumped can, to a large extent, be conflated to sorting catch to provide the greatest economic benefit to the fisher. If MPI is serious about using incentives to modify current discard/dumping practices, then it must confront the underlying dilemma of incentivising a fisher to operate against his/her economic self-interest. The entire structure of the QMS is based upon the belief that with strong perpetual rights fishers' self-interest will conform with the efficiency and sustainability purpose of the system and compliance will be high.
29. What is being confronted is the demonstrated failure of using incentives to achieve high quality sustainability outcomes as the fisher is incentivised to use each catch in a way that maximises the value of the total catch for that trip, regardless of longer term sustainability costs. The FNZ Fisheries Change proposals largely ignore the Deemed Value regime that has been the primary tool for resolving excessive catch, yet analysis of that regime would be a valuable addition to the information base for these latest proposals.
30. It is obvious that there is a strong element of predetermination with these proposals, suggesting changes to landed catch and reporting, increased TACCs and freedom to pursue Maximum Economic Yield (MEY). Industry objections have forced the proposals away from monitoring and enforcement towards incentives and freedoms.
31. The only incentive that regulates dumping is the ability to be detected and prosecuted. In recognition of this basic reality most Northern Hemisphere jurisdictions have either fully developed onboard monitoring systems or are in the process of rolling them out. The Food and Agriculture Organization of the United Nations (FAO) has a programme to provide equipment and training for those jurisdictions that lack capital and/or expertise to fully implement electronic monitoring.
32. Without an explicit intention to implement onboard monitoring as the primary means of managing catch limits and discards/dumping these current discussions in New Zealand around incentives, discard rule changes, increased TACCs, and penalty provisions are pointless. Once again we must go through the charade of consultation when the decisions are already made.
33. What is reflected in this process is the complete capture of Ministers by the MPI/FNZ and Industry partnership. Dave Turner and Nathan Guy had resolved to implement a fully formed IEMRS package and had made considerable progress. A change of Government introduced a policy that followed and supported IEMRS, alongside greater concerns around the efficacy of the QMS.
34. There was a one year pause as MPI/FNZ and Industry unwound the advances made and convinced the new Minister that the full IEMRS package represented an unacceptable intrusion into fishing

practices and that discarding/dumping issues could be dealt with by changing incentives and rules, and that cameras would be unnecessary in a world of flexibility and additional ACE. It's ironic that New Zealand stands alone with this view and others with a genuine intention to manage discards and dumping have concluded that monitoring and enforcement must form the basis of management.

35. MPI/FNZ stated purpose of change from the discussion document

"1. Amending the commercial fishing rules that set out what fish must be brought back to port and what fish can be returned to the sea. The current rules are complex for fishers, open to interpretation, and can be difficult for fishers to comply with and for Fisheries New Zealand to monitor. These proposals aim to simplify the rules and better incentivise good fishing practice.

2. Ensuring an effective and fair offences and penalties regime. We need to ensure the offences and penalties regime reflects any proposed changes to the landings and return-to-sea rules, so they are fair and appropriate.

3. Streamlining the decision-making process for setting catch limits. Decisions on catch limits could be made more quickly, using the improved information from electronic reporting. This could be done in a way that better focuses on the long-term goals for fisheries. We would also like to look at how we might streamline management decisions to support catch limit adjustments (for example, measures such as closed areas, seasonal closures and gear restrictions).

4. Technical fisheries management changes, while technical and mostly minor in nature, are important to improve the functionality of the Fisheries Act 1996 and ensure it is fit for purpose. The proposed changes are:

- better estimating the other sources of fishing mortality;*
- a range of technical fixes to the Fisheries Act 1996."*

36. Definition of terms.

- a. In this submission we do not use the term "land all catch". The reality there will always be some catch going over the side such as sponges, echinoderms, molluscs, crustaceans etc. and protected species.
- b. The changes to retention of catch in the discussion document relate to finfish only and there are plenty of non-QMS species with no commercial value that can legally be returned to the sea.
- c. 'Discarding' is used in this submission to refer to finfish that can be legally returned to the sea.
- d. 'Dumping' is used for finfish of legal size that are required to be retained but are not.
- e. 'Nil discards' refers to proposals to require retention of finfish below the current MLS.

