Fisheries New Zealand
Tini a Tangaroa

Review of Sustainability Measures for selected stocks for October 2020

Public submissions received on discussion documents

September 2020

New Zealand Government

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1 July 2020

Review of Sustainability Measures and Deemed Values for 1 October 2020

1. Thank you for this opportunity to comment on the review of sustainability measures for a number of fishstocks Southern Inshore hold a mandate for.

2. Southern Inshore Fisheries Management Co. (Southern Inshore) represents 104 inshore fishstocks throughout the Fisheries Management Areas 3,5,7 & 8. In addition to representation and advocacy for shareholders the Company also invests in annual research projects, for additional monitoring of key stocks, over and above the cost recovery process.

3. Southern Inshore is a member of Fisheries Inshore New Zealand (FINZ) which is our sector representative entity (SRE) to Seafood New Zealand (SNZ). We have read and support their submission in respect of the 2020/2021 Sustainability Controls.

4. With our regional advocacy role for shareholders in the South Island we are appreciative of the continued collaboration with the fisheries management personnel in both Nelson and Dunedin, as well as input into national issues directly with Wellington staff.

5. The contact for this submission in the first instance is Carol Scott.

Lack of fishstock review and strategic approach

6. The annual process for Southern Inshore is the promotion of fishstocks for TACC reviews (up or down) and/or deemed value review on the basis of ongoing catch trends, science analyses and trawl survey output.

7. With around 670 fishstocks in the quota management system, something drastic has to happen within fisheries management to ensure that there are more timely reviews and responsive management across all of our fishstocks, including low knowledge stocks. SIF are pleased that over

recent months a very productive conversation about how that might happen has begun with FNZ which should pave the way for improvement. However, the discussions are in their infancy and therefore this sustainability round falls outside any intent that process might contemplate. Whilst disappointing we request that FNZ seriously take on board what is being proposed recognising that a mutual improvement in the management process is essential moving forward.

8. Southern Inshore proposed 13 stocks for review that are supported by recent science and increasing catch or abundance trends. Fisheries NZ have only undertaken to review 9 of those stocks. The additional stocks requested were JDO7, SPO7, ELE7 and TAR8. JDO7 and SPO7 were reviewed in 2019 for TACC increases and our renewed request is based on a continued positive trend in these fisheries. For ELE7, the TAC was reviewed in 2019, not the TACC. The stock is in good heart and is clearly being overcaught. For TAR8 there has been no justification provided as to why it was dropped. Having a stock reviewed in one year does not preclude it from being reviewed again in following years. Previous requests have not been met and therefore it is necessary to ask each year for incremental increases. In the case of JDO7, SPO7 and ELE7 we have stocks that are increasing by-catch stocks that require constant attention.

9. Access to additional, sustainably managed ACE is the optimal outcome for fishers. Improved revenue from legitimate TACC increases for quota-owners and fishermen within this area obviously supports the Government Growth Strategy and their desire to provide greater economic opportunity.

10. In this Post COVID 19 environment FNZ have asked Industry what they might do to support them and how they might be able to provide some economic relief? The answer is to address these TACC requests in their entirety. Delivering on all of SIF's requests has the effect of providing some $2.1m in increased catch landings and can be done with absolute comfort in terms of both utilisation and sustainability.

11. Industry want and deserve, given the money they contribute, to be involved in a seamless, flexible, scientifically supported and robust TACC setting process that occurs each year in a transparent and meaningful way. We want some return on our investment and no longer want to be regarded as 'poor cousins' in an inshore fishery that is blossoming as a result of the management measures that commercial have adopted. We encourage FNZ to show the leadership and courage required to deliver some return on this long-term investment.

12. We reiterate our position regarding TACC reviews for Southern Inshore stocks as outlined below.

We provided FNZ with our initial proposals in November 2019 and have subsequently met with FNZ managers on a number of occasions since, to discuss all rationale and any science associated. In March 2020 Southern Inshore along with Fisheries Inshore NZ and the NZ Federation of Commercial Fishermen jointly submitted again in respect of all inshore stocks requiring review through Areas 1, 2, 3, 5, 7 and 8. FNZ have the capability of accepting Industry requests which have been well documented and discussed previously but still choose to refine requests down and in some cases, even drop reviews from the process with very little or no reasoning. This process desperately requires improvement.

Review of Sustainability Measures

FISHSTOCK	FNZ PROPOSED TACC OPTIONS (T)	

	Option 1	Option 2	Option 3	SIF PREFERRED TACC OPTION (T)
SNA7	Status Quo	300	350	350
GUR7	Status Quo	1180	-	1200
STA7	Status Quo	1178	-	1222
MOK3	Status Quo	176	192	192
LEA3	Status Quo	143	-	170
GUR3	Status Quo	1452	-	1500
SPO3	Status Quo	660	-	700
KIN3	9	11	-	15
KIN7	30	44	-	64
ELE7	Not reviewed			150
JDO7	Not reviewed			250
SPO7	Not reviewed			325
TAR8	Not reviewed			270

There are a couple of key policy positions that we wish to comment on that are not necessarily relative to the stocks we have presented but they do have the capacity to affect management decisions across the board.

Section 28n rights

13. We recognise there are issues relating to stocks that still have 28N rights attached to them and when the TACC is increased that this impacts negatively on Maori and specifically in respect of the Treaty Settlement. We have a situation where the decision to increase the SKI7 TACC during 2019/20 has been held up because the distribution of extra quota amounted to a reduction on what Maori were initially allocated under the Treaty Settlement. Within this sustainability round and under SIF's mandate we seek a TACC increase for SPO3. That request if supported, means that the first 1 tonne would discharge all of the s28n rights for the stock. We need to ensure that this is done in such a way that Settlement quota as a proportion of the TACC is not reduced. We implore Fisheries NZ to ensure this matter is remedied unilaterally, as soon as possible. There is a significant financial burden placed on quota owners/fishers from having to pay deemed values on stocks that have had their TACC's reviewed upwards but not been finally initiated because of the implications those decisions have had on Maori fishing rights.

Allowance for all other sources of mortality caused by fishing

14. The IPP promotes TAC and TACC changes and whilst doing so presents an allowance for other sources of fishing mortality (OSFRM). The position taken is that in most cases the level set for this is 10% of the TACC. We recognise that this position has been driven by the Minister's decisions of

1 October, 2018 and the rationale behind it is that; it provides a consistent approach in calculating OSFRM. The Minister outlined that this wasn't always the most certain approach but it established some basic criteria from which to start. He then makes it clear that this 10% allowance will always apply to the trawl method noting that the allowance would always be highest using this method based on best available scientific, anecdotal and compliance information.

15. SIF does not subscribe to this view at all. Depending on the fishery, the type of fishing gear, the participants involved etc the OSFRM can vary significantly. The Minister stated within that advice paper that the requirement to report all catch of stocks below minimum size as part of the introduction of digital monitoring was long overdue. SIF believe that this is exactly what is required, not the creation of some uncertain, arbitrary figure that has no bearing on what actually happens?

16. Responsible management includes recording any fish that is not landed. We should not be guessing this but introducing policies that require it. The OSFRM in any fishery must be better understood and applied realistically to the TAC, not just the TACC. We should be considerate of the entire fish-stock and not just on the commercial component of that. Both the recreational and customary sectors impact on OSFRM and should be declaring their proportion.

Review of Sustainability Measures for Various Fishstocks

Snapper 7 (SNA7)

17. We agree with Option 3 for SNA7 that proposes setting a TAC of 645 tonnes, a TACC of 350 tonnes customary allowance of 20 tonnes and OSFRM of 20 tonnes. Other than specifically deciding the recreational catch allowance Option 3 is the option agreed to by the SNA7 Working Group which was put together by FNZ and included a number of workshops to develop a position in respect of the fishery. SIF have presented their position to the Working Group and do not subscribe to the view that the recreational allowance should remain at 250 tonnes, noting that FNZ's Option 2 proposes cutting the recreational allowance by 50 tonnes (without any rationale at all) and the IPP states that the best information on recreational catch they currently have amounts to 147 tonnes. There is absolutely no legitimate management reason that could support setting a recreational allowance at 250 tonnes given the current indications. That decision will be entirely political and bears no correlation with the science.

18. The over-allocation of SNA7 to the recreational sector in 2016 (based on miscalculated recreational catch figures) remains an issue. The only option for SIF to consider is Option 3 for 2020/21 and relying on FNZ to correct the mistake made to the recreational allocation.

19. The IPP states that the National Panel Survey of Marine Recreational Fishers is a snapshot of fishing activity over a fishing year, and it is not appropriate to draw robust conclusions around increases or reductions in recreational harvest solely from this information. Weather, wind, swell, water temperature and fuel price all determine how much fishing occurs in any given year.

20. This paragraph is unfortunate because it essentially tries to provide reasoning as to why we don't have accurate catch figures for the recreational sector and explicitly dismisses any need for it. The commercial sector experiences the same issues that the recreational sector does in respect of fishing yet declare their catch to the kilo. To state that we cannot draw robust conclusions on recreational harvest because of these variables is 'drawing a long bow' and avoids maintaining any real management regime.

21. We appreciate the pragmatic approach that Fisheries NZ are taking with increasing the TACC for SNA7 and Southern Inshore have continued to request only precautionary increases based on the biomass trajectory that this fishery is undergoing. The continued strong recruitment into this fishery and the extensive spread of snapper outside Tasman/Golden Bays provides confidence that this fishery is expanding in range and biomass. The additional strata added to the West Coast South Island trawl survey to monitor the 10-20m depth range has proven to be extremely informative for the stock assessment process.

22. Whilst there may be some uncertainties with the magnitude of the 2017-year class shown by FNZ, it is clear that there has been further recruitment from an exceptionally strong 2017-year class, adding to those seen in 2007 and 2010, which are also assessed in the stock assessment model. Regardless, of whether the model includes the full magnitude of the 2017-year class or includes it as an average size the fact is that this fishery is still exhibiting a strong upward trend and is at or above the target.

23. The risk associated with an increase to the TACC while the snapper fishery is at the current biomass is very low. The SNA7 fishery is part of a wider mixed-trawl fishery in the Top of the South

Island and now the West Coast South Island and needs to be considered as such. It is caught in both these areas when fishers are either targeting flatfish or gurnard or a mixed species catch.

24. We do not consider that an increased SNA7 TACC will provide for additional targeting of snapper. It will simply allow fishers to continue fishing and not have to avoid productive fishing because of imbalance in the current catch mix. They are avoiding areas because of high concentrations of snapper and missing out on Flatfish, Gurnard, Red Cod, John Dory, School Shark and many others as a result.

Red gurnard 7 (GUR7)

Our preferred TACC setting is 1,200 tonnes (a TACC increase of 127 tonnes) as provided in our original application (Nov, 2019) and discussed subsequently with FNZ regional managers. Our position is supported by the results of the WCSI trawl survey and recent catch trends. The industry continues to fund the majority of costs for the South Island surveys through cost recovery and has confidence in the science generated.

25. If FNZ's Option 2, whereby they propose a TACC increase to 1,180 tonnes becomes the only option then we reluctantly agree with that setting to ensure that the TACC is increased. We do implore you to consider setting the TACC at 1,200 tonnes which makes full use of the trawl survey monitoring.

26. The results of the last 5 west coast South Island trawl surveys clearly show continued recruitment into this fishery which cannot be ignored. Providing a higher TACC at 1,200 tonnes would provide more headroom so as fishers would not unduly incur deemed values.

27. We do not believe that there will be increased targeting of GUR7 from a TACC increase. Gurnard is a by catch to the mixed trawl fishery for the Top of South and west coast fisheries, as SNA7 mainly is. In a multi-species fishery, no stock should limit access to any of the other stocks when the biomass indices show there is additional biomass that can be utilised. Fishers need to be able to access and utilise these fisheries rather than pay deemed values and/or having to avoid catching them when abundance levels are increasing.

28. The Southern Inshore TACC request of 1,200 tonnes is a continued focus on a step-wise approach to increasing TACCs so that the abundance can be closely monitored and sustainably managed.

Stargazer 7 (STA7)

29. Our preferred TACC setting is 1,222 tonnes based on the results of the WCSI trawl survey and recent catch trends. FNZ's proposed Option 2 to increase the TACC to 1,178 tonnes does not provide adequate utilisation for this fishstock or take into account the increased bycatch in the shallower depth strata. The higher TACC level of 1,222 tonnes would reduce potential deemed value issues. In the absence of increasing the TACC to 1,222 tonnes we would reluctantly accept the lower figure of Option 2 setting of 1,178 tonnes.

30. Precautionary increases to the TACC of STA7 have been requested by Southern Inshore in-line with the monitoring of the WCSI trawl survey. The catch has been in excess of the TACC for the majority of years since 1989 and the trawl survey indices are above the target reference level.

31. We agree that no deemed value increase is required for STA7. With only a 5% increase to the TACC, there is a risk that deemed values may be incurred because of the expected continued growth in this fishery. The higher TACC of 1,222 tonnes would minimise this risk.

Blue Moki 3 (MOK3)

32. We agree with Option 3 for MOK3 whereby the TACC should be increased by 32 tonnes to 192 tonnes and TAC set at 216.6 tonnes. This is consistent with SIF's request for a 30 tonne increase.

33. MOK3 is taken as a bycatch to trawling and targeted by setnet fishing. These methods are used in distinct areas throughout the extreme limits of MOK3 QMA and not just concentrated around the North Canterbury region as assumed. It can be classed as a medium value fish and not a low value fish.

34. The CPUE indices from the setnet fishery at Kaikoura indicate that there has been a general increase in the abundance of adult blue moki within MOK3 and this has been indicated to us by fishers in this region, but also from the more southern reaches of MOK3 near Timaru. This is further south than previous assessments have determined as the range of MOK3, so they are clearly more widespread and not as susceptible to localised depletion as originally thought.

35. With the advent of trawl fishers increasing their cod-end mesh size to minimise the capture of smaller sized fish we do not see any impact on the fishery or any related increase in the capture of GUR3 or LEA3. The smaller cohorts of both these stocks would also be selected by the smaller mesh cod-ends. In respect of setnets, the use of various mesh sizes is readily adopted and dependent on the size range of fish selected for capture.

36. The recreational allowance does not have to be increased by 2 tonnes as the most recent 2017/18 recreational panel survey only indicated a catch estimate of 16.3 tonnes which is under the current setting of 20 tonnes. There is no justification for an additional 2 tonne increase.

Leatherjacket 3 (LEA3)

37. We agree that the TACC for LEA3 should be increased in line with our application of November, 2019 and believe that FNZ's Option 2 falls short of what is required. We believe that the TACC should be set at 170 tonnes not 143 tonnes and that we provided sufficient rationale for this at the time. This would provide for the long-term increase in catch that we are seeing in this fishery.

38. LEA3 has exhibited a strong increase in the biomass index from the ECSI trawl survey since 2008 suggesting an increase in abundance. As LEA3 is taken as a bycatch to the mixed trawl fishery on the ECSI it is prudent that this stock should be considered along with other species in the fishery and should not be a limiting or choke species. The TACC has been overcaught 10 years out of the last 11 years, with the most recent year the highest in that series.

39. Leatherjackets are generally thought to be caught over reefs and rough ground but are also found over sandy bottom as found in Canterbury Bight. They are not a schooling species and therefore are a widespread bycatch species caught with a diverse number of other inshore species.

40. LEA3 overcatch is having a detrimental economic effect on the industry with $11,238 of deemed values being paid last year. Where there is increased abundance, fishers should not have to pay deemed values or have difficulty accessing ACE where there is no sustainability risk in the fishery.

41. With the need to better utilise bycatch species and having them promoted more in the market place, the expectation is that more leatherjacket and similar bycatch species will be demanded to reduce the focus on the more vulnerable species such as blue cod etc. It is therefore prudent that an increase in the TACC of LEA3 should be provided along with other stocks of increasing abundance.

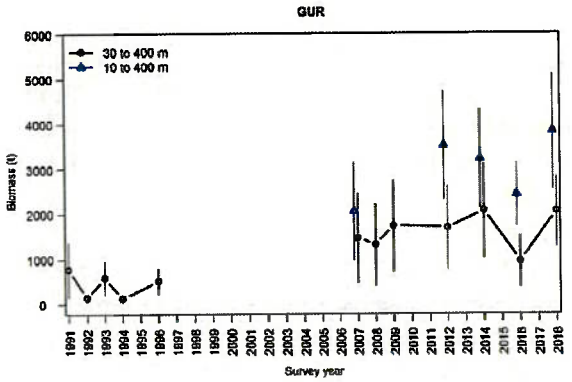
42. Broadening the spectrum of fish availability to the public can help to enhance the sustainability of other stocks and fisheries more broadly. Allowing additional access to increasing abundances can educate the consumer that it is not just the iconic species such as snapper and blue cod that are palatable but many others as well.

Red gurnard 3 (GUR3)

43. We agree that the TACC for GUR3 should be increased but the proposed Option 2 falls short of what is required and should be set at 1,500 tonnes in line with our original proposal. This setting would allow for additional utilisation on the back of the high biomass in this fishery and would reduce the economic impact from incurring deemed values.

44. Interestingly, there is only an increase of 13 tonnes to the TAC based on the arbitrary application of 10% OSFRM. It sadly becomes an exercise in creative accounting if the starting point for our management decisions is out of order and we need to be cognisant of these implications. We broached this subject more specifically, earlier in this submission and it is here that the impact becomes real.

45. GUR3 are monitored by the ECSI trawl survey and abundance indices suggest that relative abundance is at a high level (see below) allowing for additional utilisation whilst maintaining sustainability. Southern Inshore have regularly asked for precautionary increases to this stock to maintain a sustained biomass.



GUR3 total biomass for all ECSI winter surveys in core strata (30-400m) and core plus shallow strata (10-400m) for all surveys since 2007.

46. The proposal to increase the TACC on the basis of the ECSI trawl survey utilises the management mechanisms that the commercial industry support through the cost recovery of this research.

47. In the past 5 years there has been $1.16M of deemed values paid for GUR3 with a third of that paid in the last two fishing years. The fisheries management process has to be more responsive to both the trawl survey analyses and the amount of deemed values being incurred. To suggest that a stock cannot be reviewed because it was recently reviewed is not an effective fisheries management approach.

48. Whilst on the first hand we are heartened to obtain a proposed TACC increase, it is still not set at a level that provides for optimal utilisation in this abundant fishery. The trawl survey and catch trends in this fishery support an increase of the TACC to 1,500 tonnes. We urge FNZ to alter their option to reflect this in the final advice to the Minister.

Rig 3 (SPO3)

49. We agree that the TACC for SPO3 should be increased but FNZ's Option 2 falls short of what is required and should be set at 700 tonnes as presented by SIF based on clearly set out rationale.,

50. All rig stocks are assessed together with the most recent CPUE review in 2019 for both setnet and trawl fisheries. The bottom trawl fishery is clearly showing an upward trend. The catch of rig in the trawl fisheries has been steadily increasing since 2000 and for set net fisheries has fluctuated about the mean since 1990.

51. Whilst we accept that there are issues around the discharge of 28N rights and reallocation of quota shares across all quota owners (including Settlement quota shares) we prefer that the discharge of the 28N rights of 1 tonne for SPO3 be provided. The effect of 1 tonne of discharged 28N quota shares to the increase of 66 tonne of TACC far outweighs the economic effect from not providing the discharge.

52. The OSFRM should be applied to the TAC and not the TACC so that it takes into account the mortality across all fishing, including recreational and customary fishers.

53. We do not agree that the OSFRM has to be increased from 30 tonne to 60 tonnes to align with the principle of 10% for OSFRM. There is no evidence provided that mortality levels would increase if TACC is increased. The selectivity of larger mesh sizes used in the trawl fisheries provide for the release of the smaller fish and therefore reduced levels of mortality. In addition, rig is on Schedule 6 of the Fisheries Act to provide for return to the sea. Fish on this schedule are deemed to have high survivability and low mortality rates when captured and returned to the sea.

Kingfish 3 (KIN3)

54. Whilst the proposed Option 2 provides a reasonable increase, we do not believe it is enough to ensure that further reviews are not required in a short space of time. The most recent increase in catch and availability of KIN is prevalent throughout NZ and even more so in the South Island where levels have been low in the past. We would prefer to see the TACC set at 15 tonnes for 2020/21 to allow for the increasing abundance in this fishery and lessen the economic impact of any deemed value accrual.

55. An increase to 15 tonnes is justified on the basis of the increased presence and catch of kingfish throughout the full extent of the ECSI, into Southland and being caught south of Stewart Island in

the squid trawl fishery. We do not believe that an increase of 9 tonnes to the current TACC would unduly impact this fishery. Catches have doubled in this past fishing year.

56. Deemed value payments have increased substantially in the last 5 years with $159,445 paid for that period. Whilst kingfish is on Schedule 6 of the Fisheries Act which allows fish to be returned to the sea alive if caught by the trawl method, those fishers using setnet are prohibited from doing so and have to retain all kingfish.

57. With observers noting that many of the kingfish caught in setnet are coming aboard alive, the provision of non-return under Schedule 6 needs to be reviewed as soon as possible and removed. Not addressing this matter places significant financial burden on these fishermen. What amounts to a simple, practical management measure, needs to be solved. Kingfish are becoming more and more prevalent as by-catch and a solution in terms of balancing catch versus paying penalty payments is long overdue.

Kingfish 7 (KIN7)

58. We agree with Option 2 to set the TACC at 44 tonne and recognise that as significantly higher than the current TACC. However, in light of current catches and increasing abundance we need to understand that this continues to be a precautionary approach and is not giving real consideration to how abundant this fish-stock has become. 62 tonnes were landed in 2018/19 incurring deemed value payments of approximately $1m whilst a further 100 tonnes were returned to the sea under Schedule 6 of the Fisheries Act.

59. It is hard to rationalise an increase to the recreational sector of 60 tonnes using the proportional allocation approach, which sets it far in excess of the current catch of 27 tonnes. There is no justification to increase the recreational allowance above this level when the TACC is considered on an average catch for the past 2 years, less 20%. It makes no sense to limit the TACC so harshly.

60. Whilst Option 2 provides for additional TACC it also includes overinflated OSFRM due to the increased recreational allowance based on the proportional approach rather than current catch. If on a current catch basis then the TACC should be increased to 64 tonnes. KIN are on Sc 6 of the Fisheries Act whereby it can be returned to the sea alive. Species placed on this schedule are determined to have high survivability and low mortality.

61. Southern Inshore collaborated with Deepwater Group to finance the recent Characterisation and CPUE update for KIN7&8. We have also purchased fish tags and will be working with Deepwater Group to tag kingfish from deep-water vessels operating in hoki and jack mackerel fisheries. All data will be entered into the MPI supported Billfish and Gamefish database. We see these workstreams as necessary to provide the best available information and up to date information for decision making.

62. We agree with the submissions from Te Ohu Kai Moana and Deepwater Group in respect of the proposed TACC setting.

Review of Deemed Values for Various Stocks

63. In the absence of incorrectly set TACC's a more meaningful deemed value system is essential. We recognise that the creation of an independently Deemed Value Working Group has seen significant improvement in how we may set deemed values noting that the philosophical starting point is to provide the incentive to land. This group is in its infancy and Industry need to become more aware of the DV setting process but it is clear the discussion is much more positive. Providing a system that encourages the landing and recording of all fish and using this information to guide us in making better management decisions is an essential management tool that has been a long time coming.

64. Notwithstanding, we again would like to propose to work with FNZ to review the deemed value regime and include the development of a schedule of regional deemed values. It needs to recognise that industry is not looking for 'something for nothing' here. We want to participate in a very important process that sees Industry and FNZ develop a far more workable environment.

65. Also, within this approach, is the recognition that the differential deemed value regime that is meant to promote obtaining ACE, is problematic when companies within this industry choose not to release it. Philosophically, no deemed value should be paid on a stock where the TACC has not been caught. All of these matters need to be discussed and we certainly welcome the opportunity.

Bluenose 3 (BNS3)

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)					
				120-130%	130-140%	140-150%	150-160%	160-220%	>220%
BNS 3	Current	1.26	1.40	4.00	6.00	7.00	8.00	9.00	10.00
	Proposed	1.26	Annual 100-120%	120-130%	130-140%	140-150%	150-160%	>160%	
			1.40	1.68	1.96	2.24	2.52	2.80	

Table 6: Current and proposed deemed value rates ($/kg) for BNS 3

Stock	Option	Interim deemed value rate	Annual 100-110%	Differential rates ($/kg) for excess catch (% of ACE)					
				110-120%	120-130%	130-140%	140-150%	150-160%	>160%
BNS 3	Current	3.60	4.00	5.00	6.00	7.00	8.00	9.00	10.00
	Proposed	2.70	3.00	3.75	4.50	5.25	6.00	6.75	7.50

66. The tables above reflect different DV settings for BNS3 for both the Chatham Islands and for the rest of mainland New Zealand. The top table showing an annual DV set at $2.80 applies to the Chatham Islands whilst the annual DV of $7.50 is for the rest of BNS3.

67. The rationale for setting the lower DV on the Chathams is relative to their geographic location and incorporates a higher cost of transporting fish to markets. The IPP does not propose reducing the annual DV for BNS3 landed on the Chathams because it may create an incentive for non-Chatham Island based fishers to land there and avoid the higher DV rate that would apply elsewhere.

68. Whilst recognising the need to provide for Chatham Islanders at a reduced rate, based on all of their circumstances, it is essential that FNZ understand that at this level the opportunity exists for what they try to avoid, to happen. It is essential that landings of BNS3 on the Chathams are monitored vigilantly so that no-one takes advantage of this situation.

69. In respect of BNS3 landed elsewhere we support the reduction of the annual DV from $4.00 to $3.00 and the adjustment to the differential deemed value rates through to >160% and a final DV of $7.50. WE believe that this will create the necessary incentive to land. We also make the point now that the TACC for BNS3 warrants future review given that it has been overcaught for a number of years since it was first reduced. At some stage in the rebuild plan FNZ need to start considering reviewing the TACC upwards to allow for the rebuilding of the stock.

Gemfish 7 (SKI7)

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)				
				120-140%	140-160%	160-180%	180-200%	>200%
SKI 7	Current	0.65	0.72	0.86	1.01	1.15	1.30	1.44
	Proposed	0.65	Annual 100-220%	220-240%	240-260%	260-280%	280-300%	>300%
			0.72	0.86	1.01	1.15	1.30	1.44

70. We support setting the deemed value rates for SKI7 as proposed above.

71. However, it is important to reiterate that we are altering this DV to accommodate action being taken against a previous TACC increase and that this is not a normally desirable fisheries management approach that Industry would encourage.

72. Under the circumstances it would appear to be the only conceivable solution but given the uniqueness of the situation perhaps we should be considering an in-season increase for 2019/20 or until the issue regarding s28n rights is resolved.

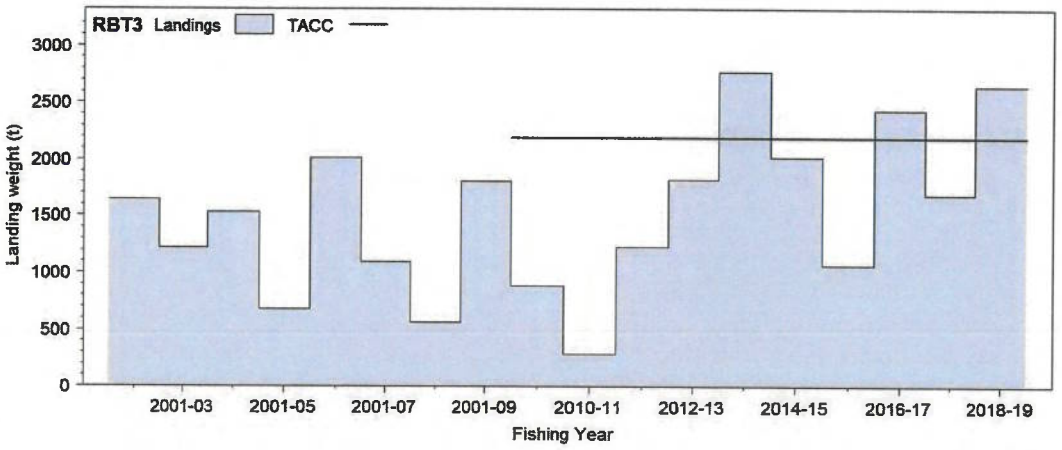
Pilchard 7 (PIL7)

Stock	Option	Interim	Annual >100%
PIL 7 & 8	Current	0.41	0.45
	Proposed	0.18	0.20

73. We support the Deepwater Group proposal to set the annual deemed value rate for PIL7 at $0.06 and interim rate at $0.03. This rate relates it to that set for ANC which also goes to fish meal. The alternate to this is the proposed change of the annual to $0.20 this year and a further review in 2021.

Redbait 3 (RBT3)

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)				
				120-140%	140-160%	160-180%	180-200%	>200%
RBT 3	Current	0.45	0.50	0.60	0.70	0.80	0.90	1.00
	Proposed	0.45	Annual 100-105%		105-150%		>150%	
			0.50		0.60		0.70	



74. This RBT3 fishery has been overcaught for some years and appears to be at a high level again. The annual DV set at $0.70 seems high and a better reflection might be closer to $0.50 although it would seem much more appropriate to address what looks like a constrained TACC.

75. We support the changes proposed for a RBT3 deemed value review but would encourage FNZ to review the TACC in 2020/21.

Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to: [redacted]

While we prefer email, you can also post your submission to:

2020 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions must be received no later than 5pm on Wednesday 1 July 2020.

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: John Leather	
Organisation (if applicable):	
Email: [redacted]	
Fishstock this submission refers to: (SNA 7) + (GUR 7)	
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented): OPTION 1	

Official Information Act 1982

Note, that your submission is public information. Submissions may be the subject of requests for information under the Official Information Act 1982 (OIA). The OIA specifies that information is to be made available to requesters unless there are sufficient grounds for withholding it, as set out in the OIA. Submitters may wish to indicate grounds for withholding specific information contained in their submission, such as the information is commercially sensitive or they wish personal information to be withheld. Any decision to withhold information requested under the OIA is reviewable by the Ombudsman.

Submission:

Details supporting your views:

I am a kayak and dinghy fisherman, I don't consider myself an "expert" recreational fisherman, and I cannot speak for areas outside of Tasman bay as currently and historically this is the only area I have fishing knowledge of.

The inherent limitations associated with fishing from a kayak or a dinghy (i.e; the inability to fish offshore as opposed to close in) gives me a window to a small part of the jigsaw puzzle that constitutes the greater biomass in Tasman bay and beyond.

I have fished close in (by close in I mean within 200-300m of the shoreline in any given area) since the early nineties, specifically in the Cable, Delaware and Hori bay areas, but also from Glenduan and closer to Nelson along the boulder bank. Over this time I can honestly say I have not seen snapper numbers increase very much, if at all in these inshore locations. I say this because my catches are sporadic. Some trips snapper can be encountered but not consistently and never in great numbers. Many times, and in the past 3 or 4 years, I have returned empty handed from days on the water and my discussions with work colleagues and friends who also fish recreationally paints a similar picture.

Whether this is due to too much fishing pressure on snapper stocks in the bay, or to reasons such as an increase in forestry and farming run-off close to shore pushing snapper away from these close in areas, I could not say with certainty. Perhaps it is a combination of these things, but I'm just not seeing decent increases in snapper numbers close in. Especially noticable is the absence of the bigger 15lb plus moochers that I used to get in close in the 1990's much more often. I feel that if numbers had been steadily increasing, I would be seeing more snapper back in these close in spots.

Also, the increasing use of setlines by recreational Nelson fishermen tells me people feel they need to cover their bets, because they know there simply are not enough snapper in the bay that they can rely solely on rod alone. Friends who fish at the 30m mark have told me at times it's like a slalom course navigating around all the setline bouys. A LOT of people use setlines now. Thus the reason the recreational catch was overestimated is because recreational fishers could not catch the amount they were expected to be able to. I believe they couldn't because the the fish were simply not there to catch.

According to the consultation document, expert recreational fishermen were consulted during the workshops over the previous summer. The problem with consulting expert fishermen is that they know exactly where to go to find fish and these locations have likely always held good stocks of fish, so their catches have been and continue to be good which doesn't give much useful information on whether snapper are spreading or increasing and in what numbers.

As to gurnard, I have had reasonable catches in close, over sand around rocky outcrops simply because trawlers cannot operate in there. I know they trawl in as close as they can at times as I have seen them working right in close in Delaware bay. I think gurnard numbers are steady but they are not prolific.

In conclusion I think this snapper fishery is SO importantant to so many people in the Nelson area we owe it to ourselves, the future generations and the environment to nurture it with the upmost care and caution. I don't believe the snapper numbers are what they should be yet and it is premature to increase the take for both the recreational and commercial sectors. That is why I vote for OPTION 1 - to maintain the status quo. And if the option existed, I would happily reduce the daily recreational bag limit (as was done in the Hauraki Gulf) if the commercial sector TACC was to be decreased also.

Please continue on a separate sheet if required.

Te Kupenga o Maniapoto Limited

1 July 2020

The Manager
Sustainability Review 2020
Fisheries Management Fisheries
New Zealand
P.O. Box 2526
Wellington 6140

Email: [redacted]

Sustainability Review 2020

E te Rangatira Tiffany tena koe,

Nga mihi nui ki a koe me to komiti whakahaere mo tenei kaupapa whakahirahira.

Introduction

Te Kupenga o Maniapoto Limited is the asset holding company of Maniapoto iwi. The company manages Maniapoto iwi's "settlement" quota received under the Maori fisheries settlement and has also purchased and utilises normal quota in its various operations. The company accesses about 2,200 tonne of ACE generated from Quota across more than 250 fish stocks within the quota management system. The Quota owned is associated with a range of fisheries sectors across the industry including deepwater, inshore, scampi, highly migratory, crayfish and eels.

