[redacted]

H [redacted]

HIS SON WAS CREWING & PUMPING FISH 4 [redacted]

[redacted]

24 -5 18

Dear [redacted]

This letter is to confirm that myself and a fellow recreational fisherman came across an apparent dumping of snapper approximately four to five kilometres off the Bowentown bar. It was so long ago therefore hard to put a date but I would say mid ninetys.
I recall the boat was the [redacted] and the volume of fish between one to two tons.

Yours faithfully

[redacted]

To whom it may concern. 06-03-2015

October 2013, I sailed as a deckhand on the [redacted] While aboard I was instructed to cut and dump snapper all through out the night and to ensure we were not seen by any other vessels. This occured two nights in a row, The reason for dumping the fish was because all the snapper quota for the trip had been caught within the first 48 hours.

Astonished to see that we would only continue the same tows dumping more snapper two nights in a row. Some cut fish was picked up on further tows only to end up back in the ocean.

I have heard multiple stories from varius fisherman regarding the [redacted] dumping tons of fiah at a time. We must have dumped up to five ton all up over the trip (5 days and unloading). The Captain was [redacted] and the crew were

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Regards - [redacted]

From:	[redacted]
To:	FMSubmissions
Subject:	Submissions on fisheries sustainability round for 1 October
Date:	Friday, 26 July 2019 1:54:08 PM
Attachments:	Tarakihi-Joint-recreational-submission-2019.pdf Joint-recreational-submission-GUR 7-SPO 7-JDO 7-ELE 7-2019.pdf Red-snapper-Joint-recreational-submission-2019.pdf Joint-recreational-submission-Hoki-2019.pdf Charter-reporting-Joint-recreational-submission 2019.pdf

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Kia ora

Please find attached our submissions on fisheries sustainability round for 1 October
We would appreciate and acknowledgement that our submissions were received.

[redacted]
For the joint recreational submitters
NZ Sport Fishing Council
LegaSea
NZ Angling and Casting Association

[redacted]
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Ministry for Primary
Industries
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26 July 2019

Joint recreational submission to the review of sustainability measures for Tarakihi (TAR 1, 2, 3 and 7) for 2019–20

Submission summary

1. The submitters support using the best available science and current Fisheries New Zealand policy on rebuilding stocks which are below the soft limit.
2. The combined Total Allowable Commercial Catch for the eastern tarakihi stock must be reduced by 40% (65% from the 2017 TACC) to rebuild the stock to 40% of unfished biomass in 10 years.
3. The submitters do not support the commercial fishing industry's sponsored management proposal which will not deliver a time bound rebuild of the eastern tarakihi stock nor any of the other requirements of the Harvest Strategy Standard.
4. The submitters support the Government's commitment to more Ecosystem Based Fisheries Management. The international literature promotes management targets of 50% of the unfished biomass to help achieve more resilient ecosystems.

The submitters

5. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the proposals for the future management of Tarakihi 1, 2, 3, & 7. Fisheries New Zealand (FNZ) advice of consultation was received on 18 June 2019, with submissions due by 26 July 2019.
6. The NZ Sport Fishing Council is a recognised national sports organisation of 54 affiliated clubs with over 35,000 members nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy,

research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.

7. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

8. Collectively we are '*the submitters*'. The joint 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].

9. The submitters appreciate the somewhat longer consultation period (29 working days) for this year's October sustainability round.

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

Background

11. Tarakihi has long been an important component of catch for customary Maori, commercial and recreational fishers. Tarakihi are distributed around New Zealand, preferring cooler, deeper waters in the north and has a wide distribution in southern areas. Tarakihi are long lived, relatively slow growing, and tagging studies show some long distance movement. Generally, there are more young fish in the south and more older fish in the north.

12. When tarakihi was introduced to the Quota Management System in 1986 the combined Total Allowable Commercial Catches for TAR 1, 2, 3 & 7 was 4,520 tonnes. This increased to 5,286 t (up 17%) following Quota Appeal Authority hearings. Area based increases in the 2000s brought the total to 5734 t. In 2017-18 the combined TACC for the four QMAs was close to the highest catch years in the 1970s, but not quite as high as the peak years in the 1960s when the stock was being fished down.

13. Most of the information used in the stock assessment comes from catch, effort and population age structure from the commercial fishery, with trawlers taking the majority of catch. Integrated stock assessment models combined all available information on tarakihi in each Quota Management Area (QMA) but worked best when all of the east coast of the North and South Islands were considered as one stock, with separate fisheries operating in each QMA. The model estimated the tarakihi spawning stock biomass (total weight of mature fish) had been below 20% of the unfished biomass since 2005 (0.2 grey dotted line in Figure 1). The assessment using 2016–17 catch and CPUE with the base case estimating a slight increase in spawning stock biomass to 17.3%. The fishing industry funded another update in 2019 which estimated the spawning stock biomass declined to 15.9% of the unfished biomass in 2018.

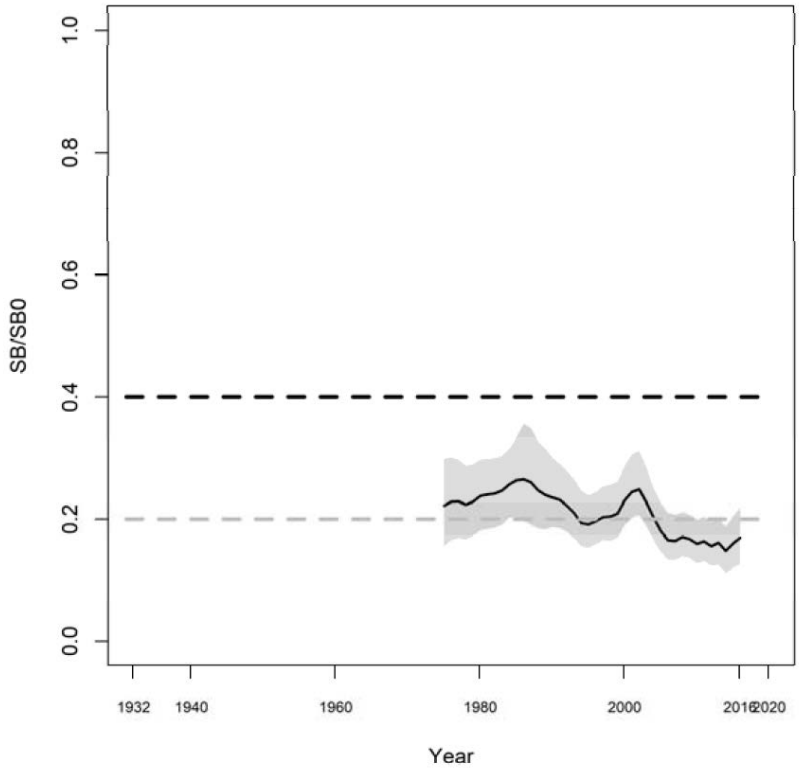

Figure 1: Annual trend in eastern tarakihi spawning biomass since 1975 relative to the 40% target (black dashed line) and the 20% soft limit reference level (grey dashed line).

14. Fisheries New Zealand has a policy on rebuilding fish stocks, which are below a limit reference point, to a target harvest level. The Harvest Strategy Standard Guidelines for tarakihi are that a time constrained rebuild plan is required for a stock below 20% with the target of 40% of the unfished biomass. The Minister received advice from officials and submissions from all sectors and tangata whenua in 2018 on the rebuild strategy and timeline.

15. Minister Nash's directives for the rebuild of this fishery in his 2018 decision letter included:

    - A biomass target of 40% SB0 was considered robust and to constitute best available information, noting that an alternative target maybe considered if supported by scientifically robust and peer-reviewed information;
    - Support for a rebuild timeframe of 10 years; and
    - Acknowledgement that a 20% reduction (in 2018) will begin the process of rebuilding the stock, but will not rebuild the stock at the rate and to the target agreed without significant further measures.

16. The decision letter also stated "in the absence of additional measures from a carefully considered and approved rebuild plan, a further 35% reduction in commercial catch from the 2017/18 catch level would most likely be required"

17. Commercial fishers, through Fisheries Inshore New Zealand (FINZ), Te Ohu Kaimoana (TOKM), and Southern Inshore Fisheries (SIF), have developed their own management proposal for the eastern tarakihi stock in response to the Ministers request for innovative options. This was released by Fisheries New Zealand as part of the consultation round documentation and is included in the discussion document as option 3.

Proposals to rebuild the eastern tarakihi stock

18. Fisheries New Zealand have presented three options to set the Total Allowable Catch (TAC) and Total Allowable Commercial Catch (TACC). The allowances for customary fishing and recreational fishing were reviewed in 2018 and no changes are proposed. The most recent stock assessment model was used to predict the rebuild times for each proposal (Table 1). There is a suggestion in the discussion document that other options could be considered.

19. The submitters have developed a proposal that follows the Harvest Strategy Standard and the Operational Guidelines for that standard. Long live species like tarakihi should have a higher stock target than faster growing short lived species and the rebuild period needs to be specified with a rate of twice the minimum rebuild time recommended.

Table 1: The tarakihi rebuild options proposed by Fisheries New Zealand (options 1 & 2); the proposal from the plan developed by commercial fishers (option 3 see Table 2); and the proposal from the submitters that conforms to the Harvest Strategy Standard. (SSB_0 is percentage of the of the unfished spawning stock biomass. Tmin is the minimum time taken to rebuild the stock to the target in the absence of fishing, so 2 times Tmin is twice the minimum)

	Option 1	Option 2	Option 3	Option 4
Proposed by	Fisheries New Zealand	Fisheries New Zealand	Commercial fishers	The submitters
Target	40% SSB_0	40% SSB_0	35% SSB_0	40% SSB_0
Rebuild timeframe and rate	12 years, 2.4 x T_{min}	11 years, 2.1 x T_{min}	< 27years. 6 x T_{min}	10 years, 2 x T_{min}
Method of achieving target	A 31% reduction of the TACC	A 35% reduction of the TACC	No reduction of the TACC voluntary measures	A 40% reduction of the TACC

Submission

20. **The submitters support using the best available science and the application of the current Fisheries New Zealand policy on rebuilding stocks which are below the soft limit.**

21. **The combined Total Allowable Commercial Catch for the eastern tarakihi stock must be reduced by 40%** (65% from the 2017 TACC) to rebuild the stock to 40% of unfished biomass in 10 years.

22. The Minister's 2018 decision to spread the TACC reductions over two years has delayed the time bound rebuild so a 40% reduction this year is needed to reach the abundance target in the timeframe required.

23. **The submitters do not support the commercial fishing industry's sponsored management proposal** which will not deliver a time bound rebuild of the eastern tarakihi stock**.**

24. The best available science and the correct application of the Operational Guidelines of the Harvest Strategy Standard indicate a further TACC reduction of 40% will give the best chance of reaching the target biomass within the next 10 years with an adequate level of confidence, which is 70% probability not 50% as proposed by FNZ. Variable spawning success and recruitment increases the uncertainty in the model's long-term projections but also increases the risk of delaying effective rebuild.

25. Catch sampling has shown that the commercial catch has been maintained over the last few years by two strong year classes from 2007 and 2009. However, reliance on one or two strong year classes in a long-lived species like tarakihi is a high-risk strategy. Several years of weak recruitment could see the stock decline rapidly.

26. **The submitters have no confidence in the commercial fishers proposal** because it is largely based on the continuation of research and gear changes that are already happening, and because it will not be sufficient to meet the realistic expectations of the consumers, the public and the Minister to rebuild the eastern tarakihi stock in a reasonable time frame. Trawlers towing larger mesh nets for longer to catch the same TACC is not the sort of "innovation" that is needed.

27. The attitude that as long as there are fish being caught then commercial fishers should not face catch reductions has led to the collapse of regulated and unregulated fisheries around the world. It would be a failure of New Zealand's Quota Management System if the best available scientific advice was ignored in favour of short term commercial interests.

28. **The submitters do have sympathy for the inshore commercial fishers** who work hard and bear the lion's share of personal and financial risk to catch fish, while the profits are taken by the quota owners. The incentives to aggregate quota and shift to least cost fishing operations has stifled innovation in fishing methods and marketing for many years. Currently, change is driven by a few dedicated innovators and is long overdue.

29. **The exploitation rate of tarakihi is still too high.** The combined TACCs for eastern tarakihi in 2018-19 was 3,237 t, estimates of other fishing related mortality were 324 t and recreational harvest from the 2018 National Panel Survey was 198 t. This gives an annual total fishing mortality of 3,759 t from a stock biomass in 2018 of around 13,800 t. So around 27% of the stock biomass will be removed by fishing this fishing year, with natural mortality on top of that. Option 2 would reduce annual total fishing mortality to about 1980 t or about 14.4 % of the 2018 biomass, which is still too high. Maintaining an annual fishing mortality rate about equal to the natural mortality rate (10%) is generally considered to be good management for stocks at their target biomass. Exploitation rates below 10% will have a much better chance of getting the rebuild started.

30. The commercial fishers' management plan highlights the potential economic impact that another TACC reduction (option 1 or option 2) would have on the inshore trawl fleet. But is holding on to 200 t to 500 t of a depleted tarakihi stock per QMA really enough to maintain the current fleet of inshore fishers? Or is the decline in tarakihi a symptom of overcapacity in the fishery where effort shifts from one stressed stock to a slightly less stressed stock and fishers struggle to make a decent return on their effort and investment?

31. **The facts are that the eastern tarakihi stock is at half the size it should be** regardless of which biomass target is used.

32. For inshore commercial fishing to become more profitable for all involved:

    a. Abundance of most species needs to be restored;

    b. Damage to the benthic ecosystem, which many fish rely on, needs to be reduced; and

    c. Fishing methods that land fish of the highest quality need to be employed.

    None of this can be achieved overnight however, the Minister has an obligation to deliver a time-bound rebuild plan for tarakihi and any other stock that is below the soft limit.

33. **The commercial fishers' proposal does not have a rebuild time frame** or immediate actions other than trawling for longer with a larger cod end mesh to catch the same tonnage of (landed) catch.

Table 2: Comments on the commercial fishers proposal

Management Measures

Proposal from commercial interests	**Submitter's comments**
No change to the current TACCs	TACCs were set in 2018 and are a reduction on 2017 levels, but not all of the TACC was being caught in previous years.
Gear selectivity research	Inconclusive so far. Some fishers in southern areas switched to larger mesh some time ago.
Move-on rule where there is high catch of juveniles	Could be important in some areas, but hard to verify compliance. Why has this not happened until now?
Reduction in targeting tarakihi	Unlikely to result in catching less than the current TACC. The TAR 2 Management and Monitoring Plan states: "Agree as a party to not target tarakihi when available ACE is less than 10% of original holding. The remaining ACE will be used to cover tarakihi as a bycatch."
Spatial measures - voluntary closed areas	Mentioned in the summary (page 4) but no mention in Section D: Management Measures to Reduce Mortality or in Section H: Implementation Plan. At the Auckland stakeholder meeting on this Plan NZSFC suggested that this was the sort of measure that would show a real commitment to avoiding juvenile tarakihi and rebuilding the stock.
Catch spreading	Already underway as part of the 2018 plan.
Use a management procedure	Delayed until after the 2021 stock assessment.
Using Section 77 of the Fisheries Act	Bycatch trade offs.

Table 2: Comments on the commercial fishers proposal continued.

More Science

Proposal from commercial interests	Submitters comments
Improved understanding of fisheries data	There has not been a requirement for fishers to record basic gear types like trawl net mesh size. If they start now there is nothing to compare it with. Some improvements in fisher knowledge and behaviour are impossible to quantify. No doubt there have been catch efficiency gains over time that will mask declines in stock abundance.
Catch sampling	Catch sampling and aging is already underway. Some fishing companies have blocked tarakihi catch sampling projects in the past. The industry's Implementation Plan (Section H) proposes catch sampling only 2 years in every 5 years. A cheaper strategy that has already proven to be inadequate in stocks that are over fished as they are reliant on a few strong year classes to support the fishery.
Management Strategy Evaluation	This modelling has been run but it did not investigate rebuild strategies, only future harvest scenarios based on a wide range of assumptions.
Fisheries Independent Surveys	The east coast South Island trawl survey has been running for years, this is not a new measure. The North Island trawl surveys were discontinued after 2000 following commercial fisher pressure to reduce research costs. It is a good idea to have fishery independent surveys and tagging programmes but they are not cheap and take time to produce results.
Gear database	It is a good idea to have a database of gear types. It has been suggested numerous times in science working groups by NZSFC and others, but has not happened. It will take time to produce useful results. Detailed records can't be "back dated".
Electronic monitoring	Is already happening and will take time to establish a useful time series. More changes are required to increase the catch and effort data recorded. Again, it will take time to produce useful results and this can't be "back dated".
Genetics study	Not new. A study is currently underway but may not help much because of the high degree of fish movement between areas. A high resolution study would be expensive and will take years to initiate and produce useful results.
Fish behaviour	Technology is advancing. Some fishers have improved the selectivity of fishing gear using their own time and money with little or no support from their fishing industry colleagues.
Assessing impacts of changing environmental conditions	This is not new. Assessing impacts will take time.

	There is already good evidence that trawling has an adverse impact on marine benthic communities. This is where tarakihi live and feed. Climate change is happening now. tarakihi recruitment may become more variable. Delaying effective management until the impact is assessed is risking the need for much larger catch reductions in future to rebuild the stock.
Collection of charter vessel catches	The submitters support charter operators reporting tarakihi and snapper. This will not rebuild eastern tarakihi stock though.

Tarakihi rebuild plan requires catch reductions

34. In 2018 LegaSea campaigned to gather support for the Minister to cut commercial catches of tarakihi by 65%, to rebuild the stock from its all-time low point of 17% of unfished biomass. LegaSea initiated a petition seeking support for the following statement – "I want the Minister of Fisheries to make a bold decision by October 2018 to reduce the environmental impacts of trawling and rebuild tarakihi stocks within 10 years or less". The Time Out for Tarakihi petition drew 9100 responses in six weeks, a good indication of how important tarakihi is to people fishing on the east coast of New Zealand.

35. In 2018 the Minister chose to largely agree to the industry proposal to limit the catch reduction to 20% (a 25% reduction in combined TACCs). In doing so, he challenged the industry to develop a plan with significant further measures to increase the rate the stock was rebuilt to the target. This decision gave commercial fishers time to adjust to a catch plan less reliant on tarakihi and it signalled that additional reductions in the TACCs were likely in 2019.

36. The measures in the commercial fishers proposal that could limit the catch of legal size tarakihi are catch spreading in TAR 1 and TAR 7 (which has already been implemented) and area agreements not to over catch the TACC or available ACE. No large reductions in catch will come from these. The main management measures focus on improved selectivity to increase the rate of rebuild in addition to the 20% catch reduction in 2018. The proposals include larger net mesh in trawl cod ends and move on rules to reduce the catch of juvenile fish. Fishers have been recording the weight of undersize tarakihi caught since November 2018. The figures for the first four and a half months are in Appendix 4 of the commercial fishers proposal. The two areas with the largest landed catch are TAR 2 and TAR 3 (Figure 2). A total of 702 t of tarakihi was landed and 6.3 t was reported as undersize and returned to the sea. That is less than 1% of the overall catch. Catch reported from TAR 1 and TAR 7 include west coast landings and the proportion of undersize discards is also very low. It is probably best to wait for a year for the reporting system to bed in but the question remains where are the large gains going to be made in the commercial fishers proposal to improve the rebuild rate?

37. The current estimate in the TAC for all other sources of fishing related mortality is 324 t. Even if somehow this was halved (162 t) it is just a 1% reduction in mortality relative to the 2018 biomass.

38. There are some research proposals with potential in the commercial fishers proposal, but it seems like a scatter gun approach to what is already underway and what might be possible with no firm idea on what the new work will cost, who will pay for it, and how long it will take. The submitters spent 2 years working with commercial fishers and mana whenua on a SNA 1 Strategic Plan which had lots of research and nice ideas but no catch reductions. Three years later it seems that the industry has succeeded in kicking the can down the road again with no fishery independent survey (the snapper tagging programme), a delayed catch sampling project and now it seems a delay in the next stock assessment.

39. Currently the Minister is not meeting his obligation to manage tarakihi stocks at a level that provides for the social, economic and cultural wellbeing of all New Zealanders. The submitters propose a further option with TACCs that will start the stock rebuild in 2019–20. We compare the new option, option 4, with the FNZ proposed option 2 (Table 3).

Table 3: Recommended TACCs by QMA or eastern portion of TAR 1 and TAR 7 to achieve a 10 year rebuild under our alternative, option 4 compared to the likely TACCs under option 2 in the discussion document.

	Eastern Tarakihi TACC	
Area	Option 2	Option 4
TAR1	260	240
TAR2	750	700
TAR3	520	480
TAR7	91	85

40. The submitters support the Government's commitment to more Ecosystem Based Fisheries Management (EBFM) and to meet its international commitments, but there are risks that this will become stalled by complexity.

41. An ecosystem approach can take many forms. In our view the best initial approach is to implement management targets that will promote healthier ecosystems with more resilience to environmental change and natural disasters. Stock abundance targets of 40% unfished biomass are intended to manage risk while maximising yield. Ecosystem based fisheries management could be established by setting stock abundance targets of 50% unfished biomass as well as reducing the external impacts of bottom contact fishing and sedimentation from land based sources. Under this precautionary approach, the hard limit would increase from 10% to 20% of the unfished biomass. The moderate loss in tonnage taken would be offset by selling only premium product to the most discerning markets. Many of our deep water stocks already have stock abundance targets around 50% B0.

42. There will be plenty of time in the future to refine an ecosystem based assessment methodology that suits New Zealand, but in the interim we must strive for higher abundance in the knowledge that it will boost ecosystem resilience.

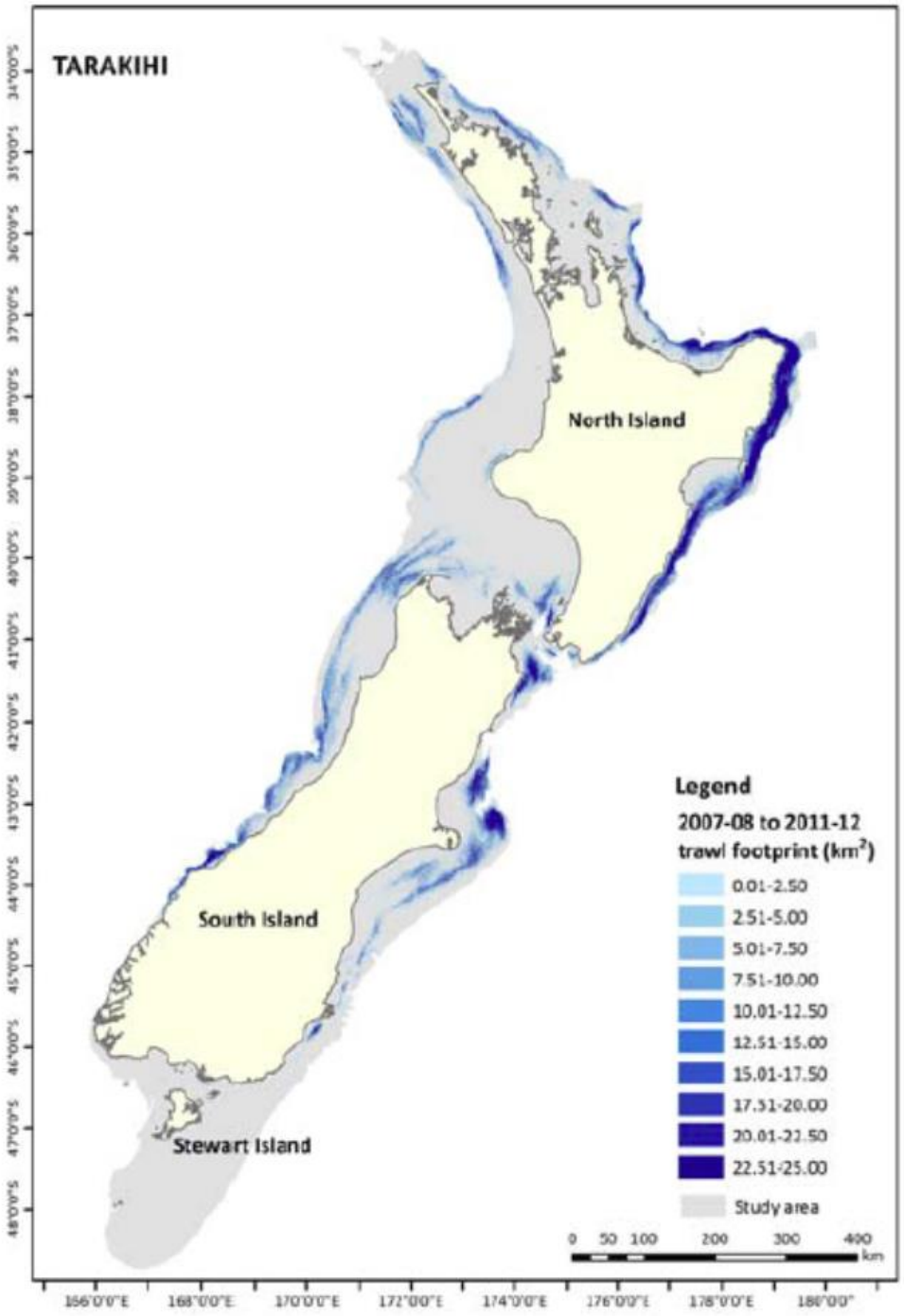

Figure 2: The trawl footprint for tarakihi targeting in the trawl fishery 2007–08 to 2011–12.

[redacted]
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26 July 2019

Joint recreational submission to the review of sustainability measures – Top of the South Island trawl fishery for 2019–20

Submission summary

1. The submitters support Option 1 for Red gurnard 7, no change to the TAC, TACC or allowances.
2. The submitters support Option 1 for Rig 7, no change to the TAC, TACC or allowances.
3. The submitters support Option 1 for John dory 7, no change to the TAC, TACC or allowances.
4. The trawl survey results for these three stocks have all declined since 2015 by varying amounts but the cycle in abundance is trending down and this is likely to continue for the two years before the results of the next trawl survey are available.
5. The interim management targets for these stocks need to be reviewed. Averaging trawl survey results across years of low abundance has clearly biased the target and soft limit low. If the same method had be used for Snapper 7 the result would be ridiculous.
6. The submitters do not support any increase in trawl fishing effort or TACs in FMA 7 until the new Maui and Hector's Dolphin Threat Management Plan is implemented and cameras are installed on all trawlers fishing this area to ensure validation of dolphin capture information.
7. The submitters support the setting of a TAC and allowances for ELE 7 even though the amounts are somewhat arbitrary.
8. Fisheries New Zealand need a to have a consistent rationale or policy on setting an allowance for other sources of fishing related mortality. The submitters support the default setting of 10% of the TACC and expect that any variation from this is adequately explained.

The submitters

9. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the proposals for the future management of four stocks in the Top of the South trawl fishery: Red gurnard 7, Rig 7, John dory 7 and Elephant fish 7. Fisheries New Zealand (FNZ) advice of consultation was received on 18 June 2019, with submissions due by 26 July 2019.

10. The NZ Sport Fishing Council is a recognised national sports organisation with over 35,000 affiliated members from 55 clubs nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.

11. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

12. Collectively we are *'the submitters'*. 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].

13. The submitter's appreciate the somewhat longer consultation period (29 working days) for this year's October sustainability round.

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

Summary of concerns

15. The submitters are concerned that there is a lack of principles and rigour in the way Fisheries New Zealand (FNZ) promotes Total Allowable Commercial Catch (TACC) increases and ignores cases for reductions. Repeatedly we see the practice of fishing down the stocks to less than half of best practice and then lobbying to hold them there. We are concerned that FNZ barely raises a whisper of objection, content to do the bidding for quota shareholders.