37. The Fisheries Change proposals are used to obliquely advance ways to increase Total Allowable Commercial Catches (TACCs). A far more structured proposal that clearly identifies the problems, reports on international experience, and clearly defines success would be infinitely preferable and useful if we are serious about achieving abundant fisheries and a healthier marine environment.

38. The separation of monitoring and compliance from changes to self-reporting and discarding rules makes for purely academic views with little regard for what is, or will be, occurring when catch is brought onboard and sorted.

39. MPI/FNZ present their options as if we should use our own experience, bias, interest, and current understanding to make widespread generalisations about legal and illegal dumping. There are no helpful references to the mountain of international research that ought to inform these discussions with regard to discarding and dumping, incentives, monitoring efficacy, penalties, etc.

40. As evidenced in other jurisdictions, it is inevitable that some dumping will continue, regardless of the rules, particularly while the chance of detection remains low. Our Minister, Stuart Nash, has already been told by some industry leaders that dumping of fish would "continue to happen, cameras or no cameras, while the current policy settings remain unchanged".

Submission

41. New Zealand Sport Fishing Council and Legasea have [submitted extensively](#) on the many perverse incentives in the Quota Management System that are not being addressed. The current proposals continue down a similar pathway, promoting proposals that will benefit quota owners while imposing more cost and risk to the remaining independent fishers. The continued aggregation of quota and Annual Catch Entitlement (ACE) for key species and unselective bulk harvesting methods are major unresolved issues.
42. There is an inherent conflict in the QMS when landings are used to measure catch rather than the catch itself because there are powerful incentives to sort the catch and discard the unprofitable portion before any landings arrive back at the wharf. Any change relying on incentives must resolve this conflict.
43. In the first instance the discussion would benefit by separating the issues around legal discards from those of illegal dumping. This allows for a clearer problem definition and would also discipline submissions by confining views to resolving a coherent problem.
44. Legal discards are essentially to comply with Minimum Legal Size (MLS) requirements, to apply Schedule 6 release, release protected species, and vessel safety. It is not clear that there are any problems with these provisions beyond the need to know what is being returned to the sea. Being unable to land this catch is an incentive to avoid capture in the first place.
45. Moving to another provision such as nil legal discards suffers from a lack of baseline data to enable success to be measured. The first requirement is to measure what is currently being returned to the sea. With that data a problem statement can be defined that enables a rational discussion of options. Without this data we are merely incentivising disingenuous proposals that seek to simply advance one's self interest.
46. Some of the issues with the current management proposals are:
- a. Unconstrained fishing effort allows areas to be continually swept by trawls, despite the level of depletion for the main fish stocks e.g. Bay of Plenty and Hawke Bay.
 - b. Using Output controls to manage commercial fisheries requires knowing a safe harvest level and knowing the catch. Self-reported data on estimated catch at sea has been shown to be unreliable and reporting will always be biased in favour of the fisher's interest. The only solution to this is to have a system that is able to validate all self-reported data.
 - c. Conflating the discard and dumping issues associated with quota systems and lack of incentives is disingenuous. In any fisheries management system fishers will always have incentives to dump those portions of a catch not considered profitable to land.
 - d. It is a massive change to move from a system relying on 'reported landings' to one relying on 'monitoring catch'. Making marginal adjustments to TACC and reporting obligations will always be ineffective.

- e. Dumping a portion of catch where the cost of ACE, or deemed value payment, renders catch unprofitable is an inescapable fact of life for all jurisdictions relying on quotas for catch limitation. Solutions are not to be found in any suite of incentives but in camera monitoring of catch and recording what, if any, dumping occurs on a fishing vessel.