The company is a member of a number of fishing industry representative bodies including the Deepwater Group and Inshore New Zealand and we actively participate in appropriate fora to foster the sustainable management and harvesting of seafood resources within New Zealand. Maniapoto iwi and Te Kupenga take a long view on the industry and its future and consider our seafood resources for the most part to be heritage assets that we are entrusted to manage and utilise on an intergenerational basis. We acknowledge the considerable efforts Te Ohu Kai Moana has made to provide their comprehensive submission to the October 2020 sustainability review on behalf of ourselves and other iwi. We endorse their submission but note we have some minor differences in proposed TACC settings on some fishstock.

We are pleased to provide our submission on the review of sustainability measures proposed for selected fish stocks for I October 2020 as follows.

Proposed TACC changes

We have reviewed the Fisheries NZ background papers associated with each of the fishstock that have been included in the I October 2020 review. We have also reviewed the options and detailed recommendations provided by Te Ohu Kaimoana and the Deepwater Group.

We provide on table I our own view of appropriate TACC positions for each fishstock being evaluated and also provide supporting rationale for each position. On table 2 we provide details and commentary on the proposed changes to deemed value arrangements.

Table 1. Proposed changes to sustainability measures 1 October 2020

Fish Stock	Current TACC	Proposed TACC	Supporting rationale for changes to sustainability measures
SCIl	120	144	stock well above management target 40% harvesting opportunity
ORH3B	6,772	7,967	next stage of managed TACC increase error in FNZ calculations
SWA3	3,280	3,936	reflects actual long term catch levels
SWA4	4,089	4,908	reflects actual long term catch levels
CDL5	22	80	actual catch regularly exceeds 80 tonne
RBY4	18	50	periodic overcatch as a bycatch, biomass available not a target fishery
FR03	176	176	preferred option to combine FRO 3&4 into one FMA
FR04	28	124	as above
FR07	2,623	2,623	preferred option to combine FRO 7, 8 & 9 FMA into one mgt area
FR08	649	900	as above
FR09	138	400	as above
SKII	210	360	strong CPUE indicates good biomass levels & harvesting opportunity
SK12	240	330	strong CPUE indicates good biomass levels & harvesting opportunity
KIN2	63	70	strong CPUE indicates good biomass levels & harvesting opportunity
KIN3	6	11	strong CPUE indicates good biomass levels & harvesting opportunity
KIN7	15	72	strong CPUE indicates good biomass levels & harvesting opportunity
KIN8	45	103	strong CPUE indicates good biomass levels & harvesting opportunity
SP02	108	119	biomass increased strongly in recent years
PORI	62	72	moderate increase to cover actual catch no increase in recreational
SPE9	6	10	moderate increase to cover actual catch no increase in recreational
SNA7	250	350	increased biomass available error in recreational catch allocation
GUR7	1,073	1,180	increased biomass available
PZL7	23	99	stock assessments indicate good biomass levels
BC05	1,239	874	moderate decrease to reflect reduced biomass
STA7	1,122	1,178	abundance at 25 year high
GUR3	1,320	1,452	moderate increase in a bycatch fishery that is fully caught each year
LEA3	130	160	moderate increase in a bycatch fishery that is fully caught each year
MOK3	160	176	moderate increase in a bycatch fishery that is fully caught each year
SP03	600	660	moderate increase in a bycatch fishery that is fully caught each year

Table 2. Deemed value adjustments

Fish Stock	DV $/kg	MPI Proposal	Maniapoto Position	Maniapoto Rationale
SQUIJ	0.880	1.200	status quo or current PP	no overcatch in fishery
SQUIT	0.880	1.200	status quo or current PP	no overcatch in fishery
SQU6T	0.880	1.200	status quo or current PP	no overcatch in fishery
BNS3	4.000	3.000	decrease dv	economics expensive compared to BNS2
BNS3 CI	1.400	1.400	adjust dv schedule	BNS3 economics expensive in Chathams
SKII	1.500	2.000	status quo	awaiting TACC increase so sort that first
SK12	1.500	1.500	adjust dv schedule	awaiting TACC increase so sort that first
SK17	0.720	0.720	adjust dv schedule	awaiting TACC increase note 28N rights
PIL7	0.450	0.200	reduce dv	low value product
PIL8	0.450	0.200	reduce dv	low value product
RBT3	0.500	0.500	adjust dv schedule	sufficient disincentive at $0.70
TRE2	1.250	1.250	adjust dv schedule	primarily bycatch

We commend Fisheries NZ for the rational process of submission and consideration that the sustainability review encompasses. We acknowledge the science that underpins the work that goes into ensuring New Zealand maintains a robust resource management system for the fishing industry and the nation. We also applaud the pragmatic approach that is taken on some fisheries matters to deal with bycatch, co-caught fishstock and also recognition of the movement of fish between FMA over time as climate change and fish migration might determine.

We ask that decisions about the impending changes be signalled as early as possible prior to the commencement of the new season in order to provide a more reasonable lead time for industry to organise new fishing season administration and operational arrangements.

Heoi ano ra nga mihi mahana ki a koutou.

Tony Magner
General Manager
Te Kupenga o Maniapoto Limited

Note: During the October 2020 Sustainability Consultation Period 1927 Form Submissions from individual submitters where received. The submission template was as follows below.

To the Fisheries Management Team,

I am writing to submit on the Review of Sustainability Measures for October 1, 2020.

I oppose the increase of the Orange Roughy quota (ORH3B), as this species is caught using the destructive fishing method bottom trawling.

I want to see bottom trawling banned for the New Zealand fleet on important marine ecosystems, like seamounts.

Bottom trawling destroys important habitats and ecosystems, like ancient coral forests, which underpin the health of our ocean. These slow-growing species take decades to recover after the destruction of trawlers. Last year the New Zealand fishing industry destroyed up to 3,000 tonnes of coral.

Despite claims the trawl footprint will not increase with quota, the footprint has grown some 800 square kms between 2013 and 2018. We know the only way for there to be any chance of recovery for trawled areas is that they are left alone for significant periods of time. Claiming that we have already destroyed the environment in trawl tracks, and therefore can keep doing so, is unacceptable.

New Zealand committed to the UN Resolutions to protect seamounts and other vulnerable marine ecosystems from bottom trawling - yet we are so far failing to do so.

Increasing the quota for bottom trawled species is the antithesis of protecting the oceans. I do not accept the Government putting the interests of commercial fishing above ocean protection, when the health of our oceans is paramount to all life on this planet.

FISHERIES
INSHORE NEW ZEALAND

01 July 2020

Mr D Bolger
Fisheries New Zealand
Ministry for Primary Industries
PO Box 10420
Wellington

cc E Taylor
Fisheries New Zealand
Ministry for Primary Industries
PO Box 10420
Wellington

Dear Dan

COMMENTS ON 2020/21 SUSTAINABILITY CONTROLS

1. Fisheries New Zealand (*FNZ*) has invited submissions on the proposed Sustainability Controls for 1 October 2020 stocks. This submission is presented on behalf of Fisheries Inshore New Zealand Ltd (FINZ). Any comments or queries should be directed to Oliver Wilson, Fisheries Inshore New Zealand.

2. Fisheries Inshore New Zealand (FINZ) is the Sector Representative Entity for inshore finfish, pelagic and tuna fisheries in New Zealand. Its role is to deal with national issues on behalf of the sector and to work directly with, and behalf of, its quota owners, fishers and affiliated sector representative organisations. Its key outputs are:

   - developing appropriate policy frameworks, processes and tools to assist the sector to manage inshore, pelagic and tuna fishstocks more effectively;
   - minimising fishing interactions with protected species and the associated ecosystems; and
   - working positively with other fishers and users of marine space where we carry out our harvesting activities.

3. FINZ provides management services through regional committees to the quota owners, fishers and Licensed Fish Receivers of fish stocks in FMA1, 2, 8 and 9 as well as a species committee for HMS fish stocks and has a close relationship with Southern Inshore Fisheries Management Company Limited, that is also a member of FINZ, and provides management services to the quota owner of stocks in FMAs 3, 5 and 7 (and some FMA 8 stocks).

4. Responsibility for the implementation of these policies, processes and tools falls naturally on quota owners, fishers and Licensed Fisheries Receivers who collectively choose the best ways to deal with issues in their regions. The Regional Committees will generally deal with all matters pertaining to fishstocks in their region. Fisheries Inshore has the mandate to support this work where requested but does not directly take on this work except where the fishery is

managed as a single stock across the country. In that instance Fisheries Inshore works with all the relevant quota owners and fishers in developing appropriate measures and submissions.

5. This response has been prepared by Oliver Wilson of Fisheries Inshore New Zealand Limited. Any queries should be directed to Mr Wilson.

6. We note that companies and other quota-holders may also make their own submissions on the proposals.

GENERAL COMMENTS

7. We have indicated previously our various concerns with the management of the inshore finfish stocks and feel that we need to again raise those matters in this submission.

Legal basis

8. The consultation paper correctly recognises section 13 of the Act but incorrectly summarises the Minister's responsibilities to return the stock to B_{MSY} as opposed to *MSY*.

9. Section 13(2)(a) states a stock should have a total allowable catch (TAC) that maintains the stock at or above a level that can produce the maximum sustainable yield (*MSY*).

10. This distinction is very important. The legal requirement to manage to *MSY* means that stocks can be appropriately managed using *MSY* or proxies using the best available information. The statement of B_{MSY} (MSY based on biomass, *B*) incorrectly constrains management to be aligned to a biomass management proxy and removes the ability to manage to either biomass or fishing pressure (*F*). This restriction in the options available for management is not required by the Act.

Recognise stocks must be managed appropriately to management objectives

11. The consultation papers repeatedly refer to management unknowns such as not knowing the current stock status and the fact that for some stocks their status is unknown and lack information. These statements are made without any context and a lack of qualifying statements, showing a misunderstanding of the following key points for management under the Act.

Legal requirements

12. S13 of the Act states that in setting the catch limit for a stock, the Minister must have regard to setting a total allowable catch that can produce the *MSY*. This is supported by court rulings that recognise the use or *MSY* but make no reference to B_{MSY}.[1]

13. S10 of the Act and S13(2A) identifies that stocks must be managed with best available information.[2] If a stock only has catch data, then that is the best available information that is used to inform management. This then aligns with the level of information deemed appropriate to meet the aspirations of stakeholders and meet the purpose of the Act to support sustainable utilisation.

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[1] New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors (Supreme Court, SC 40/2008, 29 May 2009) [2] The information principles which s 10 of the Act requires those exercising functions in relation to utilisation of fishing resources or ensuring sustainability to take into account are: (a) Decisions should be based on the best available information; (b) Decision makers should consider any uncertainty in the information available in any case; (c) Decision makers should be cautious when information is uncertain, unreliable, or inadequate; (d) The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act

(2A) For the purposes of setting a total allowable catch under this section, if the Minister considers that the current level of the stock or the level of the stock that can produce the maximum sustainable yield is not able to be estimated reliably using the best available information, the Minister must—

(a) not use the absence of, or any uncertainty in, that information as a reason for postponing or failing to set a total allowable catch for the stock; and

(b) have regard to the interdependence of stocks, the biological characteristics of the stock, and any environmental conditions affecting the stock; and

(c) set a total allowable catch—

(i) using the best available information; and

(ii) that is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce the maximum sustainable yield.

Stocks are managed appropriately to the level of information collected on a stock

14. Fisheries management must be stock appropriate and reflective of its value to stakeholders. Stocks with less than full information require a cautious approach to decision-making, hence we would expect lower TACCs for species managed by catches alone. Significantly this does not require a deferral of a decision completely but one that is made on best available information appropriate to the stock.[2]

15. The appropriate commercial fisheries management approach for a stock is dependent on a trade-off between the desire to manage that stock with the greatest level of certainty possible consistent with any sustainability risks, and the affordability of services. Management should reflect this. Those most valued we would anticipate would receive the most resources (e.g. scientific research investment) in order to reduce management risk and enable these stocks to be sustainably utilised with the greatest level of certainty.

16. Lower tier stocks are successfully managed with less information as management settings are more cautious, reflecting the lower level of scientific information and the value of the stock to stakeholders. Many of these stocks are managed based on industry directly funding research, whilst others are primarily only of interest to commercial harvesters (acknowledging where some of these are in complexes that affect key shared stocks).

17. Determining the target management approach for each stock will be informed by the stock prioritisation and have regard for the investment value proposition of the available management approaches. Noting the Act recognises the social, cultural and economic value of fisheries, as a fishery increases in value and desirability, there is a need to manage the stock with a more informed management approach. That will increase costs but provides more certainty about the status of the stock.

[2] Review of sustainability measures for 1 October 2018 Final Decision Document, Para 138

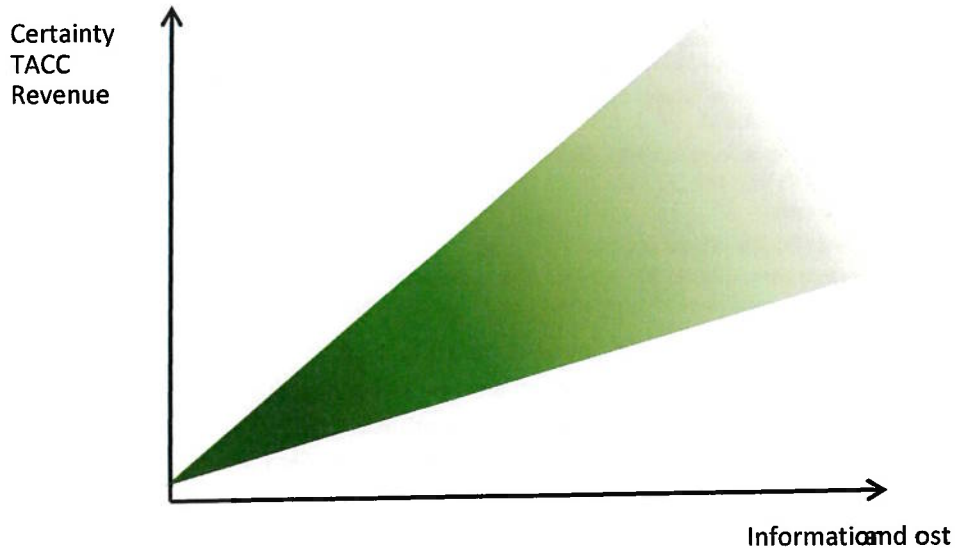

Figure 1. Conceptual relationship between information/cost and certainty/TAC/revenue associated with Fisheries Management

18. Whilst not described in this manner, the Draft National Inshore Finfish Fisheries Plan recognises the cost/certainty relationship by the nature of grouping stocks to align with different levels of information to inform management. It is undermining FNZ's own management approaches when consultation papers that represent stocks that are managed to a defined level of information are undermined. Stock specific comments are provided in the relevant sections.

19. We consider that FNZ should be standing behind its own management that has recognised management appropriate to stocks and not detracting from this in the consultation papers.

Allocation

Recreational allowance

20. We recognise that the Minister has the discretion to set allowances in accordance with the Act, as identified by the Kahawai case that stated s20 and the procedure required by s21 confers upon the Minister a power to determine which part of the TAC will be available to recreational fishers and which to commercial fishers.[3]

21. Whilst allocation is at the discretion of the Minister once an allocation is set the Minister is required to manage sectors to their allocation.[4]

22. The Primary Production Committee ("Report on the Fisheries Bill", 1996 at xv) substituted the words "*allow for*" for "*have regard to*" in the provision in the Bill which became s 21(1) as it was reported back to the

[3] New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors (Supreme Court, SC 40/2008, 29 May 2009), para 4.
[4] New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors (Supreme Court, SC 40/2008, 29 May 2009), para 52.

House of Representatives. Very significantly, the Select Committee said of the effect of this change: *"The non-commercial allowance will be quantified and enforced through bag limits and other controls ..."*

23. The consultation documents demonstrate a trend of reallocation of the commercial share of the catch to a sector that is not being effectively managed. Transferring progressively greater shares to a sector whose catch exceeds its allocation, while restraining another sector that substantively stays within its allowance is contrary to good fishery management practices (Figure 2 and 3). This is contrary to the fairness and promotion of benefits that FNZ acknowledge is needed when making allocation decisions.[6]

24. The proposals in the discussion papers are a further demonstration of what we have deemed "allocation creep" (Figure 2). Figure 2 shows that six out of the seven FINZ mandated stocks have proposed allocation creep. Allocation creep undermines the QMS.

25. The key issue driving allocation issues is the fact that recreational catch is not constrained or managed which results in:

- Not managing to allowances shows a disregard for management settings that are designed to sustainably manage a stock. If recreational fishers overcatch their allowance and are then rewarded with an increase in allowance, what incentive is there to manage their catch?
- An abdication of management responsibility that indicates to recreational fishers that there is no upper limit to recreational fishing. FNZ has stated that they believe current tools are managing recreational catch.[5] Managing recreational catch as per the Kahawai ruling means that the total allowable catch is the total that is allowed to be caught.[6] There is a continued demonstration that management measures being implemented are not achieving this objective:
    - SNA 8 - commercial fishers have restrained catches to rebuild the stock for 15 years yet recreational fishers are catching far in excess of their allowance. One sector has committed to rebuilding the stock but others are not being required to fulfil their part of this.
- Overcatch of the recreational allowance has no disincentive or implication to it. In stark contrast commercial fishers have TACC settings and a deemed value tool that incentives balancing catch with ACE. Allocation creep:
    - places all the guardianship responsibility on the industry and abdicates recreational responsibility for engaging with good fisheries management to support increasing abundances, rebuilding stocks or providing accurate information to support informed fisheries management;
    - disincentivises the commercial sector to work collaboratively to increase stock abundance given the likelihood that any benefits of a rebuild will be allocated to the recreational sector;

[5] Review of sustainability measures for 1 October 2018 Final Decision Document, para 106
[6] New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors (Supreme Court, SC 40/2008, 29 May 2009), para 62.

- disincentivises industry to invest resources to improve management and scientific understanding of our stocks if the results of which will be inappropriately allocated to fishers that have not supported sustainable utilisation in the first instance; and
- disincentivises industry from investing in innovative practices in any shared fisheries– any additional costs that are risky in themselves will not be undertaken if any gain then transfers to the recreational sector – they become lose-lose.

- Best-available knowledge informing TAC and TACC are funded by industry levies. Currently, the recreational sector does not fund any scientific work to establish TAC. Allocating more catch to the recreational sector, as the funding model is currently structured, will reduce funding towards stock assessments, surveys, and other scientific data collection used to inform management. This will increase our uncertainty of the status of various stocks.

26. We do not support allocation creep that apparent in the consultation papers. As per paragraph 65 of the Kahawai case, '*The Act envisages that the allowance for recreational interests will be a reasonable one in all the circumstances*'. On this basis we support appropriate allocation based on a case by case basis that should reflect the status of a stock and management factors at the time.

6 Review of sustainability measures for 1 October 2018 Final Decision Document,), para 104

All other mortality to the stock caused by fishing (OSFRM)

27. The rationale provided supporting OSFRM decisions is based on the Minister's 2018 decision letter where he stated that "other sources of mortality" would be explicitly included and he would reflect on his general 10% decision where there was particular information provided to warrant this.

28. It is on this basis that it is concerning that the consultation papers make no effort to reflect differences in approach that the Minister has promoted. The lack of consideration in the consultation paper reflects adherence to a generic approach without considering the nuances required to understand and manage different fish stocks.

29. To demonstrate the need for appropriate stock specific measures one can use the following analogy of a cook trying to make 642 different meals with unique recipes and ingredient requirements but blindly constraining himself to trying to cook all the meals using all the same ingredients for each meal. It is impossible for the chef to make 642 different meals successfully without using different ingredients as necessary for each of the recipes.

FISHERIES
INSHORE NEW ZEALAND

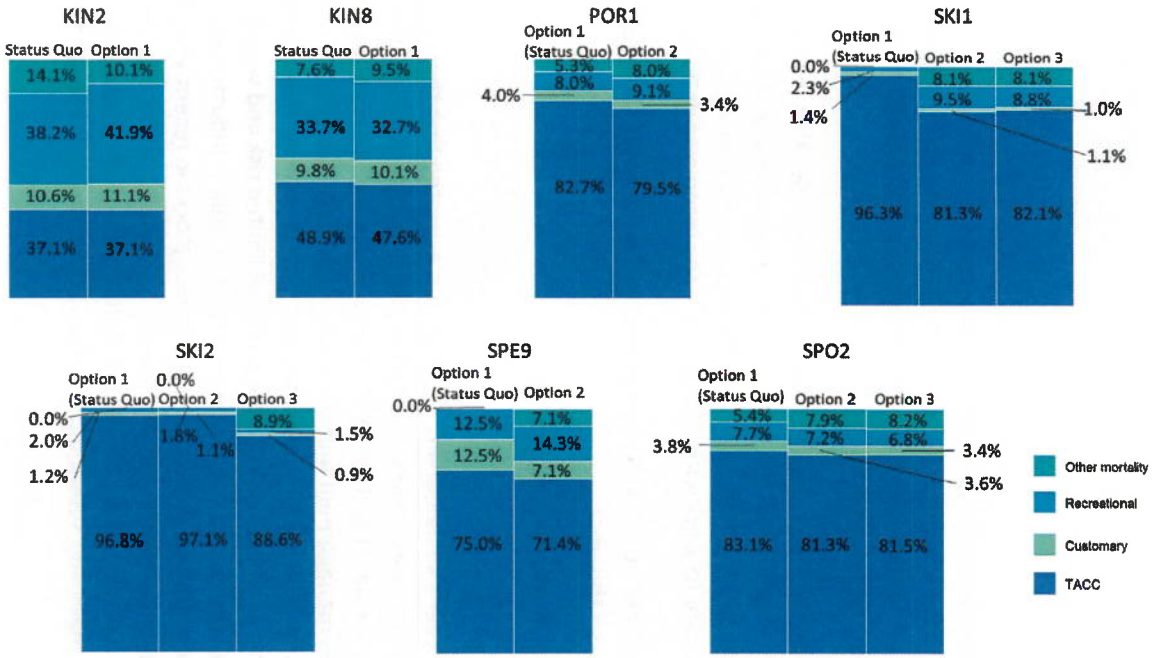

Figure 2. TACC changes and the reallocation trend per FINZ mandated stock

Limited number of stocks to be reviewed

30. We are encouraged by FNZ's recent work to review the process associated with the Sustainability Round and reiterate our view that this should be seen as the culmination of well-planned management and research work leading to a TAC change. Sustainability Round reviews are the result of a longer management process rather than a one-off event.

31. We repeat our offer to work more closely to identify management priorities that we can address collectively and are encouraged by FNZ's recent work to review the process associated with the Sustainability Round. We look forward to seeing the recommendations from this review and welcome the opportunity to work with FNZ to enact any recommendations.

32. There is continued frustration that key stocks where information clearly shows increased abundance have not been reviewed this year.

33. Of specific concern is the absence of the following stocks:

- *SNA2 & TRE2*
  - Were not included in this year's sustainability round as it is expected that there will new scientific information available next year which will provide an opportunity to review these stocks when this available. This statement ignores the social and economic considerations of fisheries management and the ability of management decisions to be made on best available information. A conservative decision on management settings could have been made this year that would have provided limited risk and would have assisted fishers with these significant choke species issues in Area 2. Industry has invested in research to develop our understanding of these stocks in recent years but shifting FNZ management expectations has thwarted management action – for example TRE2 used to be a group 6 stock managed by catch. Industry conducted research to support management changes and subsequent unilateral FNZ decisions moved the stock to a group 1 stock.
- *KIN 1*
  - KIN 1 was included in the suite of KIN stocks that had comprehensive science peer reviewed through the FNZ peer review process. All stocks included in that analysis KIN2, 7 & 8 with the exception of KIN1. The peer review process accepted the CPUE series and included furthering analysis of recreational data.[7]
  - The rationale provided was that more time was needed to engage with stakeholders. This rationale ignores the process of KIN information becoming available in late 2019 and management discussion sought by industry with FNZ in December 2019. It is not a lack of time available to engage but a reluctance from FNZ managers to progress discussions in a timely manner.
  - Representatives from the New Zealand Sports Fishing Council have been in attendance at working groups to engage. It is not just commercial stakeholders that are aware of and been able to discuss the abundance increases demonstrated through multiple scientific presentations starting in 2019.

[7] Fisheries New Zealand (2020). Fisheries Assessment Plenary, May 2020: stock assessments and stock status. Compiled by the Fisheries Science and Information Group, Fisheries New Zealand, Wellington, New Zealand. 1 746p

- *SNA8*

  - The TAC for SNA 8 was reduced in 2005 to accelerate the rebuild of this fishstock back to its management target of 40%B_0. In the years following industry has steadfastly committed to the rebuild of the stock and the preliminary stock assessment results indicate the success of industry efforts to rebuild the stock. The stock status is now at 48.7% B_0 – this is now above the management target and the results last year made it apparent that the stock size was increasing.

  - The rationale provided for not proceeding this year was that more time was needed to engagement with stakeholders. This omits to recognise that the indications of the rebuild have been apparent for a number of years since 2018 CPUE analysis presented to a FNZ WG showed a 4 fold increase in abundance and there have been numerous presentations from trawl surveys which started in the 2018/19 fishing year.

  - The latest recreational survey also supported the increased abundance being seen in SNA8. This is a piece of work that recreational fishing representatives engage on and so would have been aware of these outcomes and the substantial increases in catches. The results of this work illustrate how recreational fishers continue to fish unhindered by a lack of TAC review whereas commercial are continuing to suffer. The consequence being that sustainable utilisation is not being enabled to provide for social, cultural, economic wellbeing.

  - It is frustrating that FNZ management was not monitoring these developments and starting early engagement considering that research planning as part of the Medium-Term Research Plan identified that the preliminary stock assessment was being conducted in 2019/20.

  - Furthermore the lack of foresight to review the TACC or address the DV is especially alarming considering that throughout discussions around the TMP it would have been clear to managers that any decision will have severe impacts on the ability of fishers to avoid SNA8. Any proposed transition of fishers to other methods such as longline will require appropriate SNA8 management settings. FNZ have been finalising their position on the TMP since the consultation closed and not considering the implementation of mitigation needed to minimise the impacts on both management and science for SNA8 is disappointing.

34. We look forward to working with you to ensure that all these stocks are progressed next year and included as part of the 2021 Sustainability Round.

Comments on the format and new approach to consultation papers

35. We continue to support creating efficiencies and removing unnecessary replication in the documentation for Sustainability Round reviews. Succinct and simplified documentation is appropriate for those reviews that are straight forward and have limited levels of complexity (although we would value the re-instatement of the use of paragraph number that is useful for cross-referencing). Whilst supportive, we believe that continued improvement of consultation documents is required.

36. As public engagement documents, positions stated by officials need to have supporting rationale or an explicit reference and link. There is a level of assumed knowledge expected in the papers with papers lacking historical detail. We recognise the benefit in concise documentation but to effectively do this there needs to be adequate referencing that links to historical papers. Unless submitters follow the links provided and undertake their own investigation, the submissions received will be based on limited, and potentially misleading information that does not provide the context of the management issue.

37. It is entirely logical to benefit from the division of labour and management of resources available to FNZ given staff numbers. However, it is important that there is oversight that standardises approaches and use of figures across the documents. We note there is an overall inconsistent information, structure, format and language in the papers that moving forward should be addressed through the sign off process.

TAC/TACC REVIEWS OF INSHORE SPECIES

Other industry body mandated stocks

SCI1, ORH3B, SWA3, SWA4, CDL5, RBY4, FRO3, 7, 8 and 9

38. FINZ endorses Deepwater Group's response on these stocks.

SNA7, GUR7, KIN3, KIN7, GUR3, LEA3, MOK3, SPO3, STA7

39. FINZ endorses Southern Inshore Fisheries response on these stocks.

FINZ mandated stocks

KIN2

FNZ options

Table 6: Proposed TAC, TACC and allowances for KIN 2. All figures in tonnes, with percentage changes from current settings in brackets.

Stock	Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
				Customary Māori	Recreational	Other sources of mortality to the stock caused by fishing
KIN 2	Option 1	189 ↑ (11%)	70 ↑ (11%)	21 ↑ (17%)	79 ↑ (22%)	19 ↓ (21%)

Our position

40. We support Option 1 with an amended OSFRM.

41. The OSFRM should be calculated as 10% of TACC, customary catch and recreational combined. The current calculation uses the TAC (189 tonnes), which includes OSFRM, to calculate OSFRM (18.9 tonnes, rounded to 19). This is incorrect. In this example, TACC, customary, and recreational sum to 170 tonnes.

10% of 170 is 17 tonnes. This would change the TAC to 187 tonnes.

Supporting Rationale

42. We agree with FNZ's assessment that the current TAC management settings are no longer viable as they currently impose unnecessary costs on the commercial sector[8]

43. Option 1 is supported by the fact that the stock is expected to increase in the short term and is currently relatively lightly exploited, and an opportunity exists to increase harvest at this time.[9] Paragraph 95 acknowledges that an increase to the TAC would not provide a sustainability risk, supported by the CPUE analysis for KIN2.

44. Aligned with comments made previously on allocation creep we recognise the results of the latest best estimate of recreational catch. We would reiterate that this allowance increase to reflect recent estimates should only be done when FNZ is committed to managing these allowances. Allowances become irrelevant if there is a demonstrated behaviour of ignoring them and no regulatory management of them.

[8] Para 13 – KIN paper

[9] Para 91 – KIN paper

KIN8

FNZ options

Table 12: Proposed TACs, TACCs and allowances for KIN 7 & 8. All figures in tonnes, with percentage changes from current settings in brackets.

Stock	Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
				Customary Māori	Recreational	All other mortality to the stock caused by fishing
KIN 8	Option 1	167 ↑ (77%)	80 ↑ (77%)	17 ↑ (89%)	55 ↑ (77%)	16 ↑ (129%)

Our position

45. We do not support any of the proposed FNZ Options

46. We support an alternative option of:

Total Allowable Catch	Total Allowable Commercial Catch	Customary Maori	Recreational	All other mortality to the stock caused by fishing
189t	100t	17t	55t	17t (10% of TACC, recreational and customary catch)

Supporting Rationale

Misrepresentation of how the management is appropriate to the stock

47. Para 164 states anticipated biomass will increase at current catch levels. If that is the case, it is unclear why a higher TACC could not be set to allow for utilisation in line with the Act.

Allocation issue

48. FNZ's option is premised on the basis that KIN is preferred as a recreational fishery with paragraph 202 implying that FNZ cannot redistribute the TAC to be more appropriate. There is no level basis for this preferential approach.

49. This is particularly concerning given FNZ recognise that proportional allocations may no long be appropriate (paragraph 201) yet want to inexplicitly maintain proportionality for KIN8 (paragraph 192). There is no rationale provided to support such a statement and it misleads the Minister with regards to the fact he has the discretion to make this decision under the Act. The Minister has no requirement to maintain proportionality under the Act and there is no implied obligation to attain proportionality between commercial and recreational catch arises from the legislation.

The FNZ option provides an unnecessary constraint on utilisation.

50. Paragraph 139 of the KIN consultation paper recognises that the new TACC will not enable utilisation and provide sufficient ACE to cover landings for a stock that has increasing abundance. This is an admission that the FNZ options provided are inconsistent with the rationale provided for other KIN stocks under review which is to provide for levels for 'unavoidable bycatch'. [10]

[10] Para 39

51. It also directly contradicts the stated FNZ overall management framework to 'manage commercial catch to unavoidable bycatch levels only'. The Fisheries Act is to provide sustainable not to constrain bycatch.[11]

52. KIN 8 catches shown in Figure 3 show that the FNZ option of 80t does not even meet its own management objectives and that for the TACC to meet unavoidable bycatch levels a TACC of 100t is required. Noting that FNZ acknowledge in paragraph 68 that commercial catches represent 'genuine unavoidable bycatch'[12]

53. Furthermore, we do not agree with the statement in paragraph 39 that infers that just because that stock has value to non-commercial fishers that commercial fishers should be constrained from sustainably utilising the stock.[13] The Act does not confer priority for any interest over the other. It leaves that judgment to the Minister. The consultation pre-empts the Minister's decision by advising through the consultation papers that commercial fisheries are to be managed sub-optimally in order to meet FNZ's management approach.[16]

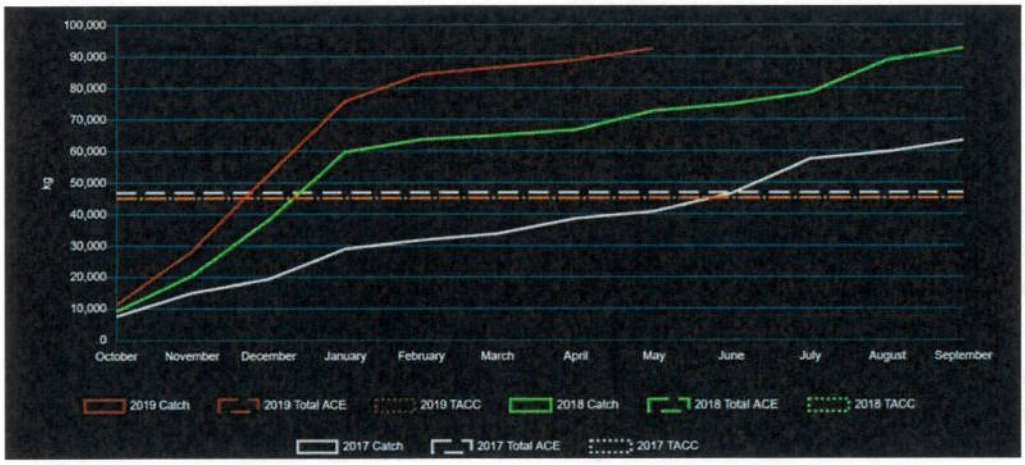

Figure 3. Comparison of catch, ACE and TACC for KIN8 for the 2019/20, 2018/19 and 2017/18 fishing years

POR1

54. This response is presented on behalf of FINZ's Northern Regional Committee that work directly with, and on behalf of, POR1 quota owners.