16. The three stocks slated for increases, Red gurnard 7, Rig 7, John dory 7 and Elephant fish 7, have no biomass estimates that would enable a full consideration of the merits or costs of proposals. Just agreeing that some averaging out of Catch Per Unit of Effort (CPUE) indices by a small group of industry actors is sufficient to manage these stocks is ludicrous. It is so shallow and self-serving that for FNZ to embrace and advance these claims diminishes their standing as a management authority.

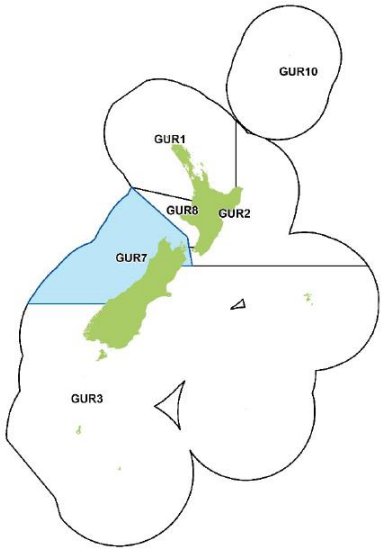
17. The correct status is - we don't know the state of stocks, and in the absence of better information we are more likely to reduce TACCs than increase them when fisheries independent research suggests stocks are declining.

18. There is simply no place for Fisheries New Zealand's habit of increasing TACCs so they impose no constraints on catch.

Proposal to increase Total Allowable Catch for Red Gurnard in GUR 7

Background

19. Red gurnard have a fast growth rate and relatively short lifespan, and fluctuations in recruitment may result in large fluctuations in stock biomass, exacerbated by the high exploitation rate.



20. The catch limits for red gurnard in GUR 7 were reviewed in 2014 when the Total Allowable Catch (TAC) was increased from 855 to 919 tonnes and the Total Allowable Commercial Catch (TACC) was increased from 785 to 845 tonnes. In 2017 the TAC was increased to 1065 tonnes and the TACC to 975 tonnes.

21. The Fisheries Plenary concluded that the trawl survey data since 1992 was a better index of trends in abundance than the commercial Catch Per Unit of Effort (CPUE) time series. The Plenary also set a management target of the average of 10 West Coast South Island trawl survey biomass estimates from 1992 to 2013, excluding the 2003 survey estimate because of a large negative change in catchability that year.

Proposals

22. Fisheries New Zealand propose the following options for the Total Allowable Catch (TAC), Total Allowable Commercial Catch (TACC) and associated allowances for Red Gurnard in GUR 7 (Table 1). These include TACC increases of 10% or 20%. FNZ also propose to increase the allowance for recreational fishing interests by 50%, to 38 tonnes.

MPI rationale for increasing the TACC

23. Fisheries New Zealand rationale for reviewing Red gurnard 7 includes:
    a. Red gurnard stock size can be highly variable from year to year.
    b. Information from the West Coast and top of the South Island trawl survey in 2017 and the preliminary results from the 2019 trawl survey show that the relative biomass has stayed at a high level and is three times higher than the current target level. The numbers of pre- recruits remain high indicating good recruitment in the short term.
    c. Two different options are proposed to allow for consideration of the uncertainty in the available information and the management of sustainability risk. The Information Principles in the Fisheries Act require that caution be applied when making decisions.

Table 1: Proposed options for the TAC, TACC and allowances in tonnes for red gurnard 7.

Stock	Option	Total Allowable Catch (t)	Total Allowable Commercial Catch (t)	Allowances		
				Customary Māori (t)	Recreational (t)	All other mortality caused by fishing (t)
GUR 7	Option 1 *(Status quo)*	1,065	975	15	25	50
	Option 2	1,176 ↑	1073 ↑ (10%)	15	38 ↑ (50%)	50
	Option 3	1,273↑	1170↑ (20%)	15	38 ↑ (50%)	50

Submission

24. The submitters support Option 1 for Red gurnard 7, no change to the TAC, TACC or allowances.

25. The submitters support the use of data from fishery independent surveys and believe they will become increasingly important as fishing gear and technology changes.

26. The trawl survey index has declined since 2015, though given the wide confidence intervals it is hard to determine by how much.

27. It is common that fish stocks have natural cycles in abundance. A fundamental property of cycles is that increases don't last. They are followed by a decline. Increasing catch allowances when abundance is on the way down may exacerbate the inevitable decline when it comes. As abundance declines trawl effort has to increase to catch the TACC, putting unsustainable pressure on associated stocks.

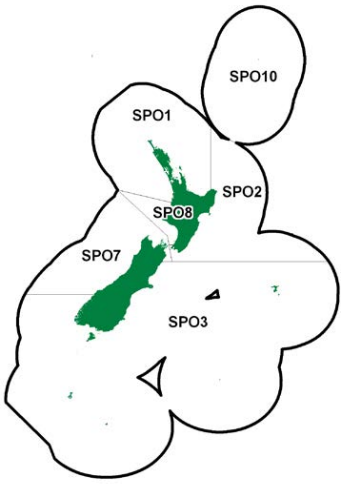
28. Hector's dolphins occur around most of the South Island in three recognised sub-populations. The smallest and most vulnerable sub-population of Hector's dolphin in New Zealand is off the north coast of the South Island. The fisheries risk to Hector's dolphins for the north coast South Island is moderate; with commercial fishing estimated to be responsible for on average around one Hector's dolphin death per year (range 0.36-2.2). Of these, commercial trawls are estimated to be responsible for around 30% of the deaths. However, reporting rates of dolphin deaths and the estimated population size that underlie this estimate are both uncertain. The risk assessment calculates that, to achieve the desired outcome with high certainty, residual risk needs to be reduced by at least 52 percent.

29. The submitters do not support any increase in trawl fishing effort or TACs in FMA 7 until the new Maui and Hector's Dolphin Threat Management Plan is implemented and cameras are installed on all trawlers fishing this area.

30. The submitters are concerned that FNZ does not have a consistent rationale or policy on setting an allowance for other sources of fishing related mortality. For trawl caught fish where a minimum legal size (or industry minimum economic size) results in discarded fish there needs to be a more consistent approach. Usually the allowance set aside to account for fishing related mortality is set as a proportion of TACC. If changes to the TAC are made the submitters support the default setting of 10% of the TACC and require that any variation from this is adequately explained.

Proposal to increase Total Allowable Catch for Rig in SPO 7

Background



31. Rig or spotted dogfish in SPO 7 are mainly caught by trawl and in a target set net fishery along with other shark species, including school shark and spiny dogfish. Set net restrictions to protect Hector's dolphins has reduced the available fishing area for Rig in SPO 7.

32. Total reported landings of rig increased rapidly during the 1970s and early 1980s. Rig were introduced into the Quota Management System in 1986. Landings declined to less than half those of the previous decade in response to TACCs that were set at levels that were lower than previous catches

33. The catch limits for rig in SPO 7 were reviewed in 2018 when the TAC was increased from 306 to 346 tonnes and the TACC was increased from 246 to 271 tonnes.

34. The Southern Inshore Working Group has set the soft limit at the average of the two worst years from the West Coast South Island trawl survey with biomass estimates of 144 tonnes in 2003 and 153 tonnes in 2005 from the area surveyed. The management target was set by the working group at twice the soft limit.

Proposals

35. Fisheries New Zealand propose the following options for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances for rig in SPO 7 (Table 2). These include proposing TACC increases of 10% or 20%.

Table 2: Proposed options for the TAC, TACC and allowances in tonnes for rig 7.

Stock	Option	Total Allowable Catch (t)	Total Allowable Commercial Catch (t)	Allowances		
				Customary Māori (t)	Recreational (t)	All other mortality caused by fishing (t)
SPO 7	Option 1 *(Status quo)*	346	271	15	33	27
	Option 2	373 ↑	298 ↑ (10%)	15	33	27
	Option 3	400 ↑	325 ↑ (20%)	15	33	27

MPI rationale for increasing the TACC

36. Fisheries New Zealand rationale for reviewing rig 7 poorly presented this includes:
    a. Fisheries New Zealand considers SPO 7 to be likely (>60% probability) to be at or above target levels [Comment: FNZ do not state that this is the assessment from the 2017 trawl survey results which have already been used to increase the TACC in 2018].
    b. The preliminary estimated biomass for 2019 is also slightly down on 2017 and 2015 but remains high comparative to earlier trends.
    c. Size composition data from the West Coast South Island (WCSI) trawl survey catches suggests strong recruitment in recent years.

Submission

37. The submitters support Option 1 for Rig 7 (SPO 7), no change to the TAC, TACC or allowances.

38. Since 2015 the trawl survey index has been trending down (Figure 1). Although the confidence intervals are wide, the trend is clear. Fisheries New Zealand are proposing to increase catch while the stock is declining.

39. The submitters support the use of data from fishery independent surveys and believe they will become increasingly important as fishing gear and technology changes. The WCSI trawl surveys provide estimates of relative biomass, not total biomass for a species in FMA 7. It is the trend across several surveys that need to be given more weight in decision making than a result in a single year.

40. It is important to note that the 2003 trawl survey biomass estimate was not used as part of the calculation to set a proxy target for Red gurnard 7 because of a large negative change in catchability that year. Even though the average of all the survey estimates from 1992 to 2013 (10 years excluding 2003) was used, 2003 was the lowest trawl survey estimate for SPO 7 (Figure 1). Given this, it must not be used in setting the soft limit, especially when based on the survey average from only two years (2003 and 2005). The proxy management target for SPO 7 is simply double the soft limit.

41. The management target needs to be reset at a Plenary Meeting not a Southern Inshore Working Group Meeting, and must not be used by Fisheries New Zealand as justification for increasing the TACC again in 2019.

42. It is common that fish stocks have natural cycles in abundance. A fundamental property of cycles is that increases don't last. They are followed by a decline. Increasing catch allowances when abundance is on the way down may exacerbate the decline. As abundance declines trawl effort has to increase to catch the TACC.

43. Hector's dolphins occur around most of the South Island in three recognised sub-populations. The smallest and most vulnerable sub-population of hectors dolphin in New Zealand is off the north coast of the South Island. The fisheries risk to Hector's dolphins for the north coast South Island is moderate; with commercial fishing estimated to be responsible for on average around one Hector's dolphin death per year (range 0.36-2.2). Of these, commercial trawls are estimated to be responsible for around 30% of the deaths. However, reporting rates of dolphin deaths and the estimated population size that underlie this estimate are both

uncertain. The risk assessment calculates that, to achieve the desired outcome with high certainty, residual risk needs to be reduced by at least 52 percent.

44. The submitters do not support any increase in trawl fishing effort or TACs in FMA 7 until the new Maui and Hector's Dolphin Threat Management Plan is implemented and cameras are installed on all trawlers fishing this area.

45. The submitters are concerned that FNZ does not have a consistent rationale or policy on setting an allowance for other sources of fishing related mortality. For trawl caught fish where a minimum legal size (or industry minimum economic size) results in discarded fish there needs to be a more consistent approach. Usually this allowance for fishing related mortality is set as a proportion of TACC. If changes to the TAC are made the submitters support the default setting of 10% of the TACC and require that any variation from this is adequately explained.

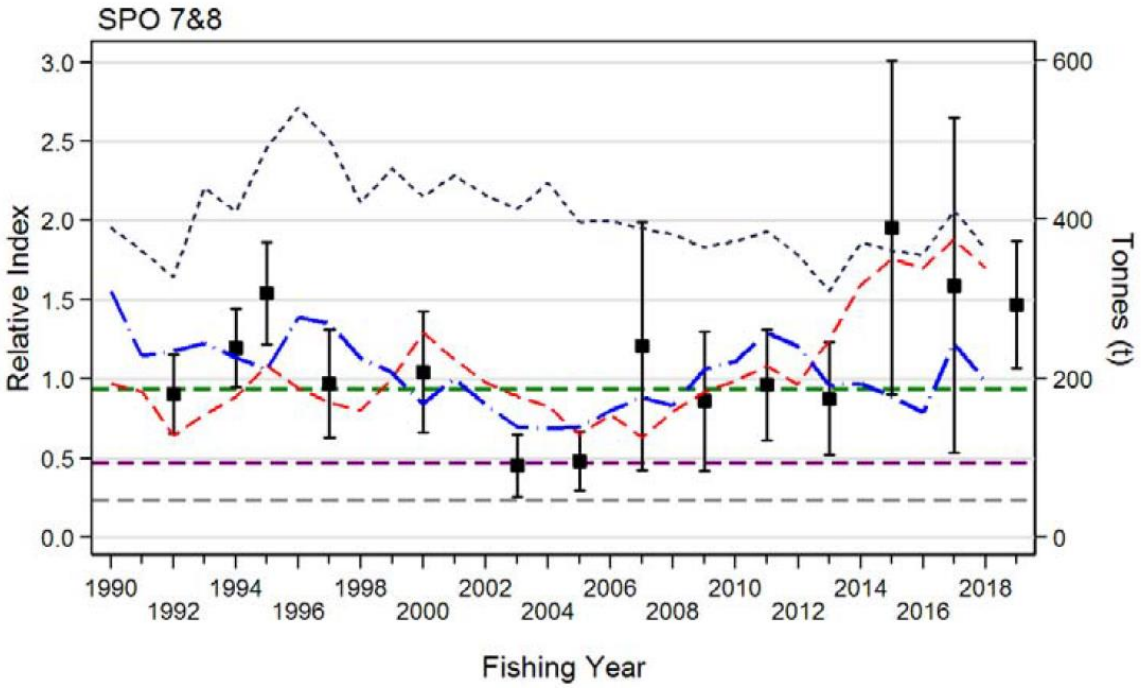
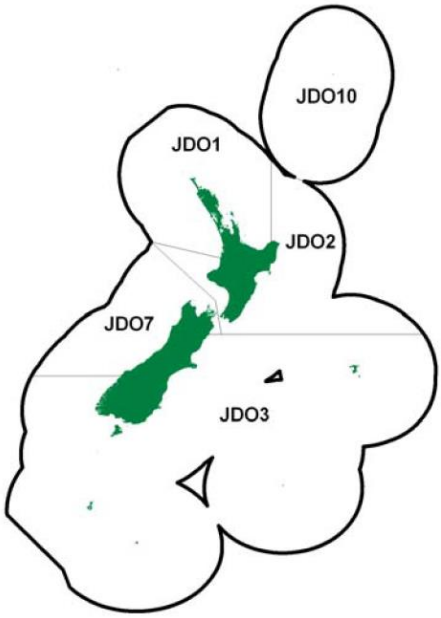


Figure 1: The West Coast South Island trawl survey results (black squares with confidence intervals) scaled to have an average of 1.0 on the left-hand scale. The 2019 survey index is preliminary. The agreed Soft Limit (average: 2003 and 2005 WCSI survey biomass estimates=0.49 on the left-hand scale) is shown as a purple line, and the calculated BMSY proxy (=2×Soft Limit) is shown as a green dashed line and the calculated Hard Limit (=0.5×Soft Limit) is shown as a grey line. The grey dashed line is commercial landings in tonnes on the right-hand scale.

Proposal to increase Total Allowable Catch for John Dory in JDO 7

Background

46. John dory spawn more than once in a season. The eggs are large and pelagic, taking 12-14 days to hatch. Initially John dory grow rapidly, reaching 12 to 18cm after the first year. Females then grow larger than males. Females mature at 29 to 35cm. Males mature at 23 to 29cm. John dory are considered to have a maximum age of 12 years.



47. John dory populations can fluctuate widely as a result of varying levels of recruitment.

48. They were introduced into the QMS in 1986 with a TAC in JDO 7 of 70 tonnes. Commercial catch and survey estimates were low during the 1990s. Landings increased from the year 2000 with the commercial catch often exceeding the TACC despite TACC increases in 2004, 2009, 2012 and 2016.

49. The catch limits for John dory in JDO 7 were last reviewed in 2016 with the TAC increasing from 161 to 206 tonnes and the TACC was increased from 150 to 190 tonnes. The allowance for recreational fishing increased from 2 to 4 tonnes.

50. The management target was set at the average West Coast South Island trawl survey biomass estimate for the 10 surveys from 1992 to 2011, including 2003.

Proposals

51. Fisheries New Zealand propose the following options for the Total Allowable Catch (TAC), Total Allowable Commercial Catch (TACC) and associated allowances for John dory in JDO 7 (Table 3). These include proposing TACC increases of 10% or 20%.

Table 3: Proposed options for the TAC, TACC and allowances in tonnes for John dory 7.

Stock	Option	Total Allowable Catch (t)	Total Allowable Commercial Catch (t)	Allowances		
				Customary Māori (t)	Recreational (t)	All other mortality caused by fishing (t)
SPO 7	Option 1 *(Status quo)*	346	271	15	33	27
	Option 2	373 ↑	298 ↑ (10%)	15	33	27
	Option 3	400 ↑	325 ↑ (20%)	15	33	27

MPI rationale for increasing the TACC

52. Fisheries New Zealand rationale for reviewing John dory 7 poorly presented this includes:
    a. Fisheries New Zealand considers JDO to be very likely (>90% probability) to be at or above target levels. But then FNZ state that preliminary results from the 2019 WCSI trawl survey, however, indicate a decline in relative biomass, with wide confidence intervals which cross below the target line. FNZ say the scientific basis for an increase in utilisation is weaker than for GUR 7 and SPO 7.
    b. John dory is principally a bycatch species. Maximum constant yield estimates based on catch data are therefore uncertain, and it is difficult to determine whether changes in reported catches indicate changes in stock abundance or changes in target species.

Submission

53. The submitters support Option 1 for John dory 7, no change to the TAC, TACC or allowances.

54. The trawl survey index has been trending down over last four years. The statement that the John dory 7 is very likely to be above that target in 2017 does not apply given the 2019 preliminary result, which shows that biomass may already at or below the interim target (Figure 2). The distinction between these two survey results is poorly articulated in the discussion document.

55. Previously, the Ministry have said they will respond to trawl survey results in John dory 7 "*large fluctuations in stock biomass also mean management measures are required to rapidly reduce catches at times of persistent low recruitment*". However, we note that there have been years of low abundance in JDO 7 yet there has never been a decrease in the TACC, only increases in response to higher survey results.

56. It is common that fish stocks have natural cycles in abundance. A fundamental property of cycles is that increases don't last. They are followed by a decline. Increasing catch allowances when abundance is on the way down may exacerbate the decline. As abundance declines trawl effort has to increase to catch the TACC. We do not want any increase in trawling.

57. Hector's dolphins occur around most of the South Island in three recognised sub-populations. The smallest and most vulnerable sub-population of hectors dolphin in New Zealand is off the north coast of the South Island. The fisheries risk to Hector's dolphins for the north coast South Island is moderate; with commercial fishing estimated to be responsible for on average around one Hector's dolphin death per year (range 0.36-2.2). Of these, commercial trawls are estimated to be responsible for around 30% of the deaths. However, reporting rates of dolphin deaths and the estimated population size that underlie this estimate are both uncertain. The risk assessment calculates that, to achieve the desired outcome with high certainty, residual risk needs to be reduced by at least 52 percent.

58. The submitters do not support any increase in trawl fishing effort or TACs in FMA 7 until the new Maui and Hector's Dolphin Threat Management Plan is implemented and cameras are installed on all trawlers fishing this area.

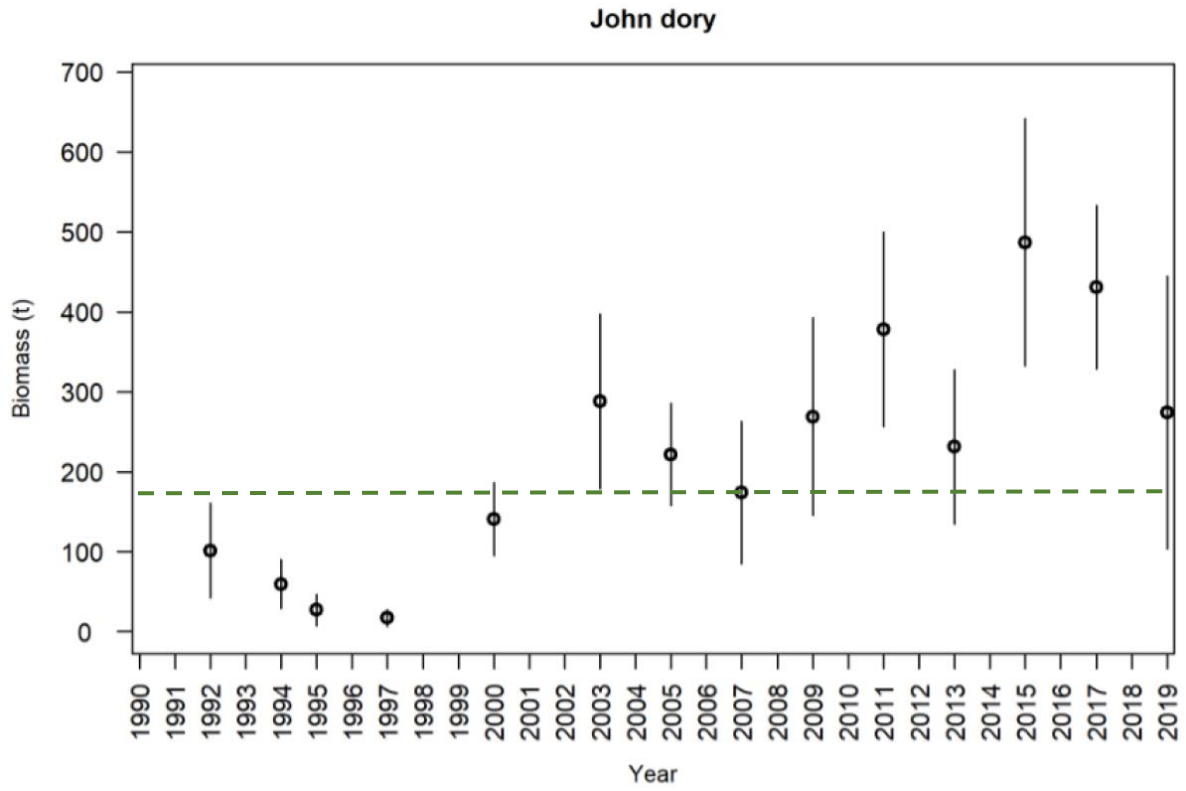


Figure 2: The West Coast South Island trawl survey biomass estimates for John dory including the preliminary 2019 survey result. Interim target biomass green dashed line.

Proposal to Set a Total Allowable Catch for Elephant fish 7

59. This is the first time a TAC has been set for the Elephant fish 7 (ELE 7) fishery. In setting a TAC for elephant fish, customary, recreational, and other sources of mortality allowances are also required. When introduced into the QMS, a TACC was based on the historic commercial catch levels, and in 1986 there was no requirement to set a TAC or allowances.

60. There is little information on the non-commercial catch and other sources of fishing mortality for ELE 7. Therefore, setting of allowances seems somewhat arbitrary, but that has been the case for a number of fisheries. The submitters note that the TACC for ELE 7 was exceeded in 2018 and there are some historic reports of high discard rates in some areas. Better information on catch and discards is needed.

61. The submitters are concerned that FNZ does not have a consistent rationale or policy on setting an allowance for other sources of fishing related mortality. For trawl caught fish where a minimum legal size (or industry minimum economic size) results in discarded fish there needs to be a more consistent approach. Usually this allowance for other fishing related mortality is set as a proportion of TACC. If changes to the TAC are made the submitters support the default setting of 10% of the TACC and require that any variation from this is adequately explained.

Discussion on Multi-species effects

62. The submitters support the evaluation of multi-species effects for inshore finfish fisheries. While fishers are required to report a single target species for each fishing event, they are most often targeting a species mix that suits the market or their Annual Catch Entitlement (ACE) holding.

63. The term bycatch is overused and not that useful in a multi-species mixed fishery where the target species is recorded after the catch is landed and may not accurately represent the fishers intended catch when putting the gear in the water. The species mix of catch in an area may be better represented by fishing depth, season and a suite of reported target species as has been used in previous catch per unit effort analysis. The WCSI analysis used a fishery definition for bottom trawl tows targeting gurnard, red cod, tarakihi, barracouta, stargazer, and blue warehou.

64. The submitters need to comment on the final paragraph of this section. It states:
"*Overall, Fisheries New Zealand considers the proposed increases in gurnard, rig and John dory…… are sustainable in the context of high biomass trends and/or stocks that are above target levels of abundance. This is particularly the case, given that these stocks are regularly monitored and the increases will be re-evaluated during stage 2 of this review*." The trawl survey biomass index for gurnard, rig and John dory are all trending down. Red gurnard is the only one that is safely above the target level. The WCSI trawl survey is used to monitor these stocks and the next survey will be in 2021. So, there will be no new information to re-evaluate the stocks other than commercial catch from the 2018-19 fishing year, which was taken under the old TACC. Stage 2 will only be assessing flatfish and snapper in 2020.

65. The interim targets used for these gurnard, rig and John dory stocks needs to be reviewed. The method of setting a target using the average CPUE or survey index that includes the years when the fishery was most depleted is no longer good enough. These estimates will be closer to the soft limit than the target in modern fisheries management.

66. As we are seeing again this year, with the tarakihi management plan developed by commercial fishers, they are happy fishing stocks around the soft limit rather than rebuilding them to a real world target biomass in line with international best practice.

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26 July 2019

Joint recreational submission to the review of sustainability measures for Red Snapper (RSN 1 and RSN 2) for 2019–20

Submission summary

1. The submitters know that Red snapper 1 (RSN 1) has been over fished.
2. Urgent management action is required as catch has been unconstrained for 40 years.
3. The submitters support a meaningful reduction of 100 t to the current TACC in RSN 1.
4. The submitters support catch sampling and ageing of red snapper in RSN 2. It is too late to get baseline data in RSN 1.
5. The submitters support option 1, no change to the TAC in RSN 2.

The submitters

6. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the review of sustainability measures for 2019–20. Fisheries New Zealand (FNZ) advice of consultation was received on 18 June 2019, with submissions due by 26 July 2019.
7. The NZ Sport Fishing Council is a recognised national sports organisation of 54 affiliated clubs with over 35,000 members nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.
8. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and

the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

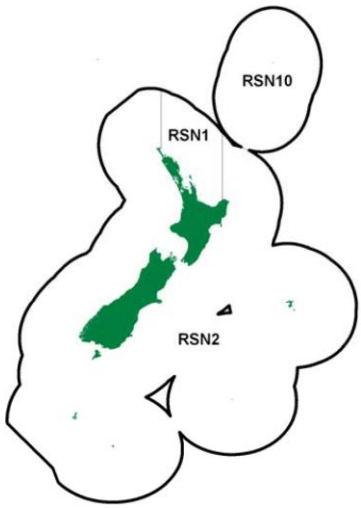
9. Collectively we are '*the submitters'*. The submitters are committed to ensuring that sustainability measures and environmental management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996, including "maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations…" [s8(2)(a) Fisheries Act 1996].

10. The submitters appreciate the somewhat longer consultation period (29 working days) for this year's October sustainability round.

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

Background

12. Information on the biology of red snapper indicates that it is long-lived and likely to be a relatively unproductive species. While often caught on or around reef areas, Fisheries New Zealand say red snapper are also occasionally caught in open water habitats between 100-400m in depth. The Plenary Report states that red snapper is present throughout New Zealand coastal waters but is generally rare south of East Cape and Cape Egmont.