Response to the discussion document

Part 1: Amending rules around legal discards

47. The first point is that all quota species over the minimum legal size (MLS) are currently required to be landed under the current rules. This is not unclear or ambiguous, yet it has not prevented extensive discarding and dumping of fish. Sorting the catch for profitable landings and avoiding deemed value penalties is a consequence of permitting unlimited effort while limiting landed catch by quotas.
48. There is not a problem with legal discards, whether for MLS, Schedule 6, or endangered species. It is illegal dumping that has proved to be a significant issue in output regulated fisheries, here and overseas.
49. There are just 11 finfish species that have a commercial MLS and these made up just 7% of the commercial finfish landed catch in 2016-17. The justifications for Option 1 of removing commercial size limits seem to apply mostly to the four inshore species targeted by trawling. These are red cod, snapper, tarakihi and trevally (Table 1). Requiring accurate and verifiable reporting of sub MLS discards for these species will, in the first instance, give an indication whether there is a problem to solve. If there is excessive juvenile catch then removing fishing methods catching these fish from the area of concern is all that's required.

Table 1: Finfish that currently have size limits

Species of fish	Commercial minimum legal fish length (cm)	Recreational minimum legal fish length (cm)
Blue cod	33	30 to 33
Blue moki	40	40
Butterfish	35	35
Flatfishes	23 to 25	23 to 25
Kingfish	65	75
Red cod	25	25
Red gurnard	none	25
Red moki	40 Sale prohibited in the AFMA	40
Snapper SNA1	25	30
Snapper other areas	25	25 to 27
Tarakihi	25	25
Trevally	25	25
Trumpeter	none	35

50. NZSFC addressed the issue of dumping in previous submission on the FOOF proposals as follows -

Tighter regulatory controls to manage discards

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

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

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

In the end, with so much uncertainty about the consequences of choosing a particular strategy we propose an A/B trial be carried out with observers, IEMRS, and self-reporting, used to both gather baseline data, and help make an informed decision on land all catch vs conditioned live release. It goes without saying that this trial would not be conducted by Trident or any other industry-owned entity. (NZSFC submission on FOOF proposals 2016, p12)

51. It is wrong to simply view discarded fish as an economic cost, as this implies that application of an MLS regime that requires discarding imposes an economic cost upon the fishery. The reality is most of the rationale for discarding juvenile fish is to remove any possible short-term economic gain from selling these fish in exchange for greater returns via improved yield per recruit. Demanding immediate discarding already provides an incentive to catch larger fish from the population and thereby increase the yield per recruit and the economic return from the stock.
52. While trawl caught undersize catch will have a high mortality other fishing methods need to be considered. Estimates of release mortality for longline caught snapper during previous tagging programmes was relatively low. Minimum and even maximum commercial size limits could be considered best practice fisheries management in pot-caught blue cod fisheries. Kingfish can swim in front of a trawl cod end and be lively when bought aboard.
53. **The submitters do not support a blanket, uninformed land all catch policy where it could significantly increase the fishing mortality for a species.**
54. FNZ must run a transparent process to evaluate the potential impact of nil legal discards on productivity of each species on a case by case basis.
55. The authors of the FNZ discussion document assume that retaining and reporting fish under the current MLS will help in stock assessment and ensuring sustainability of fish stocks. But retaining small fish will increase the recorded catch for each hour trawled or thousand hooks set. This will change the catch per unit effort (CPUE), which is supposed to track trends in abundance not changes in selectivity or retention of catch. If nil discards is implemented for a fish stock the regulations must require fishers to sort and report catch separately for fish above and below the existing MLS for each fishing event. This will provide some continuity with the existing CPUE data on legal sized fish and provide information on where and when small fish are being caught. Current information on the quantities of under size fish catch is very poor, and as often quoted by commercial fishers – you can't manage what you can't measure.