FNZ options

[11] Para 39
[12] Review of Sustainability Measures for Gemfish (SKI1 and 2) for 2020/21. Fisheries New Zealand Discussion Paper No: 2020/12, para 68
[13] Review of Sustainability Measures for Gemfish (SKI1 and 2) for 2020/21. Fisheries New Zealand Discussion Paper No: 2020/12, para 39
[16] New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors (Supreme Court, SC 40/2008, 29 May 2009), para 65.

Table 3: Options for varying TAC, TACC and allowances in tonnes for POR 1 from 1 October 2020.

Option	Stock	Total Allowable Catch (tonnes)	Total Allowable Commercial Catch (tonnes)	Allowances		
				Customary Māori (tonnes)	Recreational (tonnes)	All other mortality to the stock caused by fishing (tonnes)
Option 1 *(Status quo)*	POR 1	75	62	3	6	4
Option 2	POR 1	88 ↑ (17%)	70 ↑ (13%)	3	8 ↑ (33%)	7 ↑ (75%)

Our position

55. We do not support the status quo.

56. We support Option 2.

Supporting Rationale

Misrepresentation of how the management is appropriate to the stock

57. The context provided in paragraph 17 does not recognise that Porae is managed by catch levels and as such has its management settings set conservatively to reflect the level of scientific uncertainty.

58. Whilst paragraphs 33 – 35 mislead uninformed readers and lack the level of management detail to describe that the stock is being managed appropriately to the level of scientific information available, consistent with S10 of the Act.

Recreational management

59. The consultation paper recognises it is not a target species for recreational fishers and catches are largely opportunistic with catches 'considered by many as rare but welcome addition to the catch'. There is no rationale that supports POR being described as a 'shared fishery' – nor does it reflect the Draft National Inshore Finfish Fisheries Plan that FNZ consulted upon or indeed the draft inshore medium-term research plan.

60. We support recreational catch to be set appropriately in line with our introductory comments in this response. Once an allocation is set recreational fishers need to be managed to this.

Support future management review

61. Concerns have been raised that the QMAs are incorrectly set and this is something that we request is reviewed further.

SKI1

FNZ options

Table 1: Options for varying TAC, TACC and allowances (all in tonnes) for SKI 1 and SKI 2

Stock	Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
				Customary Māori	Recreational	All other mortality to the stock caused by fishing
SKI 1	Option 1 *(Status quo)*	218	210	3	5	0
SKI 1	Option 2	284 ↑ (30%)	231 ↑ (10%)	3	27 ↑	23 ↑
SKI 1	Option 3	307 ↑ (41%)	252 ↑ (20%)	3	27 ↑	25 ↑

Our position

62. We do not support any of the proposed FNZ Options

63. We support an alternative option of:

Total Allowable Catch	Total Allowable Commercial Catch	Customary Maori	Recreational	All other mortality to the stock caused by fishing
408t	360t	3t	27t	18t (5% of TACC)

Supporting Rationale

64. Paragraph 76 identifies the impact that the constraining TAC/TACC has had on commercial fishing operations on rebuilding stocks such as east coast TAR. Whilst stating this the FNZ options still do not provide for utilisation.

65. In the last 10 full fishing years there have been six incidences of overcatch as a result of an incorrectly set TACC. Of these incidences only two were above Option 3. The concern with the proposed TAC/TACCs by
FNZ is that it does not account for the recent trends. The two years that exceeded the TACC proposed by Option 3 were in the most recent two years and the data for the year to date shows that there is expected to be a high % ACE caught again.

66. The most recent years are indicative of the current abundance increases and as per the 2019 plenary document which identifies that SKI abundance is expected to increase *'The 2020 CPUE analysis indicates that the relative abundance of mixed sub-adult/adult fish taken by the tarakihi target fishery has increased at*

least threefold since 2007.' Furthermore the stock projections make it clear that abundance is expected to continue to increase; *'The recent large increase in the subadult/adult tarakihi target CPUE index indicates that the spawning stock will increase in the short term (next 2–3 years).'*[14]

67. Given the best available information to hand and the projections provided aligned with the catch information from recent years it is clear that the FNZ options do not provide for utilisation and that the alternative industry option is required to support sustainable utilisation.

[14] Fisheries New Zealand (2020). Fisheries Assessment Plenary, May 2020: stock assessments and stock status. Compiled by the Fisheries Science and Information Group, Fisheries New Zealand, Wellington, New Zealand. 1 746p

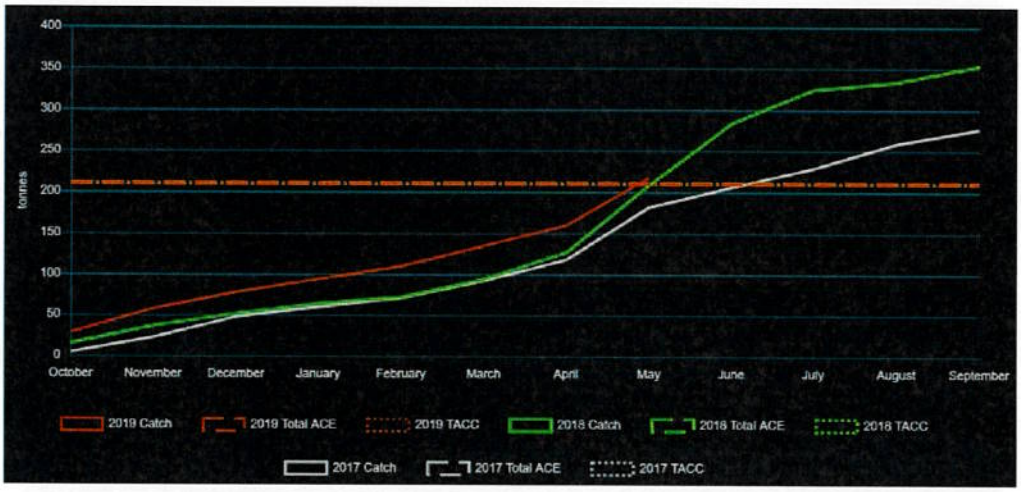

Figure 3. Comparison of catch, ACE and TACC forSKI1 for the 2019/20, 2018/19 and 2017/18 fishing years

SKI2

FNZ options

Table 1: Options for varying TAC, TACC and allowances (all in tonnes) for SKI 1 and SKI 2

Stock	Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
				Customary Māori	Recreational	All other mortality to the stock caused by fishing
SKI 2	Option 1 *(Status quo)*	248	240	3	5	0
SKI 2	Option 2	298 ↑ (20%)	264 ↑ (10%)	3	5	26 ↑
SKI 2	Option 3	325 ↑ (31%)	288 ↑ (20%)	3	5	29 ↑

Our position

68. We do not support any of the proposed FNZ Options

69. We support an alternative option:

Total Allowable Catch	Total Allowable Commercial Catch	Customary Maori	Recreational	All other mortality to the stock caused by fishing
355t	330t	3t	5t	17t (5% of TACC)

70. We recognise that SKI2 has 28N rights associated with it and support the resolution of the 28N rights issue. This is a long-standing issue that government has been working on and we request that a resolution is reached as a matter of urgency.

Supporting Rationale

TACC

71. FNZ's options do not provide for utilization in line with the Act. The best available information from the 2019 plenary states that abundance is increasing and is expected to continue to increase. See paragraph 56 of this response.

72. There has been 10 incidences of overcatch as a result of an incorrectly set TACC. 50% of these were above the TACC proposed by Option 3. Noting this, how does the new TACC provide for utilisation? Rather it will continue to constrain utilisation and place undue pressure on fishers for a stock whose abundance is increasing and is recognised to continue increasing.

73. The FINZ proposed alternative option provides for utilisation – setting the TACC at 325t means that TACC will be set to provide for utilisation. This is a conservative approach based on the best available information accepted by the 2019 plenary that shows abundance is continuing to increase based on current catch levels. The 2019/20 catches were 327t and we are proposing a TACC at 325t.

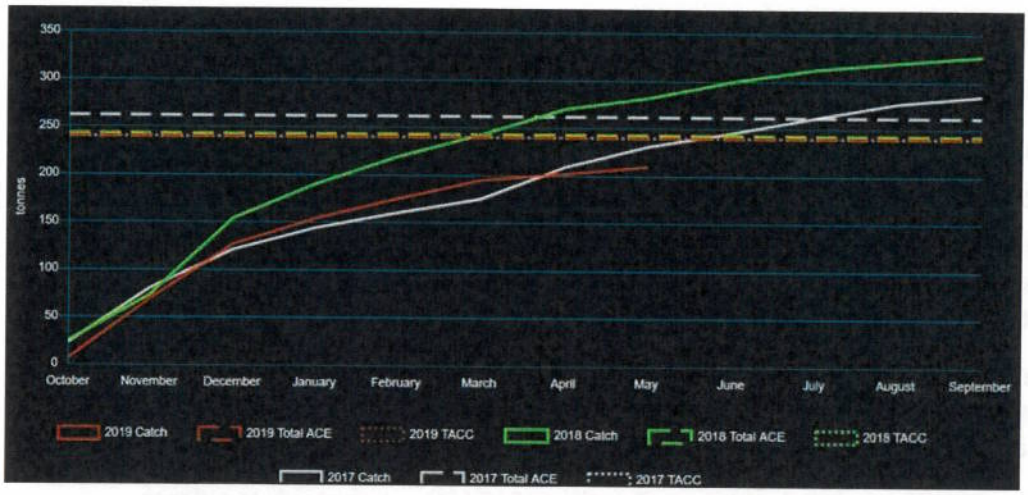

Figure 4. Comparison of catch, ACE and TACC for SKI2 for the 2019/20, 2018/19 and 2017/18 fishing years

Recreational allowance

74. Currently no management measures are in place for recreational fishers catching SKI1. We support the introduction of a bag limit for SKI.

OSFRM

75. FNZ's options are based on a generic 10% OSFRM that does not reflect the fishery in question. There is no minimum legal size (MLS) for SKI. For other species without an MLS such as HOK1 OSFRM is set at 1%.

76. Considering SKI is bycatch for this fishery and has no MLS there is no supporting evidence for using the generic arbitrary 10%.

77. We consider a more appropriate level of 5% is warranted.

SPE9

FNZ options

Option	Total Allowable Catch (t)	Total Allowable Commercial Catch (t)	Allowances		
			Customary Māori (t)	Recreational (t)	All other mortality to the stock caused by fishing (t)
Option 1 *(Status quo)*	8	6	1	1	0
Option 2	14 ↑ (75%)	10 ↑ (67%)	1	2 ↑ (100%)	1 ↑

Our position

78. We do not support the status quo.

79. We support option 2.

Supporting Rationale

Misrepresentation of how the management is appropriate to the stock

80. We note several instances in the consultation paper language that suggests a lack of confidence in management due to a 'lack of data'. SPE9 is a Group 3 stock as defined by the Draft National Inshore Finfish Fisheries Plan and is managed accordingly.

81. As outlined in our introductory statements this is entirely consistent with managing to the investment value proposition of a stock whilst allowing for management decisions to be made on altering management settings to align with the best available information.

82. Catch trends are entirely consistent with amending the TAC//TACC conservatively in order to provide for sustainable utilisation.

Recreational management

83. Whilst incorrect statements are made about how best available information is used to inform decisions on commercial data statements associated with recreational management area based on spurious speculation. This rationale is concerning not specifically for SPE9 but rather for the inference of how FNZ are managing recreational catch and setting allowances. Indicating an incoherent and inconsistent approach between sectors. For examples:

- Paragraph 40 states 'availability may have increased' and this statement is used to justify recreational increase. This provides an incoherent and inconsistent approach between sectors.
- Paragraph 31 states the rationale provided for a recreational increase for SPE9 is based on extrapolating / making assumptions on fishing operations on the west coast North Island based on catches recorded in other areas of New Zealand.

84. The Fisheries Act provides for the use of best available information – statements such as 'may have increased' are not consistent with this legal requirement.

85. SPE9 is symptomatic of the lack of effective management of recreational catches whilst undermining and misrepresenting the information used to manage TACCs. At a minimum SPE9 should be included in mixed species daily bag limits for recreational harvest.

SPO2

FNZ options

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Option 1 *(Status quo)*	130	108	5	10	7
Option 2	139 ↑	113 ↑ (5%)	5	10	11↑
Option 3	146 ↑	119 ↑ (10%)	5	10	12 ↑

Our position

86. We do not support Option 1 or Option 2.

87. We support Option 3.

Supporting Rationale

Misrepresentation of how the management is appropriate to the stock

88. Similar to SPE9, there are examples throughout the discussion document suggesting that best available information is not being used to manage this stock. The discussion document states that the stock status is

    - Paragraph 35 states 'Forward projections of biomass are currently unknown for this stock due to limited information available on stock status.
    - Paragraph 61 states that the current stock status is 'difficult to determine'. This is misleading. The stock is managed to the best available data and it is intended to manage the stock based on CPUE.

89. There is no mention in the Discussion Paper for SPO2 that it is a Group 2 stock as defined by the Draft National Inshore Finfish Fisheries Plan. For a Group 2 stock (like SPO2) a CPUE analysis is an appropriate level of data analysis for understanding the stock's status.

DEEMED VALUE PROPOSALS

91. We have submitted in the past that where the TACCs are significantly out of balance with stock abundance, deemed values are incapable of constraining the catch to the TACC. There are simply too many other drivers and motives to allow deemed values to operate effectively in those circumstances. Deemed values are not a remedy for poorly set TACCs. Rather than achieve sound fisheries management, inappropriately set deemed values will engender poor fisheries management practices and impede the performance of the management framework.

92. Industry has commented in previous submissions that deemed values should be used as a fisheries management tool, and in a manner that is appropriate for the stock to which they apply. Fisheries management considerations in setting deemed values might include consideration of, for example:

increasing deemed values when TACs are set close to biological limits to protect those limits, decreasing deemed values when they have previously been set high to reduce over-catch; reducing deemed values to encourage accurate reporting of catch and improved science.

93. Deemed values are not a substitute for TACC setting and attempts to use the deemed value regime to 'defend' an inappropriate TACC generated perverse incentives such as discouragement of accurate catch reporting. This has been recognised by the Deemed Values Working Group that identified:

"The primary purpose of the deemed values regime is to provide incentives for individual fishers to acquire or maintain sufficient ACE to cover catch taken in the course of the year, while:

i) Allowing flexibility in the timing of balancing;
ii) Promoting efficiency; and
iii) Encouraging accurate catch reporting"

94. It is against that background that we comment on the FNZ deemed value proposals for 2019/20.

The deemed value guidelines

95. Section 75(2), of the *Fisheries Act 1996* requires the Minister when setting interim, annual and differential deemed values to provide an incentive for every commercial fisher to balance their catch with ACE. However:

- Where the deemed value, annual or differential, exceeds the price the fisher is likely to receive for his or her catch and no ACE is available, the deemed value is no longer an incentive to balance catch with ACE but is instead an incentive to misreport the catch.
- Where the deemed value, annual or differential, exceeds the price the fisher is likely to receive for his or her catch and the price of available ACE is higher than the deemed value, the deemed value is no longer an incentive to balance catch with ACE but is instead an incentive to misreport the catch.
- Where the deemed value, annual or differential, exceeds the price the fisher is likely to receive for his or her catch, and the price of available ACE is higher than the price the fisher is likely to receive for the catch, the deemed value is no longer an incentive to balance catch with ACE but is instead an incentive to misreport the catch.

96. Reporting catch where the cost of landing the catch, in terms of ACE or deemed values, is higher than the revenue received for the catch results in a negative nett price or loss to the fisher for those fish. The greater the loss, the less likely the fisher is to land the fish. This is particularly so when there is insufficient ACE available in the market to cover additional catch.

FINZ mandated stocks

SKI1

97. We do not support the change to the deemed value

98. We support the status quo.

99. The rationale provided by FNZ is an inference that fishers are beginning to target SKI1, contrary to the latest information in the 2019 SKI plenary document that states *'The target gemfish fishery is now small and CPUE from this fishery does not currently provide an index of adult biomass after 2005.'* and also states that a SKI target CPUE time series had 'sparse data, large changes in distribution of fishing effort and

considerably reduced targeting.'[15] Neither of these statements support the inference from FNZ managers that there has been an increase in SKI1 targeting.

100. LFRs have indicated the port prices for SKI1 area a result of LFR's seeking to improve the returns from the target stocks of HOK, TAR, RBY and LIN to ensure fishers remain committed to those stocks rather than move inshore during the summer months to put additional pressure on inshore stocks at the same time recreational fishers are looking to target inshore stocks.

101. It is also clear that the FNZ has not attempted to engage with those operators/fishers that are incurring the high deemed values in an attempt to understand what is driving these figures. We would encourage FNZ to liaise with industry representatives and companies to better understand fishery changes instead of making inaccurate assumptions about practices.

102. The increase in deemed value payments is not a reflection of a poorly set deemed value but an increased difficulty to avoid SKI bycatch for which catch levels are not providing a sustainability risk. The rationale for SKI7 is that there is no sustainability risk exceeding the TACC. This same rationale can be applied to the FNZ option for the SKI1 TACC and in these circumstances such a punitive deemed value regime is not warranted.

103. The deemed values system is designed to provide incentives to balance catch against ACE and as recognised by the Deemed Value Working Group to 'acquire or maintain sufficient ACE'. The scenario outlined above will not be fixed by increasing the deemed values but rather by correctly setting TACCs. We do not support a deemed value change.

104. The consultation paper recognises the increased levels of bycatch in the hoki fishery in the western Bay of Plenty. A fishery that has developed due to market demand and a fishery that has increased levels of bycatch of SKI. The levels of SKI bycatch is entirely consistent with the 2020 CPUE analysis which as per the SKI plenary *'indicates that the relative abundance of mixed sub-adult/adult fish taken by the tarakihi target fishery has increased at least threefold since 2007'.*[16] With this scale of abundance increase it is hardly surprising that bycatch issues are increasing and across a wider depth range – HOK is caught in deeper waters than SKI are historically targeted.

SKI2

105. We support removing the stringent differential schedule currently used.

106. We support the proposed standard schedule.

107. The rationale provided identifies the SKI2 is caught as bycatch and is not considered a sustainability concern. We agree with this rationale.

108. We note that the issue raised with regards to inflated port prices outlined in paragraph 100 is equally applicable for SKI2.

PIL7&8

109. We support the proposed deemed value change.

TRE2

110. We support removing the stringent differential schedule currently used.

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[15] Fisheries New Zealand (2020). Fisheries Assessment Plenary, May 2020: stock assessments and stock status. Compiled by the Fisheries Science and Information Group, Fisheries New Zealand, Wellington, New Zealand. 1 746p

[16] Fisheries New Zealand (2020). Fisheries Assessment Plenary, May 2020: stock assessments and stock status. Compiled by the Fisheries Science and Information Group, Fisheries New Zealand, Wellington, New Zealand. 1 746p

111. We support the proposed standard schedule.

112. Our support for the proposed standard schedule is premised on the basis that there is no TACC review for TRE2 in this year's sustainability round review. As identified earlier in our response, we stress that deemed value changes are not a substitute for a lack of management action to correctly set TAC/TACCs.

Other industry body mandated stocks

113. Fisheries Inshore endorses Southern Inshore Fisheries submission on the deemed value review for BNS3, SKI7, PIL7.

114. Fisheries Inshore endorses Deepwater Group's submission on the deemed value review for SQU1J, SQU1T, SQU6T and RBT3.

30 June 2020

2020 Sustainability Review
Fisheries Management
Fisheries New Zealand
PO BOX 2526
Wellington 6140

By email: [redacted]

Sealord Submission on Fisheries New Zealand Sustainability Review 2020

1. Sealord Group Limited (**Sealord**) is pleased to have the opportunity to make a submission on the *2020 Sustainability Review* proposals.
2. Sealord is half-owned by the Maori people of New Zealand, through Moana New Zealand (Aotearoa Fisheries Ltd), and half-owned by global seafood company Nippon Suisan Kaisha, Ltd (Nissui).
3. One of the largest quota holders in New Zealand, Sealord manages all aspects of its deepwater operations from harvest to sale. Sealord operates eight deep water vessels in New Zealand waters. For more information on Sealord please refer to www.sealord.com.

Sustainability Measures

Orange Roughy, ORH 3B

4. Sealord supports the Fisheries New Zealand Option 1 proposal to increase the Total Allowable Catch (**TAC**), which would translate to an increase in the ORH3B East and South Chatham Rise (**ESCR**) Total Allowable Commercial Catch (**TACC**) to 5,670 tonnes. However, we note that Deepwater Group (**DWG**) has submitted that there may have been an error when calculating this figure and that 5,970 tonnes should the correct TACC volume. Sealord supports the DWG position.
5. In selecting Option 1, Sealord wishes to follow the continuation of the cautious staged approach to TACC increase in the ORH 3B ESCR fishery that has occurred over the two previous fishing years as well as accounting for the cancellation of the scheduled trawl survey in 2020 that would have tested the impact of previous catch limit increases on the biomass.

Silver Warehou, SWA 3 and 4

6. Sealord supports an increase to the TAC and TACC for both SWA stocks. However, rather than the proposed 10% increase under Option 2, Sealord submits that, after considering the available biomass information, the increase for each stock should instead be 20%. A 20%

increase would provide a utilisation opportunity that in our view has existed for some time. These stocks have been the subject of increasing catch per unit effort (**CPUE**) and (despite efforts by commercial fishers to avoid SWA bycatch) increasing catch, yet the TACC was last adjusted in 1994.

7. While reported catch is visible, fishing which avoids taking SWA as a by-catch is not and this unreported aspect clouds the true picture increased abundance is having for companies. For example, Sealord vessels in the current fishing year, when targeting BAR4/JMA3, utilised 26% of Sealord's SWA annual catch entitlement (**ACE**) as unavoidable by-catch. This ratio was too high in relation to our ACE holdings and the vessels were directed to stop fishing for BAR4 and JMA3 which has resulted in Sealord's ACE for those stocks being uncaught.
8. Over the last three years there have been attempts to obtain a stock assessment for the ECSI SWA stocks. However, these stocks are unsuited to a classical stock assessment that relies on estimates of biomass.
9. Sealord submits that in the final quarter of each fishing year the stock assessment group should assess CPUE and catch at age data to adjust the TAC for the following year – for example, no change or 10% up or down.
10. SWA fisheries are data rich with the best data coming from commercial CPUE and catch at age; the sources of uncertainty are related to the behaviour of the fish species.

Kingfish

11. KIN 2: No comment
12. KIN3: Sealord supports Option 2 which would result in the TAC being increased to 23 tonnes, due to the increase in abundance and distribution of this stock. The abundance and distribution has been confirmed by catches on Sealord vessels first showing up consistently on the Chatham Rise in 2012-13 and then over the years since then to spread as far south as the Snares shelf in 2020.
13. Given the strong increases in abundance (refer figure 6 of Fisheries New Zealand Discussion Paper No: 2020/14) and continuing favourable environmental factors for kingfish, closely monitoring CPUE data will be required to allow adjustments to be made in the TACC. Otherwise participants will incur the impost of deemed value costs for catches in excess of the TACC.
14. KIN 7 and 8: Sealord does not support Option 2 which would involve a TACC of 44 tonnes for KIN7, on the basis that this would see the TACC set below the current level of catch in this fishery (47 tonnes 2017-18 and 62 tonnes 2018-19). This is particularly concerning when indicators suggest there will be an inevitable increase in abundance. Sealord's proposal for KIN7 is set out below.
15. Sealord does not support the Option 1 TACC for KIN8 that would place the TACC at 80 tonnes, which is well below the level of catch for 2018-19 of 93 tonnes and catch year to date (May 2020) for 2019-20 of 93 tonnes.
16. To address the concerns of reported catch being well above the proposed TACCs and evidence of increasing abundance, Sealord submits that a TACC of 77 tonnes for KIN7 and a TACC of 100 tonnes for KIN8 would be appropriate.

17. Incorrectly set TACCs have significant implications for commercial fishers noting that Fisheries New Zealand Discussion Paper No: 2020/14 confirms kingfish are an unavoidable by-catch to other species. For Sealord, kingfish catch is less than 1% of total catch when targeting JMA7. Mitigation strategies see nearly 50% of kingfish catch able to be returned to the sea under schedule 6 of the Fisheries Act 1996 and, while an initiative with other industry participants and Seafood Innovations to develop a kingfish bycatch reduction device is underway, kingfish catch reduction is extremely difficult given the very low proportion of kingfish catch relative to total catch.
18. Over catch due to an incorrectly set TACC inevitably attracts ramped deemed values for catch beyond ACE held. By way of recent example in 2018-19, Sealord paid deemed value costs of more than $0.9 million across the KIN 7 & 8 fisheries, a significant portion at the highest rate of $17.80kg for fish that realise a net sales price of $1.70 - $ 2.00kg. The low return for kingfish from a trawl perspective, and significant compliance cost for deemed values, highlights the cost for catching a species Sealord does not want to catch and endeavours not to catch.
19. Deemed value costs are not be the only impost an incorrectly set TACC has. Lost utilisation opportunities already exist for Sealord when vessels have had to abandon target fishing BAR7 due to high kingfish by-catch. These are hidden costs but paint a picture of the extent of the kingfish problem that continues to grow.
20. A further implication of the TACC being set lower than actual catch levels is the perpetuation of the distortion to the ACE market due to the impact ramped deemed value rates has on ACE prices. Ramped deemed value payment steps become the de facto ACE price with no relationship to the expected return from the fish as highlighted above. ACE can be traded at prices as high as $14kg simply to reduce the quantum of the $17.80 deemed value rate.

Frostfish, FRO 3, 4, 7, 8 and 9

21. Sealord's does not support the reallocation of catch across QMAs from FRO3 to FRO4 as the FRO3 decline in CPUE has been due to a change in effort rather than a reduction in biomass while in FRO4 QMA recent catch of FRO4 from Sealord's perspective has increased due to increased fishing effort in the BAR4/JMA3 fisheries. Sealord's view is that the TACC for FRO4 should match the levels of recent catch and Sealord therefore submits that an increase in the FRO4 TACC to 124 tonnes is the appropriate management response.
22. Similarly, Sealord does not support the reallocation of the FRO7 TACC across FRO8 and FRO9. Catch from across the West Coast frostfish stocks (FRO7, 8 & 9) is driven by the range and distribution of the target fishery, JMA7. The FRO by-catch ratio of approximately 3.5% is dictated by where the vessels catch the mobile JMA. Against that background, Sealord submits that, as with FRO3 & 4, the TACC for both FRO8 & 9 should increase to match the levels of recent catch. Sealord therefore proposes increasing the FRO8 TACC to 900 tonnes and FRO9 to 400 tonnes.

Gemfish, SKI 1 and 2

23. Sealord does not support the Options provided for SKI1 and SKI2 noting the proposals are less than current catch and would not take account of that level of catch or of the increasing abundance occurring in those fisheries.
24. Sealord would support a TACC of 369 tonnes for SKI1 and 330 tonnes for SKI2.
25. Sealord submits that the tripling of the CPUE index indicates stocks are in good health and that a TAC – TACC increase is required. CPUE information will provide information for monitoring of catch and allow adjustments to be made to address changes in abundance.
26. A similar pattern has already been experienced with the southern gemfish stocks (SKI3 & SKI7). The unfortunate corollary for the industry has been that slow or inadequate adjustments to the TACC have resulted in catches above available ACE with the resultant deemed value costs.
27. Sealord supports Te Ohu Kaimoana's submissions and position regarding section 28N rights. Sealord does not support a management decision which would result in a reduction to the proportional iwi ownership of quota in SKI2 through the application of those 28N rights.

Black Cardinalfish, CDL 5

28. Black Cardinalfish is not targeted nor is it thought to have any sustainability concerns. Sealord supports the approach of setting TAC for this type of stock at a level high enough to accommodate the irregular accidental catches as previous catch history shows.
29. Considering those irregular spikes in catch, Sealord submits that a more realistic TACC would be 100 tonnes.

Snapper and Gurnard, SNA 7, GUR 7

30. Sealord notes that the status of both stocks is assessed at being above management target level. Sealord supports the TAC increase for both stocks, being Option 3 for SNA7 and Option 2 for GUR7.

South east coast multi-species

31. Sealord supports a 10% TACC increase (Option 2) for MOK3, and similarly a 10% TACC increase (Option 2) for GUR3, LEA3 and SPO3. Those increases will be in line with recent catch and trawl survey information.
32. As noted above, Sealord supports Te Ohu Kaimoana's submissions and position regarding 28N rights. Sealord does not support a management decision which would result in a reduction to the proportional iwi ownership of quota in SPO3 through the application of those 28N rights.

Stargazer, STA 7

33. Sealord supports Option 2, which would see an increase in the TACC to 1,178 tonnes due to the high abundance and utilisation opportunity that exists in this fishery.

Rubyfish, RBY 4

34. Sealord supports the TAC and TACC increases as proposed under Option 1. The increase will help support the fluctuations in catch of RBY4, something Sealord has experienced over the over the past 5-6 years.

Sea Perch, SPE 9

35. Available information suggests catch, which has been more than the TACC for the last five years, is sustainable. As there are no sustainability concerns, Sealord would support an increased TAC that would take the TACC to 11 tonnes, the highest level of recent catch, rather than the 10 tonnes proposed.

Scampi, SCI 1; Geoduck, PZL 7; Blue Cod, BCO 5; Pōrae, POR 1; Rig, SPO 2

36. Sealord has no comments in relation to these stocks.

Review of Deemed Value Rates

Arrow Squid (SQU 1J, 1T, 6T)

37. Sealord is surprised that squid stocks were prioritised for deemed value rate review and does not support any change to either the annual deemed value rate or differential rates. The basis for the proposed change (increase in landed price) has been eroded with the reduction in landed prices due to COVID-19 adversely impacting the key food service markets squid is sold into.
38. As the stocks are listed in schedule 3 of the Fisheries Act, which allows for in-season increases to the TAC (and TACC), Sealord submits changes in abundance and the potential for over-catch of the TACC can be managed adequately through that process.

Bluenose (BNS3)

39. Sealord supports the proposed change to both annual and differential deemed value rates for BNS3.

Gemfish (SKI2)

40. SKI2 is predominantly a by-catch stock and is showing an increase in abundance. Catch more than the TACC has occurred over the two previous fishing years. Therefore, it is puzzlingly that the recommended TACC increase is below that level of catch, which would inevitably lead to greater deemed value payments.

41. Any TACC increase will also trigger 28N right issues that, if unresolved, will lead to further delays in increasing the TACC beyond the status quo. Fishers would be perversely penalised for over-catching the stock to the extent of the recommended TACC that cannot be given effect to and required to pay deemed values where they are not able to balance catch with ACE.
42. For these reasons, Sealord submits that the annual deemed value rate should be set as close to the ACE price ($1.03kg) as possible, with no ramping until catch is more than 200% of ACE holdings.

Gemfish (SKI7)

43. SKI7 is a fishery where abundance has substantially increased over the last three fishing years, reflected by the Minister of Fisheries decision to increase the TACC from 300 tonnes to 599 tonnes as part of the October sustainability round in 2019. Reported catch for the early period of the 2020 hoki season, where the bulk of Sealord's gemfish catches occur, is tracking ahead of the same period for 2019.
44. That the TACC increase from 1 October 2019 has not been able to be implemented due to court proceedings is beyond the control of fishers who, in Sealord's view, should not be penalised through deemed values to the extent of the TACC increase.
45. It is also evident now reviewing the final level of catch for 2018-19 and catch in for the current year, that the recommended TACC for 1 October 2019 was incorrectly set.
46. Sealord proposes any deemed value payment for catch between 100-200% of ACE held should be cost neutral and set at 0.49 $/kg (the average price paid per kg during the 2018/19 fishing year), with the differential rates as proposed applying where a fisher exceeded their ACE holdings by 200% starting at $0.72 per kg.
47. Cumulatively, $1.5 million in deemed values has already been paid over the last three years in respect of this fishery. In Sealord's view extracting additional payment from fishers above the average ACE price for catch between 100-200% of the TACC would be very unreasonable.

Pilchard (PIL7 & 8)

48. Sealord operates trawl vessels in the JMA7 fishery where PIL7 and PIL8 are taken as bycatch. The increase in abundance and distribution of these stocks over the last few years in Sealord's view has been driven by environmental-induced changes.
49. With variability of catches occurring under these conditions, in Sealord's view it is inequitable for excess catch over ACE to revert to a deemed value penalty. Sealord urges better thought be given to managing stocks that have variability in abundance. For example, an option to address this could see pilchards moved to schedule 2 of the Fisheries Act 1996 that provides for in-season increase.
50. Sealord does not support an annual deemed value rate of 0.20 $/kg, the same rate as JMA7. As pilchards are processed into fishmeal, the proposed deemed value is excessive to any financial benefit derived from the catch. Sealord submits that, when assessing the deemed

value rate and considering the mitigating circumstances for catch beyond ACE holdings, the starting point should have been the anchovy deemed value rate of $0.060 /kg that rises to $0.120kg for 200% of ACE. In Sealord's view, ACE price is an unhelpful reference point for PIL as ACE is generally traded to mitigate the current annual deemed value rates of $0.450kg and the ACE price is not linked to return from selling the fish.

51. Sealord proposes an annual deemed value rate of $0.060kg for catch 100-200% of ACE held and $0.120kg for catch beyond 200%.