13. Red snapper has been targeted for many years in RSN 1 initially by set net fishers who wanted to catch non-quota species with no lease/ACE cost. The prevalence of set netting on reefs led to concerns about the demise of long lived resident reef species and ghost fishing by lost nets. Following a review of set netting in the Auckland Fisheries Management Area (AFMA) some areas were closed to set netting and 19 reef species to classified as non-commercial.

14. Red snapper became a target species for longliners following the reduction in the TACC for SNA 1 in 1997. There was a ready market for red snapper and longlines could be set to float over foul ground, and reefs without getting caught on the bottom. Fishers were not allowed to target non-QMS species so the target was mostly reported as snapper or trevally. Red snapper was introduced to the QMS in 2004 but by then the damage was done.

15. Red snapper came into the quota systemin 2004 with a Total Allowable Commercial Catch (TACC) in RSN 1 of 124 t and 21 t in RSN 2. (Figure 1)

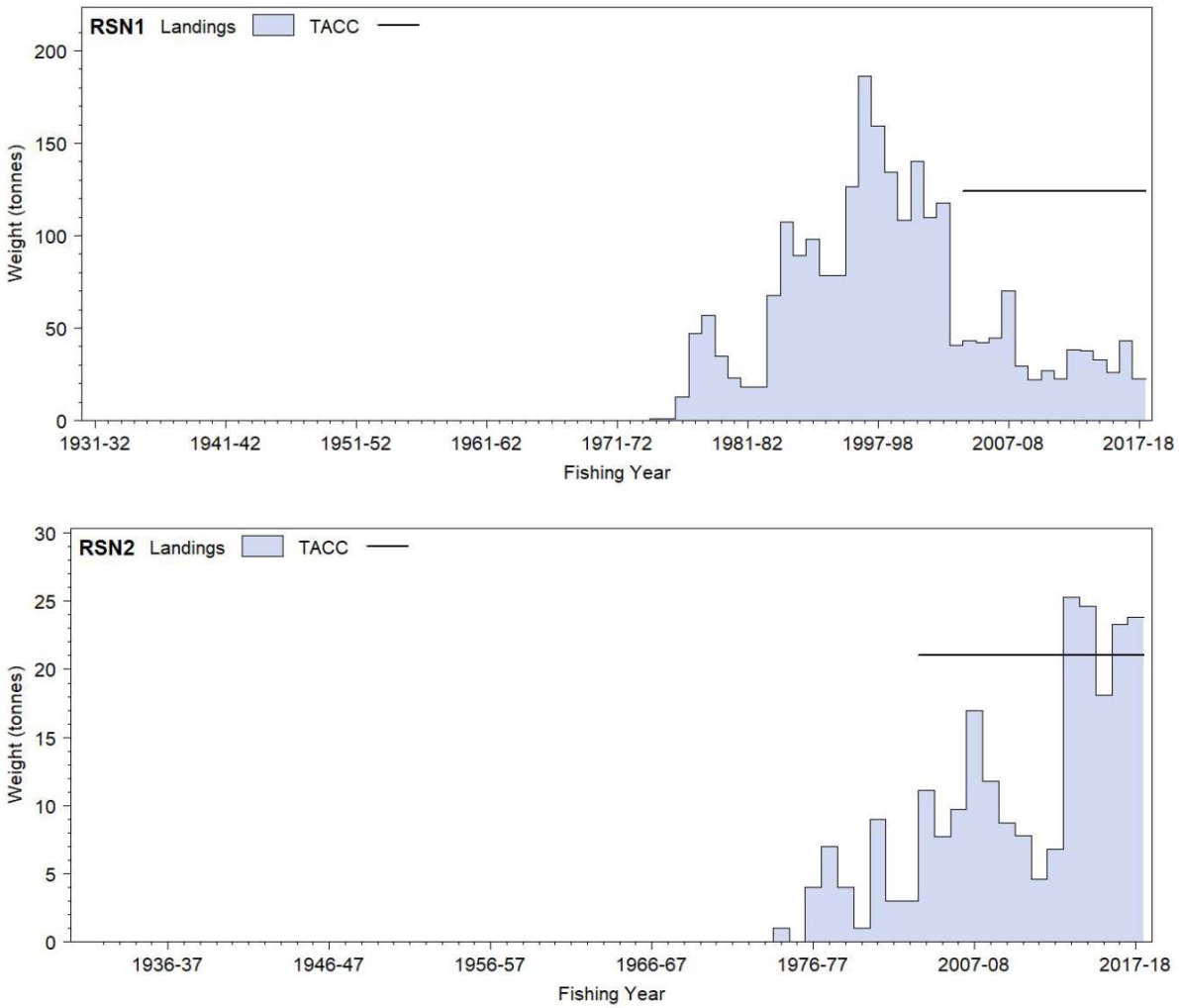


Figure 1: Reported commercial landings and TACC for RSN 1 (top) and RSN 2 (bottom).

Submission

16. There is no biological knowledge on the stocks; no stock size estimates, age structure of the stock, recruitment or productivity. There is no estimate of natural mortality or current fishing mortality. Studies suggest red snapper are slow growing and long lived, perhaps living longer than 50 years.

17. The exploitation of stocks with these characteristics is known to be problematic given the ease and degree in which they become depleted. Any exploitation needs to be below 5% of the current spawning stock biomass and measures must be taken to deliberately manage fishing effort in their prime habitat. None of these conditions have been met for either stock, RSN 1 or RSN 2.

18. There is a real dilemma with these stocks and others that occupy reefs and fringes, including hapuku, bass and tarakihi. Red snapper school over reefs or under overhangs during the day and disperse into open water at night to feed on large planktonic animals[1]. Clearly RSN 1 was

[1] Ayling & Cox. Sea Fishes of New Zealand

fished down during the 1990s as it became a target species and the highest value fresh export species to Europe. Targeting of RSN still occurs in RSN 1 and this is spreading to RSN 2.

19. There are a number of fish species that are assessed as separate stocks on the east and west coast of the northern North Island, even if their QMAs spans both coasts. Tarakihi, red gurnard and trevally for example. It is highly likely that red snapper, which are more resident that these species, is one stock or several sub stocks within RSN 1.

20. It is incorrect to characterise RSN as one of a bundle of bycatch species encountered while targeting another species. RSN makes up a valuable part of commercial catch. The problem is that, except for RSN 2 over the last 4 years, the TACC has not constrained catch nor served any useful sustainability purpose. Now catch has increased in RSN 2 Fisheries New Zealand advocate removing the constraint and, with intent and purpose, allow the same open access that has destroyed RSN 1. The submitters reject this approach.

21. Fisheries New Zealand must dig deeper into the cause of the increase in RSN 2 landings. Is it a general increase across the fleet? The submitters object to the practice of trawling across new rough ground with heavy gear to "break it in" to access the last refuges for tarakihi and red snapper. If fishers are doing this they must be told to stop.

22. When asking the local commercial fishers about the state of RSN 1 the most common response is "what red snapper". It's been decades since red snapper of marketable size have been fished out of local and deep reefs. The appropriate response to the widespread depletion of RSN 1 is to set the TAC at a level that constrains catch. It might also constrain the catch of associated species, but this is just a function of the QMS and doesn't relieve the Minister from the statutory obligation to "ensure sustainability". The Chief Justice noted that under the Fisheries Act 1996 utilisation may be provided for, but sustainability must be ensured[2].

23. Given the information vacuum concerning catch settings for RSN 1 ensuring sustainability requires the TACC be set below current catch levels – at about 20t. To now take the experience and lessons from RSN 1 and apply them to RSN 2 requires that no change be made to the current TACC, as this stock is now being targeted and a rapid fish down will follow in exactly the same way as it did in RSN 1.

24. Clearly these stocks cannot be managed by output limits alone. RSN 1 has clearly become seriously depleted and allowed to do so by Fisheries New Zealand. RSN 2 is now well on the way through the fish down phase before abundance also falls away. This isn't employing any notion of best practice or principle – it is a shallow superficial notion that an uncatchable TACC in one area can be 'moved' to a new area and as long as the aggregate is maintained there is no discernible impact.

25. The TACC that will be reduced by 60 t has never got within 60 t of that TACC for 20 years – there are no fish to justify leaving the TACC above current catch. The fact that this level of TACC in RSN 1 has destroyed the stock is the most important reason to not destroy RSN 2 by using the same sloppy reasoning.

[2] NEW ZEALAND RECREATIONAL FISHING COUNCIL INC AND ANOR V SANFORD LIMITED AND ORS SC 40/2008 [28 May 2009].

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26 July 2019

Joint recreational submission to the review of sustainability measures for Hoki (HOK 1) for 2019–20

Submission summary

1. The submitters assume that the true stock status of hoki is closer to 30% than 60% of the western stock unfished biomass. The survey data, CPUE and industry action to reduce catch all indicate the stock has been in decline.
2. The submitters support option 2, a 33% reduction in the catch from the western stock, as it is the only option based on the current western stock-focused model that is predicted to significantly increase biomass over the next five years.
3. If the western stock is really in trouble, then the appropriate response is to reduce catches to no more than 50,000 t and rebuild the biomass to above 40% of unfished biomass within six years.
4. If more survey data will provide reliable stock abundance trends for the western stock, then Fisheries New Zealand must ensure that survey frequency is increased. There will be no new data on the western stock biomass until 2021.
5. The submitters support the call for the government to end bottom trawl fishing on seamounts and similar deep sea benthic features wherever they are known to occur.

The submitters

6. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the review of sustainability measures for Hoki (HOK 1) for 2019–20. Fisheries New Zealand (FNZ) advice of consultation was received on 18 June 2019, with submissions due by 26 July 2019.

7. The NZ Sport Fishing Council is a recognised national sports organisation of 54 affiliated clubs with over 35,000 members nationwide. The Council has initiated LegaSea to generate

widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.

8. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

9. Collectively we are 'the submitters'. 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].

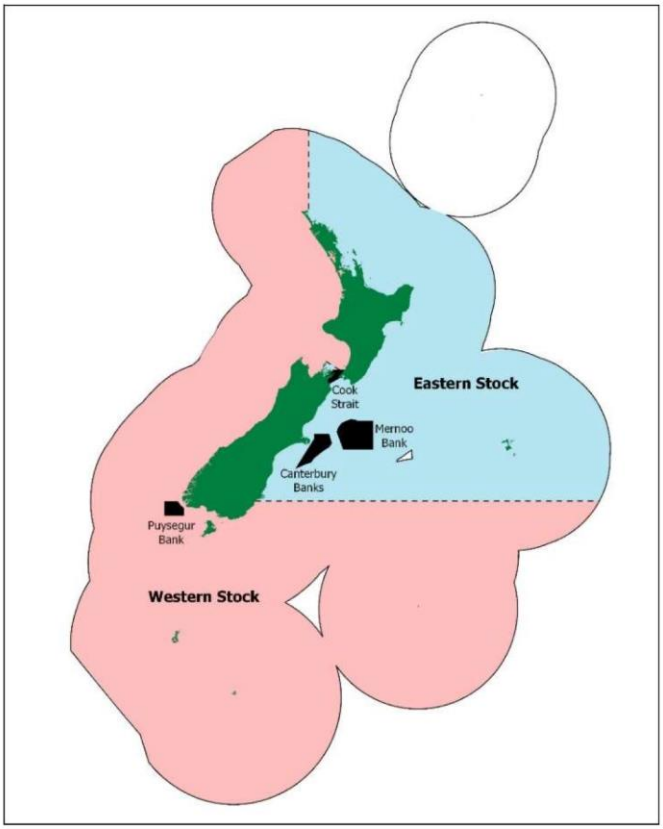
10. We would like to be kept informed of future developments. Our contact is Helen Pastor, secretary@nzsportfishing.org.nz

Background

11. Hoki is the largest New Zealand fishery and represents around a quarter of all fish caught commercially in New Zealand waters. They are fast growing but can live to 25 years old.

12. The main trawl fisheries are in Cook Strait and on the Chatham Rise (eastern stock, blue) and off West Coast and in the sub-Antarctic (western stock, pink).

13. In 2018 deepwater fishing companies made a collective decision not to catch 20,000 tonnes of quota for the year, reducing the overall catch to 130,000 tonnes due to concerns about the lower catches in the western stock.



14. Fisheries do fluctuate according to a wide range of factors. The Tasman Sea surface temperatures were as much as 6 degrees C above the norm in the summer of 2017 but temperatures at the depth of 200 to 600 m, where hoki are found, are much more stable.

Fisheries New Zealand Proposals

15. The largest fishery for HOK 1 is the spawning west coast South Island fishery, which operates seasonally from May-September. In 2017/18, 41% of overall HOK 1 catch was taken from the West Coast South Island fishery which represented 77% of the total catch from the western stock. The 20,000 t industry catch reduction will be applied to the western stock in 2018–19. Total hoki catch from this area will still be around 70,000 t.

16. Fisheries New Zealand proposed changes rely on industry catch spreading within the HOK 1 QMA. Option 1 would match the current industry reduction in the western stock of 22%, while option 2 is intended to reduce the commercial catch in the western stock by 33% (Table 1).

Table 1: Proposed TAC, TACC and allowances in tonnes for HOK 1 from 1 October 2019.

		Non-regulatory catch split arrangement			Allowances (tonnes)		
Option	**TAC**	**TACC**	**Eastern stock limit**	**Western stock limit**	**Customary Māori**	**Recrea-tional**	**Other sources of fishing related mortality**
Current status	151,540	150,000	60,000	90,000	20	20	1,500
Option 1	131,340↓ (13%)	130,000↓	60,000	70,000↓ (22%)	20	20	1,300↓
Option 2	121,340↓ (20%)	120,000↓	60,000	60,000↓ (33%)	20	20	1,200↓

Submission

17. There is a high degree of uncertainty in the stock status advice for the western stock in 2019. Depending on which model is used, the western stock could be at 29% of the unfished biomass. Alternatively, the stock could be at 56% of the unfished biomass with no need for management change.

18. The submitters are stunned that in New Zealand's most valuable fishery there has only been one acoustic survey of west coast hoki in the last 6 years when this fishery represents 77% of the commercial catch in that stock. The other component of the western stock in the sub-Antarctic has had three December trawl surveys in the last 6 years. These provide the only data on biomass changes as the working group has determined that trawl Catch Per Unit of Effort (CPUE) does not accurately index abundance over the long term.

19. There are plenty of inshore fish stocks that use trawl CPUE and the submitters agree that in most cases this does not accurately index abundance over the long term, but it is still used.

20. The fishing industry has determined that short term declines in CPUE were of sufficient concern to reduce catch by 20,000 t and forego gross income of $33.8 million.

21. Therefore, the submitters assume that the true stock status is closer to 30% than 60% of the western stock unfished biomass. Option 2 is the only current option predicted to significantly increase biomass over the next five years

22. The submitters are concerned that FNZ are only proposing one option that reduces the TACC below the level that commercial interests have already implemented. While we acknowledge the conservation efforts in 2018 to suggest that the fishery will rebuild by reducing current catch by 10,000 t (11% of the western stock) is unrealistic. If we are to rebuild this fishery the Minister needs to consider real cuts.

23. Skippers have been complaining for years that the older fish are gone and catches are maintained by taking small fish, and the situation is getting worse. If the western stock is really in trouble, then the appropriate response is to reduce catches to no more than 50,000 t and rebuild the biomass to above 40% of unfished biomass within 6 years.

24. If in future we find the fishery was more abundant than predicted there will be no losers, the fish will still be available to be caught. We don't have to risk pushing the stock lower.

25. In a deepwater trawl fishery we are concerned that the allowance for other fishing related mortality is only 1% of the TACC. Even in mid and inshore trawl fisheries the mortality rate is higher than the hoki allowance. It is not feasible that hoki can be returned to the wild given the depths being trawled. The Minister has a statutory duty to use best available information and act in a precautionary manner when making decisions. Given the uncertainty around the current stock status an allowance of 10% of the TACC is the minimum that ought to be set aside to account for expected mortality.

26. We reiterate the need for FNZ to develop policy on setting an allowance for other sources of fishing related mortality. The submitters support the default setting of 10% of the TACC, as a minimum for trawl fisheries, and expect that any variation from this is adequately explained and supported by data.

27. There are many similarities between hoki and the northwest cod stock off New Foundland that collapsed in a spectacular manner, causing the 1992 moratorium on harvest and throwing 30,000 people out of work. If hoki stock sizes are overestimated and high exploitation rates are maintained this leaves them vulnerable to sudden collapse.

28. Where is the MSC in all this? The hoki fishery was certified last year by MSC and is supposed to offer comfort that the fishery is managed sustainably. How can any assurance be given when there is a lack of basic understanding about current stock sizes and no biomass surveys that collect a reliable time series of relative abundance estimates? Certification for hoki ought to be immediately suspended until sustainability can be assured.

29. The submitters have read the submission from the Deep Sea Conservation Coalition and fully support the need for action to stop bottom trawling destroying the ancient coral forests found on seamounts and similar deep-sea features.

30. We strongly reject the argument that, having protected some seamounts (including through seamount closures and the so-called benthic protected areas), it is acceptable to continue to destroy other seamount ecosystems with bottom trawl fishing. This is central to the justifications set out by Fisheries New Zealand in its proposed "sustainability" measures for hoki and orange roughy in 2019, which are anything but sustainable.

31. Biodiversity loss that bottom trawling entails – destruction of deepwater corals, sponges and other deep-sea life over thousands of square kilometres – cannot be justified by the existence of the Benthic Protection Areas (BPAs).

32. New Zealand still hasn't defined the "habitat of particular significance for fisheries management [that] should be protected" a principle under the Fisheries Act 1996. Meanwhile, negotiations in New York are currently underway for a new international agreement for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction, underlining international concern and alarm at the many threats to marine biological diversity. It is entirely unacceptable for New Zealand to be destroying marine biological diversity in its EEZ and issuing high seas permits allowing extensive bottom trawling on seamounts, at the same time as recognising the need to protect it internationally.

33. Historically, when the hoki stock is in decline a lower proportion of the TACC is taken by mid-water trawling on spawning aggregations and the number of bottom trawl tows targeting hoki increases. Overall, midwater trawling has declined by about 77% since the peak in 1997. The submitters support the call for the government to end bottom trawl fishing on seamounts and similar deep sea benthic features wherever they are known to occur.

[redacted]
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Ministry for Primary
Industries
PO Box 2526
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26 July 2019

Joint recreational submission on reporting requirements for amateur-fishing charter vessel operators

Submission summary

1. The submitters question the timing of these changes to the charter reporting system. The opportunity for Fisheries New Zealand to engage with charter vessel operators and listen to their views before making changes has been missed.
2. The submitters support the inclusion of snapper and tarakihi in the charter reporting system.
3. The inclusion of blue cod in Area 1 is supported, as the additional burden on charter vessel operators will not be great as few are caught.
4. The submitters do not support the inclusion of scallops into the charter reporting system at this time.
5. The submitters consider recording the weight of retained catch will be useful if charter vessel operators are motivated to take the time to do it well.
6. In northern areas there is a far more urgent need for charter reporting of red snapper, pink maomao, red pig fish, and scarlet wrasse, which have become target species and are caught in large numbers on some charters.
7. The submitters ask the Minister to require a review of the recreational bag limits for reef species targeted by charter and private fishers.
8. The submitters ask the Minister to add pink maomao to the schedule of 19 reef fish prohibited for sale if taken from the Auckland Fisheries Management Area.

The submitters

9. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the proposals for the future management of Tarakihi 1, 2, 3, & 7. Fisheries New Zealand (FNZ) advice of consultation was received on 18 June 2019, with submissions due by 26 July 2019.

10. The NZ Sport Fishing Council is a recognised national sports organisation of 54 affiliated clubs with over 35,000 members nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.

11. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

12. Collectively we are '*the submitters'*. 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].

13. The submitters appreciate the somewhat longer consultation period (29 working days) for this year's October sustainability round.

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

Background

15. Reporting by charter vessel operators on the days fished, number of fishers, the fishing area and methods used started in 2010. Catch reporting required the numbers of fish caught for a limited number of species. The layout of the form has space for recording the weight of catch for any species. Some operators have been recording estimated weights for all fish caught or just those retained, and this has been entered into the database by FishServe.

16. Fisheries New Zealand has contracted a review of all the charter vessel data and a report on how useful the data is. There has been some discussion of preliminary results at science working group meetings, but the final report has not been completed.

17. In 2013 proposals were released to include snapper and weight of retained fish in the reporting regulations. However, the Minister decided not to proceed.

Fisheries New Zealand proposals

18. Fisheries New Zealand proposes to include blue cod for Fisheries Management Areas 1, 9 and 10, scallops, snapper and tarakihi for all areas into the charter reporting scheme from 1 October 2019 as set out in Table 1 below.

Table 1: (Status quo) and proposal for additional catch reporting, effective 1 October 2019.

Species	FMAs from which catch must be reported	
	Status quo	Proposal
Blue Cod	2, 3, 4, 5, 6, 7, 8	All
Scallops	None	All
Snapper	None	All
Tarakihi	None	All

19. Operators are currently required to report the actual or estimated weight of each fish for southern bluefin tuna and Pacific bluefin tuna to assist with New Zealand's international requirements for catch reporting of these species.

20. Fisheries New Zealand proposes to require the actual or estimated weight of the retained catch for all species for which catch reporting is required which currently include bass, bluenose, hapuku (groper), kingfish, rock lobster, and the bluefin species.

Submission

21. The Fisheries New Zealand (FNZ) discussion document states that charter vessel operator reporting "provides a valuable time-series information, and analysis of the available data and trends is used to support fisheries management decisions." In reality, the recent research project had to address serious problems with the quality of the data before consistent summaries could be produced, and for most species and Fisheries Management Areas the charter catch was relatively small and of limited value for management decisions.

22. Many charter vessel operators opposed the introduction of a reporting requirement because they would have to pay to register their vessels, and reporting would be an additional burden on them, with no clear evidence that the data was needed or would be used.

23. A survey of charter vessel operators was designed and implemented in May 2019 as part of the research project to review the reporting system. This raised a number of issues and potential changes to the reporting that could have been included in this review. However, there was no notice from FNZ that this review was happening in 2019 nor any pre-consultation about what would be included in the review. This is a lost opportunity to build a more constructive relationship between Fisheries New Zealand and charter vessel operators.

24. A more useful process would have been to release the reporting summaries and survey results from the research project, followed by a discussion about the changes that could be made to improve the reporting system. More work is required to get the majority of charter vessel operators to fully support the reporting system and see value in the information that they provide. At present, many operators see registration and the reporting system as an imposition with little practical value, consequently the accuracy of data provided is often not as good as it could be.

25. In fisheries like snapper and tarakihi charter catch and effort information will show trends over time, but the absolute amount of catch is relatively small and will have no impact on stock assessments or management decisions. Recording the weight of retained catch will be useful if charter vessel operators are motivated to take the time to do it well.

26. There is likely to be limited information on blue cod in Area 1 because few are caught.

27. It appears that the proposal to include reporting of scallops was to help monitor catch in SCA7, if and when the Marlborough Sounds scallop fishery is re-opened. Based on the latest biomass survey results this may take a while.

28. In northern waters there is a much higher priority. The submitters have been in discussion with the New Zealand Underwater Association and dive operators about the significant decline in the size and number of schools of reef fish. More catch information is urgently needed on the number of "red" fish that are coming under increasing pressure from some amateur charter fishers. These species include red snapper, pink maomao, red pig fish, and scarlet wrasse. Pink maomao is not a quota species and commercial landings also need to be closely monitored.

29. The submitters want management action to add pink maomao to the schedule of reef fish prohibited for sale if taken from the Auckland Fisheries Management Area. There are currently 19 reef species listed, that that have been protected since 1993. In addition, the recreational bag limits for reef species targeted by charter and private fishers needs to be reviewed.

[Full Name] JOSEPH JOHN DAVIS.
[Address] [redacted]
[Phone]
[email address]

[date] 26/7/19

Submission - Review of Sustainability Measures for Kina (SUR 1A, SUR 1B) for 2019/20
Fisheries New Zealand Discussion Paper No: 2019/12

1. Introduction.

[Briefly describe how you are involved in the commercial kina industry

VIA THE HAURAKI MAORI TRUST BOARD.
+ NGATI HEI TRUST.
+ PAKE HAURAKI FISHERIES TRUST.
+ MARINE + COASTAL AREA (MACA) CLAIMS.
+ WAI 110 TREATY SETTLEMENTS.
+ REGISTERED WITH TOKM.

2. Questions for submitters on options for varying TACs, TACCs and allowances:

- *Which option(s) do you support for revising the TACs and allowances? Why?*

I Support Option 3 - a 50% increase to the TAC, TACC and other allowances.

The reasons why I support Option 3 are:

1. There are too many kina barrens in area 1A and 1B.

2. The kina catch has been taken at its maximum for the last 10+ years.

3. A small 20% increase – Option 2. is not enough to manage all of the kina barrens.

4. There are plenty of areas where customary and recreational people can harvest kina. In the commercially-managed areas the quality of kina significantly improves, so recreational and customary harvesters will benefit most from Option 3.

5. The original quota set for SUR 1A & 1B was low, because of lack of information on the fishery. We now have that information, including evidence of a major bounce back in the Bay of Islands kina fishery.

[redacted]

6. I agree with the Discussion Report that fine-scale reporting will allow for better management of the kina fishery. and that this is now possible because of the new Electronic Reporting system in place.

7. Local and international experience suggests that the level of harvest in Option 3 can be managed through fine-scale management.

- *If you do not support any of the options listed, what alternative(s) should be considered? Why?*

N/A. I support Option 3.

- *Are the allowances for customary fishing appropriate? Why?*

The allowances for customary fishing for Option 3 are appropriate. This is because the quality of kina will improve in kina barrens which are managed by the additional fishing pressure.

- *Are the allowances for recreational fishing appropriate? Why?*

The allowances for recreational fishing for Option 3 are appropriate. This is because the kina fishery and other fisheries will improve if kina barrens are better managed by stronger commercial and customary fishing.

- *Are the allowances for other sources of mortality appropriate? Why?*

Other sources of mortality are minimal because the commercial harvest is done by hand-gathering. The by-catch from other fishing methods (trawling. dredging) is minimal.

- *What other management controls should be considered for both recreational and commercial fishers? Why?*

1. Commercial fishers should be allowed to use UBA. It is safer. more cost-effective and allows for better management of the fishery through selective harvesting

2. I believe that customary and recreational catch reporting needs to be improved.

3. I agree with the Discussion Report that under Option 3 catch limits could be easily adjusted in future if fine scale catch monitoring or other information suggests this is appropriate

Yours faithfully Joe Davis

[Name and signature [redacted]

(Joe Davis)

Kara Lilley
[redacted]

24.07.2019

Submission - Review of Sustainability Measures for Kina (SUR 1A, SUR 1B) for 2019/20
Fisheries New Zealand Discussion Paper No: 2019/12

1. Introduction.

I come from a large family of commercial divers. I have worked in the industry for 15 years since I was at high-school. I have processed kina, sold kina, and dived for kina. I work full time for [redacted], and know the industry in depth.

I fully support the Kina industry council's appeal to increase the TACC and believe whole heartedly that this is sustainable move, and will improve the underwater environment.

2. Questions for submitters on options for varying TACs, TACCs and allowances:

I Support Option 3 - a 50% increase to the TAC, TACC and other allowances.

The reasons why I support Option 3 are:

1. I have seen first hand during my recreational diving that there are too many kina barrens in area 1A and 1B. Each of these areas need managing to improve the kina fishery and the marine environment. Kina barrens are affecting the stock of crayfish, snapper and other important seafood species.

2. The kina catch has been taken at its maximum for the last 10+ years.

3. A small 20% increase – Option 2, is not enough to manage all of the kina barrens. If you want to improve the kina fishery you must be able to manage the kina barrens. Otherwise you will just get lots of small kina which are no use to anybody and destroy the kelp beds.