56. The finfish quota species listed on Schedule 6 of the Fisheries Act that can be released alive may be reviewed. However, NZSFC strongly support the retention of kingfish, southern bluefin tuna and swordfish smaller than 125 cm lower jaw fork length on Schedule 6. These are generally large fish that have high survival rates after catch and release according to tagging studies.
57. Recreational fishers are willing to contribute to conservation measures when they feel they are being treated fairly. There will be a strong, negative public reaction to large numbers of tiny fish of popular species being landed and displayed for sale. The public generally oppose differential size limits that provide preferential access to commercial fishers, who already have the advantage of big boats and large-scale, efficient fishing methods.
58. The best incentive for commercial fishers is to have a good catch rate, low costs and profitable market. A critical assumption made in the nil discards proposal is that selling small fish will be significantly less profitable than larger fish. This may not always be the case. Targeting species with a low ACE price is also a common strategy. For example, if the quota owner takes the lion's share of the port price for snapper it may be worth trawling inshore with 100 mm mesh for gurnard and flatfish which have a lower ACE price. Market driven incentives are not always predictable.
59. While camera surveillance will help determine if dumping is happening, it is not fool proof. There will be a range of non-QMS species with no value that are routinely dumped from trawlers in New Zealand such as porcupine fish, carpet shark and other small non-QMS sharks and rays, snipe etc. Most are not dead on arrival and it is pointless to kill them. Also there will be fish lost from a trawl net when the cod end reaches the stern. As the weight comes off the net the mesh opens and fish both alive and dead are released. This is particularly problematic when there is swell. Fishers are supposed to report losses of all QMS species at sea and need ACE to cover the amount. So there is an incentive to under report losses.
60. While the large quota owners clearly have an expectation that nil discards will mean increases in TACCs for some species, the fishers on the water will have some hard choices to make. They have to decide where and how to fish, what to do if they catch large quantities of small fish, and how to make a profit when the average port prices come down.
61. The cost of cameras and penalties for any infringements will fall on the boat owner and fisher, not the quota owner. **This will again make it harder for the small independent fisher and favour the large companies.**
62. Another assumption is that nil discards will provide the incentive to use of larger net mesh sizes and encourage gear innovation to avoid small fish. Changing the selectivity of trawl and Danish seine gear was investigated by the Snapper 1 Strategy Group in 2014. There are some productivity benefits from increasing yield per recruit. This may be offset by an increase in through-net mortality (from fish damaged by the net but not caught). While the catch of snapper and trevally may be maintained with larger mesh cod ends, retention of round fish such as red gurnard and red cod can drop significantly.
63. Changing selectivity makes it much harder to monitor trends in stock abundance, and almost impossible if the gear changes are not recorded. The vast majority of finfish stocks in New Zealand are monitored using commercial trawl catch per unit effort (CPUE). In the South Island this is augmented using fishery independent trawl surveys by NIWA that use the same fishing gear each time.
64. There are many variables in trawl gear that affect CPUE. One of the most critical ones is the net mesh size and shape used in the cod end. This determines what size fish are retained, but mesh

size is not recorded on the trawl catch and effort forms. As far as we know it is not included on the new electronic reporting forms (IEMRS) either. In addition, more boats are using the new Modular Harvest System developed from the PSH programme and catch rates using this gear will be of no use in stock monitoring or stock assessment until there many years of data available for this method.