Redbait (RBT3)

52. There is no information about stock structure, recruitment patterns or status of this stock. What is known is that RBT3 is generally taken as a by-catch in pelagic target fisheries across a large area, from the Chatham Rise down into the sub-Antarctic. Managing catch of RBT in some areas is particularly challenging due to abundance levels.
53. Deferring to managing this fishery through stringent differential deemed values (where the annual deemed rate is set five times higher than the 2018/19 port price) is not supported. Instead, Sealord urges a more pragmatic management approach be taken to gather more information on the stock through a fishery characterisation.
54. Until better information is received from a fishery characterisation, Sealord proposes that the annual deemed value rate be set to start at $0.200kg (the average ACE price), with $0.100kg step changes from 100-105%, 105-150% and > 150%.

Gemfish (SKI1) and Trevally (TRE2)

55. Sealord has no comments in relation to these stocks

Yours sincerely

Doug Paulin

Chief Operating Officer

deepwater group

COMMITTED TO
HEALTHY OCEANS
SUSTAINABLE FISHERIES

1 July 2020

2020 Sustainability Review
Fisheries Management, Fisheries New Zealand
PO Box 2526
Wellington 6140

By email: [redacted]

Dear Tiffany,

DWG's Submission on Sustainability Review for Deepwater and Associated Stocks in 2020-21

Summary ORH 3B

- Deepwater Group Limited (DWG) submits in support of Fisheries New Zealand's (FNZ) proposed Option 2, as corrected, to increase the ORH 3B TACC from 6,772 t to 7,967 t by increasing the catch limit for ORH 3B ESCR from 4,775 t to 5,970 t.

SCI 1

- DWG submits in majority but not unanimous support of FNZ's proposed Option 2, to increase the SCI 1 TACC from 120 t to 144 t.

KIN 7 & 8

- DWG supports and endorses the submissions by Te Ohu Kaimoana, FINZ and Southern Inshore Fisheries Management Company on management changes for these two fish stocks.

SWA 3 & 4

- DWG submits that the increases in the TACCs for SWA 3 and SWA 4 should be 20% not 10% as proposed by FNZ in Option 2.

FRO 3, 4, 7, 8 & 9

- DWG supports and endorses the positions provided by Te Ohu Kaimoana on management changes for these fish stocks, noting that many of DWG's shareholders own quota for these stocks and have their fishing activities impacted by increasing incidental bycatch in the trawl fisheries for JMA and HOK.

CDL 5

- DWG submits that, as the current TACC has been set at a level that is both nominal and arbitrary, quota owners and FNZ work together to design and implement a project to monitor this stock and to assess its sustainable yield and that, in the interim, the TACC be increased to 80 t and the DV be reduced.

Deemed Values

- SQU 1J, 1T & 6T – DWG submits that: either FNZ withdraws any proposals to change the DV for SQU at this time; or FNZ uses the current market price to calculate any change in DV for squid.

- PIL 7 & 8 – DWG submits in support of FNZ's proposal to reduce the interim DV for these two stocks from $0.41/kg to the same as for anchovy at $0.03/kg
- RBT 3 – DWG submits in support of FNZ's proposal to reduce the differential rates for RBT 3.

Introduction

1. Thank you for the opportunity to submit on FNZ's Review of Sustainability Measures for deepwater fisheries for 2020-21.
2. DWG represents the owners of the majority (92%) of deepwater fishing quota. Our role is to act on behalf of deepwater quota owners and, working collaboratively with Government and others, to ensure New Zealand's deepwater fisheries continue to be managed sustainably for the benefit of New Zealand.
3. DWG notes agreement from within the Deemed Values Working Group that all fish stocks undergoing review of management settings should also have their deemed value settings reviewed. For most of the fish stocks under review, FNZ's consultation documentation does not propose any changes to the deemed values and this component should have been included, by providing all necessary information for the reader to submit informed and meaningful feedback. Without necessary information on ACE price and port price and on existing and proposed deemed value settings, submitters cannot easily provide a specific recommendations.
4. DWG has again collaborated with Te Ohu Kaimoana and FINZ in developing and aligning our positions.

ORH 3B

5. **DWG submits in support of FNZ's proposed Option 2, as corrected, to increase the ORH 3B TACC from 6,772 t to 7,967 t by increasing the catch limit for ORH 3B ESCR from 4,775 t to 5,970 t.**
6. **The best available scientific information estimates the ESCR stock can sustain an increase in annual catch up to 6,348 t.** DWG confirms delivery on the commitment by quota owners in 2019 to contract an update of the 2017 assessment and to re-apply the agreed HCRs prior to the 2020-21 sustainability round. This work has now been completed with the results having been considered and accepted by FNZ's DWWG. These results can be confidently used to inform the third of the three agreed increases in the catch limit for ORH 3B ESCR.
7. **However, owners of ORH 3B quota wish to continue to take a considered and precautionary approach and to again make a small step increase in the TACC and catch limit from 2020-21.** The option of taking a further catch increase from this stock will be revisited prior to the 2022-23 year, upon full consideration of the results from the next biomass survey and stock assessment, which DWG supports being undertaken in 2021-22.

8. DWG reiterates our earlier advice to FNZ that, due to misunderstanding the calculations within the HCRs, there are both computational and arithmetic errors in the previous advice to the Minister on the catch level for ORH 3B ESCR. We again submit that these errors must be corrected, to ensure that FNZ's free and frank advice to the Minister is factually correct.

9. In 2017, Innovative Solutions Limited (ISL) updated NIWA's stock assessment to the end of the 201718 fishing year and applied the HCR to derive a catch limit recommendation of 5,970 t for the 2018-19 fishing year (Cordue 2018[17]).

10. In 2018, due to a misunderstanding, FNZ proposed that the annual catch from ORH 3B ESCR be increased (in steps over a three year period) to a limit of 5,670 t (the final step to occur on 1 October 2020) rather than to 5,970 t.

11. DWG can only surmise the reason for the difference in the HCR catch limit of 5,970 t and the figure proposed by FNZ of 5,670 t is that FNZ assumed the catch limit calculated by applying the HCR did not include a 5% allowance for incidental mortality and has adjusted it on this basis (as 95% of 5,970 t is 5,672 t, which FNZ may have rounded down to 5,670 t). This is a mistake for two reasons:

    11.1 Firstly, the HCR catch limit is to be used as calculated. In the simulations used to test the HCR, the actual annual catches were assumed to exceed the catch limit by 5% (Cordue 2014[18]).

    11.2 Secondly, if the HCR catch limit had not included a 5% allowance for incidental catch, then the correct calculation would have been to divide 5,970 t by 1.05, which is different from multiplying by 0.95.

12. **On this basis, FNZ's Option 2 should be corrected for an annual catch limit of 5,970 t not of 5,670 t, which is the number approved by the Minister in error, based on FNZ's earlier advice.**

13. **DWG shareholders confirm that they agree to continue the current non-regulatory regime of ORH 3B sub-area agreed catch limits for 2020-21.**

14. **The increase of the ESCR sub-area catch limit should not lead to over-catching the OEO 4 TACC.**

15. **DWG supports FNZ's assessment of the environmental considerations of this fishery. DWG shareholders remain committed to minimising and managing interactions with other species.**

SCI 1

16. **DWG submits in support of FNZ's proposed Option 2, to increase the SCI 1 TACC from 120 t to 144 t.**

17. We note, in particular, the statement in the FAR on page 96, para 2 with regard to SCI 1 that *"Catches have been very stable throughout the history of the fishery and do not appear to have an effect on abundance".*

18. We also acknowledge the importance of catch rate and fish size as value drivers in this fishery, which are matters for quota owners to consider. Therefore, we particularly look to developing

[17] Cordue, P.L. 2018. A brief update of the ORH 3B ESCR and NWCR stock assessments to the end of the 2016–17 and 2017–18 fishing years with application of the Harvest Control Rule in both years. ISL Client Report for Deepwater Group Ltd. 59 p.

[18] Cordue, P.L. 2014. A management strategy evaluation for orange roughy. ISL Client Report for Deepwater Group Ltd. 42 p.

and implementing a Management Strategy Evaluation process in the coming year to support being able to make future decisions such that we can respond rationally to these value drivers within the overall biological assessment. SCI 1 is a candidate for this.

19. Owners of SCI 1 support this increase as being a reasonable management approach and support the continued close monitoring and review processes.

20. **DWG supports FNZ's assessment of the environmental considerations of this fishery**. The environmental issues raised are not of significant nature, provided that current management procedures are maintained, noting that DWG and industry will be continuing with the protected species programme for this fleet.

KIN 7 & 8

21. **DWG supports and endorses the submissions by Te Ohu Kaimoana, FINZ and Southern Inshore Fisheries Management Company on management changes for these two fish stocks.**

22. DWG notes that many of our shareholders own quota for these stocks and have their fishing activities impacted by increasing incidental bycatch in the trawl fisheries for JMA and HOK.

23. There has been new science for KIN 7 & 8 over the past 12 months largely based on observer records of bycatch in the JMA trawl fishery. This work is robust and has been considered and accepted by

FNZ's Science Working Group. For KIN 8, there is no scientific rationale provided for setting the TACC below the current catch level. The only rationale is around retaining proportionality of TAC and not initiating target fishery, and this does not provide for sustainable utilisation of fisheries resources.

24. It is evident that kingfish stocks have increased in New Zealand waters, in both their abundance and their range. These changes have caused significant costs to operators in commercial fisheries for JMA where there is an unavoidable bycatch of KIN and an inability to secure sufficient ACE. DWG expects these trends to continue, consequent to changing oceanographic conditions.

25. Frozen KIN has very low value (around $2/kg green weight) and the deemed value is unnecessarily high (at $8-8.90/kg) to provide for FNZ's desired incentives in the JMA fishery. One might argue differently if there was an underlying profit motive in catching KIN commercially, but there are none for KIN bycatch and all that can be done to avoid catches of KIN is already being done.

26. DWG supports increases in the TACC for KIN 7 & 8. However, should the abundance of KIN continue to increase on the fishing grounds for KMA in particular, we expect the TACC increases to provide only short-lived relief to commercial operators faced with the inevitability of continued and possibly increased levels of bycatch.

27. Regarding KIN 7, DWG disagrees with FNZ's proposed allocation within the TACC. It is noted in the KIN Discussion Paper (2020/14) that recreational fishing effort was less than in 2012 by around 20% and that, despite a bag limit of three fish, often only one is retained (explained by the fact that kingfish are taken more as a game fish than as a table fish).

28. We fully support the view, as submitted by Te Ohu Kaimoana, that the calculation of Other Sources of Fishing Related Mortality is flawed mathematically and submit that this should be rectified for the final decision, as Te Ohu Kaimoana propose.

29. DWG further suggests that a recreational allowance of double the current estimated landings for this fishery while the commercial limit is increased to just meet current landings is skewed. The principle of
"maintaining proportionality" has no logic at some point in the matrix of reported stock abundance, commercial and recreational or customary catch. For KIN 7, this point has been exceeded as recreational clearly have no need for an allowance double their estimated catch.
30. DWG submits that, within the proposed TAC of 122 t for KIN 7, commercial fishers be allocated a TACC of 72 t, recreational fishers allocated at the current level of 27 t and that there is no basis for allocating above this amount. DWG supports the allowances for customary fishing to remain the same and for other sources of mortality to be adjusted as provided in Te Ohu Kaimoana's response

31. **DWG supports FNZ's assessment of the environmental considerations of these fisheries.** DWG shareholders remain committed to minimising and managing interactions with other species.

SWA 3 & 4

32. **DWG submits that the increases in the TACCs for SWA 3 and SWA 4 should be 20% not 10% as proposed by FNZ in Option 2.**

33. DWG submits that FNZ's proposed Option 2 of increasing these two TACCs by 10% is insufficient in light of the information from the characterisation of both stocks, information in FNZ's own scientific reports and the performance of these fisheries in recent years. We support an increase of 20% in the TACC for each of these two fish stocks, noting paras 28 and 39 in FNZ's Discussion Paper (2020/07) and 1% allowance for other sources of fishing mortality.

34. **Scientific information available in FNZ's reports**. The 2018 and 2019 Plenary Reports both conclude:

> *"the biomass indices for the Western Chatham Rise stock had not declined and catch rates in recent years have increased. The total catches have also increased in recent years and are around the TACC. Age composition data suggest that the increase in catch rates and catches was consistent with the recruitment of some relatively large year classes. The preliminary stock assessment analyses and biomass indices from CPUE and the trawl survey suggested that stock status has not declined at recent catch levels."* (2018 report page 1324, 2019 report page 1303)

35. However, DWG does have concerns about the processes leading to this year's review and submit the following points for FNZ to note:

    35.1 This is the first review of these TACCs in 25 years.

    35.2 In recent years (up to 2017-18) the two stocks combined were averaging annual deemed value costs of around $400-500 k. While this was tempered somewhat by a reduction in DV settings for 2019-20, however, SWA 4 DVs will likely remain an issue even with the proposed Option 2 10% increase in the TACC.

36. DWG acknowledges the reduction in DVs for SWA 3 and 4 in 2019-20 fishing year. However, DWG also contends that for such stocks where legitimate targeting and true incidental/unavoidable bycatch can occur concurrently in any one year, across a broad fleet and coupled with significant annual changes in relative abundance or catchability that annual ramped DVs can be a blunt tool. Our proposition (below) to undertake alternative assessment and management models for these stocks and fishery should take this into account also and alternatives to smooth DVs be explored.

36.1 Since 2016, there have been major efforts and significant science cost ($100-200 k) expended in two attempts at a stock assessment for SWA 3 and 4.

36.2 Despite the relatively rich dataset from research trawl surveys, fisheries observers and commercial catch records, no satisfactory assessment has yet been produced.

36.3 This is particularly vexing for the Chatham Rise SWA fisheries where the information from two fisheries independent trawl survey time series (inshore and deepwater) and a large commercial catch record (some significant amount of which is observed) is still insufficient to produce an acceptable assessment.

37. Noting the above, DWG is of the view that it is clear that the 'standard' approach to this species (given its apparent rapid changes in distribution and biomass) must not be re-attempted. We consider that we have lost legitimate increased catch opportunities in past years (indeed operators on these fisheries have suffered large and unnecessary deemed value bills instead) and that if nothing else, the work of the last four years proves that that the current approach has proven to be fruitless and must be discontinued.

38. We believe what must be considered is a different approach along the principles of management procedure evaluation, using trawl survey and age data as foundation along with commercial catch data in a more "real time" annual setting.

39. DWG would like to meet with FNZ as soon as convenient to constructively discuss options to develop a different assessment approach for this species, utilising the more immediate catch data availability from ERS (inshore and deepwater) and possibly using catch control rules based thereon to provide a more rapid and nimble management regime.

40. **DWG supports FNZ's assessment of the environmental considerations of these fisheries.** DWG shareholders remain committed to minimising and managing interactions with other species.

FRO 3, 4, 7, 8 & 9

41. **DWG supports and endorses the submission by Te Ohu Kaimoana on management changes for these fish stocks, noting that many of DWG's shareholders own quota for these stocks and have their fishing activities impacted by increasing incidental bycatch in the trawl fisheries for JMA and HOK.**

42. DWG supports the *status quo* for FRO 3 and FRO 7 (i.e. the retention of the current TACs and TACCs) and Option 1 for FRO 4, FRO 8 and FRO 9 (i.e. increase the TACs, TACCs and all allowances for other mortality caused by fishing).

43. DWG does not support decreases to the TACs and TACCs for FRO 3 and FRO 7 as there are no sustainability concerns in these fisheries and therefore any reductions to their current management settings are both unnecessary and unwarranted scientifically. Reallocating catch across QMAs does not address the problem identified in the FRO fisheries, which is the current TACC settings are unnecessarily constraining catch in some QMAs but not in others. Reallocating catch across QMAs infringes on and undermines quota owner's property rights and can be seen as equivalent to changing QMA boundaries, which may only be done according to the due process provided under the Fisheries Act 1996, which has not been followed by FNZ for FRO QMAs to date.

44. In FRO 3 there has been a reduction in CPUE, however this is due to the movement of vessels out of this area rather than a reduction in biomass. We consider retaining the current TAC and TACC settings will allow for future fishing to return to this QMA without unnecessary penalty of a constraining TAC and TACC. The CPUE in FRO 7 has increased as vessels have moved back into this area targeting other species. Currently, catching within FRO 7 is

constrained due to the low TACC and limited availability of JMA 7 ACE. Retaining the current settings in both FRO 3 and FRO 7 allows for future utilisation, which are already being seen in FRO 7 with increases in catch.

45. As there is no apparent sustainability concern, we support TAC and TACC increases for FRO 4, FRO 8 and FRO 9. Increases proposed by FNZ under Option 1 are set slightly higher than the highest recorded catch in each QMA. We note that this only partly allows for both current and future utilisation in these fisheries.

46. As there are no sustainability concerns in these fisheries, an appropriate setting for deemed values would be closer to ACE price than market price.

47. **DWG supports FNZ's assessment of the environmental considerations of these fisheries.** DWG shareholders remain committed to minimising and managing interactions with other species.

CDL 5

48. **DWG submits that, as the current TACC has been set at a level that is both nominal and arbitrary, quota owners and FNZ work together to design and implement a project to monitor this stock and to assess its sustainable yield and that, in the interim, the TACC be increased to 80 t and the DV be reduced.**

49. DWG notes the annual catch over recent years has fluctuated, ranging from 6 to 93 t, and that there is no reason for sustainability concerns for catches at the higher end of this range given catches of up to 80 t have been taken inadvertently as bycatch (there is no targeting of this stock) in a single tow.

50. **DWG supports FNZ's assessment of the environmental considerations of these fisheries.** DWG shareholders remain committed to minimising and managing interactions with other species.

Deemed Values

51. **SQU 1J, 1T & 6T – DWG submits that: either FNZ withdraws any proposals to change the DV for SQU at this time; or FNZ uses the current market price to calculate any change in DV for squid.**

52. DWG does not support the proposed increase in deemed value as set out in FNZ's Discussion Paper 2020/21. It is evident that this number has been calculated using outdated Port Price information without any regard to the current situation, resultant from a process being simply applied without application of current knowledge or of common sense. The calculation should be reapplied using information from the current market price. **Using current market pricing would result in a decrease in DV, not an increase as FNZ has proposed.**

53. Squid prices have been heavily affected by Covid-19 issues in the foodservice markets globally (where most New Zealand squid ends up). Due to the effective closure of this market sector over recent months, the demand for squid has dropped, in some markets to zero, with very low prices. Consequently, most companies are holding their inventory of squid in cold storage.

54. If FNZ is determined to change the deemed values for squid for the 2020-21 year, then they must do so
on current prices, not on those from 2019 or earlier. FNZ's Port Price index for squid is no longer relevant.

55. As trawlers in the two squid fisheries are predominantly large (> 46 m) and the regulated changes to require all of these vessels to be New Zealand flagged, there has been a large reduction in the number of deepwater trawlers capable of catching squid. The SQU 1T and

SQU 6T TACCs have not been reached with this reduced catching capacity, nor are they expected to be in the near future.

56. This scenario, coupled with a species where in-season increases are provided for under Schedule 3, make changes to the Deemed Values from 2020-21 unnecessary.

57. DWG submits that FNZ:

    57.1 **Either**: withdraw any proposals to change the Deemed Values for SQU at this time,

    57.2 **Or:** if such changes are essential, make these using the current market price to calculate any new DV for squid, which will result in a decrease, not an increase as is proposed, as FNZ's proposal is based on out-dated Port Price information.

58. **PIL 7 & 8 – DWG submits in support of FNZ's proposal to reduce the interim DV for these two stocks from $0.41/kg but to a lower level to the same as anchovy at $0.03/kg and annual DV at $0.06/kg.**

59. As pilchards and anchovy are both occasionally encountered as incidental bycatch in deepwater trawl fisheries and are rendered into fish meal, the DV settings should be the same for both with the interim level set at $0.03/kg.

60. **RBT 3 – DWG submits in support of FNZ's proposal to reduce the differential rates for RBT 3.**

RBY 4

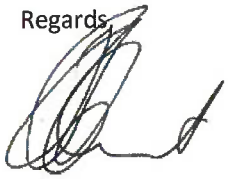
61. DWG notes that RBY 4 is a non-target species taken as a bycatch to various deepwater trawl fisheries on the Chatham Rise. FNZ have proposed a TACC increase from 18 t to 25 t, based on the last 7 years average catch, plus 10%. There is no assessment or characterisation.

62. It is notable that 50 t was caught this year to date (i.e. double what new proposed TACC would be).

63. DWG supports the TACC increase, providing that industry and FNZ continue to closely monitor catches of RBY 4 and apply further assessments and/or management as need be.

DWG and our shareholders would be happy to engage in further discussions with FNZ on any matters pertaining to this submission before FNZ finalise their final advice on the sustainable management of these fisheries.

Regards



George Clement
CEO
Deepwater Group Ltd

Submission on Fisheries New Zealand: Review of SNA7 and GUR7 sustainability measures for 1 October 2020

Thank you for this opportunity to comment on this legislation. Friends of Golden Bay Inc (FoGB) have been involved in caring for the marine environment for many years on behalf of our membership and for the local community, as well as the flora and fauna that live in this environment.

We have hoped that Golden Bay would be recognised for it's fragile marine ecosystems and for the repair that needs to occur from previous unsustainable practices, by the formation of a Marine Management Plan. The proximity of two marine reserves – both of which deserve be extended, and the previous rich biota that was originally here, is surely deserving of better management than increasing the quota of snapper and gurnard on the flimsy scientific evidence of a short temporary increase in population.

We support the Option 1 on the basis it is the least damaging. In addition we would like to see all trawling as well as set netting banned in Golden Bay. The damage locals have witnessed over a long time makes this a desire of most of Golden Bay's residents. We would like to see targetted fishing without by catch, and the ability for everyone to be able to share in the bounty of the sea by being able to recreationally fish for our own tables. Especially in this post covid era, this is increasingly more important. New ways of thinking and acting are important.

We have our own resident population of Hector's dolphin, a declining population of Little Blue Penguins as well as internationally important seabirds feeding here. Little Blue Penguins need to feed close to their nesting areas and longer journeys for food risks their survival. Increased stocks of fish by habitat care is a good situation for other species as well as for fishers and locals in the long term.

FoGB support the submission by Guardians of Tasman Bay in light of the research that has gone into this submission, much of which is not within the capabilities of our group.

We look forward to an outcome that values and respects the precious resource we have here in this Bay, and a recognition we owe repair of a previously degraded food basket.

Heather Wallace Sec. FoGB.

Box 274

From:	Mike Saunders
To:	FMSubmissions
Subject:	Blue Cod (BCO 5) for 2020/21
Date:	Tuesday, 26 May 2020 12:56:42 PM
Attachments:	ATT00001.jpg Reduced Cod catch recommendations.pdf

Hi
Reading the recommendation it appears to be weighted against the recreational fisherman whom catch a relatively small amount of the total catch.

A reduction of 55% by recreational fisherman whom only take a relatively small amount of blue cod would have a big affect on them and little affect on the fishery. The reduction from 20 fish a day to 9 fish a day is significant.

The commercial reduction by 29% is half what the recreational fisherman catch recommendation is .

A fairer option would be a 25% reduction by recreational fisherman which would reduce the daily catch from 20 to 15 per person.

The difference of 6 fish a day per person would be insignificant of the fishery as most people would only catch cod on 3 days a year.

To protect a fishery the biggest reduction needs to be made by those taking the most fish, commercial take 85% to 95% of the catch.

Targeting those whom take 5% to 15% by a higher % is not fair and will not benefit the fishery a in any meaning full manner.

Mike Saunders, AFA, B.Sc. CLU$_{CM}$
Financial Adviser

T: [redacted]
E:

Fisheries New Zealand
Tini a Tangaroa

Review of Sustainability Measures for Blue Cod (BCO 5) for 2020/21

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Blue Cod (BCO 5)

Parapercis Colias, blue cod, Rāwaru

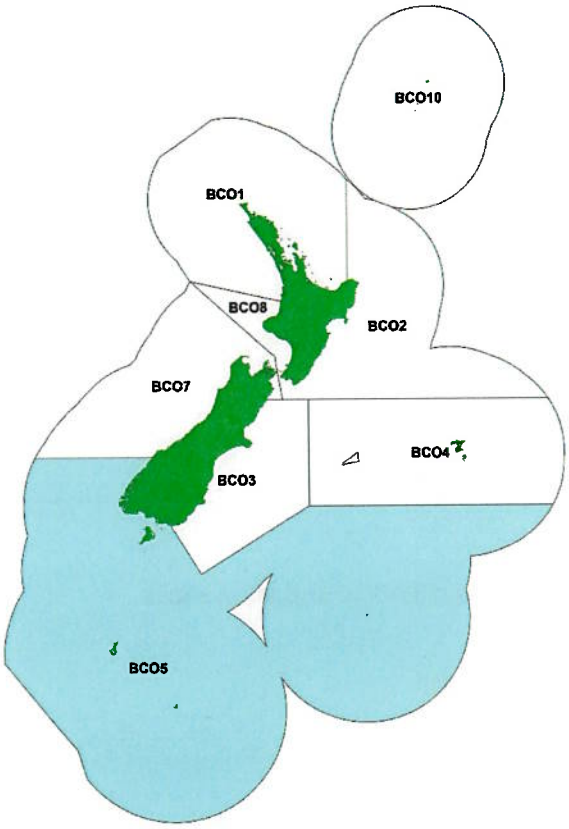

Figure 1: Quota Management Area (QMA) for BCO 5

2 Summary

1. Fisheries New Zealand is proposing to review the sustainability measures for blue cod in Quota Management Area 5 (BCO 5) for the 1 October 2020 fishing year.

2. Blue cod is an iconic species, important to all sectors in southern New Zealand. Management objectives for the fishery are set out in the National Blue Cod Strategy[1], which prioritises research and assessment of BCO 5, New Zealand's largest blue cod fishery.

3. Concerns about the BCO 5 fishery led to the total allowable catch (TAC) being reviewed in 2011 with the total allowable commercial catch (TACC) reduced by 20% and the recreational daily bag limit reduced from 30 to 20. Despite these reductions, continued concerns resulted in voluntary shelving being introduced by quota holders, and the regulated mesh size used on commercial cod pots being increased in 2017. In 2019 consultation also occurred on further measures as part of implementing the National Blue Cod Strategy, including a further reduction to the recreational daily bag limit.

4. A new stock assessment undertaken in 2019 concluded BCO 5 is below the target level of 40% B_0, and that at the current catch (which is lower than the TACC) the stock is likely (>60%) to be overfished. While the stock is very unlikely to currently be below the soft or hard limit, a biomass

[1] https://www.fisheries.govt.nz/protection-and-response/sustainable-fisheries/national-blue-cod-strategy/

projection derived from the stock assessment concluded that at the current catch the biomass would continue to decline.

5. Based on this information, three TAC options are proposed for consultation. Options 2 and 3 are decreases and are thought to be within the range of yield estimates that should move the stock towards the target biomass. Option 1, on its own, is unlikely to achieve this and would rely on other measures implemented as part of the National Blue Cod Strategy for any improvement to BCO 5 stock status.

   Option 1 is to maintain the *status quo* TAC of 1,452 tonnes. This option acknowledges that the biomass is not yet below the soft limit. While it allows for potentially greater utilisation in the short term, scientific projections suggest a continuing decrease in biomass (and lower yields) in the future.

   Option 2 proposes to reduce the TAC to 999 tonnes. Within this TAC, the TACC would be set at 874 tonnes, the allowance for Customary Maori increased to 20 tonnes, the allowance for recreational fishing reduced to 85 tonnes (based on updated catch estimates), and the allowance for other sources of fishing related mortality unchanged at 20 tonnes. Option 2 is based on a projection from the November 2019 BCO 5 stock assessment which estimates that, at 80% of current catch level, there is a 50% chance the fishery would rebuild to be at, or above, target within 5 years (Option 2 represents a proposed catch of 80% of the "current catch"[2].

   Option 3 sets the TAC at 825 tonnes and, within this TAC, sets the TACC at 700 tonnes. Allowances would be the same as Option 2. This is the most cautious option and takes into account there may be changes in fishing patterns that are not captured in the stock assessment that may be masking the declines in abundance (the assessment may be optimistic).

6. Fisheries New Zealand seeks your input and views on the options proposed.

7. In addition to this year's TAC review, BCO 5 quota holders have requested approval of a harvest control rule or 'Rebuild Rule'. Under such a rule, future TACs would change according to agreed steps as BCO 5 biomass increases (or decreases). The rule aims to ensure a more responsive approach to TAC setting to ensure the stock reaches the target biomass. Fisheries New Zealand seeks initial views on the use of this rule in the BCO 5 fishery ahead of further examination and consideration.

3 Quota Management System

8. BCO 5 was put into the quota management system in 1986, with a 1 October to 30 September fishing year. Only a TACC was set at that time, being 1,190 tonnes. Subsequent to a significant number of allocations from the Quota Appeals Authority and section 362 of the Fisheries Act 1996, the TACC reached 1,548.471 tonnes by 2001.

9. In 2011 a TAC of 1,452 tonnes was set and the TACC was reduced by 20% to 1,239 tonnes. At the same time the recreational daily bag limit was reduced from 30 per person to 20 per person.

10. Since 2016/17 commercial fishers have shelved annual catch entitlement (ACE) in the following proportions by year;

FISHING YEAR	Percentage ACE Shelving
2016/17	8.5%
2017/18	7.6%
2018/19	6.7%
2019/20	14%

11. Catch has been below the TACC in recent years, over and above the amount of ACE shelved. Catch in the 2019/20 fishing year was 827 tonnes, 33% below the current TACC.

[2] The current catch, as used in the stock assessment, is the average catch of the three fishing years from 2015/16 to 2017/19 and being 1,092 tonnes. This figure is less than the TACC by 147 tonnes.

12. There are commercial fishing area closures for Paterson Inlet and the internal waters of Fiordland. Commercial fishing is also prohibited within the mātaitai and marine reserves located in the BCO 5 QMA (see Table 1).

4 Legal basis for managing fisheries in New Zealand

13. The Fisheries Act 1996 provides the legal basis for managing fisheries in New Zealand, including the Minister's responsibilities for setting and varying sustainability measures. See the separate document Overview of legislative requirements and other considerations at https://www.fisheries.govt.nz/dmsdocument/40502 for more information.

5 Treaty of Waitangi obligations

5.1 Input and participation of tangata whenua

14. Iwi Fisheries Forums and Forum Fisheries Plans are the main ways to provide for input and participation of tangata whenua. Te Waka a Māui me Ōna Toka Iwi Forum (the forum) is the South Island iwi fisheries forum — it includes all nine tangata whenua Iwi of Te Wai Pounamu.

15. At the 12 November 2019 hui, Fisheries New Zealand sought the forum's input into the BCO 5 review. The forum advised a preference for input through the forum process. Ngai Tahu is the iwi with mana moana over BCO 5, and has stated that they consider this review of BCO 5 to be a high priority.

16. Prior to a proposed March 2020 forum hui on 18 March 2020, Fisheries New Zealand provided forum members with fisheries management material for discussion at the hui, including the proposal in this paper to review the BCO 5 TAC. Information was sought on whether customary limits remained appropriate. Due to travel restrictions the intended hui was cancelled.

17. Given the disruption due to COOVID-19, further input from the forum has been impacted. Any further input provided will be via electronic means and will be included in the final advice and recommendations provided to the Minister. Input provided may result in an alternative option being presented to the Minister for his decision on the management settings for BCO 5.

5.2 Kaitiakitanga

18. Information provided by forums, and iwi views on the management of fisheries resources and fish stocks, as set out in Iwi Fisheries Plans, are the way that tangata whenua exercise kaitiakitanga in respect to fish stocks.

19. Rawaru (blue cod) is identified as a taonga species in the Te Waipounamu Iwi Forum Fisheries Plan. The Forum Fisheries Plan contains objectives to support and provide for the interests of South Island iwi, including the following which are relevant to the options proposed in this paper:

    - **Management objective 1:** To create thriving customary non-commercial fisheries that support the cultural wellbeing of South Island iwi and whanau;

    - **Management objective 3:** To develop environmentally responsible, productive, sustainable and culturally appropriate commercial fisheries that create long-term commercial benefits and economic development opportunities for South Island iwi; and

    - **Management objective 5:** to restore, maintain and enhance the mauri and wairua of fisheries throughout the South Island.

20. Fisheries New Zealand considers that this review contributes to all of these Management objectives.

21. Table 1 lists the customary fisheries areas that fall within BCO 5.

Table 1: Customary fisheries areas within BCO 5

	Management type
Te Waka a Te Wera Mātaitai	Mātaitai Reserve
Pikomamaku Mātaitai	Mātaitai Reserve
Kaikuka Mātaitai	Mātaitai Reserve
Horomamae Mātaitai	Mātaitai Reserve
Waitutu Mātaitai	Mātaitai Reserve
Oreti Mātaitai	Mātaitai Reserve
Motupōhue Mātaitai	Mātaitai Reserve

22. Commercial fishing is not permitted within mātaitai reserves, but recreational and customary fishing is allowed. The proposals in this paper, which aim to generally increase blue cod biomass are likely to also increase the health of blue cod stocks in these customary fisheries areas.

6 Relevant acts, plans, strategies, statements and context

23. Management objectives for the fishery are set out in the National Blue Cod Strategy, which prioritises research and assessment of BCO 5, New Zealand's largest blue cod fishery. The TAC options (particularly Options 2 and 3, proposed in this paper are consistent with these objectives.

24. There are also a number of acts, regional plans in place within FMA 5, including:
    - Those associated with the Fiordland Marine Area, which integrate a number of marine protection and fisheries mechanisms to manage coastal and marine resources.
    - Regional coastal plans to address the cumulative effects of activities in the coastal marine area, and the adverse impacts from land-based activities on the marine environment.