4. There are plenty of areas where customary and recreational people can harvest kina. In the commercially-managed areas the quality of kina significantly improves, so recreational and customary harvesters will benefit most from Option 3.

5. The original quota set for SUR 1A & 1B was low, because of lack of information on the fishery. We now have that information, including evidence of a major bounce back in the Bay of Islands kina fishery.

6. I agree with the Discussion Report that fine-scale reporting will allow for better management of the kina fishery, and that this is now possible because of the new Electronic Reporting system in place.

7. Local and international experience suggests that the level of harvest in Option 3 can be managed through fine-scale management.

- *If you do not support any of the options listed, what alternative(s) should be considered? Why?*

N/A. I support Option 3.

- *Are the allowances for customary fishing appropriate? Why?*

The allowances for customary fishing for Option 3 are appropriate. This is because the quality of kina will improve in kina barrens which are managed by the additional fishing pressure.

- *Are the allowances for recreational fishing appropriate? Why?*

The allowances for recreational fishing for Option 3 are appropriate. This is because the kina fishery and other fisheries will improve if kina barrens are better managed by stronger commercial and customary fishing.

- *Are the allowances for other sources of mortality appropriate? Why?*

Other sources of mortality are minimal because the commercial harvest is done by hand-gathering. The by-catch from other fishing methods (trawling, dredging) is minimal.

- *What other management controls should be considered for both recreational and commercial fishers? Why?*

1. Commercial fishers should be allowed to use UBA. It is safer, more cost-effective and allows for better management of the fishery through selective harvesting

2. I believe that customary and recreational catch reporting needs to be improved.

3. I agree with the Discussion Report that under Option 3 catch limits could be easily adjusted in future if fine scale catch monitoring or other information suggests this is appropriate

Yours faithfully

Kara Lilley

From: Karl Warr
To: FMSubmissions
Subject: Tar2 sustainability
Date: Thursday, 25 July 2019 11:04:22 AM

To whom it may concern, recently I was asked to contribute my thoughts towards submissions on the management of Tarakihi stocks east coast nz.

I fully support the greatest cuts proposed in order to rebuild our Tar stocks.

My reasoning, the mass of any sustainable harvest, is directly proportional to the mass of the brood stock generating them.

Any arguement based on the fear, anxiety or general bitching about reducing harvest levels- is hypocracy at its finest. Cutting harvest pressure is the most expedient pathway to increased sustainability.

If respect for the ecosystem that sustains us all, and indeed the planet is not pressing enough, markets and a viable future for industry relies upon the provenance of these stocks.

Three decades have elapsed in the qms to this point. I would find it rather difficult to justify to anyone, how measures to avoid the pain of these proposed cuts in tacc have not had enough resource of time to be mitigated. This would infer to most including myself, there has not actually been any real motivation or desire to do so. Even the inpending dire warnings of the last 24 months has failed to, get those affected to shake a leg and get on with sorting it. Reality has fallen on deaf ears. In my view, the industry offered plan is pathetic to be polite about it.
I have listened to folk bragging about how they avoided observer coverage, litigation boasts about fighting off implementation of cameras on board vessels. And here we are saying trust us, we will spread fishing pressure, we will move on if juveniles are being caught.
Also, jobs being lost, factories closing, boats being sold. These are and will be sad and weighty conseqences indeed. What I am not hearing though, is conversation around how many jobs, factories and boats could be employed if Tar stocks were running at 60% biomass productivity. Three times the brood stock can potentially increase the harvest by three times. Why are we not talking about the positives and the strategies to surviving a rebuild in as short a time as practical?.
Frankly, if industry refuse to choose to respect, and respond to social expectation, then society itself is remiss if it does not act to address this.
Often, half of the value of consumer paid values for nz fish are taken by the entity simply marketing the product. The other half of the consumer paid value is consumed in all the expenses incurred trying to produce it to the customer.
We have a shortage of resources funding this production, from its base science through to slave labour in its catching. (and if you think im taking license there, go ask yourself why inshore fishers have no statutory wage rights via illegal share fishing contracts. No min wage level for effort, no holiday pay, no paid leave etc.)
In order that things balance up properly, ie true values of resource rentals and fair wages, good science- the full value of this produce needs imputing to the inputs.
Industry, yes the industry that under its own management, caused depletion of stocks,, so severe that govt intervention was required- were given autonomy via the intro of the qms with free resource rentals to " most efficiently and effectively manage". Hows that working out for yawl?
The reason I dont make submissions normally, I dont see alot of value in stating the

obvious. This is the obvious- industry have taken free resource rentals under captured or lax governance environments, and applied them to their own pockets. Now and from that moment on, we as a nation are being asked to input on cleaning up and manging the mess that strategy generates.
So, Fisheries New Zealand- any time your ready eh.

Best regards Karl warr
[redacted]

From: Keith Ingram
To: FMSubmissions
Cc: [redacted]
Subject: Submission - Reporting requirements for Amateur-fishing charter vessel operators
Date: Wednesday, 17 July 2019 4:43:31 PM
Attachments: Dear Fisheries NZ.docx

Dear Fisheries NZ

Please find attached our submission on 'Reporting requirements for amateur fishing charter vessels

Kind regards

[redacted]

Keith Ingram JP

[redacted]

Phone: [redacted]
Fax: [redacted]
Mob: [redacted]
Email: [redacted]

Dear Fisheries NZ

17 July 2019

Submission - Reporting requirements for Amateur-fishing charter vessel operators.

I write on behalf of the NZRFC, NZMTA (charter boats) and Professional Skipper magazine representing the thoughts and concerns being voiced by the charter boat community. While many will hopefully respond individually, there is clearly a disquiet about voicing opposition to the proposals for fear of raising MPI Fishery Officers focus of attention for the reasons I will outline.

I would also point out that I have had over 35years experience on several vessels operating recreational line fishing and dive charter vessels in our northern waters. Most of the time as a single operator and skipper.

Support in principle with reservations

While the NZRFC and NZMTA encourage the gaining of better information on recreational catches for research purposes, we recognises that the charter boat fleet nationally is fishing under the Amateur Fisheries Regulations where the catch belongs to the angler. The national fleet is very small and would number only some 200 active vessels reporting at best. The number of fishers carried collectively would number less than 3% of recreational fishers or with the exception of deep water species even the percentage of catch caught and as such boarders on the margin of error for any survey or data collection.

With such a small sample it would be fair to suggest that the information gained would only be able to give an indication of trends rather than definitive numbers on the total amateur catch by species. This being the case it is important to remember this when applying enforcement on this small but supportive fleet and their operators.

We have received concerns from Skippers that when MPI FO's are inspecting the catch of clients in the car park and then arriving at the charter boat to check log books, the officers have got quite stroppy when the log book is inconsistent with their car park tallies. Likewise when patrons in the final divvy up, take less than their bag caught, giving the excess of fish caught to a friend who has a greater need.

While the boat tally is correct, fishers are made to look like thieves with excess when checked in the car park and then the Skipper cops a warning for letting them give away fish on the boat. We should remind the MPI Officers that to date the skippers are the operator, and in doing their best to ensure compliance, do not hold pseudo HFO warrants.

We would note the four additional species proposed in the discussion paper are all prime recreational species covered by both individual bag limits and minimum legal sizes.

We would also note that in the cases of blue cod, scallops and snapper the recreational MLS in a number of areas is different to what commercial can and are taking. At this point we remain concerned and it is important to note that any catch saving for sustainability by recreational fishers is available to be mopped up at a lower MLS by commercial fishers.

We would add that the decline in terakihi nationally has been brought about by over fishing by the commercial sector and cannot be attributable to the charter boat or recreational fishing community in any way.

Reporting and client conflicts.

We would note that most skippers and crew try their very best to ensure that the information they are recording and reporting is valid and the best they can collect.

However when the fishing gets busy and there are many anglers on board - all fishing into their own bags or chilly bins, it is easy for the crew to lose count or be distracted. We note that some vessels use a common boat ice box to try and control the catch recording, but this only works with charter groups where the catch is shared. Where you have a party boat load of casual anglers all fishing for themselves, into their own bins or bags, maintaining an accurate count when the fishing is hot frequently becomes problematic.

It's at this point when things can get a bit touchy, if for whatever reason a fisher might take excess or undersize and conceal these fish in his bag or chilly bin. Knowing he is offending changes people's attitudes, when if on being approached by the skipper to check his bag and he gets stroppy, all the skipper or crew member can do is retreat to the wheel house. They have no powers under the Act to force the issue and neither they should.

At this point we must remember that all recreational fishing anglers carry knives for the legitimate purpose of fishing. These knives also make for a handy weapon when challenged, threatened or even feeling guilty. The unknown use of drugs or alcohol by the angler can add to the escalating of the situation. These are known risks and threats the skippers must deal with in the course of their normal duties without being purposefully put into a potential conflict situations by added data collecting.

Conflict of various Acts.

At this point it is worthy to record that neither the skipper or crew member have any rights to conduct a private search of a person or his property at any place be it on board or on the landing under the Search and Surveillance Act… Period.!
Like I said MPI has no authority to delegate or create pseudo HFO's out of charter boats skippers or crew under the powers of the Fisheries Act.

Therefore MPI must rely on the goodwill of operators and skippers to assist in catch data collecting and in doing so must ensure the process is not onerous or at risk to the skipper, crew and other patrons in any way.

Then we have the Health Safety in Work Act (HSWA) administered at sea by Maritime NZ. As is very clear by most prosecutions carried out by Maritime NZ on maritime operators that most are now under the HSWA.

By expecting Skippers or Crew to carry out illegal searches of Anglers private property in pursuit of catch data further puts the crew of a vessel at risk under HSWA.

I make these observations in an effort that MPI might be able to understand the concerns and risks facing operators plus the added over zealous actions from Fisheries Officers when they get it wrong.

Reporting catch weights

We have some significant concerns with Skippers or crew being expected to estimate catch weight.

While some Skippers may have a very good eye for fish size and estimated weight to record this while busy on top of fish numbers is adding a further burden to a skipper who might be solo on board. In doing so, he must also ensure that he is not distracted from his maritime

duties of safe navigation of the vessel at all times. For bottom bouncing fishing vessels are frequently drifting over fish and as such the vessel is deemed to be underway and as such the skipper must keep an active and alert look out at all times.

This being the case, all too often the skipper must rely on the individual anglers honesty when doing a tally at the end of the day. To further ask an estimated weight of catch is a burden rout with problems. (We all know fishermen lie about the size of their fish) it's just what anglers do. To further enforce a physical check is at risk of breaching the terms of the Search and Surveillance Act.

Further comments from the NZMTA

Given the current track history of Maritime NZ in penalising small operators for any mis-demeaner under both the Maritime Transport Act and the Health Safety in Work Act, the Association's members hold strong concerns that if an accident were to occur and attributable to the skipper being distracted from his maritime duties under the MTA, Maritime NZ will prosecute the operator - no questions asked.

It is the NZMTA's view that if charter boats are required to report as stated in discussion paper, then a better approach by MPI would be to incentivise these operators who have registered for reporting, rather than treating them in a negative manner similar to commercial fishers.

The NZMTA would argue that while they, the operators gain a charter or passage fee, that maybe seen as reward, there is no allowance or consideration gained from the fish successfully landed by anglers. Unlike some other international jurisdictions, here in New Zealand, the fish belong to the angler and cannot be sold for reward. Meaning they cannot be construed as being commercial fishers within the terms of the Act.

Rather than taking an aggressive compliance approach, why not consider a more accommodating and rewarding approach that incentivises operators to go that extra mile to ensure that the data they are reporting is as accurate and robust as possible.

- Like: By removing the annual reporting registration fee.
    - Introducing monthly draws for filing returns
    - Offer an annual consideration by way of a bonus or honorarium for filing active returns.
    - Or just pay them a research fee the same as you pay any other research or data collecting agency.

In Closing

Finally in closing if this submission has raised a smile in bureau-ocracy, then I am pleased that you note our submission and the concerns of potential conflicts with the various Acts. And please don't think we are over dramatizing or it won't happen. I would remind you that the issues raised hold serious concerns for many skippers and operators and are not a laughing matter.

Thank you for reading this submission

Yours

Keith Ingram JP

[redacted]

From: [redacted]
To: FMSubmissions
Cc: [redacted]
Subject: KIC sustainability submission July 2019
Date: Tuesday, 23 July 2019 8:05:50 AM
Attachments: image001.jpg
KIC sustainability submission July 2019.pdf
[redacted] et al 2016.pdf

Please find attached a submission from the Kina Industry Council on: Review of Sustainability Measures for Kina (SUR 1A, SUR 1B) for 2019/20

Yours faithfully

[redacted]
Ph [redacted]
Email [redacted]
Website [redacted]

KINA INDUSTRY COUNCIL

22nd July 2019

To: Sustainability Review 2019, Fisheries New Zealand, Ministry for Primary Industries, PO Box 2526, Wellington 6140.

Submission on: Review of Sustainability Measures for Kina (SUR 1A, SUR 1B) for 2019/20

This is a submission on behalf of the **Kina Industry Council** (KIC) on the review of SUR 1A and SUR 1B.

The address for service for the submitter is Attn: [redacted] Phone [redacted]. Email [redacted]

KIC has carefully read the Consultation Document (Fisheries New Zealand Discussion Paper No: 2019/12). KIC has also canvassed the views of its members (including Te Ohu Kaimoana and ACE fishers), some local people and iwi in the affected areas, Licensed Fish Receivers and scientific advisors.

KIC's preferred Option for the ongoing sustainable management of kina stocks in SUR 1A and SUR 1B is either:

- Option 2 - a 20% increase to the TAC, TACC and allowances, on condition of a full review of SUR 1A and SUR 1B within 2 years, taking into account fine scale data received from the digital monitoring programme

Or;

- Option 3- a 50% increase to the TAC, TACC and allowances.

Please note that KIC's preference for Option 2 differs slightly to that outlined in the Consultation Document, as it is conditional upon a review of these two stocks within 2 years of the activation of the 20% increase in TACC's.

Either of the above two options are satisfactory to KIC.

Reasons for KIC having these two preferences are outlined below.

1. The Kina catch was set artificially low

The commercial Kina fishery started in 1992. Kina were introduced into the Quota Management System (QMS) in 2003. The Consultation Document states that when this occurred:

Initial catch limits were set cautiously, below the maximum historical recorded catches

Further under-allocation occurred because of a lack of evidence to support the development of the fishery. Kina divers had not moved up into SUR 1A, so the overall take there was minimal. Divers now report rapid bounce-back of kina stocks in the fished areas of the Bay of Islands and elsewhere in SUR 1A. In some places there is no indication that they were even there 3 years ago. KIC suggests that the submission of Peter Herbert and other kina divers are referred to as evidence that the kina fishery is considerably under-utilised in SUR 1A & 1B.

2. Commercial harvest is the principal way to sustainably manage kina barrens.

The Consultation Document (Section 11.1) states:

… information from fishers and other stakeholders (including small-scale surveys) suggests abundance is high and increasing, in some areas to the point where it is having an impact on other species such as kelp.

Section 13 of the Consultation Document then downplays the magnitude of the problem with kina barrens, and their significance in causing adverse effects on the marine environment. This is unhelpful to the consultation process, as kina barrens have been implicated in severe adverse effects on kelp beds which sustain the life cycles of many valuable commercial species such as juvenile rock lobster, paua and snapper.

A video depicting the problem with kina barrens in New Zealand is available on

https://youtu.be/ybpHdLzWXqw

Kina barrens are appearing more regularly. They can be managed by commercial fishermen "grooming" a site. The kina quality in "groomed" areas significantly improves (see video) to the extent that the harvested kina are suitable for export. Furthermore, the groomed areas are more favoured for customary and recreational harvest than the barrens. There is no competition between the sectors (commercial, customary and recreational) in groomed areas, as all harvest contributes to the grooming process which keeps the kina quality high.

In short, kina quality is more important than kina quantity. Increasing the TACC by 50% will allow kina to be managed to the desired quality for all harvesters.

The only barrier to this management-for-quality option has been the low-set TACC. This was signalled in 2016 when a Special Harvest Permit application was made by commercial interests to manage and monitor the recovery of kina in groomed areas of SUR 1A & 1B. This grooming-monitoring work has not proceeded because the Special Harvest Permit was not granted.

Accordingly, Option 2 with a 2-year review clause, or Option 3, will allow for more kina barrens to be groomed for harvest, and allow for more intensive grooming in existing managed areas.

3. The interests of other harvesters (customary and recreational) should be maintained and enhanced where possible.

KIC fishers intend to work closely with iwi in SUR 1A & 1B. At a recent meeting in Tauranga commercial and customary representatives discussed the current situation with kina fisheries in SUR 1A &1B. Further discussions have been held with Te Ohu Kaimoana. This has advanced KIC's understanding of customary needs and concerns. Some customary areas have been identified, which KIC members have voluntarily agreed to avoid. Further meetings are planned (at least annually) to ensure that commercial activities do not impinge on customary harvesters.

KIC cannot directly comment on the preferred Options for customary and recreational fisheries. KIC is aware that in some areas a significant amount of smaller-scale customary harvest is taken through the recreational allocation. KIC is also aware that the availability of good quality kina for these fishing sectors should be maintained and enhanced where possible. Maintenance and enhancement can be achieved in some areas through "grooming" i.e. intensive management of kina barrens via commercial harvest. Accordingly, KIC submits that the Options which best suit this form of management are Option 2 (20% TACC increase) with a 2-year review clause, or Option 3 (50% TACC increase). It should be noted that, under Option 2; after the 2-year review the TACC may change to a level which differs from Option 3.

After consultation with Te Ohu Kaimoana, KIC is aware that a 50% TACC increase without comprehensive catch-effort-location data could have unintended consequences for customary kina harvesters. KIC submits that, while Option 3 is the preferred option, Option 2 with a compulsory 2-year management review is equally preferred as it considers the concerns of other kina harvesters, especially customary harvesters.

95%+ of those who purchase commercial kina are Maori. For the Auckland and Australia markets, commercial fishers are providing a product that the city-based whanau do not have easy access to. This demand has grown, as has an expectation of the highest quality kina roe which can only be produced from groomed areas. When kina is harvested from ungroomed areas there are customer complaints. This is because the colour of the kina roe is darker, and its quality is inferior.

4. The digital monitoring programme will provide the necessary data to sustain KIC's preferred Options.

It is important to get the necessary data which allows for effective management of the kina fishery, especially for more intensive kina management in the "groomed" areas. The Consultation Document states:

Monitoring of fishing activity will improve with the introduction of digital monitoring, but will not provide as robust information as fisher-independent surveys (which are generally cost-prohibitive for kina stocks).

KIC submits that the new electronic positional reporting system will be more than sufficient to accurately assess the response of kina quality in "groomed" areas. This is because only high-quality kina is taken commercially, so any new areas fished commercially will show up as those which have responded positively to "grooming".

The Consultation Document quotes Andrew et al (2002) as suggesting a history of depletion of sea urchin fisheries around the world; thereby supporting a cautious approach to management. KIC disagrees with this assumption. A more recent assessment of worldwide kina fisheries is provided by James et al (2016) – attached to this submission. This report paid particular attention to the New Zealand kina fishery and compared its management to that in other countries. It found that the New Zealand sea urchin fishery was among a number of well managed and sustainable sea urchin fisheries around the world. James et al (2016) concluded:

These tend to rely on a good overview of biology of the urchin species present in the area as well as sound knowledge of the dynamics of the sea urchin populations. Comprehensive stock assessment and mapping also appears to be an integral part of successful fisheries management."

While "comprehensive stock assessment" of Kina fisheries can be problematic, CPUE trends can be matched with location mapping data to fulfil the recommendations for a well-managed fishery. Poorly managed fisheries elsewhere in the world had none of the management controls found in NZ's QMS, so it comes as no surprise that they were depleted. Hence, there is no imperative for an unnecessary precautionary approach based on the experiences of other countries with few fishery management controls.

5. Other management controls

KIC supports the use of Underwater Breathing Apparatus (UBA) being used in commercial harvest of kina in all Fisheries Management Areas. A recent newspaper report on this can be viewed on:

https://www.stuff.co.nz/national/114335071/chathams-diver-tells-of-being-thrown-around-by-great-white-shark

In allowing the use of UBA, there needs to be appropriate provisions in place to protect customary and recreational non-commercial interests and the sustainability of the fishery. These will include spatial position catch reporting, and regular meetings with iwi representatives to discuss the annual kina harvest.

Yours faithfully

[redacted]

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For: KINA INDUSTRY COUNCIL.

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Sea urchin fisheries, management and policy review

(Activity A4.2.1 of the URCHIN project)

Philip James, Chris Noble, Colin Hannon, Guðmundur Stefánsson, Guðrún Þórarinsdóttir, Roderick Sloane, Nikoline Ziemer and Janet Lochead

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Summary/recommendation:

This report gives a brief introduction to the URCHIN project, funded by the Northern Peripheries and Arctic Programme (NPA). The scope of the report is also outlined.

This is followed by a summary of the sea urchin fishery management techniques that are used in sea urchin fisheries around the world. These are listed in order of size of the fisheries and include a brief description of the history of the fishery and what management practices have led to the current state of the fishery. There are three more detailed case studies of Fisheries Management from Chile, the world's largest fishery, New Zealand, a small but sustainably managed fishery and Canada, a fishery that has substantial management in place and a sustainable fishery that experiences similar environmental conditions to countries in the NPA.
The report then summarises the management practices, or lack of, that have been in place in the participating NPA countries (Ireland, Iceland, Greenland and Norway).
Finally, conclusions are made on the history of sea urchin fisheries management in the NPA countries and the impacts that a lack of fisheries management and regulation has had in these countries.

Summary/recommendation in Norwegian:

Denne rapporten gir en kortfattet innføring i prosjektet URCHIN, finansiert av Northern Periphery og Arctic Programme (NPA). Dette etterfølges av et sammendrag av metoder som brukes i kråkebollefiskerier verden rundt. Disse er listet etter størrelse og inneholder en kort historisk beskrivelse av fiskeriene, og hvordan praksis har påvirket den nåværende tilstanden av fisket. Det er tre mer detaljerte studier av fiskemetoder fra Chile, verdens største fiskeri, New Zealand, et lite, men bærekraftig forvaltet fiskeri og Canada, et fiskeri som har betydelig forvaltning på plass og et bærekraftig fiskeri som har lignende miljøforhold som land innenfor NPA-ordningen.
Rapporten oppsummer forvaltningspraksis, eller mangel på, som har vært på plass i NPA-land. Disse inkluderer Irland, Island, Grønland og Norge.
Avslutningsvis er det gitt en rekke konklusjoner på hvordan kråkebollefiskeriene har vært forvaltet og betydningen manglende forvaltning og regulering har hatt i de ulike NPA-landene.

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1 Executive Summary

This report gives a brief introduction to the URCHIN project, funded by the Northern Peripheries and Arctic Programme (NPA) and the scope of this report.

This is followed by a summary of the sea urchin fishery management techniques that are used in sea urchin fisheries around the world. These are listed in order of size of the fisheries and include a brief description of the history of the fishery and what management practices have led to the current state of the fishery. There are three more detailed case studies of Fisheries Management from Chile, the world's largest fishery, New Zealand, a small but sustainably managed fishery and Canada, a fishery that has substantial management in place and a sustainable fishery that experiences similar environmental conditions to countries in the NPA.

The report then summarises the management practices, or lack of, that have been in place in the participating NPA countries. These include Ireland, Iceland, Greenland and Norway.

There are a number of examples of how a sea urchin fishery can be managed poorly. The most sobering example has been the serial depletion of the Chilean fishery prior to 2002. However, this fishery has undergone a major transformation to implement management strategies to avoid a fisheries collapse. Likewise there are a number of well managed and sustainable sea urchin fisheries around the world. These tend to rely on a good overview of biology of the urchin species present in the area as well as sound knowledge of the dynamics of the sea urchin populations. Comprehensive stock assessment and mapping also appears to be an integral part of successful fisheries management. This report shows that most of these factors are absent in the NPA countries participating in the URCHIN Project (Iceland is in the process of instigating fisheries management). This report is a timely reminder of the importance of effective and appropriate fisheries management for any future sea urchin fisheries in the NPA area and the dangers of not implementing such measures.

2 Introduction

2.1 Introduction to the URCHIN Project

The URCHIN project aims to utilise the sea urchin resource present in the northern arctic regions. The challenges of fishing, sustainable and responsible harvesting of stocks, legislation and supply chains for sea urchin products from isolated and environmentally harsh and challenging areas in the Northern and Arctic region will be addressed. The challenges will be overcome through innovation and national and transnational technology transfer.

Currently there are small scale (<150 tonne p.a.) intermittent fisheries for sea urchins in the NPA. This is despite there being enormous sea urchin resources present in the area. There are a number of challenges that have prevented the expansion of sea urchin fisheries in the NPA. These include environmental challenges to fishing, inadequate and inappropriate legislation and fisheries management and lack of technology and knowledge regarding sea ranching and roe enhancement of poor quality urchins. Research to overcome these challenges has been disparate and there has been no previous transfer of knowledge between the NPA partner countries.

This project aims to gather the existing expertise from Norway, Iceland, Ireland and Greenland, together with knowledge from Canada and Scotland to optimise the fishing of high value sea urchins in Northern and Arctic areas. Furthermore, roe enhancement technology for roe fattening to increase the value of low value sea urchins once they have been collected in the northern arctic regions will be developed in Greenland and Iceland. The project would also investigate sea ranching to repopulate areas that have been extensively overfished in the past in Ireland. Issues regarding the provision of adequate legislation and fisheries management will be identified and legislative organisations will be provided with the appropriate knowledge to provide sensible and sustainable management of sea urchin fisheries. The project will also estimate market needs for sea urchin roe as well as establishing logistic routes from the NPA to markets.

2.2 Scope of the Report

The aim of this report is to produce a short review of previous and current management strategies that have been and are used in the NPA and to compare these to other strategies used to manage sea urchin stocks around the world.

3 Summary of the Fisheries Management techniques used around the world

3.1 Introduction

In a comprehensive review of world sea urchin fisheries, Andrews *et al*. (2002) lists the following countries around the world as sea urchin producers (in decreasing order of production in 2002): Chile, Japan, Maine (USA), British Columbia (Canada), California (USA), Mexico, New Brunswick (Canada), Russia, Alaska (USA), South Korea, Nova Scotia (Canada), Philippines, New Zealand, Spain, Fiji, Washington (USA), China, Oregon (USA), Australia, North Korea, Peru, France, Ireland, Iceland, Taiwan (Norway, Greenland and Scotland are not listed in this reference due to the very small size of the fisheries in these countries). In the interim years there have been various small scale changes in production but this list of sea urchin producers has remained relatively stable in the past 12 years. The fisheries in all these countries and areas have a variety of management practices in place which primarily include;

- Permits
- Fishing limitations (season, size etc.)
- Quota management systems

3.2 Summary of management Techniques utilised in worldwide sea urchin fisheries

The following is a brief summary of the sea urchin management strategies used in the various fisheries around the world (based on the summaries provided by Andrews *et al*., 2002). This gives an overview of the types of fisheries management techniques that have been utilized in the larger sea urchin fisheries around the world.