65. It seems inconsistent that new trawl technology like the Modular Harvest system will only be allowed if it can be proven that the fishing gear does not increase the mortality of small fish, such as snapper, and does not increase the area swept by trawl gear to catch the same amount of fish. While the proposal to remove the MLS will do exactly that - kill small fish that would have survived release and increasing the area swept using larger net mesh sizes, to catch the same amount of fish.
66. This raises the question of the environmental impact of trawling on sensitive marine habitats. FNZ would prefer to use incentives rather than regulations to change behaviour. Where is the incentive to avoid damaging the sensitive ecosystems that are critical for productive fisheries and a healthy marine environment? Where does trawling fit in a future-focused and administratively efficient fishery? As the Minister says in his video introduction to this process a “marine environment carefully managed and protected.” FNZ advice to the Minister must include an assessment of the environmental impact of any proposals.
67. Commercial fishers have recently “broken in” new tarakihi fishing grounds off Cape Reinga using heavy trawl gear. Catch rates have been good. Much better than the hard bottom and low reefs closer to port that have been trawled repeatedly for many years.
68. Officials and the Minister need to think hard about what they are trying to achieve. Trawling will continue to be the method of choice for most deep water species and no size limits apply in this fishery, with the possible exception of ling. If the objective is to revamp inshore trawling, encourage good practice and innovation by having the right incentives, is removing the MLS on a few key species going to deliver meaningful change? The submitters consider that inshore trawling will carry on as usual with some minor gear changes, probably increased TACCs which will eventually be used to fish down adult stocks, and expensive on the water cameras and a team of people reviewing a small percentage of the footage. Hardly a major advance toward the leading FOOF objective of “abundant fisheries in our seas and a healthy aquatic environment.”
69. The submitters consider that adding another layer of cost and complexity to the QMS based output controls is not future focused when **simple input controls would be much more efficient and effective, while being very simple for all fishers to understand.**
 - a. Closing inshore areas to trawling, purse seining and Danish seine to protect spawning and juvenile fish by regulation and increasing the minimum mesh size would be much more cost effective and much easier to monitor using AIS.
 - b. This would provide certainty about where and how trawlers could fish and ensure that the biogenic habitats that are potential bottlenecks to more productive fisheries are able to re-establish.
70. Throughout the FOOF process the submitters have been advocating the creation of an inshore zone with gear regulations to establish a standard and area closures to protect juvenile areas. All fishing methods should comply with a simple and transparent standard that speak to the matters of species selection, size selection and benthic impact. This would be a significant step toward ecosystem based management. Access to the inshore zone would be for those fishers that could innovate and catch most fish alive and in prime condition.

71. Is it realistic to expect commercial fishers, who increasingly are contract fishing for quota owners, to lead the change toward more selective, less environmentally damaging fishing methods when they have marginal economic benefit and no competitive advantage over fishers that keep trawling with current gear and cut costs?
72. Turning New Zealand's premium quality fish into a low-quality export commodity by towing it around in a conventional trawl net is not a future focused strategy for New Zealand fisheries.
73. Worldwide, natural resource management has consistently failed when regulations are removed and replaced by economic incentives. It is a race to the bottom.

Part 2: Ensuring effective and fair offences and penalties

The discussion document proposes the introduction of a number of new criminal offences focused on the level of offending behaviour, including the introduction of infringement offences.

74. The current provisions are based on having a low level of detection, particularly for offending that happens at sea, with a high consequence if caught. There have been a number of cases where the Ministry have been reluctant to prosecute offenders and issued warnings instead. This has been viewed as weak and ineffective by many commentators and the public.
75. **Maximum penalties must be retained for serious offences.**
76. A graduated offences structure would be supported only if there was an increase in at-sea monitoring and compliance capability. Where repeat offending increases the level of penalty there must be a timely system of detection and notification of fishers involved.
77. **The submitters do not support a system of demerit points for offending such as illegal activity at sea.**

The discussion document proposes changes to defences for illegally returning fish to the sea.

78. The submitters support an amendment to allow a defence for returning fish to the sea to avoid the capture of protected species and remove the defence for returning fish to the sea for unspecified reasons with the approval of a fisheries officer or Ministry observer.

Part 3: Streamlining the decision-making process for setting catch limits

The discussion document proposes making greater use of harvest control rules when setting the total allowable catch for commercial fisheries

79. There has been much said about the benefits of increasing responsiveness of management decisions and providing greater certainty to stakeholders about when and why catch limits change. It was one of the selling points for requiring improved information using the new electronic reporting system for all commercial fishers. For at least 15 years there has been talk of objectives based fisheries management involving stakeholders and communities. In the end the Ministry wrote their own Inshore Fisheries Plan and have only paid lip service to it. The Snapper 1 Strategic Plan was finally released in 2017 and has not be heard of since.