25. The Draft National Inshore Finfish Fisheries Plan (2019) provides guidance on management objectives and strategies for finfish fisheries. The new Draft National Inshore Finfish Fisheries Plan will guide the operational management of inshore finfish fisheries for the next five years. The Plan is aimed at progressing New Zealand towards ecosystem-based fisheries management. The five key focus areas of the Plan are: managing individual stocks, enhancing benefits for customary, commercial and recreational fisheries, enabling integrated multi-stock management, improving local fisheries, and improving environmental performance. Public consultation on the draft plan closed 19 February 2020. Thirty-nine submissions, ranging across a number of themes were received, which Fisheries New Zealand is currently considering.

7 Current state of the stocks

26. The best available information on the BCO 5 stock is the November 2019 stock assessment, updated Plenary Document, updated Catch Per Unit Effort (CPUE) assessments and catch landing returns.

27. Concerns about the BCO 5 fishery started to become evident from the mid 2000s. In 2011 the TAC was reviewed with the TACC reduced by 20% and the recreational daily bag limit reduced from 30 to 20. Despite these reductions, sustainability concerns persisted resulting in voluntary shelving being introduced by quota holders in 2016/17, the regulated mesh size used on commercial cod pots being increased in 2017 and, in 2019, consultation on a further reduction to the recreational daily bag limit along with other measures.

28. In the most recent stock assessment update (Doonan I, 2020), BCO 5 was assessed to be below the default target biomass. The stock status is currently assessed relative to a default target biomass level of 40% B_0, and an associated soft limit of 20% and hard limit of 10%.

29. The 2019 Plenary concluded that the 2019 biomass was estimated to be 36% B_0; and is unlikely (< 40%) to be at or above the Management Target. Overfishing is likely (> 60%) to be occurring with the exploitation rate ($U_{40\%SB}$) now considered to have been above the Overfishing Threshold since 1990. The current catch (average of 2015/16-2017/18) is likely (>60%) to cause over fishing to continue. Note the current catch period does not include the very low landings in the immediate past fishing year. The previous year's catch (2018/19) was 827 tonnes, 413 tonnes below the TACC.

30. This is the second stock assessment for BCO 5, the previous one was carried out in 2013. The 2019 assessment used an age-based Bayesian model. The model was fitted separately to data from Statistical Areas 025, 027 and 030 where 90% of blue cod in the fishery are caught.

8 Recent catch levels and trends

31. BCO 5 commercial catch is almost exclusively taken by the target cod pot fishery operating within Foveaux Strait and around Stewart Island (Statistical Areas 025, 027, 029 and 030). There is also some commercial effort in Fiordland, but to a much lesser extent.

32. Figure 2 below shows that commercial catch in BCO 5 has been declining since 2003/04 when a high of 1,557,437 tonnes was taken. In 2018/19, 827 tonnes was landed. The CPUE for statistical areas 025, 027 and 030 also show a declining trend from the early to middle 2000s. The CPUE for statistical area 025 (which traditionally accounts for 50 to 60% of the fishery) shows a decline. On the other hand, however, randomised potting surveys for statistical area 025, undertaken in 2010, 2014 and 2018, show no clear trend in catch rates over the time series.

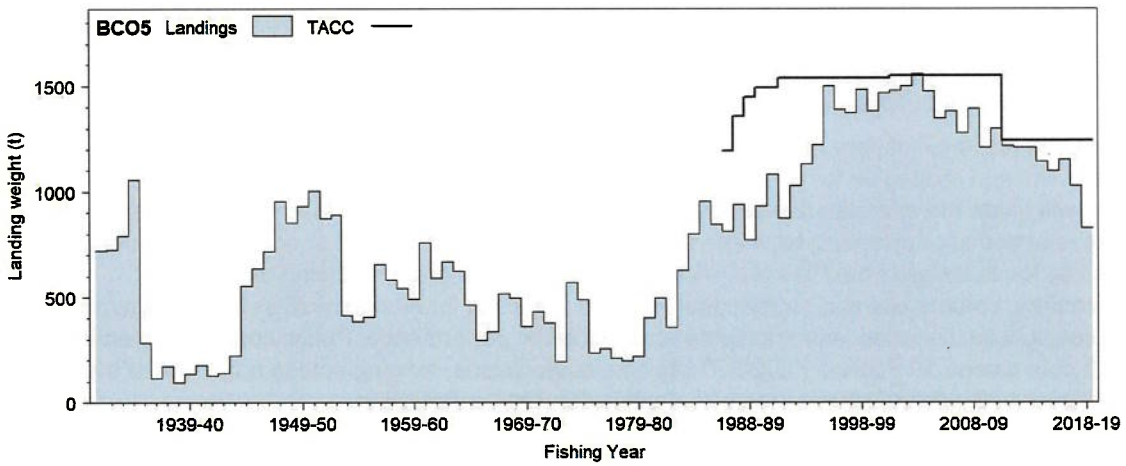

Figure 2: Annual Commercial Landings for BCO 5 (in tonnes)

33. The current allowances for customary fishing were set based on best available information of customary catch, however, the reported customary catch is intermittent and depends on when significant occasions are held in the area. Customary authorisations of up to 14 tonnes are recorded at times of important hākari (feast or celebration).

34. The National Panel Survey of 2017/18 provides the best information on BCO 5 recreational catch. The 2017/18 survey estimates approximately 67 tonnes of recreational catch across BCO 5. This is 33% more than the 2011/12 survey estimate, suggesting that recreational effort could be

increasing. In addition, there is an annual average of 16 tonnes section 111[3] recreational catch (which is consistent over time). An early (2001/02) estimate of recreational catch of 229 tonnes (on which the current recreational allowance is based) used telephone diary methodology, and is now thought to be implausibly high and unreliable.

Table 2: Summary of the National Panel Survey of Marine Recreational Fishers results from BCO 5.

Fish stock	2011/12 Estimated harvest (tonnes)	2017/18 Estimated harvest (tonnes)
BCO 5	44	67

9 Projections of biomass

35. Ten-year stock projections have been conducted for the three Statistical Areas (025, 027, 030) at constant catch levels, with summary statistics calculated at the end of five and 10 years. The projections indicate that under the assumptions of commercial catch at current levels and recruitment at recent levels, the BCO 5 biomass is likely to decline gradually over the next 10 years (Figure 3). This "current catch" projection, is comparable to the *status quo* - Option 1 in this paper.

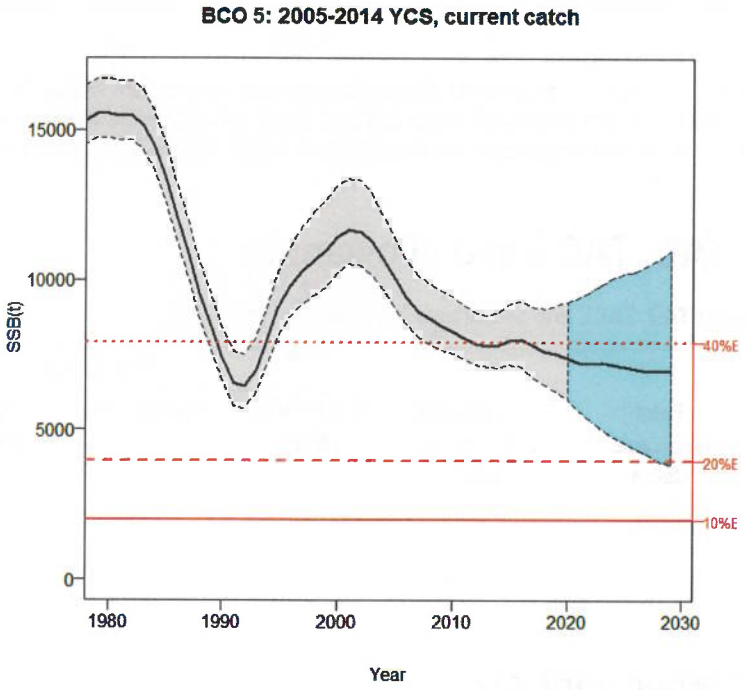

Figure 3: Projected BCO 5 spawning biomass (%B_0) assuming recent recruitment and catch at current levels. Median estimates are shown as solid lines and 95% confidence intervals as shaded polygons. Projections start in 2020. The red lines represent the Management Target 40% B_0, Soft Limit 20% B_0, and Hard Limit 10% B_0.

36. A projection assuming catch at 80% of current levels (selected as the average of the 2015/16, 2016/17 and 2017/18 fishing years, being 1,092 tonnes) showed a 50% chance that the spawning biomass would be at or above the target (40% B_0) within five years (see Figure 4). Eighty percent of the "current catch" is comparable to Option 2 in this paper.

[3] Section 111 of the Fisheries Act 1996 enables commercial fishers to take a recreational catch for their own consumption.

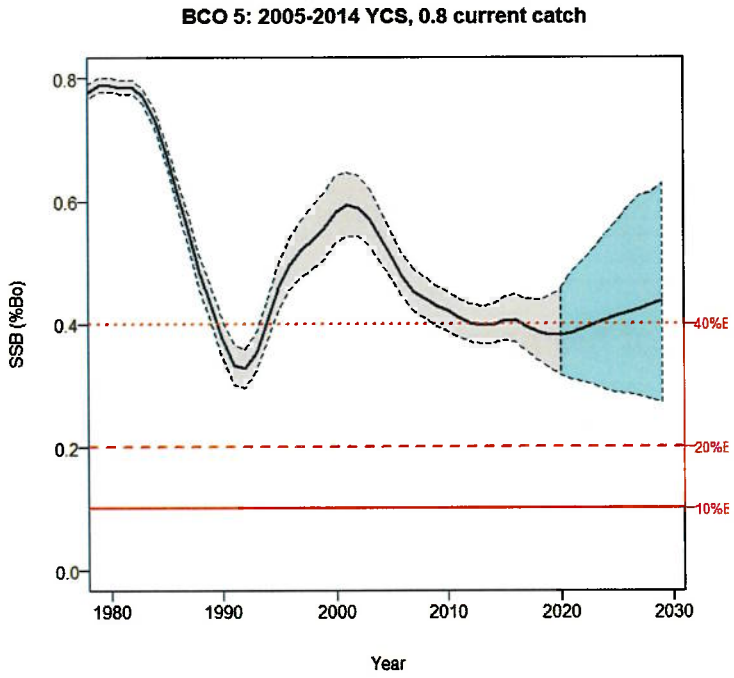

Figure 4: Projected BCO 5 spawning biomass (%B_0) assuming recent recruitment and at 80% of current catch level. Median estimates are shown as solid lines and 95% confidence intervals as shaded polygons. Projections start in 2020. The red lines represent the Management Target 40% B_0, Soft Limit 20% B_0, and Hard Limit 10% B_0.

10 Current TAC, TACC and allowances

Table 3: Current TAC, TACC and allowances (all in tonnes) for BCO 5

			Allowances		
	Total Allowable Catch	Total Allowable Commercial Catch	Customary Maori	Recreational	All other mortality to the stock caused by fishing
BCO 5	1,452	1,239	2	191	20

11 Current other controls

37. Within BCO 5, commercial take or possession of blue cod is specifically prohibited in Paterson Inlet, and the internal waters of the Fiordland Marine Area. Commercial fishing is also prohibited within mātaitai (see Table 1). General spatial restrictions exist where all forms of fishing are prohibited.

38. The minimum inside diameter of the square mesh covering a cod pot which must be larger than 54 mm. The minimum legal commercial size limit for BCO 5 is 33cm.

39. The daily limit for recreational fishers is 20 blue cod per person per day. The minimum recreational size limit is 33 cm. Cod pots used by recreational fishers must also have a minimum inside mesh diameter of 54 mm. In 2011, the daily limit was reduced from 30 to 20 for Southland and the external waters of the Fiordland Marine Area. Preceding these changes, the daily limit in Paterson's Inlet was reduced from 30 to 15 in 1994. In 2005, new commercial and recreational rules were introduced to the internal waters of the Fiordland Marine Area. The area was closed to

commercial fishing and a daily limit of three was set except for Milford and Doubtful Sounds which were closed to blue cod fishing for 10 years. The closure for Doubtful Sound was lifted in 2015 and the new daily limit within the Doubtful Sound complex, including Thompson's Sound and Bradshaw Sound was set at one blue cod.

40. In 2019 consultation occurred on further reductions to the recreational daily bag limit for blue cod along with other measures. Resulting changes to the bag limit and other measures will be announced shortly.

12 Options – varying the TAC and TACCs and allowances

41. Three options are proposed for the TAC, TACC and allowances for each stock. Feedback is sought on these options, or alternatives within this range.

Table 4: Options for varying TAC, TACC and allowances (all in tonnes) for BCO 5

Stock	Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
				Customary Māori	Recreational	All other mortality to the stock caused by fishing
BCO 5	Option 1 *(Status quo)*	1,452	1,239	2	191	20
BCO 5	Option 2	999 ↓ (31%)	874↓ (29%)	20↑ (N/A)	85 ↓ (55%)	20
BCO 5	Option 3	825↓ (43%)	700 ↓ (44%)	20↑ (N/A)	85 ↓ (55%)	20

12.1 Total Allowable Catch

42. Option 1 is the *status quo* TAC of 1,452 tonnes. Option 1 carries the most sustainability risk. The 2019 Plenary concluded that B_{2019} was estimated to be 36% B_0 and is unlikely (< 40%) to be at or above the Management Target, and that overfishing is likely (> 60%) to be occurring. Note the current catch period does not include the very low landings in the immediate past fishing year (see Figure 3). The Plenary notes that the exploitation rate, a proxy for fishing intensity, has been above the target since 1990, and that biomass has been decreasing since about 2000.

43. Option 2 proposes to decrease the TAC from 1,452 tonnes to 999 tonnes (approximately 80% of "current catch", and a 31% reduction to the TAC). Projections from the stock assessment concluded that, after five years, there is a 50% chance the fishery would be at, or above, target (40%B_0) under this option (see Figure 4).

44. Option 3 takes into account the uncertainty of information used to undertake the stock assessment and would reduce the TAC by 43%. This uncertainty includes the impact of the increase in pot mesh size, and changes in fisher behaviour that are not captured in the assessment. These include changes in the number of pots being fished, and changes in areas fished (local versus long-distance). Also, some fishers report they now move pots after each lift instead of re-setting them in the same area. This may have biased recent CPUE, thereby masking declines in abundance.

12.2 Allowances

45. The most reliable estimate of recreational harvest comes from the National Panel Survey of Marine Recreational Fishers 2017/18, which estimated that 67 tonnes were taken across BCO 5 in 2017/18. However, the amount of recreational fishing effort is likely to vary from year to year depending on factors such as weather. The same survey methods were also employed in 2011/12, however the result in that year (an estimate of 44 tonnes taken) was considered

uncertain. After combining the 2017/18 Panel Survey estimate of 67 tonnes and reported section111 landings (around 18 tonnes each year), the total estimated catch is 85 tonnes.

46. This estimate is significantly lower that the recreational allowance set in 2012 of 191 tonnes. Panel Survey estimates were not available at that time for the Minister to take into account. Thus the 2012 allowance was based on a 2001/02 telephone diary estimate of 229 tonnes, scaled down to allow for a reduction in the daily bag limit that was implemented at that time. This survey estimate is now thought to be implausibly high and the methodology is no longer considered reliable for a number of reasons.

47. Based on this information it is proposed to decrease the recreational allowance from 191 tonnes to 85 tonnes under Options 2 and 3. This aligns the allowance with the 2017/18 Panel Survey estimate of 67 tonnes plus recent s111 reported catch.

48. Only two tonnes is currently allowed for customary Māori catch. Data indicates that catch varies significantly, but occasional catch for hākari, associated with manaakitanga for significant events, has considerably exceeded the two tonne allowance. Fisheries New Zealand is proposing the allowance for customary catch be increased to 20 tonnes.

49. Twenty tonnes is also proposed for other sources of fishing related mortality. The Plenary document assumes "discard mortality" for all fish caught but not landed. This is based on fishing practices that do not quickly return undersize fish to the water but wait until the end of the catching process and, predation of returned fish, especially by mollymawks. This suggests a higher estimate may be appropriate, however, the recent increase in mesh size (48mm to 54mm) is expected to have a reduced catches of undersized blue cod. Feedback during consultation is sought to confirm the appropriateness of this allowance.

12.3 Total Allowable Commercial Catch

50. Under Option 1 there would be no change to the TACC.

51. Under Option 2, the TACC would decrease from 1,239 tonnes to 874 tonnes. Based on the reported port price ($5.05/kg), this represents a decrease in revenue of $1.77 million per year. However, Option 2 is about 50 tonne higher than the total landings for last season's catch. A more useful comparison would be against the average landings of the last 5 years. This indicates a reduction in landed value of $0.89 million per year.

52. Under Option 3, the Total Allowable Commercial Catch would decrease from 1,239 tonnes to 700 tonnes. Based on the reported port price, this represents a decrease in revenue of $2.6 million per year (Table 5). However, again, a potentially more appropriate measure would be against the average of the last 5 years landings. This gives a reduction of revenue from landings of $1.77 million per year.

Table 5: Predicted changes to commercial revenue for the proposed options, based on recommended port price of $5.05/kg for BCO 5 in the 2019/20 fishing year.

Option	Change from current TACC (tonnes)	Predicted revenue changes ($p.a.)
Option 1 (*status quo*)	NA	NA
Option 2	365 t↓	$1,770, 000↓
Option 3	539 t↓	$2,600,000↓

Table 6: Predicted changes to commercial revenue against the last five years landings, based on recommended port price of $5.05/kg for BCO 5 in the 2019/20 fishing year.

Option	Change from last five years landings (1,050t)	Predicted revenue changes ($p.a.)
Option 1 (*status quo*)	NA	NA
Option 2	176 t↓	$887,780↓
Option 3	350 t↓	$1,767,500↓

13 Uncertainties and risks

53. **Change of pot mesh dimensions:** From 1 October 2017 the minimum inner mesh size for blue cod pots in BCO 5 was increased from 48mm to 54mm (some of the fleet had begun transitioning their pots from 1 October 2016). This change was shown to reduce the capture portion of undersize blue cod (< 33mm) from 11% to 2% while causing minimal change to the legal catch proportions. The change is expected to promote both productivity and recruitment of the fishery, plus an anticipated recruitment pulse after two years[4]. The implications of the changes associated with the increase in mesh diameter have not been considered in the stock assessment.

54. **Changes in fishing behaviour**: There have been changes in fisher behaviour that are not captured in the assessment; for example, changes in the number of pots being fished, and changes in areas fished (local versus long-distance). It is not known to what degree this behaviour has been adopted, but this practice is not able to be standardised and any change may have biased high recent CPUE, thereby masking declines in abundance.

55. **CPUE:** While long term trends of CPUE in statistical areas fluctuate around the mean, since the 2003/04 fishing year, there is a consistent downward trend. The 2003/04 fishing year was the last year the TACC was taken. The TACC at that time was 1,550 tonnes; last year's catch was 827 tonnes. In the most recent fishing year the CPUE for statistical area 025 has sharply declined.

14 Environmental interactions

56. The use of cod pots means the target fishery has little bycatch and few environmental impacts. The method is highly selective and there is very limited contact with any associated or dependant species. Any decrease in the TAC for BCO 5 would result in a reduction to those few impacts that might occur.

15 Other Matters

15.1 Proposal for a Management Procedure

57. Beyond this year's TAC review, BCO 5 quota holders have requested approval of a harvest control rule or 'Rebuild Rule'. Under this rule, future TACs would change according to agreed steps as BCO 5 biomass increases (or decreases) to ensure it reaches the target biomass.

58. The rule is intended to provide more certainty and a more responsive path to recovery. With the introduction of electronic reporting and position reporting fine scale information is now becoming available, which can be updated automatically every month. The rule would involve an industry sponsored CPUE analysis (as a proxy for biomass) with built in increases (or decreases) according to the results of the analysis.

[4] Review of Blue Cod (BCO 5) pot mesh size. June 2017. MPI Decision Paper 2017/19.

59. The work to date, contracted by industry, was reviewed by the Southern inshore Working Group in May 2020, which concluded that the decision rule, plus modifications, should be tested against agreed performance criteria using the latest stock assessment prior to its adoption.

60. Implementation of such a rule will require the agreement of the Minister of Fisheries. In the interim, Fisheries New Zealand is asking for initial views on this proposal.

16 Deemed values

61. There is no proposal to change any of the BCO 5 deemed value rates.

17 Questions for submitters on options for varying the TAC, TACCs and allowances

- Which option(s) do you support for revising the TAC and allowances? Why?
- Has the way you fish changed because it is harder to catch blue cod? How?
- Are you travelling further to catch blue cod?
- If you do not support any of the options listed, what alternative(s) should be considered? Why?
- Are the allowances for customary fishing appropriate? Why?
- We ask tangata whenua to provide any additional information you may have on customary catch.
- Are the allowances for recreational fishing appropriate? Why?
- Are the allowances for other sources of mortality appropriate? Why?
- What other management controls should be considered for both recreational and commercial fishers? Why?
- Do you support development of a BCO 5 management procedure, as proposed by quota holders? (list benefits and risks)

62. Please provide detailed, verifiable information and rationale to support your views.

18 Referenced reports

Doonan et al. (2020) Stock assessment of blue cod (*Parapercis colias*) in Southland (BCO 5) using data to the 2018-19 fishing year. *New Zealand Fisheries Assessment Report 2020/xx.xx*6 p. (*In Press*)

Draft National Inshore Finfish Fisheries Plan (November 2019) is accessible at https://www.fisheries.govt.nz/dmsdocument/38045-national-inshore-finfish-fisheries-plan-draft

Fisheries (Amateur Fishing) Regulations 2013 is accessible at http://www.legislation.govt.nz/regulation/public/2013/0482/latest/DLM3629901.html?src=qs

Fisheries (Southland and Sub-Antarctic Areas Commercial Fishing) Regulations 1986 is accessible at http://www.legislation.govt.nz/regulation/public/1986/0220/latest/DLM111064.html?src=qs

Fisheries (Commercial Fishing) Regulations 2001 is accessible at http://www.legislation.govt.nz/regulation/public/2001/0253/latest/DLM76407.html?src=qs

Fisheries Assessment Plenary May 2020: https://www.fisheries.govt.nz/news-and-resources/science-and-research/fisheries-research/

Harvest Strategy Standard for New Zealand Fisheries, (2008) is accessible at https://fs.fish.govt.nz/Doc/16543/harveststrategyfinal.pdf.ashx

National Panel Survey of Marine Recreational Fishers 2011/12, (2014) is accessible at https://www.mpi.govt.nz/dmsdocument/4719-far-201467-national-panel-survey-of-marine-recreational-fishers-201112-harvest-estimates

Wynne-Jones, J.; Gray, A.; Heinemann, A.; Hill, L.; Walton, L. (2019). *National Panel Survey of Marine Recreational Fishers 2017-2018. New Zealand Fisheries Assessment Report 2019/24.* 104p. https://www.mpi.govt.nz/dmsdocument/36792-far-201924-national-panel-survey-of-marine-recreational-fishers-201718

Quota Management System information is accessible at https://www.fisheries.govt.nz/law-and-policy/legal-overviews/fisheries/quota-management-system/

19 How to get more information and have your say

63. Fisheries New Zealand invites you to make a submission on the proposals set out in this discussion document. Consultation closes at 5pm on 1 July 2020.

64. Please see the Fisheries New Zealand sustainability consultation webpage (https://www.fisheries.govt.nz/news-and-resources/consultations/review-of-sustainability-measures-for-1-october-2020/) for related information, a helpful submissions template, and information on how to submit your feedback. If you cannot access to the webpage or require hard copies of documents or any other information, please email [redacted].

From: Jonathan Boyd
To: FMSubmissions
Subject: October-2020-Sustainability-Round-Submission-Form (1).docx
Date: Wednesday, 27 May 2020 12:25:02 PM
Attachments: October-2020-Sustainability-Round-Submission-Form_1_.docx

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Sent from Outlook Mobile

Fisheries New Zealand
Tini a Tangaroa

Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to: [redacted]

While we prefer email, you can also post your submission to:

2020 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions must be received no later than 5pm on Wednesday 1 July 2020.

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: Jonathan Boyd	
Organisation (if applicable):	
Email:	[redacted]
Fishstock this submission refers to:	Review of Sustainability Measures for Kingfish (KIN 8) for 2020/21
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	Other

Official Information Act 1982

Note, that your submission is public information. Submissions may be the subject of requests for information under the Official Information Act 1982 (OIA). The OIA specifies that information is to be made available to requesters unless there are sufficient grounds for withholding it, as set out in the OIA. Submitters may wish to indicate grounds for withholding specific information contained in their submission, such as the information is commercially sensitive or they wish personal information to be withheld. Any decision to withhold information requested under the OIA is reviewable by the Ombudsman.

Submission:[1]

Details supporting your views:

[1] Further information can be appended to your submission. If you are sending this submission electronically we accept the following formats – Microsoft Word, Text, PDF and JPG.

As a recreational fisherman I have seen an enormous drop off in the average size of the kingfish around Taranaki over the years your own data shows this to be true.

The mass focus on commercial fishing to send overseas has decimated the South Taranaki Snapper, Blue Cod, kingfish and Kahawai stocks also from where they were when I was young. There use to be vast boil-ups all over the coast now they are very small and few and far between.

This section of coast is protected by the weather from small boats much of the year, the large commercial vessels rape and pillage the area year round.

This all coincided with the commercial fishing increasing in the area, when we pillage a local source of food for the profit of a few it is not like the quotas are even open to the local fishermen that have all but gone out of business now, it is the domain of big business that has shown many times they do not care about the local people. I have been fishing not more the 300 meters from shore and seen commercial boats inside of us targeting the spotty sharks.

The South Taranaki bite is a very unique place, it deserves protection from the rape and pillage for profit by large business. Please back off and let the place regenerate to what it used to be. I propose a total commercial ban on commercial fishing on the South Taranaki Bite. Protect the Maui Dolphin that visit the area, the food for the blue whales it generates and the people it supports.

Please continue on a separate sheet if required.

From:	Greg Fisher
To:	FMSubmissions
Subject:	My submission
Date:	Wednesday, 27 May 2020 7:55:45 PM

I live near the _____ Millions of dollars are spent by recreational fishers chasing fish in the gulf. We need to get commercial fishing well away from the gulf and right out to the depths recreational fishers dont target. Cray fish are virtually extinct and that doesnt stop the cray potters dropping hundreds of pots in every noock and cranny. I think because there are hundreds more recreational fishers that the bag limit should not increase. 7 snapper is enough and crayfish should be lowered to 3 per person and 3 for boat man. We dont need commercial fishing targeting inshore fish for export. The money is made with fishing tourism. It pains me to see the destruction caused largely by the commercial sector.

Regards

Greg

From: [redacted]
To: FMSubmissions
Cc: [redacted]
Subject: Bluenose Deemed values for Rekohu/Chatham Islands
Date: Friday, 29 May 2020 7:38:47 AM
Attachments: Deemed-Values-Final-October-2020-consultation-document.pdf

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TO: Fisheries New Zealand, MPI

Deemed values for Bluenose Fishery, Chatham Islands

-

This is a formal submission from Hokotehi Moriori Trust, Hokotehi Settlement Quota Holding Company Limited and Kopi Holdings Limited to support the proposed special deemed value 9$1.40/kg) for Bluenose caught and landed on the Chatham Islands.

We regard this as an important interim measure pending the establishment of a special FMA4 for the Chathams for Bluenose.

It is a source of ongoing angst and dismay that the Chatham Islands were not granted its own Bluenose fishery area when most of that species is caught within our Rohe Moana (200nm zone) and that it is a value species for our Island fishing industry. Ninety nine % of the bluenose quota within our waters is owned by mainland based NZ companies. This is wrong and unjust and the government needs to fix this.

Thank you for your consideration.

Me rongo,

Maui Solomon
Executive Chairman
[redacted]

Fisheries New Zealand
Tini a Tangaroa

Review of Deemed Value Rates for Selected Stocks for 2020/21

Fisheries New Zealand Discussion Paper No: 2020/21

ISBN No: 978-1-99-002527-3 (online)
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May 2020

New Zealand Government

Disclaimer

While every effort has been made to ensure the information in this publication is accurate, Fisheries New Zealand does not accept any responsibility or liability for error of fact, omission, interpretation or opinion that may be present, nor for the consequences of any decisions based on this information.

Contents

1 Executive Summary

1. Deemed values are the charges that commercial fishers must pay for every unprocessed kilogram of QMS fish landed in excess of their ACE holdings ($/kg). Deemed values rates are set by the Minister, by Gazette Notice, under section 75 of the Fisheries Act 1996 (the Act). By providing incentives for commercial catch to not exceed the available ACE, deemed values are a key component of the catch balancing regime.
2. As commercial catches of many fish stocks can be hard to accurately predict, the deemed values regime must be sufficiently flexible to provide fishers with a mechanism to deal with unintended and accidental catch in excess of ACE, whilst providing incentives and constraint to limit over-catch.
3. Deemed value rates are grouped into three types:
   - **Interim rates**: the rate charged during the year, which is remitted if ACE is obtained;
   - **Annual rates:** the base rate charged at the end of the fishing year for catch in excess of ACE; and
   - **Differential rates**: increased annual rates for higher levels of excess catch (also known as ramping).
4. The setting of deemed value rates and differential schedules is guided by the Deemed Value Guidelines.[1] However, in consideration of the particular circumstances relevant to each stock, the Minister has discretion on where to set the interim and annual rates, and what differential schedule to apply.
5. Eleven stocks have been identified for deemed value rate review for the fishing year starting 1 October 2020 (Table 1).
6. Fisheries New Zealand seeks the views of tangata whenua and stakeholders on the proposed deemed value rate adjustments.

Table 1: Current and proposed deemed value rates ($/kg) for selected stocks from 1 October 2020.

		Current				Proposed			
Species	Stock	Interim $/kg[2]	Annual $/kg	Annual at maximum excess $/kg	Differential	Interim $/kg	Annual $/kg	Annual at maximum excess $/kg	Differential[3]
Arrow squid	SQU 1J SQU 1T SQU 6T	0.79	0.88	1.76	Standard	1.08	1.20	2.40	Special
Bluenose	BNS 3	3.60	4.00	10.00	Special	2.70	3.00	7.50	Special
	BNS 3[4]	1.26	1.40	11.00	Special	1.26	1.40	2.80	Special
Gemfish	SKI 1	1.35	1.50	3.00	Standard	1.80	2.00	4.00	Standard
	SKI 2			5.40	Special	1.35	1.50	3.00	Standard
	SKI 7	0.65	0.72	1.44	Standard	0.65	0.72	1.44	Special
Pilchard	PIL 7 PIL 8	0.41	0.45	0.45	Not applied	0.18	0.20	0.20	Not applied
Redbait	RBT 3	0.45	0.50	1.00	Standard	0.45	0.50	0.70	Special
Trevally	TRE 2	1.13	1.25	5.00	Special	1.13	1.25	2.50	Standard

[1] https://www.mpi.govt.nz/dmsdocument/40250-deemed-value-guidelines

[2] Decisions to increase the interim deemed value rates of 362 October stocks to 90% of the annual rate were made as part of the April 2020 Sustainability round. These decisions will not be given effect until 1 October 2020. However, decisions made as part of the October 2020 Sustainability round would supersede these changes https://www.fisheries.govt.nz/news-and-resources/consultations/review-of-sustainability-measures-for-1-april-2020/

[3] Where there is already a special differential set, the change to the special in this column is due to the annual rate change and not to the differential percentages applied.

[4] Different deemed value rates applicable to fish landed to a licenced fish receiver located on the Chatham Islands.

2 Deemed values regime

2.1 Deemed value framework

7. The Quota Management System (QMS) is the backbone of the New Zealand fisheries management regime, and includes a total of 642 fish stocks representing 98 species or species groups. Balancing catch against catching rights is known as the catch balancing regime and is key to ensuring the integrity of the QMS.

8. On the first day of the fishing year all quota owners are provided with annual catch entitlement (ACE), based on their quota share and the current total allowable commercial catch (TACC). Under the catch balancing regime, fishers are required to balance their catch with ACE or pay a deemed value on all catch in excess of ACE.

9. Deemed values are charges that commercial fishers must pay for every unprocessed kilogram of QMS fish landed in excess of their ACE holdings ($/kg).

10. The purpose of the deemed values regime is to provide incentives for individual fishers to acquire or maintain sufficient ACE to cover catch taken over the course of the year while allowing flexibility in the timing of balancing, promoting efficiency and encouraging accurate catch reporting. By achieving this purpose, deemed values act to protect the long term value of stocks and support kaitiakitanga by providing incentives for the overall commercial catch for each QMS stock to remain within the total available ACE.

11. However, the effectiveness of the incentives provided by the deemed values regime are dependent upon individual fishers compliance with landing and reporting requirements, their responses to the incentives provided and of the impact on other incentives (e.g. those created by market conditions).

2.2 Legal basis

12. The Fisheries Act 1996 provides the legal basis for managing fisheries in New Zealand, including the Minister's responsibilities for setting and varying sustainability measures. See the separate document *Overview of legislative requirements and other considerations* at https://www.fisheries.govt.nz/dmsdocument/40502 for more information.[5]

13. Section 75(1) of the Act requires the Minister to set deemed value rates for all stocks managed under the QMS. Section 75(2)(a) requires the Minister, when setting deemed value rates, to take into account the need to provide an incentive for every commercial fisher to acquire or maintain ACE that is not less than the fisher's total catch of each stock taken.

14. Section 75(2)(b) allows the Minister, when setting deemed value rates, to have regard to:
    - the desirability of commercial fishers to land catch for which they do not have ACE;
    - the market value of ACE;
    - the market value of the stock;
    - the economic benefits obtained by the most efficient fisher, licensed fish receiver, retailer or any other person from the taking, processing or sale of the fish or associated with the fish;
    - the extent to which the catch of that stock has exceeded or is likely to exceed the TACC for the stock in any year; and
    - any other matters that the Minister considers relevant.