- *Chile* (see following case study)
- *Japan*
  There are six species of sea urchin harvested in Japan and the fishery is divided into 16 Prefectures. All fisheries are closed during the spawning season when the roe quality is not considered good enough. The timing of these closures depends on the spawning patterns of individual species in the different Prefectures and is based on an extensive knowledge of these reproductive patterns. Exclusive fishing rights are provided to fishers Associations which are allocated areas of seafloor to fish. The fishing rights are not tradable but can be inherited. The Japanese government is involved in setting sea urchin fishery management policies for each 'sea area' and may include MLS's, closed areas and seasons and fishing method restrictions. The Japanese fishery has been managed this way for over 50 years indicating its sustainability. However, Japan has become increasingly dependent on imported sea urchin products to meet demand (Andrews *et al*., 2002).
- *Maine (USA)*
  As with many large sea urchin fisheries in the early years the stock was seen to be inexhaustible and there were no management strategies in place prior to 1992. Legislation and regulations to limit access to the fishery to licensed harvesters and to restrict their harvesting techniques were then introduced. Management of the fishery involves restricting the fishing effort but

there are no limits to individual or total catch. Due to continuing overfishing the number of fishing licenses was restricted and a plan put in place to reduce the number over time. Fishing restrictions include drag width limits, banning night fishing, creating of fishing zones, fishing seasons and a MLS. Six small areas were excluded from the fishery and set aside as a reference sites for unfished populations (Andrews *et al*., 2002).

- *British Columbia (Canada)* (see following case study)
- *California (USA)*
  This is exclusively a dive fishery utilizing surface air supply that has been very passively regulated without any fishery management plan. Since 1987 there has been a moratorium on the issue of any new dive permits and in 1988 there was a MLS introduced into the fishery, restrictions to the number of days that could be fished in various fishing zones ad a permit reduction scheme. Currently it is believed the fishing effort is regulated by catch availability rather than the management restrictions (Andrews *et al*., 2002).
- *Mexico*
  The fishery in Mexico was unregulated prior to 1987 when it became a permit fishery with exclusive rights to fish certain areas. This was to try and curb the excessive overfishing taking place. Permits are tradeable and therefore provided security and a promoted commitment to a long term sustainable fishery. An MLS was also introduced in 1987, closed season and catch reporting was introduced. In 1996 there was a moratorium on new permits, daily catch restrictions were introduced and fishing was restricted to five days per week. There is a TAC but this is a precautionary tool that is not strictly adhered to (eg the TAC can be exceeded if fishing effort is high) Population assessments are based on catch and effort data as well as fishery-independent surveys (Andrews *et al*., 2002).
- *New Brunswick (Canada)* (see following case study)
- *Russia*
  There is little information regarding the Russian sea urchin fishery but there have been substantial rises and falls in catch rates which would indicate boom and bust fishing has occurred. There is a TAC in place and a MLS in some areas (Andrews *et al*., 2002).
- *Alaska (USA)*
  The fishery began in the 1980's but was sparodic and small. In the 1990's the fishery was developed based on a TACC based on 2 % of the estimated biomass (taken from stock assessment surveys. These efforts also failed due to the invasion of sea otters into the fishing areas. A third attempt was made in 1994 in an area where there were no otters and this has developed to the present day. Commercial harvest levels are based on biomass estimates derived from population surveys. A TACC was estimated for all of the fishing areas and an Olympic style fishery is in place beginning on October 1 each year and closing when the TACC is met (Andrews *et al*., 2002).
- *South Korea*
  The shallow (less than 10m) dive fishery in Korea is dominated by woman divers and the fisheries are owned and operated by local villages. There are no MLS or other limits on catch but the village decide how many divers can work and when. Fishing in depth greater than 10m is restricted to licensed vessels and the number of these is restricted (Andrews *et al*., 2002).
- *Nova Scotia (Canada*) (see following case study)

- *Philippines*
  In the 1970's there was an unregulated open fishery which resulted in a collapse of sea urchin stocks.in 1988 a seasonal closure was put in place but this did little to stop fishing pressure and the fishery collapsed again in 1992. Efforts to ressed the fishery have been made since 1999 (Andrews *et al*., 2002).
- *New Zealand* (see following case study)
- *Spain*
  Breath hold diving is the most common method of collection and divers required to have a license to collect shellfish. The fishery is not capped by a TAC. There are no size limits or closed seasons (Andrews *et al*., 2002).
- *Washington (USA)*
  A range of measures were introduced into this fishery in 1977 including a rotational fishing scheme, seasonal and size limits were also put in place. A drastic increase in the fishing fleet led to a fisheries collapse and a limited entry scheme was introduced in 1988 until 1993 when a model based quota system was introduced (Andrews *et al*., 2002).
- *China*
  Few formal statistics are available from the Chinese sea urchin fishery and there are known to be seasonal and size restrictions in place in different areas of china.
- *Oregon (USA)*
  In 1988 a MLS was introduced as well as mandatory logbooks for sea urchin fishers. Site restrictions were put in place and the number of divers in the fishery was restricted. Several areas are closed for fishing and used as fishing control areas (Andrews *et al*., 2002).

4 Case studies of sea urchin Fisheries Management

The following is a more in depth look at three particular sea urchin fisheries. The first is the Chilean fishery which is the largest in the world but which is facing a number of management issues. The second is the New Zealand fishery which has been a very stable fishery with strong management practices, particularly since the introduction of a Quota System in 2002. The third is the Canadian fishery which faces many of the challenges that NPA countries face and yet also has strong management practices and a longstanding fishery.

4.1 Chile

4.1.1 The Sea Urchin Fishery

The fishery for the endemic sea urchin *Loxechinus albus* is the largest in the world. It has a history of heavy exploitation followed by the introduction of effective management strategies. Andrew *et al*. (2002) divided the history of the fishery into three phases: 1) a small fishery, 2) rapid expansion, 3) full exploitation and decline. The fishery peaked in 1995 when Chile produced 54,609t which at the time was 45% of the world production (Andrew *et al*., 2002). Catches have subsequently declined but the fishery remains the largest in the world, still supplying in the order of half the world catch (Moreno *et al*., 2006).

4.1.2 National Fisheries Policies and management measures

In the north of Chile the fishery has been managed by the Caleto system, a small-scale co-management system based on input from the local fisherman. This has managed to preserve artisanal sea urchin fishery in this area (Moreno *et al*., 2006). South of these areas there has been very little or ineffective management (prior to 2002) which has allowed over excessive exploitation of the resource. This is despite national attempts to restrict fishing which included: 1) closure of a number of Regions between 1983 and 1987, 2) Creation of a National Registration of Fishermen, 3) Summer closures during the spawning season, 4) Introduction of a minimum legal size MLS of 100mm in 1974, this was later reduced and much of the catch that was landed was under the legal MLS (Andrew *et al*., 2002). Due to the unregulated nature of the majority of the fishery and the apparent north to south serial depletion of the sea urchin populations there was a feeling of imminent disaster for the sea urchin fishery in Chile in the year 2000 (Moreno *et al*., 2006). However, in 2002 the government led an effort to bring all parties together to discuss the future of the fishery. This led to the formation of participatory forum with representatives from Fishers, processors, managers and scientists. This results in a formal management plan with short, medium and long term goals for the fishery. Rotational fishery practices, the creation of reproductive reserves and utilizing the extensive traditional knowledge of the fishery have all contributed to the success of this plan and although the Chilean fishery remains perilous it is still the world's largest sea urchin fishery (Moreno *et al*., 2006).

4.2 New Zealand

4.2.1 The Sea Urchin Fishery

The fishery for sea urchins (commonly referred to by their Maori name of kina) in New Zealand is based on a single endemic urchin species (*Evechinus chloroticus*). Sea urchins are fished in New Zealand by commercial, recreational and Maori customary fishers. In some areas the Maori customary catches have been reported to be up to 50% of the commercial catch (McShane, 1992; Andrew *et al*., 2001). Sea urchin have been commercially fished since 1986 using breath-hold diving. The exception was in 1998-99 when approximately 10% of the total catch was collected by dredge. The sea urchin fishery in New Zealand currently harvests around 750t of sea urchin per year, compared with a Total Allowable Commercial Catch (TACC) of 1147t (Miller and Abraham, 2011). A small amount of sea urchin bycatch (an average of less than 5t per year) is reported from fisheries targeting other species. The sea urchin industry is small, with 75 % of the catch in the 2008–09 fishing year being harvested by nine vessels. Since the introduction of kina into the QMS, the number of vessels fishing for sea urchin has decreased, and the average catch per vessel per year has increased (Miller and Abraham, 2011).

4.2.2 Management Measures

Currently the fishery is managed using a range of regulatory measures including: a moratorium on new permit holders since 1992, limits on fishing methods (only breath hold diving is allowed), competitive TACs and daily catch limits in some fisheries and area closures. The sea urchin fishery in New Zealand is divided into ten fishing areas but commercial harvesting is concentrated in four of the ten areas (Fig. 1). Total allowable catches (TAC's) were set for each of the four fishing areas in 1988. Fishers were required to obtain permits to fish, or fish on behalf of permit holders, for all non-quota species, including sea urchins. Annual catches in all areas have since varied erratically and there have been major declines in catch and effort in several of the fisheries since that time. In 2002 sea urchins were introduced into the Quota Management System (QMS) along with a number of other species. The TAC for any new species introduced into the QMS is normally set according to an assessment of stock sustainability. However, there was no reliable stock assessment information or estimates of biomass available for any of the sea urchin fishing areas and the TACC was set based on the average annual catch for the fishing years from 1993/4 to 2001/2. The amount of sea urchin caught in the New Zealand fishery since the introduction of the species into the QMS has been variable with a peak occurring in the 2001/2 year (847t). The TACC for the entire New Zealand fishery in 2003/4 was 937t but only 58% of the TACC (548t) was caught, primarily due to the low value of the landed product and the difficulty of consistently fishing good quality sea urchin. (all catch figures are taken from: 'The New Zealand Commercial Fisheries: The Atlas of Area Codes and TACC's', available online at www.fishinfo.co.nz).

Andrew (2000) stated a decade ago that management of the sea urchin fishery in New Zealand was inadequate, and suggested the use of management plans that would set local catch limits, and prescribe patterns of fishing to enhance roe quality and reduce the risk of serial depletion. He suggested that the following are the key attributes required for improved management of the sea urchin fishery: 1) the ability to manage sea urchin at the appropriate spatial scale; 2) continuity of management through time; 3) a property rights institution that rewards commitment to the fishery; and 4) through the allocation of property rights, the establishment of clear rights and responsibilities of stakeholders. Andrew's (2000) first recommendation to manage sea urchin at the appropriate spatial scale, is still to be met in New Zealand. However, since QMS introduction, the Kina (Sea Urchin)

Industry Council, representing the interests of kina quota owners, has evolved, and in accordance with Andrew (2000), provide a means for cooperation in the fishery, while the introduction of sea urchin into the QMS allows for continuity of management through time, places kina within a property rights institution (thereby providing incentives to invest in the fishery), and establishes stakeholder rights and responsibilities (Miller and Abraham 2011).

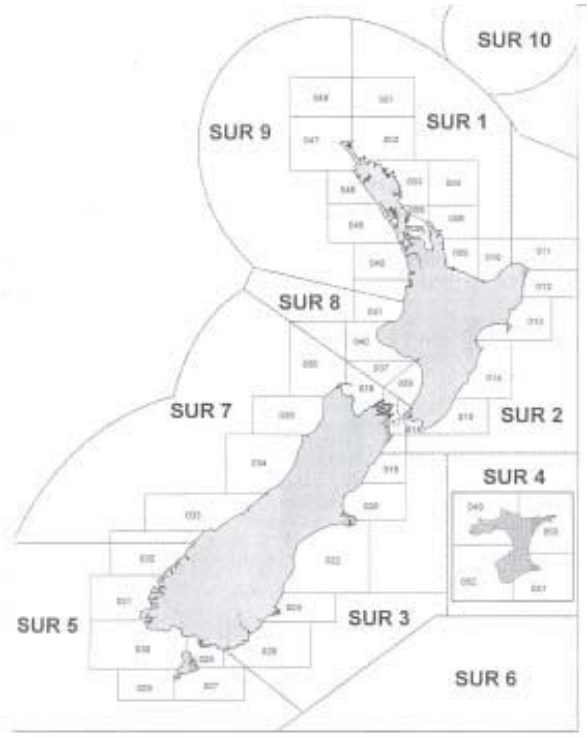

Figure 1 The fisheries management areas (FMA's) and Statistical Reporting Areas (SRA's) for the New Zealand kina fishery (Note the areas are designated as SUR 1-10 with SUR being the Ministry of Fisheries code for Sea Urchin). The main four catch areas are SUR 3, 4, 5, 7.

4.3 Canada

4.3.1 The Sea Urchin Fishery

Canadian fisheries are monitored and managed regionally. Over 200,000 kilometers of coastline are divided into six regions and the Green Sea Urchin (*Strongylocentrotus droebachiensis*) fishery takes place in the following four: Pacific, Quebec, Maritimes, and Newfoundland and Labrador (Fig. 2). Among regions, fishing techniques and management measures differ, however overarching National policies aimed at ensuring sustainable and economically prosperous fisheries apply across the country.

Figure 2 *Map of Canada showing the six regions managed by Fisheries and Oceans Canada. Green Sea Urchins are harvested within the Pacific, Maritimes, Quebec, Gulf, and Newfoundland and Labrador regions.*

4.3.2 National Fisheries Policies

All fisheries in Canada are governed by the Fisheries Act (R.S., 1985, c. F-14) and regulations made thereunder, including the Fishery Regulations (e.g., conditions of licence, open times, closed areas, etc.). In addition, the Sustainable Fisheries Framework provides the basis for ensuring Canadian fisheries are conducted in a manner which support conservation and sustainable use and contains policies for adopting an ecosystem-based approach to fisheries management. These policies include:

- A Fishery Decision-Making Framework Incorporating the Precautionary Approach (April 2009).
- Guidance for the Development of Rebuilding Plans under the Precautionary Approach Framework: Growing Stocks out of the Critical Zone (April 2013).
- New Emerging Fisheries Policy (2008).
- Managing Impacts of Fishing on Benthic Habitat, Communities and Species (April 2009).
- Ecological Risk Assessment Framework (ERAF) for Coldwater Corals and Sponge Dominated Communities (April 2013).
- Policy on New Fisheries for Forage Species (April 2009).
- Policy on Managing Bycatch (April 2013).

Along with existing economic and shared stewardship policies, these assist Fisheries & Oceans Canada to meet objectives for long-term sustainability, economic prosperity, and improved governance.

The Precautionary Approach (PA) is about being cautious when scientific information is uncertain, unreliable or inadequate and to ensure that the absence of adequate scientific information is not used as a reason to postpone or fail to take action to avoid serious harm to the resource. Canada is committed to using the PA in managing domestic, as well as stocks that straddle international boundaries. A key component of the generalized framework is accounting for uncertainty and risk.

In 1995, a precautionary framework was applied to avert collapse of the Pacific Region's Green Sea Urchin fishery (Perry *et al*. 2002). Using a framework approach for new and developing fisheries (Perry *et al*. 1999), a phased method for the collection of scientific information supported new recommendations and a re-evaluation of management actions. 'Phase 0' allowed for the collection of existing information from harvest logbooks; 'Phase 1' involved collecting new information including landed weights from a mandatory dockside validation program and Green Sea Urchin density estimates from fishery-independent surveys. This approach rebuilt the fishery to being both sustainable and profitable.

4.3.3 Management measures

Pacific Region

In the Pacific Region, the Green Sea Urchin fishery takes place in four Management Areas along the east coast of Vancouver Island: Areas 12, 13, 18 and 19 (DFO 2013). Each area is allocated a quota, which is divided among licence holders. Commercial licences were limited in 1991 due to concerns over increasing fishing effort, and currently there are 49 eligible licences for this fishery. Individual quotas are allocated equally among licence holders, with Green Sea Urchin individual quotas set at 1/49th of the annual coast-wide quota. Two percent of the coast-wide total allowable catch (TAC) reserved during planning for First Nations fisheries for food, social and ceremonial purposes

Harvesters are required to report harvest time and location information to a service provider prior to harvesting, following harvesting, and prior to landing. In order to track daily harvests and ensure that area quotas are not exceeded, all catch must be weighed and validated at the first point of landing by a Fisheries and Oceans Canada certified observer. Harvest logs and chart data must be recorded accurately and submitted to Fisheries and Oceans Canada Shellfish Data Unit. A minimum test diameter (TD) size of 55 mm is implemented, which is intended to allow the urchins at least two spawning events prior to becoming available to the commercial fishery.

Quebec Region

The management measures in effect for Green Sea Urchins in the Quebec region are aimed at controlling harvesting effort and protecting reproductive potential (DFO 2012). There is no TAC, but there are a limited number of exploratory licences, divers, and traps for each harvesting area. The minimum legal size is 50 mm TD. Harvesting via underwater diving is authorized from March 26 to December 31 and the use of traps is prohibited from April 1 to September 23. Logbooks are mandatory. The logbooks indicate the duration of the trips and the landings, the harvesting method, the locations where catches were made and, if applicable, the number of divers or traps and their immersion time, as well as the duration, depth and composition of the sea floor at each dive.

Maritimes Regions

In the southwest New Brunswick Area of Maritimes Region, Green Sea Urchin harvesting takes place in two Management Areas, Area 36 and Area 38, and management measures are area specific. Area

36 is mostly a dive fishery, with 14 dive and four drag licences, and they harvest a competitive fleet TAC of 900 mt from October 1 to May 15 (Robichaud, 2010a). The conversion of a drag licence to a dive license is permanent, and is a management measure intended to gradually move the fishery toward an all-dive fishery. The diver-based harvesting consists of a maximum of four divers in the water and two skiffs with a maximum length of 7.3 m each. Dragging operations are required to use urchin drags with a maximum opening width of 3 m. Additional management measures include: a minimum size limit of 51 mm TD; sea urchins are to be sorted and sized on the harvesting grounds as soon as possible; sub-legal animals are to be returned to the sea immediately upon being measured, in a manner that causes the least harm; harvesting is only to occur between sunrise and sunset; mandatory submission of logbooks; and, dockside monitoring of 50 % of all landings (trips). In Area 38, there are 13 licensed dragging operators with the option of converting (not permanently) to dive licences if requested by the harvesters (Robichaud, 2010b). Eight of the 13 licences are issued to three different First Nations as commercial communal licences. The remaining five licences are issued to independent core harvesters and are subject to the owner-operator policies. There is a fleet TAC of approximately 176mt divided equally amongst 13 licences and harvested as individual quotas. Management measures include: a minimum size limit (TD) of 51mm; sea urchins to be sorted and measured at sea; harvesting between sunrise and sunset; mandatory submission of logbooks; and, 100% dockside monitoring of landings. The Nova Scotian fishery operates under a habitat-based management regime (Miller and Nolan, 2000; DFO 2000). There are two categories of licences: exploratory and restricted. When entering the fishery, harvesters must first harvest competitively on a section of the coast under an exploratory licence. After meeting specified guidelines, they can apply for an individual restricted zone (one licensee per area). In exchange for the privilege of exclusive access to a harvesting zone, harvesters are obligated to fully use and enhance the habitat carrying capacity. Restricted zones are surveyed every few years for habitat characteristics. Urchin biomass is not monitored; instead, the number of licences and the state of the habitat within are used as indicators of the state of the fishery.

Newfoundland and Labrador Region

In Newfoundland, the Green Sea Urchin fishery does not have a total allowable catch, however the fishery is managed by Fisheries and Oceans Canada under the following conditions: licences are restricted to a specified area, which aligns with Lobster Fishing Areas (LFA's); harvesting method is limited to SCUBA diving with a maximum four divers authorized per licence; only vessels less than 19.8 m and registered with Fisheries and Oceans Canada may participate in the fishery; the minimum retention size is 48 mm test diameter; and harvesting seasons are set for specific harvesting areas (Pisces Consulting Ltd 2014).

5 Summary of current management strategies utilized in NPA countries

5.1 Norway

5.1.1 The Fishery

There is no tradition of consuming sea urchins in Norway. As a result there is a very limited domestic market for sea urchin roe and a very limited history of fishing and exporting sea urchins. Currently, sea urchin fishing in Norway is still sporadic and intermittent despite the lucrative value of sea urchin roe on both domestic and export markets and the enormous estimated biomass of *S. droebachiensis* (estimated at a massive 80 billion individual animals, or 56,000 tons) (Gundersen *et al.*, 2010). The total annual catch has been sporadic (between 10-100t annually) and the current annual harvest is less than 10 ton with the one long term fishing company (Arctic Caviar AS) being the only company to consistently fish urchins for over a decade.

5.2 Sea Urchin Fisheries Polices and Management

5.2.1 Summary from Roderick Sloan, Arctic Caviar AS, Norway

Norway currently has no quota system for managing its sea urchins fisheries. This lack of a quota system carries the associated risks of multi-user conflicts, overexploitation of the urchin stocks amongst others. There is also no fisheries management plan available from the Norwegian Directorate of fisheries (Roderick Sloan, Arctic Caviar AS, pers. comm.).

Case Study – Application procedures and requirements for fishing an urchin site in Norway:

Required:

a) A boat
b) A diving license

The chosen site needs a classification for fishing from Mattilsynet and there are four kinds of classification.

A Classification – The site has been tested for 12 months for E. coli and algae toxins without any failed results. Additionally the urchins must be tested for Heavy Metals every 4 years. Obtaining this classification means the sea urchins can go directly to the consumer.

B Classification – There's been a failure of E. coli or algae toxin. These sea urchins can't be sold directly to the consumer and must be heat-treated.

C Classification – A constant failure of *Eschericha coli,* or algae toxins. The site can be fished, but the sea urchins have to be moved onto an A, B or separate land site for a period of purification.

Seasonal Fishing Classification – This is a temporary classification of a site and is probably the most relevant to sea urchin fishermen. You need *E. coli*, algae toxin and Heavy Metal testing. Three *E.coli* tests are needs to take place in a three week period with no failed results before any fishing can take place, followed by *E. coli* every 4 weeks during the period of fishing.

Additionally- You need a site map showing industrial and residential areas, a site map highlighting sewage outlets and a sea currents chart.

There is currently no legislation around the size of a site (this is up to the individual food health authorities) but they are usually around 5km^2.

Case Study – Requirements once a site has been approved and fished:

a) When the catch is landed it must be reported to the Fishermen's Association.

b) You need a packing centre that has been approved by the food health authority, with annual inspections and 3-yearly audits.

c) For exporting within the EU: urchins currently need a catch and health certificates and an export licence.

d) For exporting to the US and Japan: Need a health certificate for the export, issued by the food and health authorities.

Possible future requirements:

Norovirus testing may be applied to the fishery at some point.

5.3 Iceland

5.3.1 The Fishery

The green sea urchin is common around Iceland but the distribution is very patchy. It is commonly associated with laminaria kelp which it feeds on. Harvesting started in 1983 by divers which was not economically feasible and stopped in 1989. In 1993 the fishing started again using dredging and peaked in 1994 when 1 500 tonnes were landed. After that the fishery declined dramatically and stopped in 1997. In 2005 exploitation of the stock started again and but only in Breidifjördur, west Iceland. Since 2007 the yearly landings have been about 150 tonnes until 2014 when it reached 230 tonnes. Since 2007 CPUE has been steady ranging from 365-478 kg/hour fished. The main fishery has always been in a small area of the southern part of Breidifjördur and focused on small hot spots.

5.3.2 Urchin Fisheries Policies

The Icelandic sea urchin fishery has been subject to relatively passive regulation. There were no regulations in 1993 when the sea urchin fishery started and no limits on quantity of catch. The only requirements were that the boat was legally operated had a dredge or a diver and a legal fishing permit.

In 1993 Ministry of Fisheries introduced regulations to limit access to the sea urchin fishing where it was claimed that only vessel with a legal fishing permit and a contract with a legal processing company approved by the Directorate of Fisheries were allowed to harvest sea urchins. The government could limit the permit if necessary by demanding reports on the fishing, maximum size of boats, size and kind of fishing gear used and the fishing season. Each license was limited to one big area (7 areas around Iceland) but there were no limitations for number of licenses that could be granted (Regulation no 492/1993).

In November 2013 a new regulation was introduced and now there are no limitations to areas, and fishing reports are demanded weekly instead of monthly (logbook). Classification of harvesting areas and monitoring of biotoxins and poison algae are required by the competent authority (Icelandic Food and Veterinary Authority) (Mast) and the catch has to be monitored by authorities when landed (Regulation no 1010/2013).

5.3.3 Management measures

The sea urchin fishery operates without a fishery management plan, where no restrictions on catch, effort, no of boats, dredge constructions, area closure or fishing seasons exists. The only requirements for the fishermen to be able to catch sea urchins are that the boat is legally operated and has a fishing permit. No regulations regarding size limits exist but the market demand is that the urchins have reached 40-50mm in diameter. There are no limited fishing seasons but because of market demands for roes of good quality (> 10 %, right colour and quality) which can only be reached between September and April in Icelandic waters, the fishery is conducted in these months only. However, loogbook information is required weekly, where catch, location and effort is reported for every fishing day and the stock status (CPUE) has been determined annually from that information by the MRI.

The Directorate of Fisheries is an Icelandic government institution responsible for implementing government policy on fisheries management and handling of seafood products. It collects processes and publishes data on fisheries in collaboration with Statistics Iceland. Information on sea urchin catch (by fishing boats) by area, day and effort is available on the Directorates web site (http://fiskistofa.is).

5.4 Greenland

5.4.1 The Fishery

There is currently no commercial fishery for sea urchins in Greenland, although there have been attempts to fish for sea urchins in mid-1990's. In 2006 there were a project funded by NORA (North Atlantic Cooperation) with the aim of locating where sea urchins best thrive and when the roe content was suitable for fishing. In 2009 a report was published by scientists from Nofima, Norway describing an initial investigation to search for areas in Greenland where sea urchin stocks may exist (Siikavuopio S.I. and Labansen, J.P., 2009). Several searches were made along selected sections of the Greenland coastline to chart stocks, assess the quality of these and investigate whether commercialisation of this resource is possible. Using traps the roe size, colour, taste and consistency was assessed at different sites with promising results. However, in order for sea urchins to demand the highest market prices, they need to be delivered to a processing plant or to markets relatively quickly. Such plants do not currently exist in Greenland and the road network is not sufficiently developed. Therefore, sea urchins must be transported by boat to the airport which adds time and cost. An alternative is to store the sea urchins until sufficient quantities are available to transport more economically. This is also challenging as they are vulnerable to damage, frost, temperature and sunlight.

In 2014-2015 Royal Greenland A/S had a trial fishery for sea urchins in Maniitsoq and Nuuk, both West Greenland. There appeared to be sufficient sea urchins present in these areas. Royal Greenland A/S ran trial fisheries over a year, where the main objective was to find out what time of the year the roe were in prime quality and a seasonal variation was detected. Royal Greenland A/S recommends that fishing season should be from September to March where the roe content is good. Different types of

fishing gear was tested, the traps developed by Nofima were shown to be effective. A bottom dredge developed from Thorisholmi was also very effective, especially when modified to bottom conditions in Greenland, and the return for catch effort was high. These trials showed that there are popular spaces for the sea urchins to accumulate around archipelagos with a lot of currents and good seaweed. In these conditions it is possible to fish the sea urchins from a small area then return a day later and larger sea urchins have returned. It appears that these areas are surrounded by sea urchins that will replenish those removed from the fishery. As this is a virgin fishery there is no way of knowing how long this replenishment would continue without adequate population monitoring over time.

5.4.2 Urchin Fisheries Policies and Management of sea urchin fisheries

If a sea urchin fishery was established in Greenland there are legislative tools available to regulate it but as there has never been a fishery there is no experience at managing the species. Greenland Institute of Natural Resources (the national institute that monitors the use of both terrestrial and marine species and gives scientific advice to the government) has not undertaken surveys on sea urchins and has no plans to do so in the near future.