80. History shows us that fisheries management issues and setting objectives are complex, at times technical, hard to get wide engagement on, and don't always deliver results that were anticipated. The last year of the IEMRS process this is another case in point. Confusion, poor engagement, staff changes and unilateral changes come to mind. There may some hope for the deep water fisheries which have been early adopters of fisheries planning and technology.
81. There will be benefits from IEMRS for inshore fisheries in the medium to long term, but every time there has been a change in commercial reporting form there are changes in the how fishers record their catch and there their fishing activity. So along with changes in the way current catch and effort reporting, there are currently changes to trawl net mesh sizes and a switch to MHS cod ends, changes in where people fish, and potentially a requirement for nil discards of inshore QMS species. It will take years before trends in CPUE data can be disentangled from trends caused by changes in reporting, MLS, fishing area and method for inshore fisheries.
82. The submitters have some experience in how management procedures are developed and managed in New Zealand. This is with the rock lobster fisheries which should be one of the most straightforward stocks to monitor using CPUE because there is a single target species, limited by-catch and specialist fishers. The problem is data is self-reported, it includes legal rock lobster returned to the sea (high grading for best market price), and holding pots are often used.
83. The submitters have particular concerns about the management of the CRA 2 stock (Hauraki Gulf / Bay of Plenty) and this example highlights major problems with the rock lobster management procedures. For years our concerns were ignored or answered with an invitation to attend rock lobster meetings to gain a better understanding of the issues. Briefly this is what we found when we fully engaged in the process:
- a. The 2014 CRA2 management procedure was failing to rebuild the stock or manage the fishery.
 - b. The feedback NZSFC was getting back from our members was that the stock was collapsing.
 - c. Commercial fishers were also concerned and CRA 2 quota owners agreed to shelve 25% of the TACC for two years.
 - d. The new stock assessment was bought forward one year to 2017.
 - e. A new CPUE standardisation was used that finally included some allowance for increase fishing efficiency since 1980.
 - f. A new stock assessment model was developed.
 - g. No CRA 2 target stock size was accepted and a review of all CRA management targets is underway.
 - h. Discussion in the NRLMG, the principle body providing advice to the Minister, was incredibly partisan with a general lack of understanding of the science and what the implications were.
 - i. Eventually no management procedure was used and the Minister decided to fix the TACC at 80 t until the next stock assessment and review the recreational bag limit.
 - j. This had a significant impact on the commercial rock lobster fishers, recreational participation and catch was already well down.
84. Rock lobster are not part of a multi-species mixed fishery, yet after 22 years there are still unresolved problems with the operation of these management procedures. It is very concerning that the mistakes made with CRA 2 have been repeated in other stocks such as CRA 4 have been ignored by the National Rock Lobster Management Group.
85. There are other examples of harvest control rules in New Zealand. The red cod (RCO2) and flatfish (FLA 3) in-season adjustments to ACE have generally failed to deliver useful results for commercial fishers. These fast growing fish support the type of fishery most likely to benefit from a management procedure. Slow growing stocks fished on mass spawning aggregations probably

are the least suitable for management procedures because commercial CPUE will be hyper stable and not proportional to abundance. Also changes in stock abundance will be slow with many age classes making up the adult population.

86. So the blather about responsiveness, transparency and certainty is nothing like what we have seen from management procedures or harvest control rules currently used in New Zealand. The stock assessments and MSE used to develop management procedures are complex and engagement with fishers and the public is difficult. Targets become theoretical and management procedure performance is not as predictable as the models suggest. Once a management procedure is in place it is very hard to challenge it and get it replaced.
87. The submitters do not believe that so called “Choke” species are a major fisheries management problem. Surely this is how the QMS is supposed to work. Limiting the catch on the most vulnerable or most overfished stock regardless of uncaught TACC for some species that currently abundant or over allocated. There may be areas where fishing capacity is too high. A rebuild in one stock (snapper) leads to increased targeting of other species (gurnard and tarakihi) initially catch rates may increase – but will it last? Clearly it won’t, so the calls for increases in the “choke species get louder.
88. The submitters are concerned about the many fish stocks that have never been properly reviewed such as hapuku and bass, which are depleted in many areas. If inshore management procedures are established, they will soak up scarce research resources and stocks that are difficult to assess will be ignored and remain unmanaged.
89. **The submitters do not support the use of management procedures on inshore fisheries including rock lobster.**

Part 4: Technical fisheries management changes

Better estimating other sources of fishing related mortality and attributing this a sector and cause.