2.3 Types of deemed value rate

15. The deemed values regime does not create a standard deemed value rate, but a set of rates that apply under different circumstances:

[5] https://www.fisheries.govt.nz/news-and-resources/consultations/review-of-sustainability-measures-for-1-october-2020/

- **Interim deemed value rates** are charged each month for every kilogram of unprocessed fish landed in excess of ACE. If the fisher subsequently sources ACE to cover his or her catch, the interim deemed value payments are remitted. Operational policy requires that interim deemed value rates should be set at 90% of the annual rate.
- **Annual deemed value rates** are charged at the end of the fishing year on all catch in excess of ACE. If the fisher has not sourced ACE by the end of the fishing year, the difference between the interim and annual deemed value rates is charged for all catch in excess of ACE.
- **Differential deemed value rates** are the progressively increased deemed value rates that apply to some stocks as the percentage by which a fisher's catch in excess of ACE also increases. The standard approach is to increase the annual rate in 20% increments, up to a maximum of 200% of the annual deemed value, however more or less stringent schedules may be applied depending on the specific circumstances of the stock.[6] Differential rates provide fishers with a stronger incentive to remain within their ACE and reflect the increasingly detrimental impact of higher levels of over-catch on sustainability and the long-term value of the resource.

2.4 Review of the deemed values regime

16. A multi-stakeholder review of the operation of the deemed values regime was conducted during 2019.
17. The outcome of the review was a series of recommendations on how the operation of the deemed values regime could be improved. These recommendations were subsequently accepted by Fisheries New Zealand and have been used to develop options for deemed value rate review within this paper.
18. The final report of the deemed values review is available online.[7]

2.5 Deemed Value Guidelines

19. The Deemed Value Guidelines (2020) are the operational policy statement used to guide the development of advice on the setting of deemed value rates. The 2020 iteration of the Guidelines were developed as part of the deemed values review and supersede the previous (2012) version.
20. In summary, the Guidelines provide six statements used to inform the setting of deemed value rates:
    1. Deemed value rates should incentivise fishers to balance catch against ACE
    2. Deemed value rates should incentive accurate catch reporting;
    3. Differential deemed values may be set;
    4. Other relevant matters may be considered when setting deemed value rates;
    5. The interim deemed value rates of all stocks should be set at 90% of the annual rate; and
    6. The deemed value rates for Chatham Island landings may be lower.
21. The Guidelines are not intended to be overly prescriptive and should provide for flexibility in the deemed value settings of individual stocks so as to meet the sustainability and utilisation objectives of the Act. As such, the deemed value rates of some stocks may depart from the Guidelines, if appropriate.

3 Identifying stocks for deemed value rate review

22. Stocks for deemed value rate review were identified through the Catch Balancing Review Process (Appendix 1).

[6] For vulnerable or rebuilding stocks, or those taken with a high degree of selectivity, a more stringent differential schedule may be appropriate. Likewise, less stringent differential schedules may be more appropriate for low value, low TACC stocks where targeted fishing does not occur.

[7] https://www.mpi.govt.nz/dmsdocument/40253-deemed-values-working-group-final-report

23. The purpose of the Catch Balancing Review Process is to identify those stocks where catch balancing issues are of concern and provide options for management responses based upon the potential causes of the over catch/economic changes in the fishery and stock specific considerations. The Catch Balancing Review Process was developed during the 2019 review of the deemed values regime.

24. The Commercial Catch Balancing Forum, comprising industry representatives, Te Ohu Kaimoana and Fisheries New Zealand officials will meet annually as part of the Review Process. The purpose of the Forum is to discuss stocks where catch balancing issues are of concern and provide information and input into decision making on what the appropriate management response may be.

25. The stocks prioritised for deemed value rate review as part of the October 2020 sustainability round, and accompanying rationale, are provided in Table 2.

Table 2: Rationale for stocks prioritised for review

Species	Stock	Rationale for review
Arrow squid	SQU 1J SQU 1T SQU 6T	- Landed price of squid has increased during recent years.
Bluenose	BNS 3	- Deemed value rates for BNS 3 currently set at the same level as the adjacent BNS 2 stock. - Economic and fishery characteristics of both stocks differ, therefore identical deemed value rates may no longer be appropriate as current reporting requirements have mitigated the risk of area misreporting.
Gemfish	SKI 1	- Current deemed value rates not providing sufficient incentive for fishers to avoid catching in excess of SKI 1 ACE.
	SKI 2	- Current stringent differential schedule not appropriate for a stock taken primarily as bycatch.
	SKI 7	- Decision to increase SKI 7 TACC from 1 Oct 2019 not given effect due to court injunction regarding '28N' rights. - Differential deemed value rate adjustment proposed to reduce the financial costs incurred by fishers as a result of ongoing court proceedings.
Pilchard	PIL 7 PIL 8	- Deemed value rates set above landed price.
Redbait	RBT 3	- Current deemed value rates not providing sufficient incentive for fishers to remain within available ACE.
Trevally	TRE 2	- Current stringent differential schedule not appropriate for a stock taken primarily as bycatch.

26. The current review of the management settings of kingfish (KIN 2, 3, 7 & 8) and snapper (SNA 7) also provides the opportunity for a review of the deemed value rates applicable to these stocks. However, Fisheries New Zealand does not initially propose any changes to the deemed value rates of KIN 2, 3, 7 & 8 or SNA 7. For more information please see the appropriate consultation papers available on the Fisheries New Zealand sustainability consultation webpage.

4 Input and participation of tangata whenua

27. Input and participation into the sustainability decision-making process is provided through Iwi Fisheries Forums, which have been established for that purpose. Each Iwi Fisheries Forum has developed an Iwi Fisheries Forum Plan that describes how the iwi in the Forum exercise kaitiakitanga over the fisheries of importance to them, and their objectives for the management of these fisheries. Particular regard will be given to kaitiakitanga when making sustainability decisions.

28. Iwi Fisheries Forums may also be used as entities to consult iwi with an interest in fisheries.

29. Due to COVID-19 travel restrictions, input and participation from Iwi Fisheries Forums was sought through remote mechanisms. In late April 2020, a two-page document with information on the proposal to review the deemed value rates of these eleven stocks was provided to Iwi Fisheries Forums, and input sought.

30. Mai i nga Kuri a Wharei ki Tihirau Iwi Forum (Bay of Plenty) expressed concern regarding the deemed value framework and commented that the current regime incentivised the discarding of unwanted fish that could otherwise be distributed (e.g. distributed through marae).

31. Te Tai Hauauru Iwi Forum (Taranaki and Manuwatu) supported the proposed deemed value changes for all stocks.

32. Given the disruption to services, not all Input and Participation from the Iwi Fisheries Forums has been received. Any further input will be included in the final advice and recommendations provided to the Minister.

33. Representatives of Te Ohu Kaimoana attended the Commercial Catch Balancing Forum meeting held in November 2019. At this meeting, the proposed management approaches for BNS 3, SKI (all stocks), RBT 3 and TRE 2 were considered, and opportunity was provided for the discussion of the deemed value rates of other stocks.

5 Proposed Options

34. Table 3 sets out the key information that informed the development of proposals for the prioritised stocks. Relevant fishery information is also discussed alongside the options presented below.

Table 3: Information to support review of deemed value rates for stocks that meet the criteria

Stock	2018/19 TACC (t)	% caught 2018/19[8]	ACE $/kg[9]	Interim DV $/kg	Annual DV $/kg	2019/20 Port Price $/kg
SQU 1J	5,000	<1%	-[10]	0.79	0.88	1.14
SQU 1T	44,741	69%	0.07	0.79	0.88	1.22
SQU 6T	32,369	26%	0.09	0.79	0.88	1.24
BNS 3	93	112%	0.84	3.60	4.00	3.13
SKI 1	210	168%	1.08	1.35	1.50	1.98
SKI 2	240	135%	1.03	1.35	1.50	2.10
SKI 7	300	312%	0.49	0.65	0.72	1.37
PIL 7	150	52%	0.12	0.41	0.45	0.83
PIL 8	65	97%[11]	0.12	0.41	0.45	0.83
RBT 3	2,190	111%	0.20	0.45	0.50	0.10
TRE 2	241	110%	0.78	1.13	1.25	1.99

[8] 2018/19 landings against available ACE, as opposed to the TACC.

[9] Average price paid per kg of ACE transferred (exc. GST) during the 2018/19 fishing year (as reported by FishServe). Excludes transfers considered unrepresentative of true ACE price.

[10] Unavailable due to lack of activity within the SQU 1J ACE market.

[11] Available PIL 8 ACE for the 2019/20 fishing year was 167% caught as of April 2020.

5.1 Arrow squid/wheketere (SQU 1J, 1T & 6T) - Nationwide

Fishery information

35. Excluding the Kermadec Islands, arrow squid (*Nototodarus gouldi; N. sloanii*) in New Zealand are managed as three fisheries based on a combination of fishing method and geographical area:
    - **SQU 1J**: All squid taken using the method of jigging[12] around New Zealand, excluding the Auckland and Campbell islands;
    - **SQU 1T**: All squid taken using methods other than jigging around New Zealand, excluding the Auckland and Campbell islands; and
    - **SQU 6T**: All squid taken from the Auckland and Campbell Islands regardless of fishing method (also known as the southern squid fishery).
36. Historically, large amounts of squid were taken using the method of jigging, principally by foreign charter vessels. Such vessels have not been active in New Zealand during recent years and consequently the amount of squid balanced with SQU 1J ACE has been negligible (<1 tonne).
37. Almost all squid in SQU 1T are taken through targeted fishing by large (>40 m) trawl vessels, primarily along the Stewart/Snares shelf. All squid in SQU 6T are targeted by large trawl vessels around the Auckland Islands.
38. Squid biomass is highly variable between years due to the biological characteristics of the species (squid are fast growing, live for 12-18 months and die following spawning). Due to the variation in abundance, catches of squid for SQU 1T & 6T also show high inter-annual variability.
39. To reflect the variability in squid availability, all squid stocks are listed on schedule 3 of the Act which allows for in-season increases to the TAC (and TACC). Both SQU 1T & 6T have high TACCs (44,741 t and 32,369 t respectively). As landings of SQU 1T or 6T have not approached the TACC in recent years, in-season increases have not been required. However, this provision has been used in SQU 1T historically (most recently in 2005/06)
40. Landings of squid have generally remained within the available ACE for the respective stocks. However, available SQU 1T ACE was occasionally over caught by small proportions (<2%) during the mid-2000s.

Deemed value rates

41. The landed price of squid has increased during recent years, with the port prices of SQU 1T & 6T increasing from less than $0.80/kg in 2008/09 to greater than $1.20/kg in 2019/20. The deemed value rates of squid stocks have remained unchanged since 2001.
42. To reflect the increase in the landed price of squid, Fisheries New Zealand proposes adjusting the deemed value rates of SQU 1J, 1T & 6T as shown in Table 4.

Table 4: Current and proposed deemed value rates ($/kg) for SQU 1J, 1T & 6T.

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)				
				120-140%	140-160%	160-180%	180-200%	>200%
SQU 1J, 1T & 6T	Current	0.79	0.88	1.06	1.23	1.41	1.58	1.76
	Proposed	1.08	Annual 100-105%		105-130%		>130%	
			1.20		1.60		2.40	

43. The proposed change would both increase the annual deemed vale rate of squid stocks, and introduce a more stringent differential schedule (with the rate at each step on the differential schedule increasing in proportion with the change to the annual rate).
44. A more stringent differential schedule is considered appropriate as all stocks have relatively high TACCs and fishers have a high degree of control over their level of catches (as almost all squid are taken through targeted fishing). Therefore, catches in excess of the available ACE are unlikely to occur by chance.

[12] Any fishing method for taking squid by means of a line rather than a net.

5.2 Bluenose/matiri (BNS 3) – South & East Coasts of the South Island, Chatham Rise and sub-Antarctic

Fishery information

45. Bluenose (*Hyperoglyphe Antarctica*) in BNS 3 is primarily taken as bycatch in the alfonsino trawl fishery or by longline vessels targeting ling or hapuka/bass, although small amounts are taken through targeted longline fishing (approx. 10% of landings).

46. Since 2007/08 the TACC of BNS 3 has been progressively reduced from 925 tonnes to 93 tonnes due to concerns regarding the status of the stock.[13] Over the last decade, catches of bluenose have regularly exceeded the available ACE, however catches during 2018/19 were at the lowest level since 1989/90.

Deemed value rates

47. To reduce the risk of area misreporting, the deemed value rates of BNS 3 are currently set at the same level as that of the adjacent bluenose stock (BNS 2).

48. However, the economic and fishery characteristics of both stocks are noticeably different. For example, approximately 70% of bluenose in BNS 2 are taken through targeted longline fishing, with a higher proportion of fish taken in BNS 3 landed as lower value frozen product. Such differences in economic and fishery characteristics are reflected in consistent differences in the landed price between the stocks (Table 5).

Table 5: Comparison of the port price index of BNS 2 and BNS 3 between the 2015/16 and 2019/20 fishing years.

Stock	Port price ($/kg)					
	2015/16	2016/17	2017/18	2018/19	201919/20	Five year average
BNS 2	5.40	6.49	5.11	6.05	5.41	5.62
BNS 3	3.24	6.23	4.65	3.97	3.13	4.24
Difference	2.16	0.26	0.46	2.08	2.28	1.45

49. As all commercial fishing vessels are currently required to report all catch and position data electronically, the risk of area misreporting is considered to be significantly lower than when fishers reported using paper forms. Therefore, it may no longer be appropriate to set identical deemed value rates for BNS 2 and BNS 3.

50. As such, Fisheries New Zealand proposes to reduce the deemed value rate of BNS 3, as shown in Table 6.

Table 6: Current and proposed deemed value rates ($/kg) for BNS 3

Stock	Option	Interim deemed value rate	Annual 100-110%	Differential rates ($/kg) for excess catch (% of ACE)					
				110-120%	120-130%	130-140%	140-150%	150-160%	>160%
BNS 3	Current	3.60	4.00	5.00	6.00	7.00	8.00	9.00	10.00
	Proposed	2.70	3.00	3.75	4.50	5.25	6.00	6.75	7.50

51. The proposed change would reduce the annual rate and, the rate at each step on the differential schedule, by one third to reflect the approximate difference in the five year average port prices between the stocks. However, the proposed change would retain a stringent differential schedule so as to provide a strong incentive for fishers to not exceed their ACE given the importance of constraining BNS 3 catch to the available ACE under the rebuild plan.

Chatham Island deemed value rates

52. Bluenose from BNS 3 landed to a licenced fish receiver located on the Chatham Islands are subject to lower deemed value rates than BNS 3 landed elsewhere. This is because the price

[13] B_{2016} was estimated to be at 17-27% B_0 and was considered '*Unlikely*' to be at or above the management target (40% B_0).

received for fish landed in the Chatham Islands is generally lower than the price for the same species landed since there is a higher cost of transporting fish to markets.

53. The annual deemed value rate of BNS 3 applicable to fish landed to the Chatham Islands is currently set at 35% of the annual deemed value rate applicable to BNS 3 landed elsewhere. Other species that share similar characteristics to BNS 3 to which different Chatham Island deemed value rates apply generally have the Chatham Islands annual deemed value rate set closer to the nationwide annual deemed value rate (Table 7).

Table 7: Comparison of the annual deemed value rate for fish landed to the Chatham Islands compared to those landed elsewhere. Stocks shown are those that show similar characteristics to BNS 3 (e.g. frequently taken on longlines, likely to be taken by non-Chatham Island based vessels capable of landing to the Chatham Islands, similar value)

Stock	Annual deemed value rate ($/kg)		Ratio
	Chatham Islands	Elsewhere	
BNS 3 (current)	1.40	4.00	35%
BYX 3	1.10	2.20	50%
SCH 4	0.80	1.05	76%
HPB 4	1.31	1.80	72%
TRU 4	1.44	1.50	96%
BNS 3 (proposed)	1.40	3.00	47%

54. Given the above, Fisheries New Zealand does not propose reducing the annual deemed value rate of BNS 3 landed to the Chatham Islands at this time as doing so may create an incentive for non-Chatham Island based fishers to preferentially land BNS 3 to the Chatham Islands so as to avoid the higher deemed value rate that would otherwise apply.

55. In accordance with the proposed changes to BNS 3 landed elsewhere, Fisheries New Zealand proposes that the rate at each step on the differential schedule be reduced so that the rate at maximum excess is at 200% of the annual rate (Table 8).

Table 8: Current and proposed deemed value rates ($/kg) for BNS 3 landed to licenced fish receivers located on the Chatham Islands.

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)					
				120-130%	130-140%	140-150%	150-160%	160-220%	>220%
BNS 3	Current	1.26	1.40	4.00	6.00	7.00	8.00	9.00	10.00
	Proposed	1.26	Annual 100-120%	120-130%	130-140%	140-150%	150-160%	>160%	
			1.40	1.68	1.96	2.24	2.52	2.80	

5.3 Gemfish/maka-tikati (SKI 1) – Northern North Island

Fishery information

56. Prior to 2014/15, the majority of gemfish (*Rexea solandri*) in SKI 1 were taken as part of a target trawl fishery, however in recent years almost all gemfish have been taken as bycatch by trawlers targeting species such as hoki or tarakihi.

57. Landings of gemfish in SKI 1 have increased during recent years and have exceeded the available ACE, by progressively increasing margins, since 2016/17. Minimal gemfish targeting has occurred during this time with the increase in landings driven by increased catches from the western Bay of Plenty hoki fishery.

58. When targeting hoki in the eastern Bay of Plenty, gemfish regularly comprises a substantial (>30%) proportion of the total catch, particularly over the winter months. The amount of effort targeting hoki in the eastern Bay of Plenty during the winter months has increased over recent years, despite the increased catches of SKI 1 (and consequent deemed value invoices).

Deemed value rates

59. The deemed value rates of SKI 1 have remained unchanged since 2008. During this time, the landed price received by fishers has increased.

60. Given that the current deemed value rates have not constrained fishers from operating in fisheries with high levels of gemfish bycatch, Fisheries New Zealand proposes to increase the annual deemed value rate to reflect the increase in landed price (Table 9).

Table 9: Current and proposed deemed value rates ($/kg) for SKI 1

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)				
				120-140%	140-160%	160-180%	180-200%	>200%
SKI 1	Current	1.35	1.50	1.80	2.10	2.40	2.70	3.00
	Proposed	1.80	2.00	2.40	2.80	3.20	3.60	4.00

61. The proposed change would increase the annual deemed value rate by $0.50/kg to reflect the change in the port price index between 2007/08 (when the deemed value rates of SKI 1 were last reviewed) and 2019/20.[14]

62. No changes are proposed to the differential schedule of SKI 1, however the rate at each step on the schedule would change in proportion to the change in the annual rate.

5.4 Gemfish/maka-tikati (SKI 2) – East Coast North Island

Fishery information

63. Gemfish in SKI 2 are both targeted, and taken as bycatch in various inshore and middle-depth fisheries

64. Landings of SKI 2 have progressively increased over the last five years and exceeded the available ACE during 2017/18 and 2018/19. The increase in landings has been driven by increased catches from the tarakihi trawl fishery, with a decrease in gemfish targeting during this time.

65. When targeting tarakihi, gemfish are taken as bycatch during all months of the year, with gemfish typically comprising a relatively low proportion of the catch.[15] However, catches can sporadically occur in large quantities with 30% of the gemfish catch from tarakihi target over the last three years taken during 30 fishing events (0.3% of total tarakihi effort during this time).

Deemed value rates

66. A stringent differential schedule is currently applied to SKI 2, with the rate at maximum excess (set at 360% of the annual rate) incurred when catches exceed 180% of an operators ACE holdings.

67. As gemfish in SKI 2 is mostly taken as bycatch, has a relatively low TACC (240 tonnes) and is not considered to be of sustainability concern, a stringent differential schedule may not be appropriate for this stock. Therefore, Fisheries New Zealand proposes to adjust the differential schedule of SKI 2 to that shown in Table 10.

[14] The port price of SKI 1 in 2007/08 was $1.54/kg, compared with $1.98/kg for 2019/20.

[15] On average, gemfish comprised 2% of the total catch when targeting tarakihi off the east coast of the North Island between 2016/17 and 2018/19.

Table 10: Current and proposed deemed value rates ($/kg) for SKI 2

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)			
				120-140%	140-160%	160-180%	>180%
SKI 2	Current	1.35	1.50	3.60	4.20	4.80	5.40
	Proposed	1.35	Annual 100-120%	120-140%	140-160%	160-180%	180-200%	>200%
			1.50	1.80	2.10	2.40	2.70	3.00

68. The proposed change would adjust the differential rates to the standard schedule applicable to most stocks, with the rate at maximum excess set at 200% of the annual rate. No changes are proposed to the annual deemed value rate of SKI 2.

5.5 Gemfish/maka-tikati (SKI 7) – West Coast South Island

Fishery information

69. Gemfish in SKI 7 are principally taken as bycatch in the West Coast South Island hoki fishery, although smaller quantities are taken in a small target fishery, or by inshore vessels targeting species such as tarakihi.

70. The biomass of gemfish in SKI 7 has increased considerably over recent years. The increase in abundance has resulted in increased catches, particularly in the hoki fishery landings. This has led to landings exceeding the available ACE by progressively increasing margins over the last three years (the stock was 312% caught during 2018/19). Such levels of over catch have resulted in significant deemed value obligations for fishers, with invoices for the most recent fishing year exceeding $800k.

71. To reflect the increase in abundance, the Minister decided to increase the TACC of SKI 7 from 300 tonnes to 599 tonnes as part of the Oct 2019 sustainability round. However, due to the association of preferential allocation ('28N') rights with this stock, the Minister's decision was subject to court proceedings and frozen by court order. As this issue has yet to be resolved, the TACC of SKI 7 remains at 300 tonnes.

72. Therefore, SKI 7 is unique in that there are known to be no sustainability risks associated with catching in excess of the available ACE (providing that total catches do not exceed 599 tonnes).

Deemed value rates

73. Given the lack of a sustainability risk associated with catching in excess of the TACC, Fisheries New Zealand proposes to adjust the deemed value rates of SKI 7 as shown in Table 11.

Table 11: Current and proposed deemed value rates ($/kg) for SKI 7

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)				
				120-140%	140-160%	160-180%	180-200%	>200%
SKI 7	Current	0.65	0.72	0.86	1.01	1.15	1.30	1.44
	Proposed	0.65	Annual 100-220%	220-240%	240-260%	260-280%	280-300%	>300%
			0.72	0.86	1.01	1.15	1.30	1.44

74. The proposed adjustment would retain the annual rate, and the rate at each step on the differential schedule. However, differential rates would not be incurred until a fisher exceeded their ACE holdings by 200%.

75. This adjustment would result in fishers not incurring increased deemed value invoices until they exceeded their ACE holdings by 200% (i.e. what a fishers ACE holdings would likely have been had the Ministers decision to increase the SKI 7 TACC been given effect). Therefore, the proposed adjustment would have the effect of reducing the financial costs incurred by fishers as a result of ongoing court proceedings.

76. Should the legal issues regarding '28N' rights be resolved, and the Ministers decision be given effect, Fisheries New Zealand will give consideration to reviewing the deemed value rates of SKI 7 and reinstating the standard differential schedule.

5.6 Pilchard/mohimohi (PIL 7 & 8) – West Coast of the North and South Island

Fishery information

77. Almost all pilchard (*Sardinops sagax*) in PIL 7 and PIL 8 are taken as bycatch by large (>80 m) trawl vessels targeting pelagic species such as jack mackerel.

78. Due to the large volume nature of pelagic trawl fisheries, all pilchard brought on board are typically in poor condition and are not suitable for entry into the frozen bait market (the usual destination for pilchard caught elsewhere in New Zealand). Therefore, all pilchard are processed into low-value fish meal at sea.

79. The TACC of pilchard in PIL 7 and PIL 8 is set conservatively to reflect the importance of the species within the wider marine system. Landings of PIL 7 and PIL 8 are highly variable between years and are believed to be driven by environmental-induced changes in pilchard abundance and/or distribution. During years when pilchard in PIL 7 and PIL 8 are more available, catches are very sporadic but can occur in large quantities.[16]

Deemed value rates

80. The annual deemed value rates of PIL 7 and PIL 8 are currently set at $0.45/kg. This rate is based on the port price index of both stocks ($0.83/kg), which is influenced by the landed price of pilchard landed whole for entry into the frozen bait market. As all pilchard in PIL 7 and PIL 8 are processed into fish meal, this estimate of landed value is likely an overestimate.[17]

81. Given that the current annual deemed value rates of PIL 7 and PIL 8 is set above the likely landed price, Fisheries New Zealand proposes adjusting the deemed value rates as shown in Table 12.

Table 12: Current and proposed deemed value rates ($/kg) for PIL 7 and PIL 8

Stock	Option	Interim	Annual >100%
PIL 7 & 8	Current	0.41	0.45
	Proposed	0.18	0.20

82. The proposed adjustment would set the interim and annual deemed value rates of both stocks at the same rates as JMA 7, the targeted stock with which both PIL 7 and PIL 8 are taken in association with.

83. The proposed adjustment would also retain the absence of a differential schedule, given that both stocks have a relatively low TACC and are entirely taken as bycatch.

5.7 Redbait (RBT 3) – South & East Coasts of the South Island, Chatham Rise and sub-Antarctic

Fishery information

84. Almost all redbait (*Emmelichthys nitidus*) in RBT 3 are taken by large pelagic trawl vessels, principally as bycatch but also through targeted fishing

85. Landings of RBT 3 during 2018/19 exceeded the available ACE by over 10%. The increase in landings during 2018/19 was driven in part by a greater than three-fold increase in the amount of

[16] Available PIL 8 ACE for the 2019/20 fishing year was 167% caught as of April 2020, with over 50% of landings taken during three fishing events.

[17] The export price of fish meal for the 2019 calendar year was approximately $0.44/kg (taken from https://www.seafood.org.nz/fileadmin/documents/Export_data/19.12.10a.pdf using data for fish products (processed flours, meals, pellets) unfit for human consumption).

redbait taken as bycatch in the squid fishery. However, approximately 17% of RBT 3 catches during 2018/19 were taken during fishing events targeting redbait, with targeted redbait fishing taking place after the squid season had finished.

Deemed value rates

86. As the RBT stock has a high TACC (2,190 tonnes),[18] and those operators which target redbait also take the vast majority of the bycatch, fishers have a high degree of control over the amount of RBT 3 taken over the course of the year.

87. As landings of RBT 3 exceeded the available ACE during 2018/19 (and previous years) despite fishers having a high degree of control over the amount of fish taken , Fisheries New Zealand proposes adjusting the deemed value rates of RBT 3 as shown in Table 12.

Table 13: Current and proposed deemed value rates ($/kg) for RBT 3

Stock	Option	Interim	Annual 100-120%	Differential rates ($/kg) for excess catch (% of ACE)				
				120-140%	140-160%	160-180%	180-200%	>200%
RBT 3	Current	0.45	0.50	0.60	0.70	0.80	0.90	1.00
	Proposed	0.45	Annual 100-105%		105-150%		>150%	
			0.50		0.60		0.70	

88. The proposed adjustment would introduce a stringent differential schedule to provide a greater incentive for fishers to balance catch with ACE.

89. Economic information on redbait is uncertain, however the species is widely acknowledged to be of low value, with a 2019/20 port price of $0.10/kg. Fisheries New Zealand proposes retaining the current annual deemed value rate, despite it being set above the estimate port price, as the annual rate did not constrain catch to the available ACE (despite fishers having a high degree of control over catches).

90. However, Fisheries New Zealand proposes adjusting the rate at maximum excess, as a reduced rate ($0.70/kg) is considered to be sufficient to prevent deliberate overfishing.

5.8 Trevally/arara (TRE 2) – East Coast North Island

Fishery information

91. Although targeted fishing does occur, the majority (80-90%) of commercially caught trevally (*Pseudocaranx dentex*) in TRE 2 are taken as bycatch by inshore trawl vessels targeting tarakihi or gurnard.

92. The TACC of TRE 2 has remained unchanged since 1992 and is regularly over caught by between 5% and 20%.

Deemed value rates

93. A very stringent differential schedule is currently applied to TRE 2, with the rate at maximum excess (set at 400% of the annual rate) incurred when catches exceed 120% of an operators ACE holdings.

94. As trevally in TRE 2 is mostly taken as bycatch, and has a relatively low TACC (241 tonnes), a stringent differential schedule may not be appropriate for this stock. Therefore, Fisheries New Zealand proposes to adjust the differential schedule of TRE 2 to that shown in Table 14.

[18] Over catch may occur more frequently as a matter of change for stocks with a low TACC.

Table 14: Current and proposed deemed value rates ($/kg) for TRE 2

Stock	Option	Interim	Annual 100-110%	Differential rates ($/kg) for excess catch (% of ACE)				
				110-120%			>120%	
TRE 2	Current	1.13	1.25	3.50			5.00	
	Proposed	1.13	Annual 100-120%	120-140%	140-160%	160-180%	180-200%	>200%
			1.25	1.50	1.75	2.00	2.25	2.50

95. The proposed change would adjust the differential rates to the standard schedule applicable to most stocks, with the rate at maximum excess set at 200% of the annual rate.

96. No changes are proposed to the annual deemed value rate of TRE 2.

6 Conclusion

97. Fisheries New Zealand proposes adjustments to the deemed value rates of eleven stocks. Proposals for adjustments have been developed based on statutory requirements, the Deemed Value Guidelines and other key information.

98. Fisheries New Zealand is seeking information and views from tangata whenua and stakeholders to support the development of final advice to the Minister on the setting of revised deemed value rates for the fishing year commencing 1 October 2020.

99. It is important to note that the Minister has broad discretion in exercising his powers of decision-making. He will make his own independent assessment of the information presented to him before making final decisions on deemed value rates.

7 Questions for submitters on options for varying TACs, TACCs and allowances

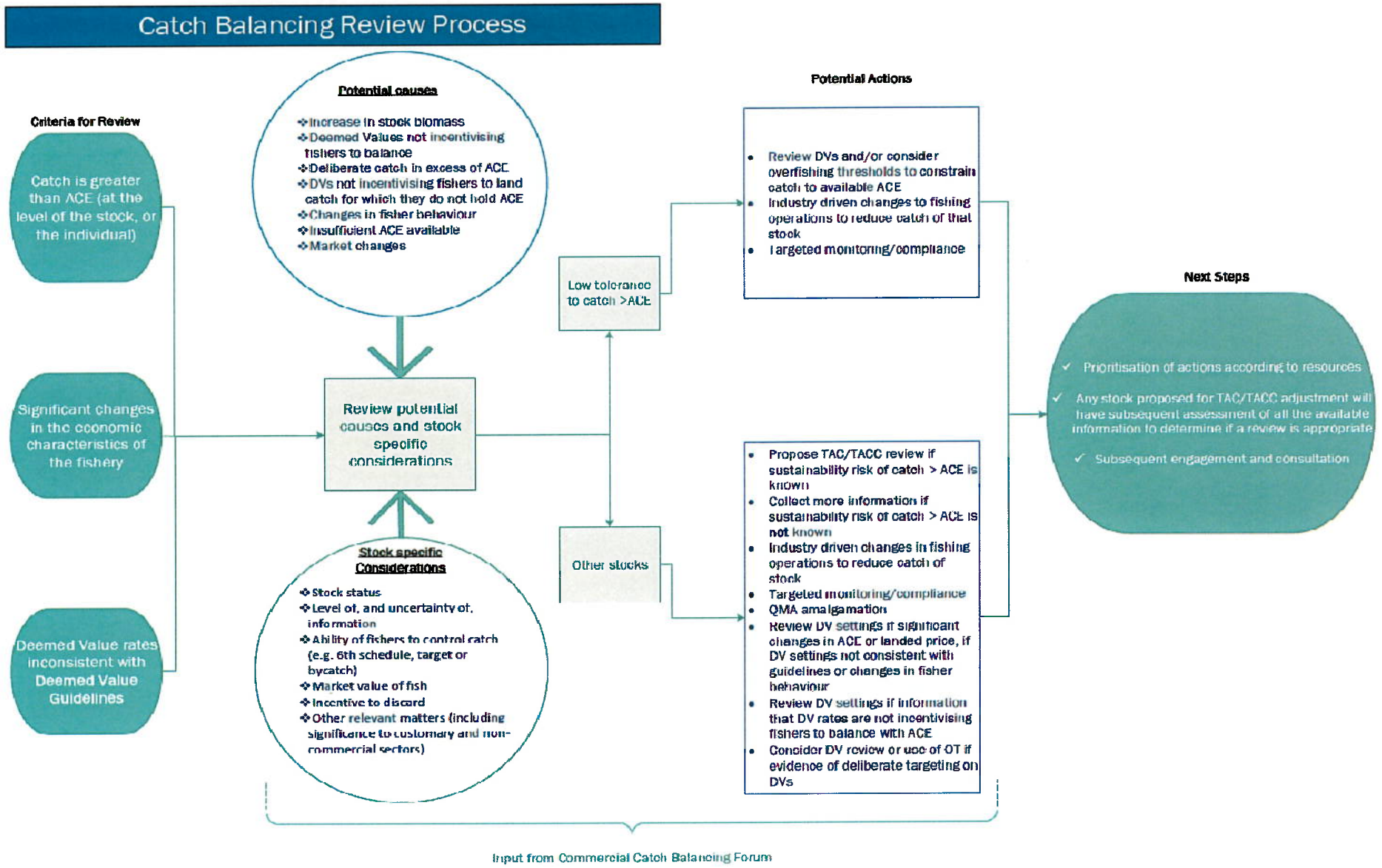
- Do you support the proposed deemed value adjustments? Why?
- If you do not support the proposed options, what alternative(s) should be considered? Why?