5.5 Ireland

5.5.1 The Fishery

Paracentrotus lividus or the purple sea urchin is the main species of urchin fished in Ireland due to its high market value*. Paracentrotus lividus* inhabits subtidal rock pools and rocky shorelines. Harvesting of this species of urchin can be carried out by hand picking in the intertidal zone or by divers operating from boats.

In certain parts of the west coast of Ireland, in particular the inner Galway bay large colonies of urchins lived buried below the surface of coral sand. These areas were the first areas to be completely harvested in the late 1970s, and since then there has been little or no recovery. These confined areas in the inner Galway bay were subject to increased fishing pressure from divers during slack tides. Large harvests were reported in some cases up to two t per day. During this exploitation of the fishery competing groups of harvesters and divers traveled the west coast once catch volumes began to decline in fished areas.

This decline in the fishery was due to lack of regulation and collection of catch data during the boom years of the fishery.

5.5.2 Urchin Fisheries Policies and Management measures

Many factors contributed to the collapse of the Irish fishery including long term variation in recruitment but overfishing is the most likely predominant cause (Andrew *et al.*, 2000). Throughout the 30 years the fishery grew and expanded there was no government imposed restraints on catch or effort, no formal stock assessment and no formal assessment of stock recovery. Today there is still no government policy for harvesting echinoderms in Ireland, which includes sea urchins and sea cucumber. A market size restraint of a minimum 45-50mm test size is the only restraint on the fishery and is set by the market and not by regulations from state bodies.

6 Conclusions for development of Management Strategies and Policy in NPA Countries

There are a number of examples of how a sea urchin fishery can be managed poorly. The most sobering example has been the serial depletion of the Chilean fishery prior to 2002. However, this fishery has undergone a major transformation to implement management strategies to avoid a fisheries collapse. Likewise there are a number of well managed and sustainable sea urchin fisheries around the world. These tend to rely on a good overview of biology of the urchin species present in the area as well as sound knowledge of the dynamics of the sea urchin populations. Comprehensive stock assessment and mapping also appears to be an integral part of successful fisheries management. This report shows that most of these factors are absent in the NPA countries participating in the URCHIN Project (although Iceland is in the process of initiating more robust fisheries management). This report is a timely reminder of the importance of effective and appropriate fisheries management for any future sea urchin fisheries in the NPA area and the dangers of not implementing such measures.

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Appendix

The Activities from the Urchin Project covered by this report.

Activity 4.2	*Activity title* Literature review	*Start month* 03.2015	*End month* 08.2015
Description: Nofima will produce a short review of previous and current management strategies that have been and are used in the NPA and compare these to other strategies used to manage sea urchin stocks			*Deliverables:* Report on management strategies to manage sea urchin stocks
4.2.1	*Deliverable* Review of fisheries policies	*Target value* Supply Review to all participating NPA countries	*Delivery month* 09.2015

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From: [redacted]
To: FMSubmissions
Subject: KINA SUR1A and SUR1B
Date: Tuesday, 23 July 2019 2:03:39 PM
Attachments: Submission SUR1A+B July 2019 Mark Jones.docx

Hi,

Please find attached my submission for KINA SUR1A and SUR1B

Thanks

Mark Jones

[redacted]
[redacted]
Phone: [redacted]
Email: [redacted]
[redacted]
Check out our Facebook page for deals and updates

Mark Jones
[redacted]
23/7/2019

Submission - Review of Sustainability Measures for Kina (SUR 1A, SUR 1B) for 2019/20
Fisheries New Zealand Discussion Paper No: 2019/12

1. Introduction.

[Briefly describe how you are involved in the commercial industry] I am not involved in the Commerical industry

I support the Kina Industry Council

2. Questions for submitters on options for varying TACs, TACCs and allowances:

- *Which option(s) do you support for revising the TACs and allowances? Why?*

I Support Option 3 - a 50% increase to the TAC, TACC and other allowances.

The reasons why I support Option 3 are:

I own and operate a [redacted] tour along the coast from Whitianga to Hot Water Beach daily. During my tour we spend a length of time inside the Cathedral Cove marine reserve and then outside the marine reserve. The changes to the seafloor between these 2 places is vastly different. The kina barrens that are outside the marine reserve are very clear to see and is a talking point on our tours. I support a 50% increase in the TAC to significantly reduce the kina numbers, which will over time increase biodiversity to our coast.

- *Are the allowances for customary fishing appropriate? Why?*

I am not aware of the customary fishing allowance.

Are the allowances for recreational fishing appropriate? Why?

Yes, The recreational fishing allowance is already at a high number and very few people reach their bag limit on the daily basis, especially when there is a few divers in the party/boat. A 50% increase in the recreational catch could also be implemented, in an attempt to reduce numbers.

- *Are the allowances for other sources of mortality appropriate? Why?*

As far as I am aware the kina are gathered by hand with minimal by-catch.

- *What other management controls should be considered for both recreational and commercial fishers? Why?*

More monitoring along the coast after the increase would give a clearer picture and more important information for the fishery. Maybe break the area of **SUR 1A, SUR 1B**

Up into smaller areas to better manage the kina fishery.

Yours faithfully

Mark Jones

Area 2 Submission

QRN Number: 9040085
Michael Oliver Terry, Judith Anne Terry

My name is Mike Terry, I am a Napier local, third-generation fisherman and have just entered my 53rd year of full-time fishing on the East Coast of the North Island.

In all these years I have never experienced the abundance of tarakihi that we have been experiencing for the last five years over such a wide area. 1 to 5mt trawl shots are easily obtained outside the 45 metre contour over the whole of the Area 2 fishery.

There are a number of reasons why this is happening. In my experience what kills a fishery is large horse-power vessels. In Area 2 out of the Port of Napier Pacific Trawling had 4 large vessels, primarily for deepwater trawling. When deepwater ACE cuts were made these vessels entered our inshore fishery; they were never designed for inshore trawling. These vessels are expensive to operate and consequently the company folded about 6 years ago. In my opinion this was the best thing that could have happened, but in the meantime, they nearly destroyed our local fishery.

We now only have 7 trawlers in our port, a lot less than back in 1967 when I first started fishing.

The second main reason our tarakihi fishery is flourishing is the large amounts of TAR 2 that were trucked over the line from the East Cape into Area 1; this has now stopped. Around four years ago all vessels fishing in Area 1 had to have VMS and cameras on board; when this happened, the trucking ceased. Perhaps this is one of the reasons catches in TAR 1 have drastically reduced. I am sure this has had a bearing on catches as once these two very high scale bad practices ceased not only did our tarakihi stocks flourish but all other species as well.

Our local recreational fishers have also just experienced one of the best years on record.

I am unable to comment on the TAR 3 fishery but I believe that the East Coast tarakihi fishery is not one stock.

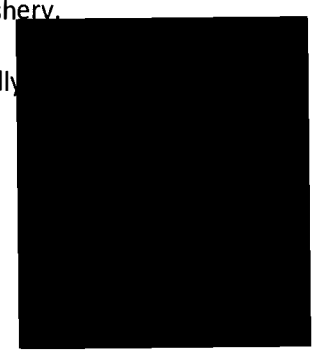
FINZ have drawn up Option 3 which I support. We "Napier Fishermen" have been engaged in this plan over the previous 12 months and are not trawling in juvenile habitats.

Along with other strategies we can be trusted to adhere to whatever plans are made to rebuild the fishery without major cuts that will have drastic follow on effects, as has been demonstrated over the last four years with the "Springs Box" voluntary closure.

I am extremely confident that with the end of large industrial fishing trawlers working Area 2 24/7 through good and bad weather, and the thousands of tonnes no longer being trucked from the East Cape spawning area, coupled with the 20% reduction we have already experienced this past fishing year, our tarakihi fishery and that of the other Area 2 stocks will continue to flourish.

We look forward to working with FINZ and industry to ensure a prosperous future for all involved in the Area 2 fishery.

Yours faithfully



Mike Terry

Submission Form

1 October 2019 Sustainability Round Consultation

Fisheries New Zealand
Tini a Tangaroa

Once you have completed this form

Email to: FMsubmissions@mpi.govt.nz

While we prefer email, you can also post your submission to: Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions must be received no later than 5pm, Friday 26 July 2019.

Anyone may make a submission, either as an individual or on behalf of an organisation. Please ensure all sections of this form are completed. You may either use this form or prepare your own but if preparing your own please use the same headings as used in this form.

Submitter details:

Name of submitter or contact person:	MURRAY WILLIAM WATSON
Organisation (if applicable):	Commercial fisherman
Email:	[redacted]
Fish stock(s) this submission refers to:	SNAPPER8
Your preferred option as detailed in consultation document (write "other" if you do not agree with any of the options presented):	OTHER

Official Information Act 1982

All submissions are subject to the Official Information Act and can be released (along with personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

I have been commercial fishing since the early 1970s.

When the quota system came in The Goverment of the day gave us two options on Sna8.

A. Hand in 50% of sna8 quota and as the stocks increase they would give it back.[no compensation was paid out]

B Sell all quota to the Crown and get out of the fishery

THIS WAS CALLED SN28 RIGHTS

I choose option A as at that stage I was a young man with a family.

The GIVE BACK of Sna8 Quota has not taken place in over thirty six years.WHAT A CON

1ton of Sna8/@ $10 / year= $10,000/ year X by 36 =$360,000 PLAIN THIEFT.

THANKS MURRAY FOR HELPING US BUILD THE SNAPPER QUOTA BACK UP TO WHAT IT IS TODAY A VERY HEATHLY FISHERY.

I HAVE DONE MY BIT AND THIS SUBJECT NEEDS TO BE ADDRESSED BY THE FISHERIES.

WE ARE ALL PAYING HIGH DEEM VALUES BECAUSE THE SNAPPER8 QUOTA IS SO HEALTHY WE CAN NOT AVOID CATCHING IT WHEN WE GO FISHING.

HOW ARE WE SUPPOSE TO CATCH OUR OTHER SPECIES AND MAKE A LIVING

I am the only commercial fisherman left in wanganui now all the others have been chased out or gone broke.

We use to have a small boat fleet of 10 to 15 fisherman supplying the town and WANGANUI TRAWLERS with an abundance of fresh fish plus their trawler and OYANG fleet.

It is high time we are listened too we are on the cool face. TAKE NOTICE WHAT IS NOW HAPPENING TO EGMONT FISHERIES IN TARANAKI AND ITS LONG TIME HARD WORKING LOYEL FISHING CREWS BEING CHASED OUT OF THE INDUSTRY.

WHAT ABOUT USEING SOME OF THE $17 MILLION TO PAY US OUT. INSTEAD OF SPENDING IT ON ELECTRONIC MONITORING, CAMERAS ON BOATS ECT,WHERE IS OUR MONEY COMMING FROM TO PAY FOR ALL THIS EXTRA EQUIPTMENT,YOUR BUCKET IS UPSIDE DOWN.

We go longlining can,t avoid snapper so you tell us to diversify so we go gill netting u bring in all this maue dolphin shit you tell us to diversify we go cod potting you take75% of our quota away no compensation DONT YOU LIKE US.

I would be quite happy if I got my snapper quota back as promised and at age 73 yrs could just catch my 1 TON snap quota gur ect have a nice day.

THIS PROBLEM NEEDS TO BE ADDRESSED

yours faithfully

MURRAY W WATSON

From: [redacted]
To: FMSubmissions
Date: Tuesday, 18 June 2019 1:24:50 PM

Hi I am a commercial fisher from northlands east coast. Its plainly obvious the quota management system is set up to keep commercial interests happy and not set up for genuine care of the ocean. There are so many species that are declining that have an open slather quota which never gets caught eg: flounder and puka. Surely if the quota amount is never met then it should immediately be cut below the amount that is caught each year. Isn't that the whole point? Plus there are a lot of people setting nets for species such as spiny dogs and things in bream bay with no snapper quota. You can not set a gill net anywhere in the north island and not catch a snapper so these guys dump thousands of them a year. If you dont have snapper quota you should not be allowed to set net. Also its plainly obvious that the huge [redacted] seiners that are about all summer are making a huge impact on the school fish stocks. There is no need to kill 300 tonnes plus of spawning fish every couple of days each boat that close to shore. There is more recreational fishermen around then ever which is who you seem to be looking at for all cuts to the system. These are the people's fish. Everyone has the right to feed themselves from the sea. You seem more interested in a few lining their pockets and ruining it for the vast majority. Any and all fish species quota amount should be set at half what is annually caught. That is the only way it should work. Then the ocean will happily look after itself and us.

Submission Form

1 October 2019 Sustainability Round Consultation

[redacted] [redacted]

Fisheries New Zealand
Tini a Tangaroa

Once you have completed this form

Email to: FMsubmissions@mpi.govt.nz

While we prefer email, you can also post your submission to: Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions must be received no later than 5pm, Friday 26 July 2019.

Anyone may make a submission, either as an individual or on behalf of an organisation. Please ensure all sections of this form are completed. You may either use this form or prepare your own but if preparing your own please use the same headings as used in this form.

Submitter details:

Name of submitter or contact person:	[redacted]
Organisation (if applicable):	Starfish Supply Ltd
Email:	[redacted]
Fish stock(s) this submission refers to:	TAR2
Your preferred option as detailed in consultation document (write "other" if you do not agree with any of the options presented):	Option 3

Official Information Act 1982

All submissions are subject to the Official Information Act and can be released (along with personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

To whom it may concern, the below bullet points are the reasons why we disagree with the proposed 30% area 2 TAR cuts

- Significant revenue losses
- Potential loss of jobs
- Societal depression due to job losses
- Potential closer of other business – takeaways, retail shops, etc
- Sale of vessels
    - Reduced sell prices due to supply and demand
- Increased demand on fish – price increases
- Deem value – potential increase dumping of fish
- Fisherman will get pushed out of fishing areas due to other fish species – SKI, SNA
- Increased pressures on other species
- Health and safety issues – increased risks – fishing in deeper water
- Increased cost
    - Production costs
    - Catching cost
    - Social and economic cost

Regarding comments on the industry has not done enough to resolve this TAR2 or sustainability problem, I would disagree

- Star Fish Supply has implemented closed areas to commercial fishing
- We don't activity target TAR in area 2
- We are working on release panels within our nets
- Significant advancements in electronic catching documentation and vessel traceability
- Stronger cohesion between fishing companies and fishers

And all of this has been achieved in 12 months

We are not against cut as we want fish in our oceans for generations to come. If there are going to be cuts give us the time to obtain the research (potentially government funded using deem value finances).

[redacted]

[redacted]

Starfood Service

www.Starfoods.co.nz

Mob: [redacted]

Phone: [redacted]

Please continue on a separate sheet if required.

From: [redacted]
To: FMSubmissions
Subject: TAR review submission
Date: Friday, 26 July 2019 11:28:46 AM
Attachments: Tarakihi 2019 submission.pdf

HI

Please find attached our submission in regards to the TAR review, we ask that our personal details please be retracted if there are any releases under the official information act

kind regards

[redacted]

[redacted]

26 July 2019

Dear Sir/Madam,

Thank you for giving us a chance to respond to the current Tarakihi East Coast review which is part of the October 2019 sustainability review process.

We request our personal details are withheld on any release of our submission as part of the Official Information Act, the reasons being what we have written is personal relating to our situation and we believe no one needs to know who wrote the submission.

We would like to see option 3 implemented to give the commercial sector a chance to see if the steps we have put in place in the last year to try and start the rebuild process is having some impact or not.

[redacted] family has fished the east coast between Auckland and Gisborne for close to 60 years, he is a 3rd generation fisherman and unfortunately we cannot see any of our sons considering fishing as a viable future career option due to the uncertainty of the long term impact Tarakihi and any other future cuts will have on the commercial sector. This is sad as it will be the end of an era for the family. We are one of the larger private Tarakihi Area 1 and 2 fishers and if the proposed next round of Tarakihi cuts come into force we believe we will be put out of business as we will not have the available ACE to diversify our business to other species. This will then mean 5 families including ours lose a regular income stream, with all of us still having families and/or mortgages to support, and for some of our workers, fishing is all they know so they will have difficulty finding other work in the area. As well as us, approximately 12 contractors and suppliers we use will no longer get an income stream from our business which will affect their profit margins as well. Also our LFR will be impacted due to the volume of fish going through them dramatically decreasing.

Over the past 20 years we have sacrificed a lot to get the business to the stage it was before the first round of cuts last year, and until then we thought we were finally at the point where we were in a position to start to see the results of all our hard work. This year has been hard with initial indications being we might just break even financially at year end, and if the next review produces more decreases serious consideration has to be made if it is financially viable to continue fishing, which is heart breaking. We believe our fishing vessel (which is our biggest asset) has decreased in value from the first round of cuts, and if the next round of cuts comes in we believe it will be worth next to nothing (again heart breaking to think we have spent a lot of money over the years maintaining it in good condition and it all amounts to nothing).

If the East Coast Tarakihi is cut further this year we believe the implications will be wide ranging. This will include:-

- An increase in the Tarakihi ACE price due to there being less around so people will be offering ridiculous prices in order to get it, and for us this means we will not be able to compete as it will not be financially viable to pay more than what we get paid for it.
- Fish and chip shops and supermarkets will not have access to a regular supply of fish anymore and the price will increase dramatically (the majority of what we currently catch goes to local markets within the North Island).
- Decrease in catch levels in other species, because if we cannot catch Tarakihi we will not be able to catch the other fish that we usually catch along with the Tarakihi. This has already happened with the cuts put in place for 2018-2019 and will get worse if more cuts are imposed for next year.
- Fisherman will leave as it will no longer be financially viable to continue fishing which will have a long term effect on the future of commercial fishing in New Zealand.

After reading the discussion document and then attending the Auckland public meeting we were quite horrified on the scale of some of the proposed cuts once they were fully explained. We believe to the average person reading the document, the scale of impact of potential cuts is not clear and the options could have been explained better as it was quite confusing.

We have trouble understanding if the biomass has sat at its current level for quite a few years why there is an urgent need to get it back to the perceived sustainable level so quickly. Why can't the processes to achieve the biomass increase be done long term so we can continue fishing during the rebuild. If these dramatic cuts are put in place, yes you will get a rebuild but long term there will be no commercial activity left to reap the rewards of the rebuild because everyone would have been forced out of business in the meantime. After all we all want the same end result of a sustainable fishery for future generations. In the 35 years [redacted] has been fishing he has not noticed any dramatic changes in the amount of Tarakihi available to be caught and over the last 10 years we have had similar catch levels each year. Despite this we have acknowledged best available science and worked hard as part of the industry to find a reasonable pragmatic sustainable solution.

Eighteen months ago our plan was in September 2019 to do about $300,000 worth of work on our vessel, this would have provided work for our local slip way and current contractors, due to the uncertainty of our future we have had to reduce our work to the bare survey minimum and hope this will not come and haunt us in the next few years due to a major breakdown occurring due to the planned work not being done. Over the past few years we have also been considering updating our vessel to something more modern but this is no longer an option we can currently consider either.

While we understand it takes time for reviews and consultations to be done we do question why announcements occur only a few weeks before the new fishing year. This does not give the average fisherman much time to adapt to any changes and work out what impact it will have on them for the new fishing year. Could a longer time frame be considered whereby the review and consultation is done but the changes do not come in until the following year to allow us enough time to try and work through it.

As you indicate the Tarakihi fishery is predominately a commercial one we hope commercial concerns will be considered as part of this year's review and a longer term proposal to enable a sustainable rebuild (whilst still allowing us to fish, provide jobs to our crew and work for our contractors) can occur rather than just drastic cuts being put in place which effectively destroys any future for us in the fishing industry and we believe will do more long term harm to the future of commercial fishing in New Zealand.

Yours faithfully

From: [redacted]
To: FMSubmissions
Cc: [redacted]
Subject: NZMSS submission on Sustainability Measures - October 2019
Date: Friday, 26 July 2019 4:57:29 PM
Attachments: NZMSS_MPIreporting charter vessels.pdf

To whom it may concern,

Please find attached a submission on behalf of the New Zealand Marine Sciences Society on the **Reporting requirements for amateur-fishing charter vessels**.

Regards,
[redacted]

[redacted]
New Zealand Marine Sciences Society

[redacted]
Ph. [redacted] | DDI: [redacted] | Mob: [redacted]

22 July 2019

Sustainability Review 2019
Fisheries New Zealand
Ministry for Primary Industries
PO Box 2526
Wellington 6140
FMSubmissions@mpi.govt.nz

Submission to Fisheries New Zealand

Review of sustainability measures for 1 October 2019 - Reporting requirements for amateur-fishing charter vessels

This submission is made on behalf of the membership of the New Zealand Marine Sciences Society (NZMSS). It is made in good faith in my role as President of the NZMSS and in accordance with the Code of Ethics and Rules of the Royal Society of New Zealand.

NZMSS welcomes this initiative to bring catch reporting of amateur-fishing charter vessels in line with that of commercial fishing vessels. NZMSS generally supports the proposed reporting requirements for amateur-fishing charter vessel operators, but we suggest that this reporting should be extended to include all landed species (excluding small bait fish). Our detailed submission is attached.

Please contact me at the email address provided below for any further information regarding this submission.

[redacted]
[redacted]
New Zealand Marine Sciences Society

Address for service:
Email: [redacted]

Review of sustainability measures October 2019 - Reporting requirements for amateur-fishing charter vessel operators

The New Zealand Marine Sciences Society

The New Zealand Marine Sciences Society, known as "NZMSS", was formed in 1960 as a constituent of the Royal Society of New Zealand, to encourage and assist marine science and related research across a wide range of disciplines in New Zealand and to foster communication among those with an interest in marine science.

NZMSS is a professional science body and a non-profit organization that provides access to and within the marine science community. We identify emerging issues through annual conferences, annual reviews, a listserve and our website http://nzmss.org/. NZMSS membership covers all aspects of scientific interest in the marine environment and extends to the uptake of science in marine policy, resource management, conservation and the marine business sector. We speak for members of the Society on matters of interest on marine research in New Zealand and we engage with other scientific societies as appropriate. Our current membership comprises almost 300 members.

Our submission is consistent with the Royal Society of New Zealand Code of Ethics and Rules, in particular principles 2.1 Integrity and professionalism, 4.1 Compliance with the law and relevant standards, and 10.1 Protection of the environment (www.royalsociety.org.nz/organisation/about/code).

Submission

Over the last 10 years there has been an increase in charter vessels whereby recreational fishermen hire a commercial boat and operator to catch fish. These activities have been regulated under the Fisheries (Amateur Fishing) Regulations 2013, and since 2010, charter vessel operators have been required to submit information on the catch (number of fish caught and number retained) of eight species including bass, bluenose, hapuku, kingfish, rock lobster, southern bluefin and Pacific bluefin tuna in Fisheries Management Area (FMAs) 1-9, and blue cod in FMAs 2-8. For most species, with the exception of tuna, only the number of fishes retained is recorded. However, information on the size or weight of fish species caught is a necessary component of stock assessment and effective management of fish stocks.

NZMSS strongly supports the collection of additional information on amateur-fishing charter vessel catch for (1) the purpose of better quantifying the catch of the charter vessel component of the recreational fishery and (2) evaluating the relative impacts of this sector on fish stocks. This information is increasingly important to improving management of fish stocks in New Zealand at a time when fish stocks are under increasing pressure due to growing human populations and a changing climate.

Questions for submitters:

Do you agree with proposals to report the catch of additional species?

Yes. We strongly support the current MPI proposal to report the catch of:

Blue cod	All FMAs
Scallops	All FMAs
Snapper	All FMAs
Tarakihi	All FMAs

We agree with the concerns regarding the tarakihi and snapper catch, recognising that charter vessels may be contributing to a large proportion of the recreational catch. There is additional concern regarding the scallop fishery, which is currently closed in FMA 7 because of low biomass. By recording any scallops caught, the charter vessels can help assess the recovery of these stocks. Scallops are short lived species and there are size (length) limits. The estimated weight may be difficult to assess and perhaps fishers might be encouraged to provide additional information on size elsewhere on the form.

Do you think there are additional species for which catch should be reported?

Yes. To provide better information on this ultimately commercial component of the recreational fishing sector, NZMSS believe that charter vessels should report all landed species (excluding small bait fish such as jack mackerel). The new regulations will require the main target species (ie snapper, blue cod etc.) to be reported, so relatively little additional effort would be required from the charter boat operator to report any additional landed species. This would then provide a complete picture of charter vessel catch. Given the increased pressure on coastal fish stocks, with growing human populations as well as changing environmental conditions, it is difficult to forecast the future catch and impacts of the charter vessel fishery. Recording all catch would provide a proactive approach to inform better management of fish stocks in the future.

While NZMSS recommends all landed species to be reported, we also suggest some priority species for which catch should be reported. Various species of marlin and sharks are caught by the amateur big game fishery. These are not all tagged and released, especially during competitions where they are landed to enable official recording of their weight. These species are apex predators and have an important role to play in the pelagic marine ecosystem.

We also believe that catch of kahawai and paua should be reported. Kahawai are an important component of pelagic fish communities in Northland waters and supports a range of sea bird species. They are caught for bait and as a target species in amateur fishing charter trips, and are important kaimoana for Māori, recreational and subsistence fishers. Pāua are also important kaimoana and considered a taonga species. Pāua are targeted on charter fishing trips in parts of the country.

Do you agree with proposal to report the landed weight for species whose catch must be reported? If not why not?

Yes, NZMSS agree with the proposal to report aggregate weight of landed species. However, we recognise that this will only provide a crude estimate of average fish weight and size. Collecting information on individual fish size would be of greater value for fisheries management, so it would be useful to give skippers the opportunity to provide additional information on fish size, e.g. individual size measurements or size range of fish caught. This will provide extra information that will be useful in assessing the state of the fishery.

Other comments

NZMSS believes that the requirement for charter vessels to report landed catch should be extended to include fishing competitions, which can involve large volumes of fish that is currently unreported. Fishing competitions range in scale from local clubs to large commercial operations, so work would be needed to develop reporting requirements for fishing competitions. NZMSS urges Fisheries NZ to pursue this as a means of better quantifying and characterising recreational catch composition and volume.

26 Hōngongoi (July) 2019

Fisheries Management
Fisheries New Zealand
PO Box 2526
Wellington 6140

Ngāti Kahungunu Iwi
INCORPORATED

Tena koe,

Submission: Review of sustainability measures for 1 October 2019 - Tarakihi (TAR)

Ngāti Kahungunu Iwi Incorporated is the mandated iwi organisation responsible for all aspects of Ngāti Kahungunu development. Ngāti Kahungunu has the third largest iwi by population (62,000[1]) and the second largest tribal rohe and coastline, from Paritu and extending inland across the Wharerata ranges in the north to Turakirae in the southern Wairarapa.

Ngāti Kahungunu Iwi Incorporated has an established Taiao me Ōna Rawa (Environment and Natural Resources) Unit which takes an active role in developing and presenting responses and submissions on behalf of Ngāti Kahungunu. The role of this unit is to complement and support the aspirations of hapū and this submission does not exclude any other Kahungunu responses or submissions.

Ngāti Kahungunu understands that the estimated abundance of Tarakihi populations along the eastern coast of Aotearoa New Zealand are trending down over time and are currently assessed as at 15.9% of virgin biomass. Given this state we support the previously applied TACC reductions and the development of options to rebuild populations.

Of the rebuild options presented Ngāti Kahungunu Iwi Incorporated favour Option 3 which estimates populations will rebuild to 35% of virgin biomass levels in ≤27 years through the introduction of a number of management measures while maintaining the status quo in terms of TACC.

Given the ubiquity of Tarakihi throughout the water column, we believe the ability of fishers to catch other co-occurring species may be unduly affected by the scale of TACC reductions as proposed in Options 1 and 2. Instead Ngāti Kahungunu favours a more finessed approach to rebuilding populations, which in our opinion is more aligned with those management measures outlined in Option 3.