90. FNZ already know that current estimates of other sources of fishing related mortality are highly uncertain. They chaired a discards working group with commercial interests for 4 years (from 2008 to 2012), in 2016 the New Zealand catch reconstruction report highlighted significant level of catch discards and dumping before and after the QMS was introduced, and FNZ has recently been involved with the review of PSH modular harvest system in inshore fisheries. It is obvious that there are very poor estimates of legal discards of fish under the MLS, illegal dumping of catch, unseen deaths from gear contact such as through-mesh mortality, black market sales and under reported catch, as in the case of Hawke’s Bay Seafood.
91. The submitters highlighted the inconsistencies in the way the allowance for other sources of fishing related mortality has been set by FNZ in our submission on the 2018 sustainability round. In fisheries where trawling takes a large proportion of catch the allowance for other sources of fishing related mortality is set at 10% of the TACC from some stock but not in others. Fisheries New Zealand must develop a coherent policy on setting allowances for other sources of fishing related mortality.
92. Any splitting of the allowance of other sources of fishing related mortality in the absence of reliable estimates will have to arbitrary. A distinction is required between legal sources of other mortality and illegal sources of other mortality for each sector.

93. A reduction in illegal sources of fishing related mortality would help the stock and all legal fishers, but must not be reallocated as TACC or an increase in non-commercial allowances. **The Crown must not reward criminals for stopping an illegal activity.**
94. If a reduction in the allowance for illegal sources of mortality is made, we propose that this part of the TAC be set aside as research quota, held by the Crown to be used to bring the cost of fishery independent surveys down.
95. A reduction in mortality of fish smaller than the current MLS or unseen deaths from gear contact could be reallocated to the sector responsible for those reductions as an incentive to innovate. Comprehensive monitoring, better data collection and a responsive mechanism for making changes would be essential.
96. The example of fish stock X on page 23 of the proposal document is poorly worded. Rewarding a reduction from one unknown unreported catch to a smaller unknown unreported catch, illegal or otherwise, with a TACC increase must be an error.
97. If an MLS is removed, then new information on the additional landed weight of catch must be collected. Therefore there must be separate reporting for fish under the existing MLS for each fishing event. This means sorting of catch by species under and over the existing MLS after each tow or shot and recording the estimated weight separately. Catch under the existing MLS would need a different reporting code for that species. For example, SNX may become SNU - snapper retained that are smaller than the existing MLS.
98. If the same ACE is required for larger more valuable fish and small less valuable fish, then the incentive to dump/dispose of the small fish still exists, with or without cameras. It seems unlikely that companies that currently have a differential price for small fish will offer the same port price for small and large fish.
99. There would be significant benefits in having an alternative system that would ensure accurate reporting under IEMRS and remove the incentives to high grade catch. Instead of covering small fish caught using ACE a landing charge, like a deemed value, would be paid to the Crown which would be less than the port price while still leaving a margin to cover handling and expenses.
100. While not paid to directly to FNZ this levy would help offset some of the additional monitoring and enforcement costs of nil discards and cameras.
101. There is currently insufficient information to determine what the actual catch for fish under MLS in each fish stock. This was highlighted by the modelling of observer data by Trident and reviewed by the Stock Assessment Methods Working Group in February 2019. Making changes to TACCs based on no data will be problematic and may lead to a series of alterations, leading to the wrong incentives, such as fishing for quota.
102. To avoid this, a system of collecting the best information on the catch of small fish at little additional cost to the industry or FNZ would establish a baseline for each quota stock (presumably there will be some market for small fish landed). The data would help inform fishers of times and areas where small fish were more prevalent. Improvements in fishing practice that reduced the proportion of small caught could be measured and a transfer from the allowance for other mortality to the TACC could be made.

103. Species such as red gurnard could be included and a minimum economic size. The additional cost of buying ACE at market prices to cover small fish catch would not fall on the vessel owner or skipper.

Allowing for improved monitoring and verification to view discarding and processing as well as fishing activity.