8 How to get more information and have your say

100. Fisheries New Zealand invites you to make a submission on the proposals set out in this discussion document. Consultation closes at 5pm on 1 July 2020.

101. Please see the Fisheries New Zealand sustainability consultation webpage (https://www.fisheries.govt.nz/news-and-resources/consultations/review-of-sustainability-measures-for-1-october-2020/) for related information, a helpful submissions template, and information on how to submit your feedback. If you cannot access to the webpage or require hard copies of documents or any other information, please email [redacted]

Appendix 1 – Catch Balancing Review Process



From: Anton Simpson
To: FMSubmissions
Subject: Blue Cod
Date: Saturday, 30 May 2020 1:21:00 PM

I do not understand the drastic decision to drop the Blue Cod daily limit to two in Motunau.
I went out yesterday and we caught our self imposed limit of 6 each for the two people fishing.
We released two each that were under size, the rest were well over size some pushing the 50cm mark.
In the 13 years I have been fishing Motunau I have never had a problem in catching a feed of Blue Cod, in fact it has become better with the more reefs I have discovered, making sure not to fish the same reef more than twice a year.
The first I ever heard of the limit reduction was a picture sent to me on the 26th of May and it took a lot of research to find any information about it. I was unaware this was ever being considered.
As someone that fishers at least once a month out of Motunau why have I not been questioned on my opinion of the situation or been asked to answer a survey about it when I am at the boat ramp.
Surely these are the recreational fisherman that MPI need to be talking to, we do not have the spare time to drive an 1- 1.5 hours to Christchurch for a meeting with the commitment of work and family life.
I feel the limit needs to be reconsidered with more access to the average fisherman to take part in the survey.
I do not have a problem with dropping the limit if required to at least six per person with a minimum 33cm limit, the same as Kaikoura, with a possible limit of two per person during spawning if needed!
I also worry about the loss of jobs due to this closure, the recreational fisherman puts a lot of money into the economy with the purchase of boats and service, accommodation, fuel, bait, fishing equipment, food and refreshments. The last thing New Zealand needs at the moment is more job losses.
With the limit now going to two this has now effectively closed the area off for fishing, targeting other species is to hard because of the abundance of Blue cod around we will be killing more having to release them.
There is also confusion over the amount allowed. The map shows there is 10 Blue Cod allowed north of Hurunui River and south of the Conway River but I have read from MPI if you come back to the boat ramp at Motunau it becomes two, unlike the Marlborough Sounds rule.
Why not just make it six from Clarence River to Rakaia River?
Please consider a more open publicised discussion with the average recreational fisherman. Myself, people I go on fishing trips with who own boats and are regularly out fishing knew nothing about this until the statement on the 26th May.

Regards Anton Simpson

From: [redacted] on behalf of MPI Customer Enquiries Centre
To: FMSubmissions
Subject: FW: Blue cod limit
Date: Wednesday, 10 June 2020 8:34:38 AM

Something for you

Stacey Moir

Customer Enquiries Centre (CEC)
Intelligence, Planning and Coordination Services | Biosecurity New Zealand - Tiakitanga Putaiao Aotearoa
Ministry for Primary Industries - Manatu Ahu Matua
PO Box 2526, Wellington 6140 | New Zealand
Web: www.mpi.govt.nz

---------- Forwarded Message ----------
From: Shane Ainsworth [redacted]
Sent: 8/06/2020 5:40 PM
To: [redacted]
Subject: Blue cod limit

To whom it may concern

Hello I am Margo Ainsworth and I am 11 years old and I love to fish I have been fishing since I was four I have seen you have changed the rules on fishing about how you only are allowed 2 blue cod per person .I think we should be allowed to have five per person. By the time we drive from christchurch to motanu it's just not worth going out and only allowed to catch to two blue cod. We love catching all different kinds of wonderfull different fish it is so much fun why only catch two when you could catch five. Fishing is awesome to get outside and experience nature instead of being stuck around inside on device learning and doing nothing.

Thanks Margo

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ref:_00D4a8aSE._5004a1ULiO:ref

From:	John Davis
To:	FMSubmissions
Subject:	Review of sustainability measures for 1 October 2020 snapper 7 and gur7
Date:	Thursday, 18 June 2020 11:55:02 AM

Dear Minister I am writing this submission in proposed increases to snapper and gurnard in area 7 not only are you putting community's food security at risk your are putting our native hector dolphins and enviroment at risk from increases in trawling activity in the area.
I vote option 1 status quo and to take a rescue fish approach .
Option 2 of stealing 50 ton of uncaught recreational allocations is undemocratic and theft from the people of this great nation and our people will not accept this robbery and will be heard through a media smear campaign
This theft will also impact our bag limits into the future as our population increases it will also have a negative economic impact to my local town as holiday makers flock every year spending big to fish our local waters
Also I feel this increase was part of a bigger plan starting a few years ago when rig gurnard and John Dory increased and now the commercials fishermen need the extra snapper quota to balance there catches otherwise they have to stop fishing.
Most likely you will fold to big business as usual
And sell us out .
You are slowly but surely eroding our freedom and access to fish my prosperity, kids health, and my mental health is at risk from your decisions.
Regards John Davis
Sent from my iPhone

From: Paul Egerton
To: FMSubmissions
Subject: BCO5 submission
Date: Tuesday, 23 June 2020 12:47:02 PM

Yes I wish to be heard if possible:

The TACC has been 1200 ton for a long time. The blue cod fishery is currently being overfished. If you managed the quota management system like you say you do. There would have been a reduction of the TACC to below 900 ton ten years ago.

There would not have been a need to reduce any quota now, if you managed the fishery like you say you do.

The recreational fisherman has had a bag limit reduced by 50 percent to 15 fish effective July 2020.

I ask that MPI reduce the TACC to 600 ton to enable the fishery to recover. Considering last year 2019 only 800 ton was actually caught by commercial fisherman a reduction to 600 would align with fishery recovery guidelines.

I have attended the meetings at the Ascot hotel during the previous year. Witnessing some strong lobbying from the commercial sector. They simply are not doing enough, blaming the issues with the fishery on recreational fisherman.

Why is it that Gregg King, from Kings fish market Invercargill was asking for recreational fisherman on Facebook to go out and catch his quota? What a joke!

Please don't be fooled into believing that recreational fisherman are to blamed for what is happening to this fishery! I hold MPI accountable for what has been happening to BC05, you have not reduced the quota when you should have.

Why have you not reduced the commercial TACC to align with quota management guidelines?

My cell number is [redacted], feel free to call me at any time.

Kind regards Paul Egerton
[redacted]

Sent from Mail for Windows 10

From:	kevin waters
To:	FMSubmissions
Subject:	new rules
Date:	Friday, 26 June 2020 11:25:09 AM

hi to rule makers
i fish out of the otago harbour and head south where we can catch our new limit of 15 cod 50% cut from 30 cod which i was happy with but found out we are cut to 10 cod because from where launch our boats from in the otago harbour in class orange zone 10 bag limit so we are cut over 68%
and the big kick in the ass is commercial guys can catch the quota they have say 10 ton then they can get more of the big companies say another 6 ton til the TAC is full and has been over the TAC for the last few years . As a rec guy we feel we are getting shut down for the commercial guys. It should be if you only have 10 ton of quota you catch it , then tie your boat up, not go get more because you can . my father was a fisherman down here and got screwed over buy people in power and lost everything he had worked for all his life and he was catching crayfish . we still have all the paper work , that was some thing he could not give us when he died ,
as we fish out in the saunders canyon there are a lot more commercial pots there this year as there were none two years ago once the reserves come in the canyon is just going to get hammered by the commercial boats then there wil be nothing for anyone
kevin waters

From:	Mohua (Golden Bay) Blue Penguin Trust
To:	FMSubmissions
Subject:	Increase in trawl area 7
Date:	Wednesday, 1 July 2020 10:28:07 AM

The Mohua (Golden Bay) Blue Penguin Trust wish to express their concern about the proposal to increase trawling for Gurnard and Snapper in Golden Bay.

We are asking for a 25 kilometre ban on any proposed increase out from the shoreline of Golden Bay.

This is the feeding area for our little blue penguin population. We have a significant number of penguins with 320 nesting sites identified in a survey undertaken by the Kaikoura Ocean Research Institute.

Little blue penguins are a threatened and at risk species. Their population is in decline around our coastline. They are an important part of Golden Bay's economic future and must be protected.

Cynthia McConville
Chair
Mohua Blue Penguin Trust

From:	Jarrod Buchanan
To:	FMSubmissions
Subject:	Submission PZL7 TACC Increase
Date:	Wednesday, 1 July 2020 2:09:00 PM

To whom it may concern,

I support the proposed increase to the TACC for PZL7.

This move is vital to the further development and commercial success of this industry. The increase is I believe sustainable and will generate jobs.

Kind regards,

Jarrod Buchanan

From: Gene Klein
To: FMSubmissions
Subject: Re: Forest and Bird, (Golden Bay Chapter)
Date: Thursday, 2 July 2020 4:43:00 PM

Thank you for asking...

Re. SNA7 and GUR7

On Thu, 2 Jul 2020 at 09:13, FMSubmissions <[redacted]> wrote:

> Thanks
>
> Can you clarify which fish stock(s) your submission is referring to
>
> Thanks
>
> Fisheries Management
>
> **From:** Gene Klein [[redacted]]
> **Sent:** Wednesday, 1 July 2020 4:50 PM
> **To:** FMSubmissions <[redacted]>
> **Subject:** Forest and Bird, (Golden Bay Chapter)
>
> Author is unable to correctly download the MPI submission form, apologies...
>
> **Details supporting your views:**
> **Option 1** to maintain the status quo. This should be considered at the very least for the next few years, to see if the increase in stock size is a trend or not.
>
> I believe that all three of these options represent an outdated approach to fisheries management. Much work has been done by the government funded Sustainable Seas National Science Challenge to develop better ways to manage our seas in a more holistic manner.
>
> I strongly recommend using the precautionary approach and keep the quota at status quo for now. I also recommend the commencement of an on-the-ground Ecosystem Based Management process, considering all of the species and habitat involved in this fishery. Keep the status quo to allow fishers to continue to earn a living and allow the stocks to rebuild, investing in a transition to less destructive, more selective, higher value fishing methods such as long lining. Support an Iwi lead and science driven integrated spatial management plan, that allows for fishing in a less destructive way, protecting breeding habitats, fragile seabeds, reef systems, juvenile areas. Invest in sub-tidal restoration and promote habitat protection, allowing the ecosystem services inherent with thriving fish stocks to provide resilience.

Sent from my iPad

From:	Rod Barker
To:	FMSubmissions
Subject:	Review of SNA7 and GUR7 sustainability measures
Date:	Wednesday, 1 July 2020 7:22:40 PM
Attachments:	Tasman Bay Guardians SNA7 Submission.docx

Fisheries New Zealand: Review of SNA7 and GUR7 sustainability measures for 1 October 2020 – DEADLINE 1 July 2020

Fisheries management team: [redacted]

Thanks for the opportunity to comment on the review of SNA 7 and GUR 7 sustainability measures.

Golden Bay residents have long wanted a marine management plan, and a set net and trawling ban for Golden Bay in order to protect and repair our fragile marine environment. This previously productive ecosystem has been poorly managed by the existing QMA system, and previous harvesting regimes.

Option 1 is our preferred option, however we also endorse the concept of a mixed stock quota as particularly relevant to Golden Bay. This would would enable more sensitive harvesting, more food for other species, including our own resident group of Hectors dolphin, the Little Blue Penguin population that we suspect is declining due to food depletion in their nearby area thus having to forage further out, as well as other bird species relying on a coastal food supply. Loss of local food supplies for these species would increase with increased quota.

Golden Bay is well suited for the establishment and/or extension of the adjacent marine reserves, or at least a Marine Management plan that supports these reserves. Large Marine reserves are more effective at increasing fish stock thus supporting the fishing industry.

Golden Bay residents would like to see a complete ban on trawling and set netting in Golden Bay which would allow the reestablishment of the rich biodiversity we once had in Golden Bay and enhance the tourism and low impact recreational fishing benefiting so many more people in this post covid difficult times.

We endorse the comprehensive submission of Tasman Bay Guardians (see attached,) as we recognise the robust scientific analysis provided which relates intimately to our area.

We look forward to seeing the consultation results.

All the best, Rod Barker

[redacted]

[redacted]

SUBMISSION

Fisheries New Zealand: Review of SNA7 and GUR7 sustainability measures for 1 October 2020 – DEADLINE 1 July 2020

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22 June 2020

Tasman Bay Guardians are a Te Tauihu based social enterprise focused on protecting, restoring and regenerating the Coastal Marine Area of Te Tai o Aorere / Tasman and Golden Bays, through Conservation, Education and Collaboration. In addition to this, we operate a marine tourism venture, Abel Tasman EcoTours, and spend the majority of our time at sea appreciating nature through a scientific and increasingly cultural lense. Our two organisations work in conjunction with each other and we collaborate with a range of Iwi, Department of Conservation, local councils, education and science institutions. The core purpose of our Trust is to deliver environmental education programmes, Experiencing Marine Reserves, Whitebait Connection and Drains to Harbour Programme. We contract to Nelson City and Tasman District councils to deliver these programmes. We are also working with mana whenua Iwi on pathways to develop a 'cultural health indicator' based monitoring programme for the bays. We are members of the Nelson Biodiversity Forum and sit on the Tasman Bio Strategy working group.

In submission to the proposed change of the Total Allowable Catch of Snapper and Gurnard in Area 7.

Having read the discussion document, we see that there is a push to increase the Total Allowable Catch for both Snapper and Gurnard. We understand that in its current state, the Area 7 trawl fishery is a mixed fishery, making it very hard for fishers to specifically select a species for targeting. In pursuit of other species such as flat fish, john dory and rig; species such as snapper and gurnard will be caught as will a multitude of other bycatch. Non-quota bycatch species do not provide limitation, however with a limited quota for snapper, this is regarded as 'choke' species, that limits where and when trawlers can put fishing effort in. Increasing the available snapper quota will (as stated in the discussion) will increase the overall fishing effort for all species in the bay.

As stated in the document, the MV Kaharoa trawl survey stock assessment found the stock to be increasing to 40% of virgin biomass. This is forecast to surpass this, however this forecast was attributed to a strong 2017 year class. We do not know if this is an upward trend or a short-term anomaly. Tasman Bay Guardians recommends a precautionary approach, as the modelling shows a flattening of the Spawning Biomass curve, with the 2017 recruitment spike removed. We comment on the following options:

Option 1 to maintain the status quo. This should be considered at the very least for the next few years, to see if the increase in stock size is a trend or not.

Option 2 is an exercise in paperwork, allowing the commercial take to increase by 100t, while no change in effort will be felt on the water from the other sectors. This will not sit well politically, as recreational and customary fishers will feel victimised, benefitting commercial at their expense. In reality there will be no less recreational effort, as no bag limit adjustments are being considered.

Option 3 has been acknowledged as the preferred option by the panel and also holds the greatest sustainability risk, as this will legitimize an overall increase in trawling effort.

We believe that all three of these options represent an outdated approach to fisheries management. Much work has been done by the government funded Sustainable Seas National Science Challenge to develop better ways to manage our seas in a more holistic manner. The Science Challenge's vision is:

Vision Mātauranga

"Mātauranga Māori informing and underpinning Ecosystem Based Management for Aotearoa."

With such heavy investment in this visionary process, it is counter – intuitive to increase the fishing pressure using an antiquated habitat-destroying fishing method that we know is contributing to the decline in ecological integrity and resilience of our bays.

Fish stocks do not act independently of one another, they are part of an ecosystem, relying on every other species and their habitat to exist. Disturbing their habitat to extract them is inappropriate, and the social licence for this type of fishing is decreasing.

We propose Option 1 at the very least –

We strongly recommend using the precautionary approach and keep the quota at status quo for now. We also recommend the commencement of an on-the-ground Ecosystem Based Management process, considering all of the species and habitat involved in this fishery. Keep the status quo to allow fishers to continue to earn a living and allow the stocks to rebuild, investing in a transition to less destructive, more selective, higher value fishing methods such as long lining. Support an Iwi lead and science driven integrated spatial management plan, that allows for fishing in a less destructive way, protecting breeding habitats, fragile seabeds, reef systems, juvenile areas. Invest in sub-tidal restoration and promote habitat protection, allowing the ecosystem services inherent with thriving fish stocks to provide resilience.

Treat Snapper, Gurnard, John Dory and Rig as mixed stock, with a combined quota, to minimize the 'choke species' effect. This will benefit fishers, as less effort will be required to fulfil their quota. Land all dead bycatch which will be recorded for a better understanding of the abundance of

species such as sharks. These can be used as fish meal if they are inedible. Less habitat will be destroyed and more fish will be left in the bay to fulfil their ecological functions.

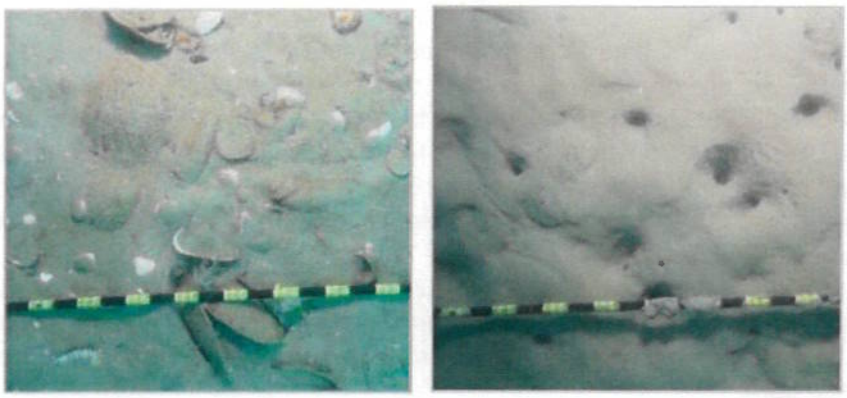
Countries all over the planet are waking up to the fact that bulk harvesting methods such as bottom trawling and set-netting are environmentally detrimental and banning it in their waters. Hong Kong, Indonesia, Palau and Belize have completely banned bottom trawling and many other countries have significant no-trawl zones. (Time Magazine Article, 2011)

Our rationale:

Historically snapper populations in the Bays were much higher, historical overfishing in the 60's and 70's has decreased the breeding population. The commercial snapper take peaked in 1978 at 3203t, and it has taken over 35 years for the population to show signs of recovery. In that time there have been significant changes to the marine environment. Single species management under the Quota Management System using Maximum Sustainable Yields are failing the environment and local communities. We only have to look at the collapse of the CRA2 and TAR2 last year to show that the system favours fishing businesses' short term gain over ecosystem health.

Tasman Bay once held areas of high biodiversity, the sea floor sustained large areas of biogenic habitat forming organisms. These have mostly been destroyed by the fishing industry, through dredging for mussels, scallops and oysters, and clearing of ground for trawling (Saxton 1980). Handley and Brown 2012 refer to historic maps of biogenic mussel, oyster and scallop beds from the 60's that have long gone. These filter feeding organisms are vital for cycling and filtering the benthic waters of the system.

Bottom contact fishing is not the only stressor on the system. Excessive sediment is impacting the sea bed and increasing water turbidity, choking filter feeding organisms. This is found to have derived from terrestrial disturbance such as forestry and roading combined with river channelization and removal of wetlands is also a major issue. (Newcombe, 2016) These two issues combined are typically considered the main threats to our inshore CMA.



The seabed in Tasman Bay in areas of low disturbance (left) and higher disturbance (right)

There has been a lot of work in recent years on the Sustainable Seas Science Challenge Ecosystem Based Management project. This collaboratively funded national science challenge, has holistically modelled a way forward for fisheries in Aotearoa, yet this discussion document fails to consider this approach. With major government and industry investment in the project, we strongly recommend that the spirit of Ecosystem Based Management be adopted to prepare for a smooth transition in the future.

State of the Environment

The latest New Zealand State of the marine environment report makes for stark reading. The report found that human activities are having a profound impact on the health of the sea and it's ability and resilience to cope with pressures such as climate change and changing ocean chemistry. Commercial fisheries damage habitat integrity, species population abundance and dynamics, contribute to marine noise pollution and emit carbon. Recreational fisheries have a similar effect, with slightly less habitat degradation.

The Ministry of the Environments 2019 report of the state of our marine environment states:

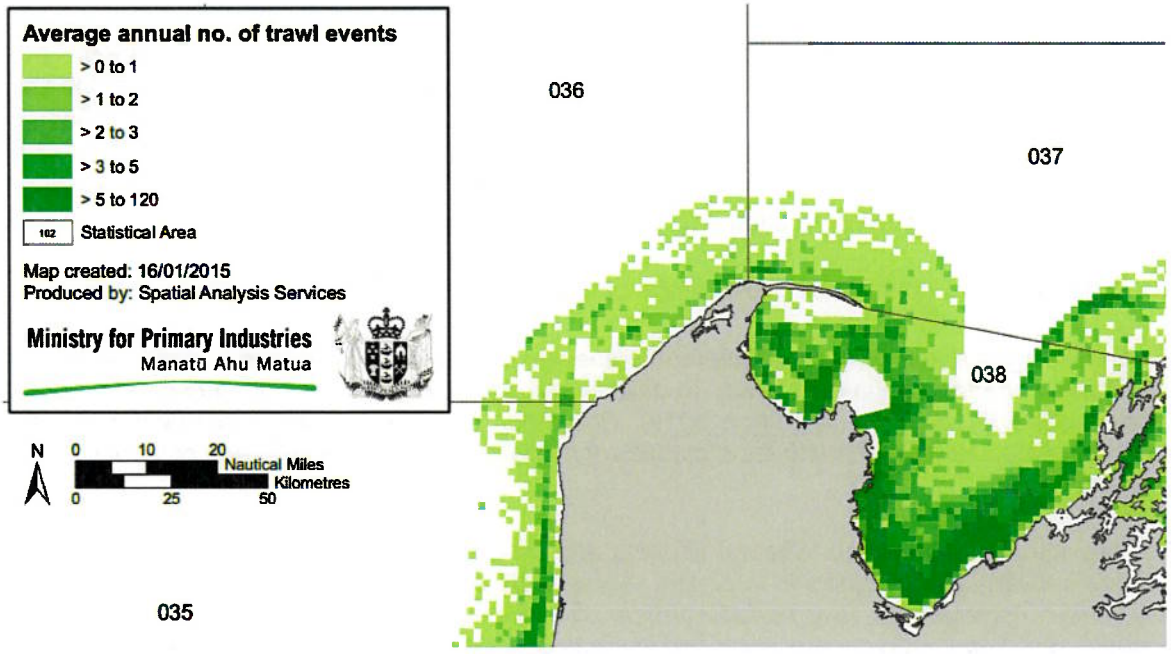
"Fishing changes the population structure of a species as well as reducing the overall number of fish. Fishing changes behaviour, leads to different size or sex ratios, and can affect population genetics (See Environment Aotearoa 2019). Population changes can have cascading effects through the food web by affecting the dynamics of predation, food availability, and competition for food and habitat.

The way we fish matters too. Seabed trawling and dredging alter the structure of the seabed, damage habitats, and re-suspend sediment. Some ecosystems show few signs of recovery and may remain damaged for long periods of time after the activities stop (Clark et al, 2019). For example, reef-forming bryozoans are found in areas of our continental shelf where fishing occurs. Bryozoans are fragile and activities like dredging and bottom trawling have caused loss of bryozoan habitat in some areas. Benthic fishing is a significant threat to bryozoans, especially where fishing activity is high (Anderson et al, 2019)."

We also add that, sedimentation from land based activities, and resuspension of benthic sediments from trawling and dredging continue to degrade the sea floor (Handley, 2020), a layer of fine suspended sediment known as the benthic turbidity layer sits in the water column up to 3m from the bottom. Disturbance from fishing disrupts the biota, fragile epibenthic biogenic organisms such as bryozoan corals(Bradstock and Gordon, 1980), mussels, oysters, tube works, rhodoliths, sponges, ascidians and the like, provide food, shelter and breeding substrate for snapper and many other species. Davidson (2012) describes:
Saxton (1980) provided a historical account documenting the destruction of approximately 160 km2 of bryozoan "coral" by commercial fishermen towing chains. The extent, composition and location of this bed remains unknown, but it was reportedly located offshore of Torrent Bay and dominated by lace coral.

The science is clear, Tuck et al. 2017 describe trawling over soft sediments as the greatest threat to the continental shelf in New Zealand, finding a 21% decrease in species richness of epifaunal species in trawled areas. Hale et al. 2017 found that regular disturbance of the sea floor alters the biogeochemical composition of the sediment as it reduces diversity of the infauna associated with these processes.

Finer (1km) scale trawling maps(below) show the extent of trawling in Tasman Bay. From the map below we can see the intense trawling effort imposed on the inshore benthic marine environment. Note: this map was made in 2015 BEFORE the last Snapper quota increase from 200 to 250t in 2016.



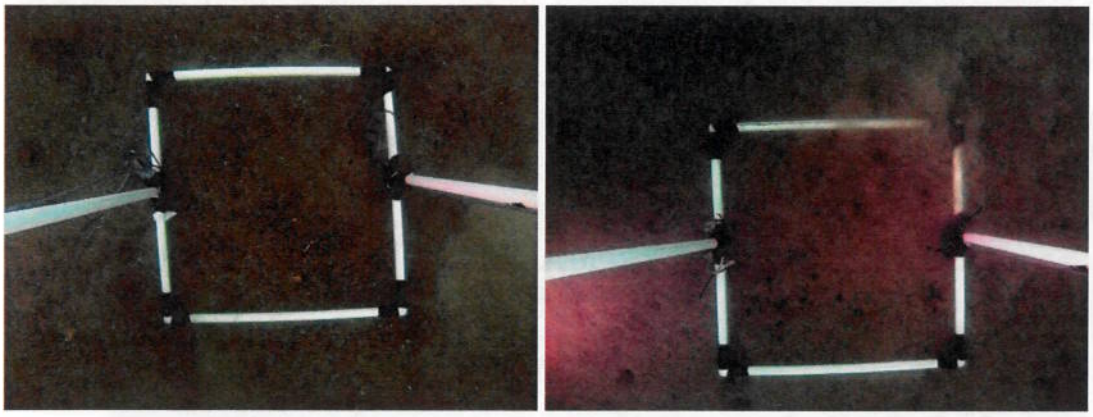
The map indicates the intensity of commercial fishing pressure on Area 7. With some small Marine Reserves, a Taiapure and the Separation Point exclusion zone put together, this still leaves over

95% of the area exposed to trawling pressure which will increase again should the commercial quota be raised.

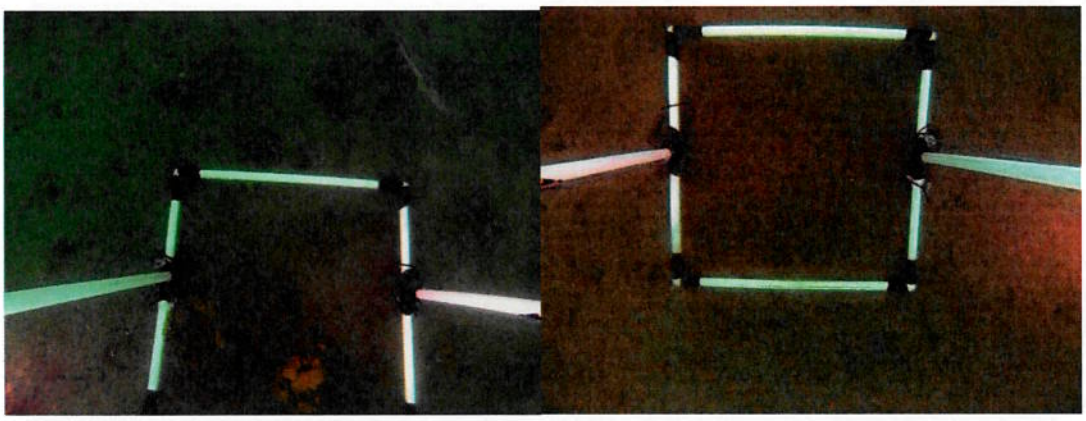
The discussion document states:

"While trawling has an impact on the environment, there are a number of regulatory and voluntary closures in place to reduce the impact of trawling on certain areas within QMA 7 such as the Separation Point bryozoan beds and juvenile fish habitat. In addition, commercial fishers in these fisheries are using lighter gear, fishing further offshore, and the size of the fishing fleet has also reduced significantly over the last twenty years. These closures and changes to fishing practices are likely to mitigate the impacts of additional fishing effort on the existing modified environment"

We would like to challenge this statement, as we do not believe the Separation Point exclusion zone is an effective measure to protect these benthic organisms. Having taken 170 sea floor samples both in and out of the exclusion zone as part of a Phd Thesis through the University of Otago, we only found 1 bryozoan in the middle of the zone. We can only assume that a. Trawling is still occurring within the zone or b. Anchoring from recreational fishers is having as much of an impact as trawling. C. both these impacts are occurring. It is not a completely protected area.



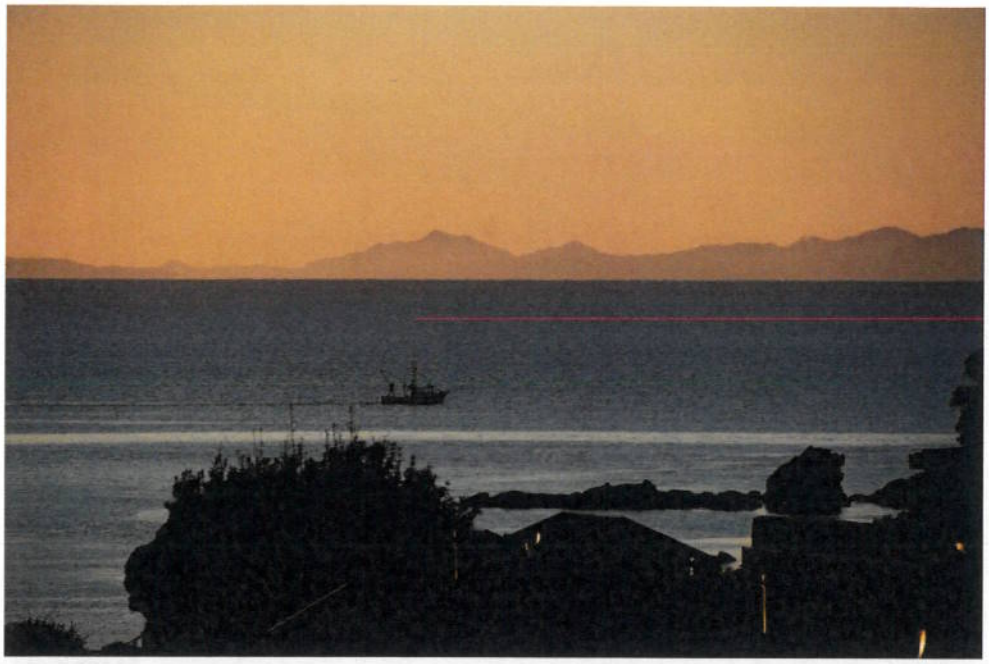
2 Samples taken from North of the Separation Point Exclusion Zone.



2 Samples taken from within the exclusion zone. The left hand photo is the only bryozoan found within the zone. Right hand photo shows the disturbed barren ground typically found within the exclusion zone.

The reality is that fishers are not fishing far from shore or from the protected areas. There is nothing to stop them from doing this, as they are currently not breaking the law, however this increase in quota for snapper and gurnard will only increase this type of activity. Continuing to disturb the habitat, destroy the benthic life, reduce resilience and ecosystem services and reduce opportunities for recreational and customary fishing.

Trawling around Bark Bay Reef, adjacent to Tonga Island Marine Reserve and Abel Tasman National Park



Trawling next to the shore at Little Kaiteriteri, this is a daily occurrence in the winter.

More Trawling at Little Kaiteriteri

Trawling next to the South Eastern Marker of Tonga Island Marine Reserve. Marine reserve markers are regularly removed by trawl gear. The Department of Conservation struggles to replace them as it is costly and technical. At one point in 2019, there were 6 floats missing from our marine reserves in Tasman Bay.

Trawling the shallows of Marahau, we know this is a fragile habitat of benthic invertebrates such as sand dollars, horse mussels, pipi, tuatua and cockles.

This type of behaviour does no favours for the fishing industry and damages an already fragile social licence (this is purely opinion from multiple conversations with the general public, none of them being supportive of close proximity trawling). Conservationists see habitat damage, recreational fishers see this as an attack on their fishing areas (just two world view examples).

By fishing every available part of the bay, there is no allowance for a network of intact marine ecosystems which organisms can shelter and disperse unmolested from fishing pressure. This must be done through a process of Integrated Spatial Management of the CMA, the sooner the better.

In comment to the lighter gear, the design of a bottom trawl is specifically to stir up the bottom with the trawl doors in order to corral the fish into the cod end. Even the lightest of gear still involves dragging steel across the sea floor, resuspending the sediment.

In conversations Tasman Bay Guardians have had with fisheries managers, it is already clear that fishers are avoiding certain areas as they consistently get 'hung up' in deep mud. This indicates the level of contact this gear makes with the seabed, but also that the issue of sedimentation is getting worse.