While we favour Option 3, we also want to emphasize the importance of making provisions in the review and any subsequent advice to the Minister to explicitly stipulate the type of gear that will improve selectivity, and escapee survival e.g. T90 codends, larger mesh sizes (5 or 6 inch). Ancillary to improved selectivity but worthy of note, should this particular measure be made mandatory, is the reduction in carbon emissions via a reduction in fuel used.

We also anticipate the release of findings from the genetics work being currently undertaken at Victoria University on population connectivity among Tarakihi to further inform the rebuild plan going forward.

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

304 FITZROY AVENUE, PO BOX 2406, HASTINGS, 4153 HAWKE'S BAY, NEW ZEALAND
PHONE 06 8762718 TOLL FREE 0800 524 864 FACSIMILIE 06 8764807 EMAIL: paatai@kahungunu.iwi.nz WEBSITE: www.kahungunu.iwi.nz

In addition, we support increase the TACC for ORH 3B, increase TACC for RSN2 and support option 2, decrease in TAC reduction for HOK1.

Please ensure that all queries and further communication is sent to Ngaio Tiuka, Pouarataki: Director of Environment and Natural Resources, ngaio@kahungunu.iwi.nz.

Nāku noa,

[redacted]

[redacted]

[redacted]of Environment and Natural Resources
Ngāti Kahungunu Iwi Incorporated
PO Box 2406
Hastings

From: [redacted]
To: FMSubmissions
Subject: Response to Chatham Islands PAU4 Sustainability Review Proposals for 2019/20
Date: Friday, 26 July 2019 1:03:42 PM
Attachments: NMoWIT PAU4 Submission 26.7.19.pdf

Tena koe,

Please find attached a response to the Chatham Islands PAU4 Sustainability Review Proposals for 2019/20 from Ngati Mutunga o Wharekauri Iwi Trust Chair and Ngati Mutunga o Wharekauri Asset Holding Company.

Nga mihi,

[redacted]
[redacted]

Ngāti Mutungā o Whārekāuri Iwi Trust
PO Box 50 | Wharekauri | Chatham Islands 8942 | Aotearoa
Freecall: 0800 WHAREKAURI (0800 942 735) | Phone: [redacted]
Website: www.nmow.co.nz Facebook: www.facebook.com/nmowiwi

Ngāti Mutunga o Wharekauri Iwi

P.O.Box 50
Waitangi
Chatham Islands
0800MUTUNGA
iwitrust@nmow.co.nz

24 July 2019

Sustainability Review 2019,
Fisheries New Zealand,
Ministry of Primary Resources,
PO Box 2526,
Wellington 6140.
By email: FMSubmissions@mpi.govt.nz

Response to Chatham Islands PAU 4 Sustainability Review Proposals for 2019/20

Tena koe

This letter is provided on behalf of the Ngāti Mutunga o Wharekauri Iwi Trust and its Asset Holding Company. In PAU4, Ngāti Mutunga o Wharekauri own:

15.020 tonnes of Settlement Quota
22.000 tonnes of Normal Quota
37.020 tonnes of Total Quota

PAU4 is an important source of revenue to support the charitable activities of the Iwi Trust (second only to crayfish). Iwi PAU4 ACE is all allocated to 10 Chathams resident divers who are affiliated to Ngāti Mutunga o Wharekauri.

The letter below and attachment contains our response to Fisheries New Zealand's initial proposals for the review of sustainability measures for the 2019/20 fishing year. Our comments are limited to proposed options for the PAU4 fishery.

Four Options have been presented. All four options have the same customary and recreational allowances at the current levels of 3 tonnes each. Our view is that these customary and recreational allowances appear to be appropriate for present and immediately foreseeable needs.

The four options for the Total Commercial Catch Limit (TACC) are:

1. No change (326.0 tonnes)
2. 10% cut (293.4 tonnes)
3. 20% cut (261.0 tonnes)
4. 30% cut (228.2 tonnes)

We note that all of these options generate a higher catch limit than has already been achieved through a voluntary shelve of 40% (195.6 tonnes) – now in its third year.
The shelve is a central element of a PAU4 Fishery Management Plan approved by the Minister on 13 February 2019. This Plan was developed by PauaMAC4 on behalf of all PAU4 quota owners and harvesters, and with the involvement and support of Iwi, Imi and the Chatham Islands community. It was approved by the Minister on the basis that the Plan has objectives, strategies, measures and rules that support the purposes and principles of the Fisheries Act 1996. The existence of this approved Plan (and its provisions including shelving) is a mandatory consideration in this TACC review.

For reasons previously presented to the Ministry at length (see attached affidavit), we are strongly of the view that the shelving and fine-scale management measures contained in the Plan far better achieve the Purpose of the Fisheries Act 1996 than the traditional approach employed by the Ministry (a single TACC for PAU4 and National Minimum Size Limit of 125mm) that produced the dire outcome that the Plan is seeking to reverse. The Plan is intended to apply flexible fine-scale measures to manage harvesting effort spatially and to reduce and increase total catch depending on the condition of the fishery.

We are mindful of the historical resistance of the Ministry to the PAU4 Plan initiative that required us to reluctantly resort to litigation in order to finally achieve Ministerial support and approval for that Plan. This process revealed that earlier advice to the Minister on shelving in the context of a Fisheries Plan was flawed. The correction of this historic policy/legal stance was central to the eventual approval of the Plan by the Minister. In turn, that approval provided the foundation for the consent memorandum we entered into with the Crown to set aside our PAU4 proceedings.

In these circumstances, any action by the Crown to undermine the effective implementation and evolution of the Plan and the development and implementation of rules and measures that are needed to address the risks and opportunities in the fishery as they present themselves over time would be considered by us to be an act of bad faith that is inconsistent with both the Ministerial approval of the Plan and the memorandum contingent upon that approval.

There is no doubt in our mind that if some of the TACC options presented for comment are implemented, then such an act of bad faith will have occurred.

The TACC cuts proposed achieve no sustainability benefit because they establish a higher catch limit than that achieved by the Plan. They have two negative effects with no countervailing sustainability benefit:

1. First, they disrupt and undermine the process of achieving a timely 40% voluntary shelve for 2019/20. It is difficult to get people to agree to a 40% shelve when the rival prospect of a softer 30% TACC reduction is on the table. Nevertheless, and in spite of this 'sabotage', we fully expect to achieve a similar level of support for the shelve than in the previous three years.

2. Second, although they achieve no sustainability impact now when it is needed, the TACC cuts proposed make a rebuild process hostage to future sustainability rounds – rather than the decision rules and mechanisms of the Plan itself.

This introduces a very unhelpful asymmetry to the Plan that undermines support for it. The costs of saving and rebuilding the fishery are carried by the Plan but the benefits of the rebuild will only be accessible to those people who achieved the rebuild at the discretion of the Minister and his advisers.

In short, the TACC cuts potentially 'gut' the future upside of the Plan. Furthermore, a TACC reduction crystallizes the 28N issue averted by the approved Plan (see attached affidavit).

The Dragonfly Report

This May 2019 Report is worthless as a basis for Fisheries Management Decision making including TACC setting. The attached affidavit points out the dangers of using aggregate Catch per Unit Effort (CPUE) measures as a basis for assessing the condition of paua fisheries. However, even in ideal conditions, CPUE can only be used as a rough and ready measure of fisheries abundance when Effort is constant. Effort is not constant in PAU4 for 2 reasons:

1. The Plan. The increased local size limits and sub area effort spreading measures in the Plan both increase effort. Divers are now leaving behind paua they would otherwise have taken. By definition, effort spreading displaces effort from the favoured areas reducing average catch rate.

2. Market changes. Traditionally, Chathams paua was canned. During the period of the shelve (the last three years) supplementary paua markets have developed on the Chathams for live and Individually Quick Frozen (IQF) whole paua in the shell. Both of these markets have a narrower specification especially for quality, clean shell, uniform size and limited quantity. Divers supplying this product essentially fish to order, generally with smaller landings than would have been made for the canning market.

It is a major deficiency of the Dragonfly Report that neither of these developments and their impacts on CPUE analysis are discussed.

Conclusion:

We support Option 1. This is the only Option that does not undermine the Approved PAU4 Fishery Management Plan. The options progress to larger and larger adverse impacts with larger and larger proposed cuts to the TACC. Arguably, these adverse impacts (undermining the Plan and undermining the percentage of Maori Settlement quota through the activation of quota transfers to meet section 28N commitments) are relatively modest with Option 2. The truth is that the long-term potential of PAU4 under effective fine-scale management is not known and will not be known until it is tried.

The PAU4 Plan is an integrated package of objectives, decision rules and mechanisms that will best achieve the Purpose of the Fisheries Act 1996 and, as such, our expectation is that the Minister's Sustainability Round decisions will avoid any adverse impact on that Approved Plan.

Naku noa na,

[redacted]

Ngāti Mutunga o Wharekauri Iwi Trust

[redacted]

Ngāti Mutunga o Wharekauri AHC

In the High Court of New Zealand
Wellington Registry

CIV 2017-485-

Under:	Judicial Review Procedure Act 2016
between:	**PauaMAC 4 Industry Association Incorporated**, a duly incorporated society having its registered office at 135 Victoria Street Wellington First applicant
and:	**Te Ohu Kai Moana Trustee Limited**, a duly incorporated company having its registered office at 48 Mulgrave Street, Wellington and carrying on business as a trustee Second applicant
and:	**Minister of Fisheries**, Parliament Buildings, Wellington *First respondent*
and:	**Chief Executive** of Ministry of Fisheries, Wellington *Second respondent*

I, Thomas McClurg, of Wellington, Director, swear:

(A) Qualifications and experience

1 I am a director of Toroa Strategy Limited in which capacity I offer independent business and strategic advice to organisations operating in a range of sectors, particularly organisations concerned with seafood, fishing and fisheries management. I founded Toroa Strategy Limited in 2009 and (amongst others) have carried out contracts for the New Zealand Seafood Industry, Aotearoa Fisheries Limited, Te Ohu Kai Moana Trust Limited, the World Bank, the Forum Fisheries Agency, the Parties to the Nauru Agreement Office and Te Tumu Paeroa (the Maori Trustee).

2 In the preparation of advice to fisheries clients, I draw upon over twenty- five years' experience gained through employment with government, Maori and private sector organisations within the fisheries sector. In the course of this experience, I have developed a detailed understanding of the operation of the Quota Management System (QMS), the valuation of Individual Transferable Quota (ITQ) and the challenges of managing integrated fishing and seafood businesses.

3 My qualifications and experience relevant to fisheries management and the economics of fishing businesses within the framework provided by the QMS are as follows:

3.1 I have a Master of Science Degree with first class honours in Natural Resource Management from the Centre of Resource Management at Canterbury University and Lincoln College (1986);

3.2 Between 1991 and 1994, I was Manager Strategic Policy for MAF Policy where my role was to supply advice to the Minister of Fisheries on policy and legislative reform, particularly as it related to the operation and evolution of the QMS;

3.3 Between 1994 and 1999, I was General Manager of Policy and Operations at the Treaty of Waitangi Fisheries Commission (Te Ohu Kai Moana). I was responsible for the day to day management of commercial assets including the leasing of Commission fishing quota and ensuring Fisheries Act compliance. I was a founding director of the Seafood Industry Council, alternate director on the Board of the Sealord Group and a director of Prepared Foods Limited (the paua processing and exporting joint venture subsidiary of Te Ohu Kai Moana).

3.4 Between 1999 and 2004, I was a Principal, Corporate Finance with Ernst & Young. In addition to conventional valuation and corporate finance work, I evolved a service comprising a mix of strategic management/economic advice and regulatory advice to clients. This client base comprised vertically integrated natural resource companies (seafood and dairy), network businesses (telecommunications and energy reticulation) and public sector. I led a major merger analysis (Sealord/Sanford) including oversight of the construction of comprehensive business modelling of both businesses and advising the Sealord side.

3.5 Between 2004 and 2008, I was General Manager Strategy and Planning for Aotearoa Fisheries Limited. In addition to managing a raft of establishment issues for this new entity, I was responsible for designing multi-year ACE agreements with iwi, identifying and prioritising opportunities for growth and providing investment analysis of fishing businesses and quota parcels available for purchase. I was a director of Deepwater Group Limited.

3.6 Between 2009 to the present, in addition to the activities above, I am the Chair of Commercial Fisheries Services Limited (Fishserve) (director since

[redacted]

2010), a director of Ngāti Mutunga o Wharekauri Asset Holding Company Limited (since 2010), Port Nicholson General Partnership (since 2012), Koura Inc General Partnership (since 2015) and Nga Kai Tautoko Limited General Partner (2016). In 2016 I was appointed Lead Negotiator by Ngāti Mutunga o Wharekauri Iwi Trust to negotiate a settlement of Treaty of Waitangi claims with the Crown on behalf of Ngāti Mutunga o Wharekauri.

4 I give this evidence having regard to my academic qualifications and 25 years public and private experience and expertise in New Zealand and international fisheries management, fisheries economics, natural resource management and economics, commercial fisheries including Maori Seafood Sector business development, Treaty of Waitangi claims, resolution and settlements, including the 1992 Deed of Settlement for Maori fisheries claims. I am Ngāti Mutunga o Wharekauri.

i. I acknowledge the provisions of the Code of Conduct for expert witnesses under Schedule 4 of the High Court Rules and in particular:

ii. my overriding duty to assist the Court impartially on relevant matters within my expertise;

iii. I have read the Code of Conduct and agree to comply with it;

iv. I have stated my qualifications in the preceding paragraphs;

v. The issues I address relate to the effective management of paua fisheries under the framework of the New Zealand Quota Management System and the Deed of Settlement; and I believe that my evidence is within the area of my expertise;

vi. In my evidence, I state the facts, assumptions and propositions on which I base my opinions; and I state the reasons for my opinions;

vii. I will willingly and readily confer with any other expert witness as (if) directed by the court under clauses 6 and 7 of the Code of Conduct.I have read the Code of Conduct for expert witnesses and agree to comply with it. The evidence I give in this affidavit is within my area of expertise.

(B) Purpose of evidence

5 The purpose of this evidence is to identify the negative impacts of the Total Allowable Catch decision for the Paua 4 Fishery of the Chatham Islands (PAU4) made by Hon Nathan Guy on 21 August 2017. I illustrate the nature and extent of these effects by using my intimate knowledge of the Ngāti Mutunga o Wharekauri Asset Holding Company Limited in its capacity as quota owner and wholly owned subsidiary of Ngāti Mutunga o Wharekauri Iwi Trust Limited which is a Mandated Iwi Organisation (MIO) under the Maori Fisheries Act 2004. To the extent that those effects have impact on Ngāti Mutunga o Wharekauri Asset Holding Company Limited in its capacity as quota owner, those effects apply proportionately to all PAU4 quota owners. To the extent that those effects have impact on Ngāti Mutunga o Wharekauri Iwi Trust in its capacity as a MIO, those effects also apply to Hokotehi Moriori Trust as the other Chatham Island MIO.

6 The negative effects identified in this affidavit were not properly identified within the advice presented to the Minister and that failure resulted in a decision that was deficient to the extent that it was based upon recommendations that; in rejecting the shelving/management plan approach presented by iwi/imi and industry through PauaMAC4 in favour of a Total Allowable Commercial Catch (TACC) cut, did not clearly identify to the Minister the well-known inadequacies of an approach to paua fishery management with excessive reliance upon use of the TACC alone, nor did it identify the fact that the recommended approach would , in fact, result in a dilution of the Settlement quota right in PAU4 that would thereby breach the understandings in the Deed of Settlement.

[redacted]

(B) Ngati Mutunga o Wharekauri Interest in PAU4.

7 Paua is a very important part of the Ngāti Mutunga o Wharekauri fisheries settlement. It received 15 tonnes of PAU4 quota in its fisheries settlement (less than 5% of all PAU4 quota). Moriori received the same quantity of settlement quota. Ngāti Mutunga o Wharekauri AHC makes this quota available to 10 Ngāti Mutunga o Wharekauri divers. Diver payments are currently $7 per kg greenweight on Wharekauri for them. Although small in volume, the sale of PAU4 Annual Catching Entitlement has accounted for a significant proportion of revenues for the Asset Holding Company and its PAU4 quota holding (pre-cut) is as follows:

- Settlement Quota: 15,020kgs
- Normal Quota: 22,000kgs

37,020kgs

The paua gross revenue vs total gross revenue from AHC's fisheries based assets for the last 7 years is as follows:

Financial Year	Paua Revenue ($'000s)	Total Fisheries Based Revenue ($'000s)	Paua Revenue to Total Fisheries Revenue
2010-11	$378	$1,203	31%
2011-12	$312	$1,354	23%
2012-13	$336	$1,726	19%
2013-14	$328	$1,866	18%
2014-15	$144	$1,804	8%
2015-16	$324	$1,929	17%
2016-17	$400	$2,051	20%
7 Year Totals	$2,222	$11,933	19%

(C) Managing PAU4 by Shelving/Management Plan versus TACC Cut

8 In their advice paper to the Minister (para.410) the Ministry informs the Minister that "Due to their sedentary nature, high levels of fishing pressure in localised areas makes paua populations susceptible to overfishing and depletion. Overfishing of a localised population can affect spawning success, in turn hindering overall productivity of the fishery." Indeed, localised (or serial depletion) of the most accessible paua beds is the biggest threat to paua fishery sustainability and the development and imposition of a fine-scale management regime for paua fisheries that can prevent local depletion is essential for the successful management of productive paua fisheries.

9 It is remiss of the Ministry that the Minister was not explicitly informed of the fact that the recommended TACC cut would not address this fundamental problem of paua fisheries management in that, after the TACC cut, harvesters would still continue to concentrate harvesting on 'better' areas. Furthermore, adoption by the Ministry of a management objective for the fishery of achieving biomass of 40% of virgin biomass (B_0) also does not address local and serial depletion threats. In para 470, the Minister was advised that a compared to a 30% TACC cut, a 40%TACC cut (Under Option 2) *will increase the probability that the fishery will stabilise and rebuild in a shorter time frame*. What the Minister was not told was that, Option 2 is significantly inferior to an (initial) shelve of 30% combined with a suite of fine-scale management measures.

10 Ngāti Mutunga o Wharekauri and PauaMAC 4 recognise that the Chathams paua fishery is not a single stock that can be managed with a single biomass target and associated TACC. That is why they have divided the fishery into 57 reporting areas and are collecting information on commercial catch from each of these reporting

[redacted]

areas. That information can provide the foundation for management and conservation measures appropriate for each sub-area that would be adjusted by *ex-ante* harvest control decision rules set out in a management plan.

11 A draft of that Industry Management Plan was attached to the PauaMAC 4 submission. That submission and associated plan has the full support of Ngāti Mutunga o Wharekauri who also support the process of developing the Industry Management Plan into a community-endorsed plan that provides the fine-scale responsive management of the PAU4 fishery. Shelving and the management plan are an integrated package. The level of shelve would be adjusted up or down annually depending upon the data collected and analysed from the fishery in that year according to the decision rules contained in the plan.

12 A TACC cut (or increase) operates through a separate statutory process that (at present) does not operate in response to such decision rules. TACC reviews are few and far between. As footnote 33 explains in the Ministerial advice "*The TACC for PAU4 was set at 261 t in 1986 when PAU 4 entered the QMS. Between 1986 and 1995 the TACC was increased four times following Quota Appeal Authority Appeals resulting in the current TACC of 326 t, which has remained unchanged since*." In recent years MPI has reviewed the TAC/TACC of around 10 fish stocks per annum out of the 638 fishstocks currently in the QMS.

13 In other words, this is the first TACC review of PAU4 in 31 years notwithstanding the fact that within the first 9 years of the QMS (by 1995) the PAU 4 TACC had been inflated to 25% above the original 'sustainable TACC of 261 tonnes. A TACC cut is not only a blunt paua fishery management instrument (as explained above) it is also an instrument that has not been used in a timely fashion. Given current Ministry practices and resourcing of stock assessment reviews, it is most unlikely that future TACC adjustments will be made with the timeliness good paua fishery management requires. This is an important reason why Ngāti Mutunga o Wharekauri favour shelving.

14 In their advice to the Minister, the Ministry suggest that a TACC cut (instead of shelving) and an industry management plan can be advanced as a package. In para 468 "*…it* (a 40% TACC cut) *would have the greatest likelihood of allowing the fishery to stabilise or rebuild while a more robust assessment of stock status and an Industry Management Plan are developed*". There are two problems with this advice:

i. As officials were aware, a draft industry management plan had already been developed and provided to them.

ii. As officials were aware, shelving was a central feature of the draft industry management plan and could not just be excised from it at their whim.

15 A 40% TACC cut will undermine the operation of the desperately needed plan; it is not compatible with it - as suggested by officials. Their support for the Plan contained in para 441 of their advice is therefore disingenuous.

16 The other reasons why shelving is supported by Ngāti Mutunga o Wharekauri were very well summarised in the PauaMAC 4 submission as follows:

PauaMAC 4 considers that shelving is **a valid and legally appropriate mechanism** to reduce the commercial harvest of PAU 4 by at least 30%. Furthermore, the shelving and fine-scale Industry Management Plan outlined in this submission are matters that the Minister is obliged to take into account when setting a TAC and TACC for PAU 4. In particular:

- When deciding whether to exercise his discretion under section 11 to set or vary a TAC, the Minister must take into account the effects of fishing on any stock (s11(1)(a)), which necessarily includes the effects (present and future) of shelving and industry fine-scale effort spreading on the stock; and

[redacted]

- Sections 13(2), (2A) and (3) together provide an obligation on the Minister to move a stock towards/above B_{MSY} and when deciding on the ways and rates (i.e., timeframes) to achieve that statutory objective, the Minister must consider all relevant social, cultural and economic factors. The Minister is obliged to take into accoun6t PauaMAC 4's shelving and fine-scale effort spreading when considering these section 13 provisions because:
  - Shelving can constitute a "**way**" in which, and affects the "**rate**" at which, a stock can be moved towards/above B_{MSY};
  - Shelving also affects whether (and the way and rate) a TAC at any given level enables the level of the stock to move towards/above B_{MSY} and;
  - Social, economic and cultural factors may support a shelving arrangement in place of a TAC/TACC reduction for the purposes of section 13(3).

PauaMAC 4 considers that shelving and a fine-scale management plan better achieves the purpose of the Act (i.e., providing for utilisation while ensuring sustainability) than a TACC reduction. The available science provides no certainty on trends of PAU4 stock abundance and the fishery still supports good CPUE by New Zealand standards. There is no evidence to suggest that PAU 4 has fallen below the soft limit in MPI's harvest strategy standard ($20\%B_0$) which would trigger a rebuilding strategy.

17 None of this careful analysis appears to have been included in the advice from MPI for consideration by the Minister.

18 MPI are clear that only anecdotal information is available as the basis for the Minister's TACC decision. …there is insufficient data to quantify the biomass of PAU 4 and its relation to the target biomass, and the soft and hard limits. (para 422) and as current biomass ($B_{current}$) and B_{MSY} are unknown for PAU 4… (para 426). Ngāti Mutunga o Wharekauri agree that the Minister has to use the best available information when exercising responsibilities under the Fisheries Act. Sometimes (as in this case) that information is very poor. However, it is generally accepted good management practice that decisions based upon poor information should take a reversible form that can be modified quickly when new information arrives. This has not been done. A dramatic and inflexible action (40% TACC cut) has been implemented on undeniably poor information when a more flexible and effective option (shelving) was already in place.

(D) Under-estimate of Economic Impacts

19 A 40% TACC cut to PAU4 has very significant economic implications for Ngāti Mutunga o Wharekauri. These take the form of reduced employment, reduced revenue to the AHC and (as the AHC funds the distributions of the Iwi Trust) reduced capacity to support distributions to deliver social and cultural benefits to the iwi. In these circumstances, these costs and impacts need to be accurately estimated for careful Ministerial consideration. The MPI estimate of the *short-term economic impact to the commercial sector under this option is expected to lie between $1,553,904 and $2,335,652 per annum, taking into account current and previous ACE shelving efforts.* (para 488).

20 It is not at all clear how MPI have calculated these numbers. Elsewhere in the Ministerial advice paper, economic impact has been equated with loss of revenue but it is unclear whether this true for the PAU 4 section. An average port price of $23.98/kg in PAU4 has been used. This is too low in our experience. In the case of PAU4 it is therefore not possible to know what the Minister was expected to make of this economic impact advice.

21 An easy and conservative way of calculating loss of revenue from a cut is to use the simplest paua product form as a revenue benchmark. That is whole frozen paua (currently selling for $US45 to US$48 per kg). At a current exchange rate of 0.72, $US45 translates to $62.50/kg ($62,500 per green weight tonne of paua).

[redacted]

On this basis, a 40% cut represents a loss of revenue to the Chathams paua fishery of $8,125m and the difference between a 40% TACC cut and 30% shelve represents a loss of revenue of $2,031,250 per annum. As the owner of 11% of PAU 4 quota these economic impacts translate to a loss of potential annual revenue of $920,000 and $223,437 respectively.

(E) Section 28N Rights and the Deed of Settlement.

22 In paragraphs 443 to 452 of their advice to the Minister, officials draw attention to the fact there are 19.7 tonnes of 28N rights in PAU 4 and that therefore the first 19.7 tonnes of any future increase in the TACC would go to 28N right holders rather than to the quota owners (including Ngāti Mutunga o Wharekauri) who had their quota tonnages reduced by the cut.

23 In their submissions, the Paua Industry Council (PIC) and Ngāti Mutunga o Wharekauri Asset Holding Company noted that a TACC reduction followed by an increase will dilute the number of quota shares, including Settlement shares held by iwi. In other words, the introduction of 28N quota shares into a fishery has the effect of reducing Settlement quota from the notional 10% to something lower.

24 MPI have advised the Minister that *the degree to which shares are affected will depend on the level of the TACC increase* (para 450). This is a very poor explanation of the mechanism. Because 28N rights have a priority, it will only take an increase of the post-cut TACC from 196 tonnes to 216 tonnes for the full extent of the dilution to occur. The impact of such a dilution on Ngāti Mutunga o Wharekauri is shown below:

	AHC PAU4 Quota	Current TACC	AHC % of Current TACC	Proposed TACC	AHC PAU4 Quota Post TACC Cut	% of TACC Post Cut	S28N Rights	New TACC	AHC % of New TACC	Dilution % Due to S28N Rights	AHC PAU4 Quota if Nil S28N Rights	AHC Quota Loss	Value of Quota Loss at $500k/mt
Settlement Quota	15,020	326,543	4.6%	196,000	9,015	4.6%	19,700	215,700	4.2%	-0.4%	9,922	-906	-$453,070
Normal Quota	22,000		6.7%		13,205	6.7%			6.1%	-0.6%	14,532	-1,327	-$663,619
Total Quota	37,020		11.3%		22,220	11.3%			10.3%	-1.0%	24,454	2,233	$1,116,689

I. Based on the current TACC of 326,543kgs, AHC's Settlement Quota holdings equate to 4.6% of TACC and 6.7% for Normal Quota holdings, a combined total of 11.3%.

II. Given the impact of the TACC reduction is proportionate to quota holdings, these same percentages are maintained at the new 196,000kgs TACC.

III. If we assume the TACC is subsequently increased by the amount of the S28N rights, i.e. – the full 19.7mt TACC increase would go to the S28N right holders, AHC's Settlement Quota holding percentage would fall from 4.6% to 4.2%, its Normal quota holding percentage from 6.7% to 6.1% and the combined total from 11.3% to 10.3%. The resulting quota ownership dilution being 0.4% for Settlement and 0.6% for Normal combining to a total 1% dilution.