104. The submitters support the broadening of the definition of equipment use to observe fishing to include observing returning fish to the sea, processing fish and interactions with protected species.

Conclusion

105. The proposals in the FNZ discussion document focus on a narrow range of fisheries management issues that were raised in the 2016 Future of Our Fisheries documents. Many of the core problems with the Quota Management System are again ignored. The submitters are still seeking a Royal Commission of Inquiry into the Quota Management System and the principles of managing New Zealand's fisheries resources for the benefit of the nation.

106. The submitters see a strong element of predetermination with these proposals for changes to landed catch and reporting, increased TACCs, and freedom to pursue Maximum Economic Yield. The justifications for removing commercial size limits seem to apply mostly to the inshore trawl fisheries. Conflating the discard and dumping issues associated with quota systems and lack of incentives is disingenuous. In any fisheries management system fishers will always have incentives to discard those portions of a catch not considered profitable to land.

107. Solutions are not to be found in marginal adjustments to TACC and reporting obligations or any suite of incentives but in comprehensive camera monitoring of catch and recording what, if any, dumping occurs on a fishing vessel. Worldwide, natural resource management has consistently failed when regulations are removed and replaced by economic incentives. It is a race to the bottom.

108. Simple input controls would be much more efficient and effective. Closing inshore areas to trawling and Danish seining to protect spawning and juvenile fish by regulation and increasing the minimum mesh size would be much more cost effective, much easier to monitor using AIS and very simple for all fishers to understand.

109. A clear signal needs to be given that trawling in inshore waters will be phased out to protect vulnerable habitats and juvenile fish. This is essential for any meaningful progress on ecosystem based management fit for the 21st century. The Hauraki Gulf Marine Park and outer Marlborough Sounds must be the first areas closed to conventional trawling and Danish seine methods. These areas would be open to commercial fishers able to innovate and develop low impact, selective fishing methods that land high quality product for local and high-end export markets. Having access to productive fisheries in un-trawled areas is essential for the rejuvenation of local commercial, customary and recreational fisheries.

110. A graduated offences structure based on the level of offending would be supported only if there was an increase in at-sea monitoring and compliance capability. The maximum penalties must be retained for serious offences. The submitters do not support a system of demerit points for offending such as illegal activity at sea.

111. The submitters have experience with management procedures and how they are developed and managed in New Zealand. Rock lobster stock should be one of the most straight forward stocks to manage using CPUE because there is a single target species, limited by-catch and specialist fishers who provide additional logbook data. Yet management procedures have failed in CRA 2 and public concerns were ignored for years before the management procedure was removed and the TAC reduced by 60%. Other North Island rock lobster stocks continue to be fished down under flawed management procedures.
112. By comparison, inshore trawl CPUE is a mess with changes in fish gear and selectivity, multiple target species, changes in reporting forms and discarding behaviour. If changes in CPUE do not reflect changes in abundance it cannot be used in management procedures. To achieve more timely, responsive fisheries management decisions the cost recovery system needs to change and the fisheries research budget increased. The research budget has declined by 45% in real terms since the early 1990s, while the number of QMS stocks has increased 3.5 times. The submitters do not support the use of management procedures on inshore fisheries including rock lobster.
113. The option of releasing live fish under the provisions of Schedule 6 must be retained for kingfish, southern bluefin tuna and swordfish smaller than 125 cm lower jaw fork length.
114. Before a minimum legal size is removed there must be adequate at-sea monitoring and enforcement in place. This will have to include onboard cameras and increased resources for fisheries compliance staff. Also there must be regulations requiring the sorting and separate reporting of catch above and below the existing MLS for each fishing event.
115. An alternative system that ensures accurate reporting of small fish under IEMRS and removes the incentives to high grade catch would be needed. Instead of covering small fish caught using ACE a landing charge, like a deemed value, would be paid to the Crown which would be less than the port price while still leaving a margin to cover handling and expenses.
116. No increase in the TACC would be made until improvements in fishing practice that reduced the proportion of small caught relative to the baseline could be measured. There would be an incentive not to increase the catch of small fish as this would be measured and the TACC reduced to account for this mortality.