IV. Had there been no S28N rights and the TACC was increased 19.7mt, AHC's Settlement quota would have increased to 9,922kgs from 9,015kgs and Normal quota to 14,532kgs from 13,205kgs combining to 24,454kgs from 22,220kgs. The quota volume loss from the impact of S28N rights is therefore 906kgs of Settlement quota and 1,327kgs of Normal quota being a total 2,233kgs.

V. At a $500/kg PAU4 quota value (post recovery), the 2,233kgs lost because of S28N rights would equate to a value loss of $1.1m.

(F) Process and Communication

[redacted]

25 The advice to the Minister over-stated the extent of support for a 40% TACC cut. The fact is that 98.2% of all PAU4 quota ownership supported a 30% shelve and had completed the necessary shelving documents with Fishserve before the beginning of the 2017 fishing year. For instance, Tuhoe Te Uru Taumatua were described as supporting Option 2 when it actually shelved quota.

26 Most annoyingly, para 484 includes the following advice: Both Ngāti Mutunga o Wharekauri and Moriori, who represent tangata whenua of the Chatham Islands were approached to discuss their view on PAU 4. Collectively, both iwi/imi agreed that the TACC for PAU 4 needed to be decreased by at least 30%...At no time has Ngāti Mutunga o Wharekauri supported a TACC cut in PAU 4. Its support for a catch reduction achieved through shelving has been repeatedly and consistently communicated to MPI. The wording above is at best extremely careless and at worst designed to give the Minister an impression that TACC cuts and shelves are close substitutes in our mind. This is definitely not the case.

27 Finally, I note that the Minister signed this decision paper on 21 August 2017. It was not released for nearly a month. I received a copy of the Minister's letter on the evening of 19 September and down-loaded the advice paper on 20 September. Affected parties have had a week to read and analyse the decisions, communicate with each other, and formulate a response before the TACC decision is implemented. Given that affected parties are scattered between the New Zealand mainland, Chatham Island and Pitt Island, this is an inadequate amount of time that left one day for the preparation of this affidavit.

SWORN at Wellington by the abovenamed deponent this twenty-ninth day of September 2017 before me:

.....
A Solicitor of the High Court of New Zealand

In the High Court of New Zealand
Wellington Registry

[redacted]

Ngati Porou Seafoods Ltd

SUBMISSION

Tarakihi Consultation Decision

Submission Compiled by: [redacted]

Date Completed: 20 July 2019

Executive Summary

This Submission is in reply to the 2019 consultation documents on Tarakihi distributed by Fisheries New Zealand.

It is presented on behalf of Ngati Porou Seafoods Limited, the commercial asset holding company established under the Maori Fisheries Act settlement process to receive the quota assets allocated to Ngati Porou and manage, protect and enhance these resources and environment in a profitable and sustainable manner for the future.

We are descendants of Tangaroa (God of the sea). The relationship is recorded in our history and in our lifestyles. From fishing in the Pacific, to trapping crayfish in whanau allotted pools; cruising the Tasman trading goods gathered in Ngati Porou, to enforcing Rahui for the conservation of our kapata kai by sheer force of mana. We are part of the sea and other fisheries, and they are part of us.

This philosophy is further embodied in our company vision statement and purpose for its existence;

> **"Whaia te kauika a Tangaroa, ma kona I ora ai, nga uri whakatipu"**
> (From the bounty of the sea, we will sustain our future generations)

The onset of colonial contact brought the Treaty of Waitangi and its guarantee of our rangatiratanga and other tikanga. They form the basis of the rights now metamorphosized into a bundle of assets allocated under the Maori Fisheries Act to Ngati Porou on agreement with the Crown.

Ngati Porou Seafoods Limited reaffirms our commitment to effective fisheries management and sustainability which has been an intergenerational part of our core values and culture. We believe for us to achieve our long-term vision and aspirations collaboration between customary, commercial and recreational fisheries stakeholders is critical.

In making this submission Ngati Porou Seafoods Limited, which (through our ultimate parent, Te Runanganui o Ngati Porou) represents more than 70,000 registered members as well Nga Hapu o Ngati Porou, indicates its strong desire to ensure our resources are managed in a responsible manner and agreements with the Crown as well as our tikanga are maintained and honoured.

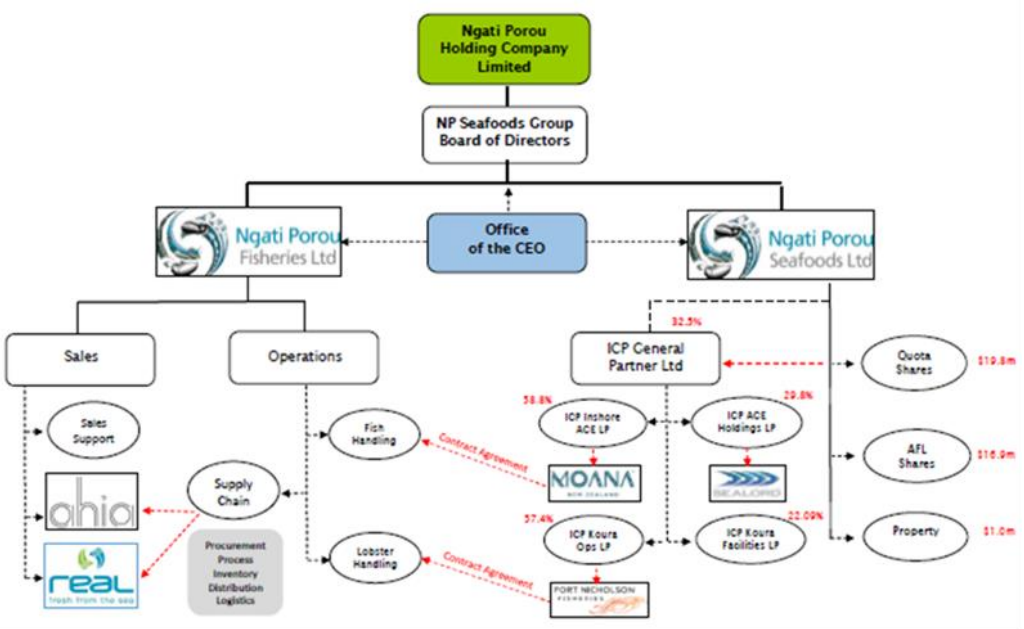
We agree with the Minister of Fisheries statements pertaining to the importance of fisheries to New Zealand's economy, heritage, culture and national identity.

We also note that Ngati Porou Seafood Limited is a member of the Iwi Collective Partnership which is a collective of eighteen iwi across the North Island who have pooled their annual catch entitlement (ACE) together to improve management decisions, returns, and opportunities within the fisheries sector which also includes a collective focus on fishery management across Aotearoa.

The proposed changes by Fisheries New Zealand will have significant impacts to our business.

Ngati Porou Seafoods Group

The Seafoods Group is an outstanding example of an iwi using its settlement assets to build a profitable and sustainable seafood business that is 100% owned and operated by its people. As advocates for healthy oceans / resources, moving fish through our value realisation chain and researching new areas of opportunity to ensure the sustainability of our business for the next 100 years and beyond. The Seafoods Group is an important asset for the tribe and incorporates two main Companies to conduct these activities as outlined below.



Ngati Porou Seafoods (NPSL) is the asset holding company established under the Maori Fisheries Act settlement process to receive and manage the quota assets allocated to Ngati Porou. Key to this business is strategic relationships with fishing companies we have interests in and we participate actively in fisheries management forums. These relationships are best exemplified by NPSL being a member of the Iwi Collective Partnership (ICP) a collective of sixteen iwi across the North Island who have pooled their annual catch entitlement together to improve management decisions, returns, and opportunities within the fisheries sector.

Ngati Porou Fisheries (NPFL) is the Operational arm of the business and conducts activities like unloading vessels, handling finfish / crayfish, processing, and also sells products through its retail store 'Real Fresh' based on the wharf area in Gisborne and has a mobile vehicle delivering fresh fish to customers from East Cape to Wairoa. It also produces and sells smoked fish products through 'Ahia' to supermarkets throughout the North Island.

In the context of this submission, Tarakihi is the primary volume throughput specie which plays a major role through our business whether handling, processing, and our regional retail business. It also plays a role through ace trading relationships and supply to our business which is outlined further herein.

Background - Tarakihi Consultation

In 2018 there were concerns raised by FNZ (then MPI) about the stock abundance levels with Tarakihi on the eastern coast of NZ from Cape Reinga to Kaikoura. This was a surprise to industry and MPI science.

There was also a theory put forward that this eastern coastline stock was all one stock, spawning primarily off the Kaikoura area and moving north, and should be managed as such. Therefore, FNZ proposed significant TACC cuts (60%+) to rebuild the stock to a target 40% SBO within a 10year period. This would have had major economic impacts to industry and regional communities.

Following consultation and a rebuild plan tabled by industry the Minister acknowledged the industry plan and agreed to lesser TACC cuts which varied across TAR1, TAR2, and TAR3, with a clear proviso that further cuts could still be initiated if improvements did not materialise.

It should be acknowledged that Ngati Porou Seafoods along with Te Ohu Kaimoana and iwi contributed significantly to the industry rebuild plan and in galvanising industry together behind the plan.

In 2019 FNZ has again tabled a consultation document exploring three options which includes further major cuts to the Tarakihi TACC or retention of the industry plan as follows;

Option 1: A 31% reduction to the combined TACC for TAR 1, TAR 2, TAR 3 and TAR 7 as proposed by the Minister in the 2018 Decision Document. This is predicted to achieve a target of 40% SB0 within 12 years, with cuts spread unevenly across quota management areas (QMAs) 1, 2, 3 and 7. In addition to this, the reduction for TAR 1 is assumed to occur across the entire QMA, and not just the East Coast portion of that stock.

Option 2: A 35% reduction to the combined TACC for TAR 1, TAR 2, TAR 3 and TAR 7. This is predicted to achieve a target of 40% SB0 within 11 years, which is generally consistent with Fisheries New Zealand's Harvest Strategy Standard. Catch reductions are proportionately shared across the East Coast Tarakihi stock, e.g. 50% catch reductions to TAR 2 and 3 and the East Coast portion of TAR 1 and TAR 7.

Option 3: Maintain TACCs at current levels, and adopt additional management controls as proposed through the commercial fishing industry's 'Eastern Tarakihi Management Strategy and Rebuild Plan' (the Industry Rebuild Plan). This option aims to rebuild the stock to a target level of 35% SB0, over an unspecified timeframe, without any further TACC reductions.

FNZ have organised hui in key locations in the North /South Islands to discuss this consultation process further with all stakeholders and hear initial feedback. Ngati Porou Seafoods attended the Napier hui in this regard and the Auckland hui through the ICP.

Ngati Porou Seafoods (NPS) Position

NPS do not accept Options 1 & 2. In our view, Option 3, which includes a rebuild plan, is the most pragmatic option available at this time.

Key assumptions in making this decision;

a. Option 3 (Industry rebuild plan).

- The Minister challenged industry to provide a meaningful and innovative rebuild plan in 2018. Industry has done this and like the science, while not 100%, from FNZ or Industry, it's a work in progress and a great template forward and includes a number of management initiatives that will themselves create challenges for industry but also positive outcomes for all.

- What exactly has changed since the 2018 decisions to warrant further drastic action as outlined in FNZ consultation document. Essentially nothing has changed as there has simply been insufficient time to fully allow agreed actions to be implemented or satisfactory and reliable data to be collected.

- The rebuild plan is not a silver bullet and will require the use of various tools like cameras, mesh sizes, and new technologies one of which is the PSH trawl technology which effectively harvests the fish in a bubble of water keeping it alive, it could also with cameras allow skippers to see what is in the trawl so that small shoals of fish or other marine life not desired can be released. This is an outstanding piece of innovation between industry and the crown that will continue to evolve new options to assist in better harvesting and managing these fisheries.

- It should not be understated the tremendous effort it has taken to galvanise, unite, and commit industry behind this rebuild plan, which is a first, which the Minister can take credit for in my view. It should be recognised however that these initiatives take time to produce results which 12 months or less will not happen. Give these initiatives some time to bed in.

This is not a status quo option as stated in FNZ presentations and in public forums. It's a comprehensive rebuild plan that requests halting further TACC cuts be made this year **only** until more information is at hand from initiatives implemented.

b. The economic impacts in 2018 were challenging enough, however, the proposed TACC cuts for 2019, which equate to a further 50% cut, will have major and widespread impacts to;

i. Industry.
1. Tarakihi is a major part of vessel catch plans off the Eastern Coastline, particularly Te Tairawhiti (East Coast/Gisborne). If the proposed TACC cuts go ahead Companies who manage inshore vessels like Moana NZ and Gisborne Fisheries through Gisborne Port will lose an estimated 400-600 tonnes of ACE which based on current valuations is approximately a $6m asset reduction alone not to mention the additional loss through the supply chain for those Companies.

This will be significantly multiplied through Northland, Auckland, Bay of Plenty, Hawkes Bay, Wellington, and the South Island who will be in a worse position.

2. Vessels. The proposed cuts just for Gisborne alone would see approximately 3-4 vessels impacted, whether tied up or re-directed from region, the outcome is the same.
3. Vessel Catch-Plans. Vessels are already having problems trying to avoid Tarakihi which is in plentiful supply across the Tairawhiti/Hawkes Bay coast. It is inevitable that vessels will catch Tarakihi with other species, so simply cutting the Tarakihi TACC will create numerous other problems for vessels.
4. Job losses. Inshore vessels generally have 2-3 staff on board equating to 6-12 jobs at risk not to mention the loss of expertise and skills which is invaluable.
5. Deemed values. If Option 1 & 2 are implemented, what considerations have been given to how industry will avoid Tarakihi catch with other species and what review of deemed values will be conducted as a result to support this transition. These will have significant impacts on Commercial fishers and businesses as currently in FMA2 Tarakihi is very plentiful and hard to avoid.

ii. Ngati Porou Seafoods.
    1. Loss of settlement quota/asset value. Ngati Porou fought long and hard for recognition of its Fisheries Settlement with the Crown, which was allocated or accessed in 2006. In 2018 the Tarakihi TACC was cut by 20% now a further 50% cut is proposed which equates to $1m asset value stripped off our balance sheet.
    2. Partnership income. 50% of NPS annual income is currently via its key strategic partnerships which it has developed over the last 10 years which have multiple impacts to our business.
        a. Reduced annual ace income. The proposed TACC cuts would reduce our annual ace income by $100k
        b. Reduced vessel handling income. NPS operates a vessel servicing and fish handling operation from Gisborne Port primarily for its strategic partners. If vessels are tied up or leave the region then the direct impact equates to an annual loss of $500k income to our business.
        c. Reduced processing income. NPS also operates contract processing for strategic partners like MoanaNZ as well as for its own activities. Tarakihi is a primary input species through our site which flows through to our Retail Operations and customer distribution requirements. This equates to an annual loss of $400k income to our business.

iii. Consumers.
    1. Tarakihi is an iconic species that is the most eaten inshore fish species in NZ meaning it truly is New Zealand Fish. FNZ rebuild measures will change that.
    2. Regional Fish Mongers and Supply. Ngati Porou has developed a unique regional retail business ‘Real Fresh’ with a shop in Gisborne and a mobile truck supplying East Coast, Mahia, and Wairoa. The primary fish sold is Tarakihi and with significantly reduced supply of Tarakihi, Supermarket chains will look to grab the majority of market supply putting pressure on smaller distributors and fish mongers regionally who will find it difficult to compete and survive. It’s not just a case of selling something else either as NZ and especially regional consumers want only a handful of known species and if they can’t get it at a fish monger will go to the supermarket.

3. Price increases. This will be inevitable, retailers will pay more for supply of it and this will be passed onto consumers and not just for Tarakihi.
4. Regional Communities. Tarakihi is the most eaten fish nationally / regionally and in the context of Nga Rohe Moana o Ngati Porou, Tarakihi is very popular across customary, commercial, and recreational stakeholders.

c. One Fishery Theory. This was a significant new development that contributed to major decisions made in 2018 by FNZ and the Minister from the tip of the North Island to the South Island. Despite some anecdotal evidence that promotes this position all acknowledge, including FNZ, that the science is still not satisfactory meaning at this point it remains a theory. It is therefore critical that the science is developed to more accurately determine this position as any rebuild and management practises would be quite different for one stock versus three or four. We would like to see this a priority of any plan and decision by FNZ.

d. 40% SBO – Hard Limit. New science data provided in 2017/18 was of great surprise and concern to industry and FNZ. It indicated that Tarakihi had not been at this 'Hard Limit' level since the 1960's and had not been above 27% SBO since the 1970's and was in fact overall tracking below the 20% level since 2000.

   We acknowledge that tracking below 20% is unacceptable which required Industry and FNZ to take action. This resulted in the 2018 decisions and in the Industry rebuild plan which was accepted by the Minister in 2018.

   FNZ insisted the 'Hard Limit' is the level a sustainable fishery should operate at and accordingly the consultation models developed in 2018 focused on achieving the 'Hard Limit' within as quick a timeframe as possible. This narrow focus will destroy the harvesting sector and have impacts through the entire supply chain, including the consumer and regional communities, which is not necessary in our view.

   NPS questions whether 40% SBO is a realistic standard for NZ inshore finfish fisheries to be applied which then directly impacts FNZ rebuild focus. We believe validating the integrity of the 'Hard Limit' as a realistic and sustainable measure is needed urgently and should be a research project moving forward as all our fisheries will be impacted by decisions on this basis.

   If NZ QMS and management practises are recognised and acknowledged as world leading then we should be setting our own standards and not blindly adhering to a standard from other global fisheries which have been and are in a far worse state than NZ fisheries and in collapse in some cases. So why are we following this measure ?

   NPS view is that NZ Fisheries are quite different and more dynamic than other global fisheries in many respects and applying a realistic Hard – Soft Limit to monitor stock abundance is essential, therefore, we want more science done to establish a more reliable and accepted limit measurement.

Summary:

Ngati Porou Seafood Limited is committed to sustainable fisheries and believes there is a need to effectively manage areas of interface between stakeholders for optimal outcomes.

Collaboratively we can implement positive changes and strong development of our fisheries using traditional iwi and industry knowledge augmented by scientific data and analysis.

The industry rebuild plan supports the development of sound management, monitoring and assessment plans that includes research surveys to estimate biomass and updated stock assessments. If future results indicate the fishery is not improving enough then we support reductions but not knee jerk reactions.
Maori are unique in that our use of the sea for gathering kaimoana spans across commercial, customary, and recreational user groups and therefore effective management of our fishery resources and environment are key aspects of who we are.

Typified by our company philosophy '*To manage, protect and enhance Ngati Porou's seafood resources and environment in a profitable and sustainable manner for the future'*, our priority first and foremost is the resource.

Kaitaikitanga is about conservation for use and we believe the best way to utilise and protect the resources sustainably is by setting fisheries goals and procedures collaboratively with other stakeholders which includes FNZ.

Therefore, if FNZ is truly committed to rebuilding the Tarakihi stocks, or any NZ fisheries for that matter, in a realistic and practical manner, as the Minister was in 2018, and in the absence of a realistic alternative, the industry rebuild plan must be endorsed.

Are FNZ also seriously willing to be a transparent and collaborative partner with industry which requires open and honest communication which seems to be more confrontational rather than collaborative. This must change so that we are managing our fisheries together as a shared fishery working together towards the same goals for Aotearoa.

Noho ora mai koe

CEO - Ngati Porou Seafoods Ltd

47-53 The Esplanade, Gisborne 4010
P O Box 1296, Gisborne 4040
T: **F:** **M:** **E:**

From:	Admin
To:	FMSubmissions
Subject:	Review of Sustainability Measures for Kina
Date:	Thursday, 25 July 2019 5:14:09 PM
Attachments:	Northland Dive-Kina.pdf Unknown.png

To Whom it concerns,

Please see our attached submission

Many thanks,
[redacted]

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25/07/2019

Submission - Review of Sustainability Measures for Kina (SUR 1A, SUR 1B) for 2019/20
Fisheries New Zealand Discussion Paper No: 2019/12

1. Introduction.

Northland Dive is a Scuba Diving Charter Business that has been operating in the Cavalli Islands, Bay of Islands and down to Whangaruru for over 16 years.

Yes Northland Dive support the submission.

2. Questions for submitters on options for varying TACs, TACCs and allowances:

Option 3 - a 50% increase to the TAC. TACC and other allowances.

The reasons why I support Option 3 are:

- At present the number of Kina are out of control, an increase would help to control the Kina numbers and assist the natural balance of marine life to return, once Kina numbers have reduced the catch limits can be revisited. Northland Dive is about show casing New Zealand's stunning underwater world not the bare rock faces of the Kina barrens.

Yours faithfully

[redacted]

From:	[redacted]
To:	FMSubmissions
Subject:	re: Sustainability Review Submission - TAR3
Date:	Friday, 26 July 2019 2:17:16 PM
Attachments:	maf0057 - Submission on TAR3 - East Coast Tarakihi - July 2019 .pdf

Hi

Please find attached our Sustainability Review Submission – particularly in relation to TAR3.

We trust that it can be considered and that the actions taken do not put many hundreds of hard working New Zealanders out of work.

Thanks.

Yours faithfully

[redacted]

Stark Bros Ltd / Ocean Fisheries Ltd
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Office Fax. (++64) [redacted]
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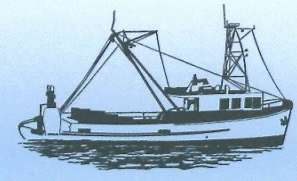

26/07/2019

Sustainability Review 2019
Fisheries New Zealand
Ministry for Primary Industries
PO Box 2526
Wellington 6140

Email : **FMSubmissions@mpi.govt.nz**

Dear Sir / Madam,

Re: FNZ – Review of Sustainability Measures Tarakihi – TAR1,2,3 &7.

This submission is made by [redacted] on behalf of :

Ocean Fisheries Ltd (QRN # : 8471824)
PO Box 144
Lyttelton

AND

Ocean Fisheries Quota Holding Company Ltd (QRN # : 9160046)
PO Box 144
Lyttelton

Back Ground :

Ocean Fisheries Quota Holding Company Ltd is as the name suggests our quota holding company.

Ocean Fisheries Ltd currently operate 4 Inshore Trawlers, the FT Frontier, the FT Endeavour, the FT Legacy and the FV Nessie J, all of which are based from the Port of Lyttelton.

Ocean Fisheries Ltd has been fishing inshore waters from the Port of Lyttelton since 1967.

Our submission is as follows :

We have received and considered the document " Review of Sustainability Measures for Tarakihi (TAR1, 2, 3 and 7) for 2019/20.

TAR3 specific background and submission.

- Ocean Fisheries Ltd operates from the Port of Lyttelton and as such only TAR3 is within our area of concern.

- We do NOT believe the rationale behind the Common or Single NZ Wide Stock Theory, now put forward.
  The physical evidence as experienced by fishermen throughout NZ suggests that there are juvenile and adult stock in each specific QMA.

- Likewise the theory put forward that East Coast South Island really does not have significant quantities of large adult fish – is simply not supported by the significant tonnage of good size adult fish our company has been catching over the past 6 or so years.

- In the past 10 years we have caught between about 10% and 40% of the TAR3 TACC, so we are an active and significant fisher in the TAR3 area.

- In the last 6 years we have had access to more TAR3 ACE than previously due to less fishers in the area, and have essentially developed the fishery such that our vessels are now catching TAR3 outside of the historical catch areas.

  The traditional catch area for TAR3 out of Lyttelton was South of Banks Peninsula in habitats that often contained higher than desirable numbers of sub-minimum legal size fish.

  We have moved such that the majority of the TAR3 we are catching is North of Banks Peninsula and in areas where it is uncommon to catch sub-minimum legal size fish.

- Another significant change is that the TAR3 fishery was historically a winter fishery – with the saying "you start catching TAR3 after the first snow on the hills", but we now catch it consistently throughout the year, and therefore we no longer consider it a seasonal species.

- TAR3 represents 15% to 20% of our annual fish catch, but more importantly it represents 30% to 40% of our annual revenue.

- The fish stock TAR3 is extremely important to us – so we need it to be a healthy fishery – but equally we need to ensure that the management tools put in place also recognise that the loss of significant annual catch will impact on our operation including employment levels almost immediately.

- The 25% cut in TAR3 TACC last year has impacted our ability to catch the volumes of TAR3 that we would like to be catching, and have meant we must focus our efforts elsewhere.

  The issue with focussing elsewhere is very complicated - QMA3 is a complex fishery of a very mixed nature, where we currently face significant pressure from increasing stocks of particularly BCO3, ELE3, GUR3, LEA3, MOK3,SKI3, SCH3, SWA3 – in one sense this is a fantastic situation – good fish stocks.

  However we spend significant amounts of time trying to avoid catching fish for which there is not ACE for due to an insufficient TAC and TACC.

  Many of these species we have seen increasing in abundance for many years, and the TACC has remained relatively static – there is simply not the money to put into the science to support the necessary TACC increases – so they tend to be adhoc or token increases based on placating fishermen rather than actually determining what is a sustainable yield from the fish stock.
  This is very frustrating as the amount paid in Deemed Value continues to rise and this puts pressure on fishers.

- The situation is now critical for the inshore catching sector, there is an abundance of many species of fish, but static or in the case of TAR3 reducing TACC – it will send many operators out of business or force specific vessels to cease operations.

- The measures we (have taken in recent years and the current industry initiatives and investigations to further improve selectivity within the TAR stock has and will continue to reduce our catch, which in turn will further improve the stock levels.

- We already use a mix of various net configurations and mesh sizes in both the cod end and the lengtheners, including 4” / 5” / T90 / square mesh and are looking at other net options as part of ongoing net development.
  This is not just in relation to TAR3, but indeed is part of the modern fishing tool box – where we seek to work within the legal framework of the QMS and the available TACC to maximise returns – not only annually but over our generation and into the next generation.

  We are also using much more complicated and accurate electronic equipment which enables us to fish more selectively and to keep quality of the fish caught much higher than previously.

- We strongly support the industry proposed Eastern Tarakihi Management Strategy and Rebuild Plan.

  Work in accordance with this plan has already begun and is apparently already showing positive results in the fish stock from a scientific aspect.

  We need more time for the positive results to be more quantifiable and to show how the effort will translate to results and a rebuild time frame.

- Draconian TACC cuts will put honest hardworking fishermen out of business – in our business we employ 14 sea going skippers and crew, that’s 14 families, their local communities, our company management and admin, our Licenced Fish Receiver, the Fish Market buyers, the fish shops.

  Any further TACC Cuts will have massive and wide ranging economic and social impacts.

- The Labour Government has been actively promoting the “Well Being” of New Zealanders – any further cuts in the TACC will negatively impact the “Well Being” on a large number of New Zealanders – not big business – but the hard working family men and women of NZ.

- As above, Ocean Fisheries Ltd has been fishing for 52 years, and plan to continue fishing for another 50+ years – so healthy fish stocks are very important to us for now and for our future generations of this family fishing business.

Should you wish to discuss any of our comments in more detail please do not hesitate to contact the undersigned.

Yours faithfully

[redacted]

[redacted]

Ref: mpi0057

Online survey summary

Number of Fisheries New Zealand online survey responses received per stock

Stock	Number of survey responses received
East Coast tarakihi (TAR 1, 2, 3 & 7)	43
Red snapper (RSN 1 & 2)	29
Kina (SUR 1A & 1B)	24
Top of the South trawl fishery (JDO 7, GUR 7, ELE 7 & SPO 7)	21
Hoki (HOK 1)	17