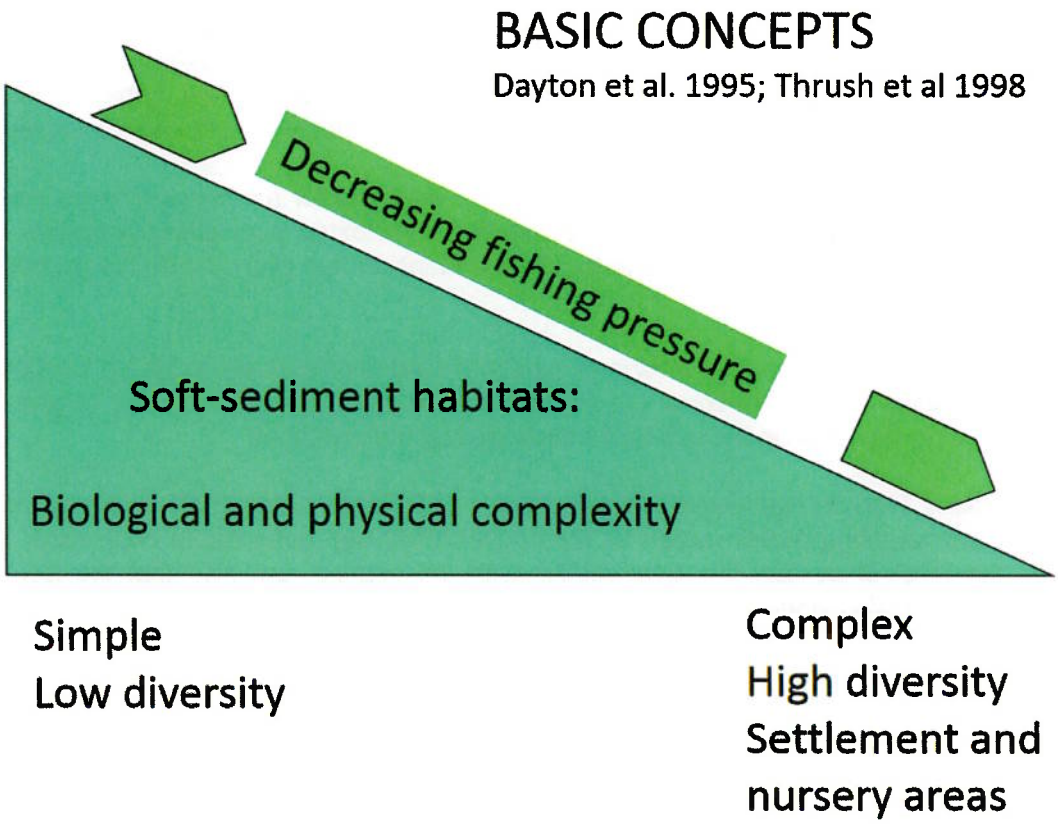
Compliance

We recommend better surveillance of fishing boats in Area 7, we appreciate vessel tracking is now underway, and also call for increased observer coverage and bycatch data.

A comment from Thrush 2013 –

"As well as considering the ecological connectivity of individual species, research has shown that maintaining high biodiversity in some habitat patches enhances the recovery of disturbed patches within the region. As these high diversity source patches become increasingly isolated by disturbance their ability to play this role in rescuing disturbed patches decreases"

In a presentation to Seachange in 2014 Simon Thrush presented this simple and obvious graphic which really illustrates the point well. Stating 'Even the loss of low numbers of animals that define seafloor habitats affect biodiversity...and the abundance of juvenile snapper and scallops. (Thrush et al 2001, 2002)

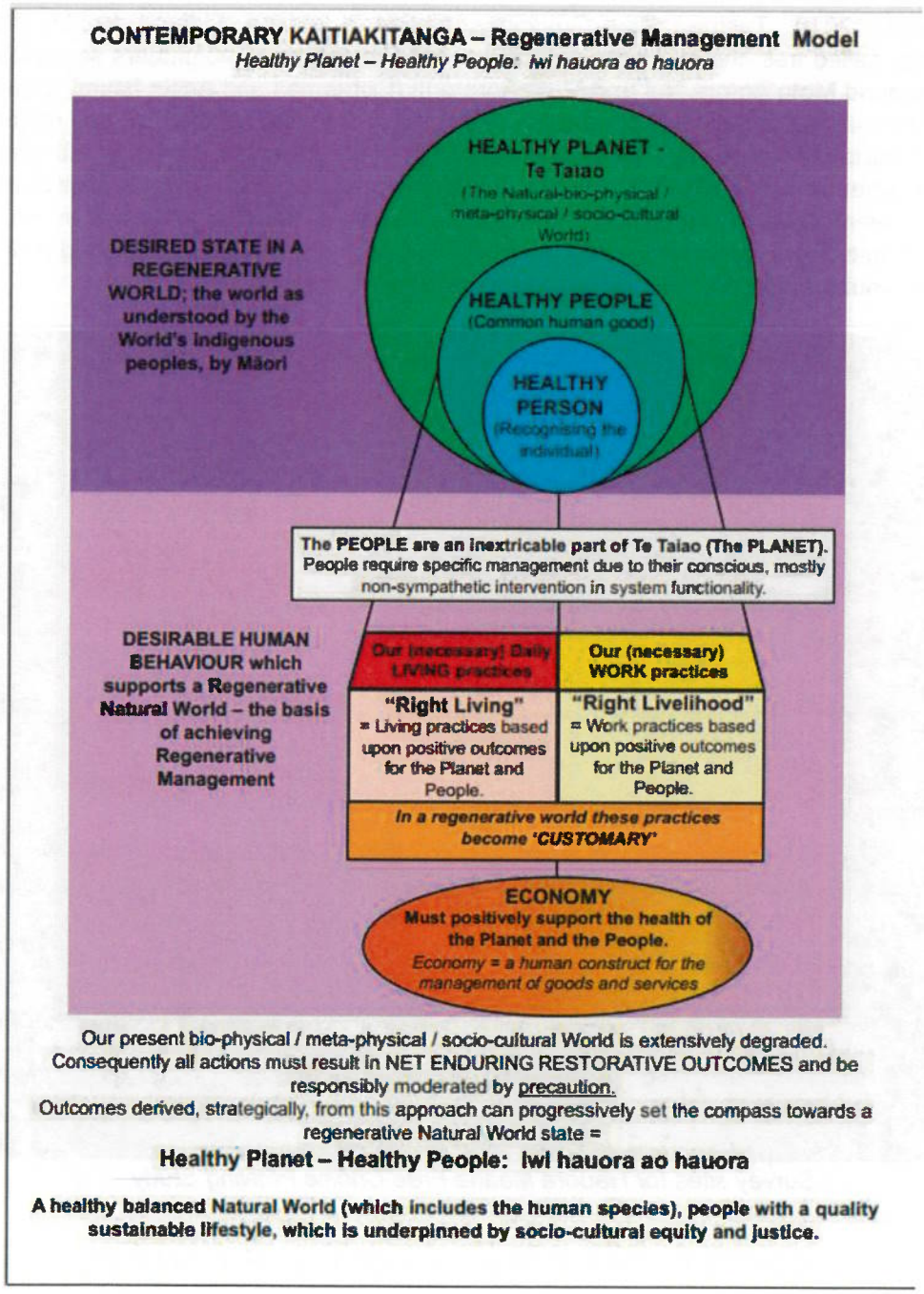


We are not saying don't trawl. Just don't trawl EVERYWHERE. An increase in quota will not have favourable results for ecosystem function and the recruitment of future fish stocks.

In response to the voluntary trawl closure in inner Tasman Bay over the spawning period, this is admirable and is likely to be effective at protecting spawning aggregations, however it does not protect pre-spawning individuals migrating to the area, and it does not protect the spawning habitat which is trawled over in the winter.

Customary Viewpoints

We can not speak for tangata whenua, who have a stake in the fishery. However all the MPI material suggests prioritizing kaitiakitanga in the fishery. Please find below a definition by a prominent Te Tauihu Iwi RMA planner on contemporary kaitiakitanga.



This regenerative management model requires net enduring restorative outcomes, it does not allow for the continued degradation of the environment for the personal gain of a few.

Various customary closures listed in the MPI SNA7 Portal are all intertidal and do not protect areas from bottom contact fishing.

In September 2019, Tasman Bay Guardians trialled a marine Cultural Health Indicator methodology called free choice profiling (Edney, 2012). In summary, volunteers scuba dived 32 transects around Motu Aorere Nui and Motu Aorere Iti (Fisherman and Adele Island) adjacent to the Abel Tasman National Park. Both areas are subject to frequent commercial and recreational pressure. Qualitative videos were taken and edited together. We held a wananga with delegates from mana whenua iwi, TDC, NCC, NIWA, Cawthron Institute, DOC, Independent Scientists. Participants were asked to individually assess the health of the reef they saw in the video. Individual results were calibrated using a consensus process, where each was discussed in smaller breakout groups. We then extrapolated these to the findings below.

Survey sites for Hauora Moana Free Choice Profiling Study

Examples of the Reef Health Indicator Terms and the scale:

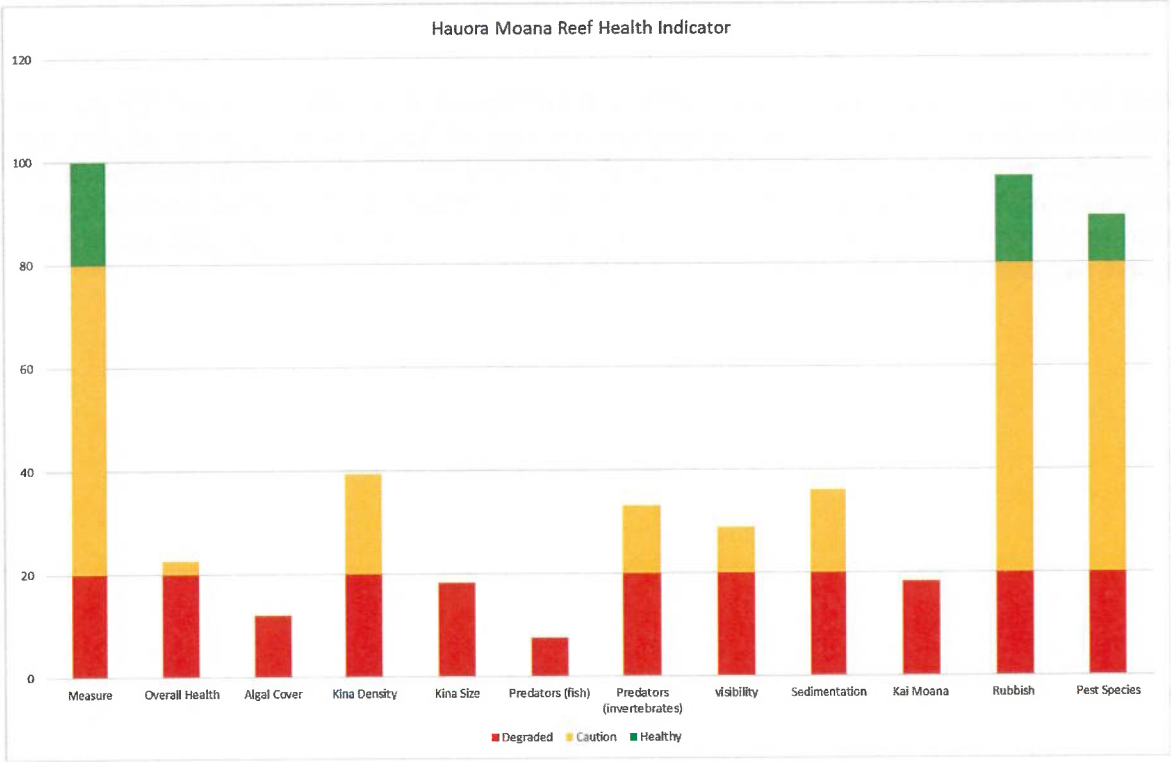
Algae Cover

Rare Abundant

Kina Density

Abundant Rare

Other terms: Kina Size, Predators (fish), Predators (Sea Stars, snails), Visibility (siltation), Sedimentation (dust on the seafloor), Kai Moana species, Rubbish, Pest Species, Overall health.



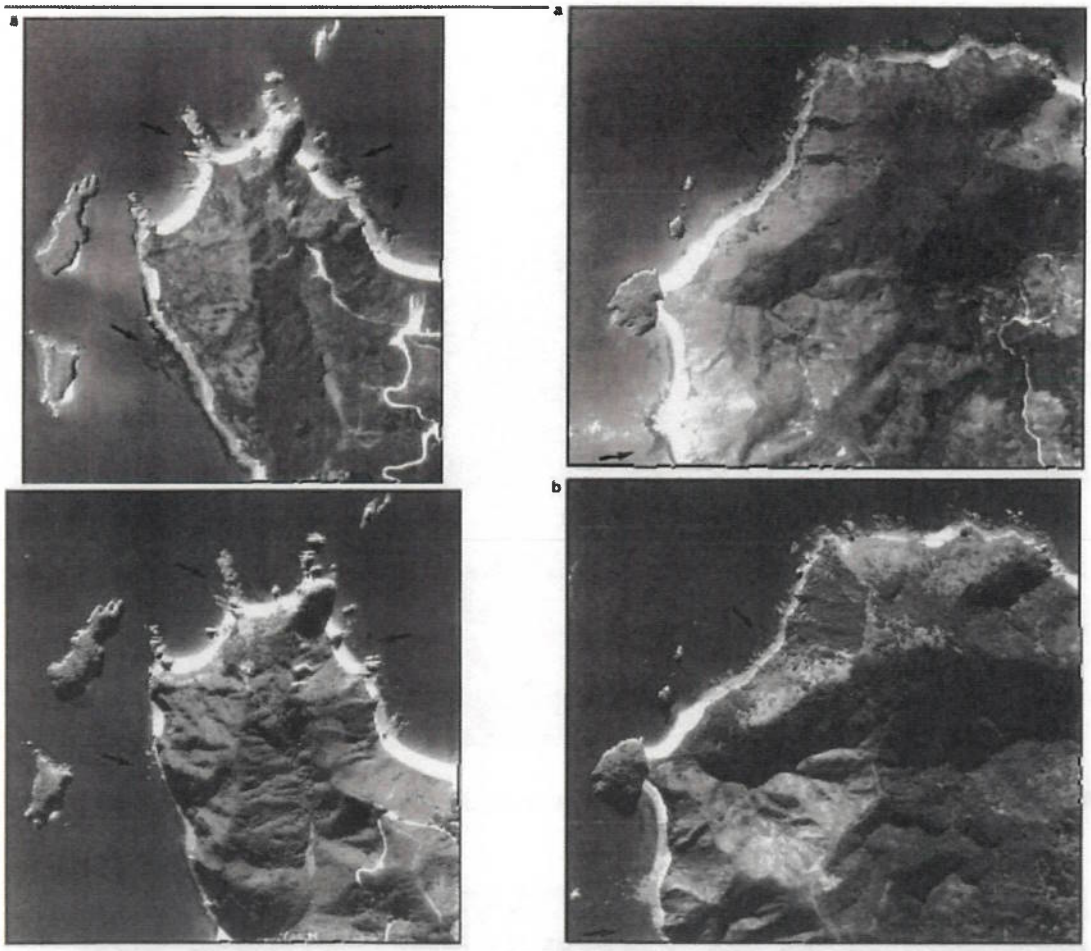
Results from the Hauora Moana Wananga. Column on right shows full scale. Green = least concern no action required. Yellow = Caution, some specific action required, Red = Danger we must act.

The group was unanimous that these reef systems were in a deep state of degradation with action urgently required to revitalize the Mauri (life force). Increasing the intensity of fishing effort in the bay further threatens these systems. This is just a snapshot from one reef system on one day, however it illustrates how differing world views can come together and collectively assess the health of an ecosystem.

Habitat Degradation, Trophic Cascade and Regime Shift

Tasman Bay and the Marlborough Sounds are deeply impacted by the spread of kina barrens. Davidson 1992 shows aerial photographs of the disappearance of algal beds along the Abel Tasman coastline, and this has also been described in the Marlborough Sounds. Through extensive studies in New Zealand's marine reserves, it has been identified that snapper function as a 'keystone species' predating on *Evechinus chloroticus* urchins / Kina, who in turn overgraze algal meadows creating 'kina barrens' (Ling, 2015). This depletion of the predator prey relationship continues as a trophic cascade, resulting in serious impacts on the resilience of Area 7's ecosystems. Less habitat leads to less diversity and less resilience to direct anthropogenic threats such as overfishing and environmental threats such as climate change. This regime shift. is likely to have occurred very early on in Tasman Bay's history, and due to the 'shifting baseline' effect (Thrush and Dayton, 2008), we have come to accept this as normality.

Doak 2019 describes the worsening situation of 'Kina Barrens' around New Zealand. "Gradual as a slow-motion train wreck; as destructive as an asteroid hit; longer lasting than an oil spill: the transformation of many of New Zealand's coastal reefs into barren moonscapes is part of a planet-wide catastrophe. Over-exploitation of inshore waters by modern fishing techniques is to blame: large scale removal of sea urchin (kina) predators such as snapper and crayfish produces a trophic cascade where sea urchins thrive, but little else."



Aerial photos of Tata Islands and adjacent coastline. Dated (a) October, 1966 and (b) May, 1988. Scale 1:10000.

late 2

Aerial photos of Taupo Point and adjacent coastline. Dated (a) October, 1966 and (b) May, 1988. Scale 1:10000.

Aerial photos from Davidson 1992 showing the depletion of algal meadows between 1966 and 1988.

A shallow reef in the Tonga Island Marine Reserve in 2020 showing signs of algal recovery.

A shallow reef at Fisherman's Island near Marahau, with 0% algal cover and very high kina density.

Climate Change

Sea Temperature Change - We know that our seas are changing rapidly. Sea temperatures are increasing which appears to have coincided with a pulse in snapper and gurnard productivity. Snapper spawning conditions have been extended as the water warms for longer beyond 18°C. There is evidence from fisheries that fish species are migrating south (Pers comms. Doug Loder 2018). The snapper fishery itself is on the move. We just don't know how this will affect stocks in the future and we must be cautious.

Ocean acidification – There has been a 7.1% increase in acidity between 1997 and 2017 (Stats NZ Website). This is happening at an alarming rate and has dangerous repercussions to marine food webs. Many invertebrate species are at risk from this, snapper and gurnard both feed predominately on invertebrates, and although generalists, are extremely vulnerable to a restriction in the food supply. Acidification could cause food chain collapse, and this will be magnified with increased cumulative pressures.

Carbon Emissions – Increased trawling will lead to an increase in carbon emissions. Activities that do not involve using fossil fuels to drag gear across the seabed will lower fishers emissions, making fishing companies more sustainable, in line with what they already claim to be.

Carbon Sequestration – The 'keystone species' role of snapper in the control of echinoderm grazers i.e. urchins is well proven. A rebuild in the snapper stocks will increase predation pressure on kina, resulting in increased abundance of algae, which is a proven carbon sink and habitat.

Related legislative and strategical context that will be impacted by an increase in fishing effort.

Kotahitanga mo te Taiao Alliance – A recently formed agreement between all Te Tauihu Territorial Authorities, six Iwi, DOC and a number of NGO's forming a roadmap to regeneration of our natural spaces. This included the CMA, expect for there to be processes instigated to account for wider habitat protection in Fisheries Area 7.

Nelson Biodiversity Forum – Ratified to protect at least 10% of Nelson City waters. Working on facilitating an Integrated Spatial Plan for Tasman and Golden Bays.

Tasman BioStrategy – Working on a transformative approach to protecting biodiversity including marine in Tasman Region in accordance with the upcoming National Policy Statement on Indigenous Biodiversity (of which all of our marine fishes and invertebrates are).

Marlborough Coastal Plan – Still allows trawling but seeks resource consent from trawl operators to damage identified high diversity marine environments in Marlborough.

Hectors and Maui Threat Management Plan – Set netting banned to 4nm in Tasman and Golden Bays, but not Marlborough or the West Coast Golden Bay. No impact on Snapper and Gurnard Trawl fishery, but will be contested by environmental groups as not going far enough.

Area 7 is a known Hector's dolphin hotspot and there is an ongoing court case lead by Sea Shepherd to ban NZ fish imports to the US if we do not comply with International cetacean protection regulations.

Motiti RMA Decision – Obliges and empowers Territorial Authorities and communities to protect marine habitats under the Resource Management Act.

Social and Economic Impact Analysis

Who will be affected by an increase in Snapper and Gurnard Quota?

Benefited	How?	Disadvantaged	How?
Quota Owners (including Iwi)	Increased Short Term Revenue	**Quota Owners**	Threat to long term sustainability of the fishery, diminished social licence.
Non Quota Fishers	Increased Short Term Revenue	**Non Quota Fishers**	Threat to long term sustainability of the fishery, diminished social licence. More effort required. No requirement to transition and innovate to more sustainable methods that will benefit their children. Degraded ecosystem.
Ancillary Businesses	Engineers, net makers, fuel companies will see an increase in demand.	**Customary Fisheries**	Less available fish to catch inshore. Continued degradation of ecosystem. More commercial pressure, less opportunity to practice kaitiakitanga. Mahinga kai opportunities diminished.
		Recreational Fishers	Less available fish to catch inshore. Continued degradation of ecosystem. Conflict and animosity with commercial fishers.
		The General Public	Subjected to more commercial fishing close to shore. Noise

			pollution, habitat disturbance.
		Conservationists	Continued degradation of the marine environment, less opportunity and available space to trial restoration and protection interventions.
		Scientists	Few control sites for marine monitoring as all available space is disturbed by fishing.
		Education and Tourism	Reduced opportunity to experience thriving marine ecosystems except in small marine reserves.

Who stands to gain from applying a precautionary approach and transitioning to Ecosystem Based Management?

All of the above, and most importantly the environment who's health is essential for our survival.

Recreational Fishers

A thriving recreational fishery is a major drawcard for attracting New Zealand tourism markets. Much work has been done on the value of a recreationally caught fish over a commercial one. Rec fishers inherently eat in restaurants, use our local shops, stay in local accommodation, use our tackle stores.

That said, with population growth, technological advances and cheaper fuel, recreational fishing pressure is likely to increase. A reduction in the bag limit should be considered.

We also strongly recommend to increase the minimum snapper size to 30cm, as the current 25 cm does not allow that fish to reproduce (minimum breeding size is 28cm). Larger minimum size and smaller bag limit will help to further regenerate the fishery, making it easier for everyone to catch a feed.

Food Sovereignty

Covid 19 showed us a glimpse of society without intense commercial activity. It also really highlighted the exposure we as humans have to the supply chain system. Local people need to be able harvest their own food easily if they are able to. The intrinsic value of an abundant fishery for the community far outweighs the benefits that quota owners gain from continuing to destroy the marine environment for personal profit.

Conclusion

This submission hopefully covers the reasons why we should retain the status quo on the Snapper and Gurnard for now. Business as usual is not serving our environment or our communities. We

have become apathetic to the degraded state of our Bays and in this rapidly changing time we need to build resilience and allow the natural ecosystems to breath and recover in the face of rapidly changing climate. Increasing fishing pressure at the slightest glimpse of a stock recovery plays into the predictable cycle of our dated QMS, and we need to be brave and think towards the future. What do we want the sea to be like for our future generations? Will they be able to feed themselves? Will our ailing marine ecosystems be able to cope with the massive changes forecast with climate change. The world is changing, people are waking up to the finite nature of our planet. The ocean is all too often the poor cousin and is abused as a resource, out of sight out of mind. We need to give our marine environment some space. New Zealand was once a leader in marine protection, of late, we have failed. The failure of the Hauraki Gulf Marine Park and the SeaChange process, below par Hector's and Maui Protection, New Zealand vessel trawling protected sea mounts and essentially getting away with it, Commercial Trawler fishing in the Hikurangi Marine Reserve and the skipper getting away with a small fine, Leader of the Opposition starting a petition to revoke new protections in Bay of Plenty, this has all happened in the last year.

There is so much good work happening in this country to, local communities looking after their rohe, not just protection but restoration of ecosystem services. Our community sees fish abundance as the health of the sea, people are happy that there are more snapper in the water, let them be happy.

We need to change the way we manage our seas and we need to do it fast. We hope this submission will be considered and we are happy to discuss this with anyone concerned.

Nga mihi nui

Stew Robertson on behalf of Tasman Bay Guardians

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Sustainable Seas Website

News Articles

https://www.stuff.co.nz/environment/120618736/former-coastal-scientist-says-proposed-marlborough-environment-plan-sinks-the-sounds

https://www.nzherald.co.nz/nz/news/care-for-our-marine-environment-has-sunk-without-a-trace

From: Heather & Rick
To: FMSubmissions
Subject: Review of SNA7 and GUR7 sustainability measures
Date: Wednesday, 1 July 2020 7:22:56 PM

I wish to submit on this allocation. I partially support option 1. However I would like an even more conservative catch in Golden Bay and by sustainable methods only, that ensure no wasted by catch. Golden Bay needs restoration, not more trawling for the profits for a few. Post covid demands a way in which we can all ensure sustainable food harvest for everyone. The quota system has failed to ensure our ocean ecosystems remain intact and/or restored where necessary. Please take a precautionary approach to further allocation and do not exceed what is already being taken.

Thankyou, Rick Cosslett.

From: Armin
To: FMSubmissions
Subject: My submission
Date: Wednesday, 1 July 2020 7:53:49 PM
Attachments: Tasman-Bay-Guardians-SNA7-Submission.odt

Dear Sir or Madam,
Please find attached the submission from Tasman Bay Guardians.

I do support their submission as well.

For a better and more sustainable Tasman Bay future to come, can you please reconsider you proposal increasing quota for Snapper & Guernard.

Thank you very much.

Kind regards,
Armin

--
Armin Auerhammer


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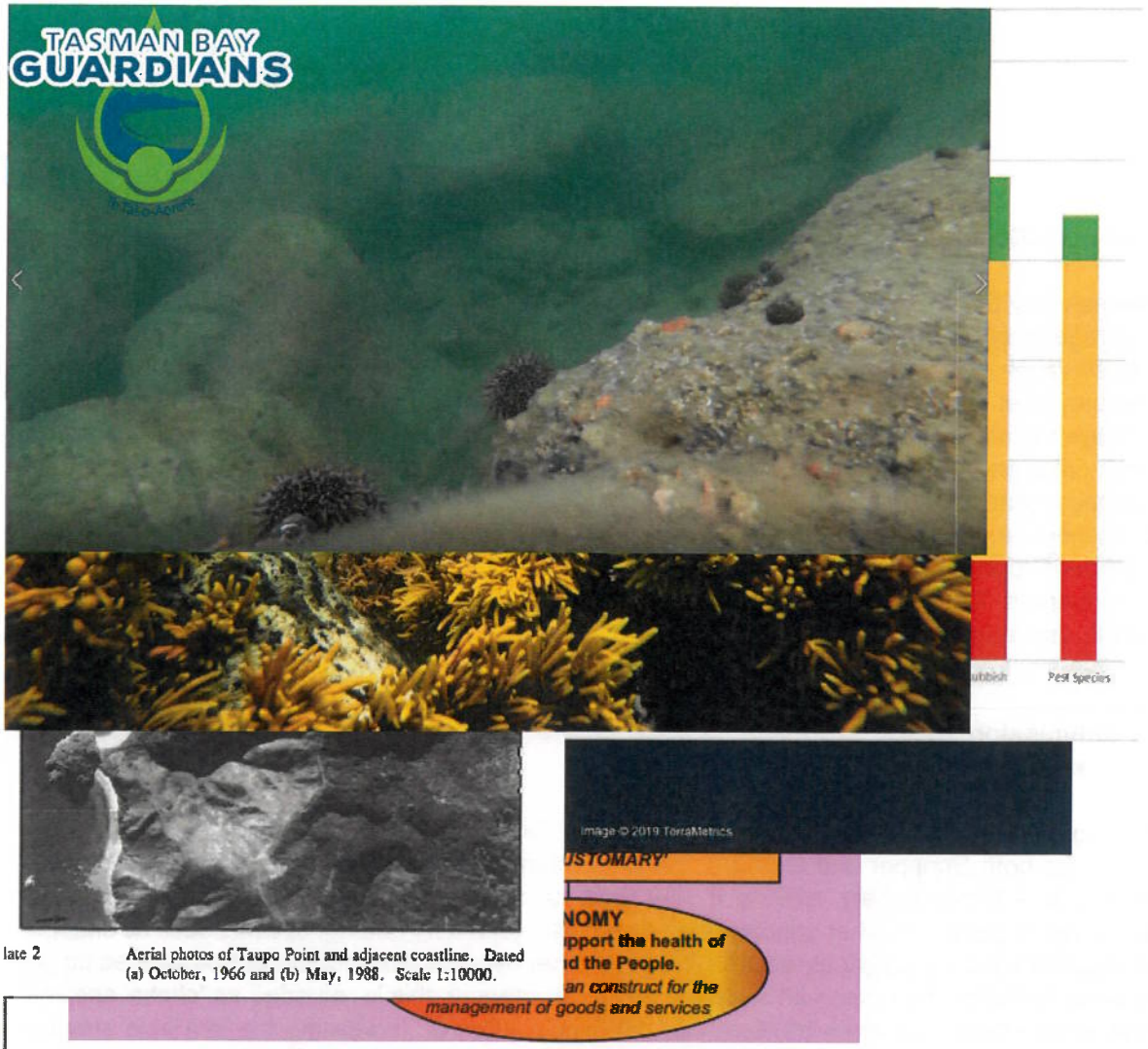


TASMAN BAY
GUARDIANS
Te Tai-o-Aorere

SUBMISSION

Fisheries New Zealand: Review of SNA7 and GUR7 sustainability measures for 1 October 2020 – DEADLINE 1 July 2020

Fisheries management team: [redacted]

22 June 2020

Tasman Bay Guardians are a Te Tauihu based social enterprise focused on protecting, restoring and regenerating the Coastal Marine Area of Te Tai o Aorere / Tasman and Golden Bays, through Conservation, Education and Collaboration. In addition to this, we operate a marine tourism venture, Abel Tasman EcoTours, and spend the majority of our time at sea appreciating nature through a scientific and increasingly cultural lense. Our two organisations work in conjunction with each other and we collaborate with a range of Iwi, Department of Conservation, local councils, education and science institutions. The core purpose of our Trust is to deliver environmental education programmes, Experiencing Marine Reserves, Whitebait Connection and Drains to Harbour Programme. We contract to Nelson City and Tasman District councils to deliver these programmes. We are also working with mana whenua Iwi on pathways to develop a 'cultural health indicator' based monitoring programme for the bays. We are members of the Nelson Biodiversity Forum and sit on the Tasman Bio Strategy working group.

In submission to the proposed change of the Total Allowable Catch of Snapper and Gurnard in Area 7.

Having read the discussion document, we see that there is a push to increase the Total Allowable Catch for both Snapper and Gurnard. We understand that in its current state, the Area 7 trawl fishery is a mixed fishery, making it very hard for fishers to specifically select a species for targeting. In pursuit of other species such as flat fish, john dory and rig; species such as snapper and gurnard will be caught as will a multitude of other bycatch. Non-quota bycatch species do not provide limitation, however with a limited quota for snapper, this is regarded as 'choke' species, that limits where and when trawlers can put fishing effort in. Increasing the available snapper quota will (as stated in the discussion) will increase the overall fishing effort for all species in the bay.

As stated in the document, the MV Kaharoa trawl survey stock assessment found the stock to be increasing to 40% of virgin biomass. This is forecast to surpass this, however this forecast was attributed to a strong 2017 year class. We do not know if this is an upward trend or a short-term anomaly. Tasman Bay Guardians recommends a precautionary approach, as the modelling shows a flattening of the Spawning Biomass curve, with the 2017 recruitment spike removed. We comment on the following options:

Option 1 to maintain the status quo. This should be considered at the very least for the next few years, to see if the increase in stock size is a trend or not.

Option 2 is an exercise in paperwork, allowing the commercial take to increase by 100t, while no change in effort will be felt on the water from the other sectors. This will not sit well politically, as recreational and customary fishers will feel victimised, benefitting commercial at their expense. In reality there will be no less recreational effort, as no bag limit adjustments are being considered.

Option 3 has been acknowledged as the preferred option by the panel and also holds the greatest sustainability risk, as this will legitimize an overall increase in trawling effort.

We believe that all three of these options represent an outdated approach to fisheries management. Much work has been done by the government funded Sustainable Seas National Science Challenge to develop better ways to manage our seas in a more holistic manner. The Science Challenge's vision is:

Vision Mātauranga

"Mātauranga Māori informing and underpinning Ecosystem Based Management for Aotearoa."

With such heavy investment in this visionary process, it is counter – intuitive to increase the fishing pressure using an antiquated habitat-destroying fishing method that we know is contributing to the decline in ecological integrity and resilience of our bays.

Fish stocks do not act independently of one another, they are part of an ecosystem, relying on every other species and their habitat to exist. Disturbing their habitat to extract them is inappropriate, and the social licence for this type of fishing is decreasing.

We propose Option 1 at the very least –

We strongly recommend using the precautionary approach and keep the quota at status quo for now. We also recommend the commencement of an on-the-ground Ecosystem Based Management process, considering all of the species and habitat involved in this fishery. Keep the status quo to allow fishers to continue to earn a living and allow the stocks to rebuild, investing in a transition to less destructive, more selective, higher value fishing methods such as long lining. Support an Iwi lead and science driven integrated spatial management plan, that allows for fishing in a less destructive way, protecting breeding habitats, fragile seabeds, reef systems, juvenile areas. Invest in sub-tidal restoration and promote habitat protection, allowing the ecosystem services inherent with thriving fish stocks to provide resilience.

Treat Snapper, Gurnard, John Dory and Rig as mixed stock, with a combined quota, to minimize the 'choke species' effect. This will benefit fishers, as less effort will be required to fulfil their quota. Land all dead bycatch which will be recorded for a better understanding of the abundance of species such as sharks. These can be used as fish meal if they are inedible. Less habitat will be destroyed and more fish will be left in the bay to fulfil their ecological functions.

Countries all over the planet are waking up to the fact that bulk harvesting methods such as bottom trawling and set-netting are environmentally detrimental and banning it in their waters. Hong Kong, Indonesia, Palau and Belize have completely banned bottom trawling and many other countries have significant no-trawl zones. (Time Magazine Article, 2011)

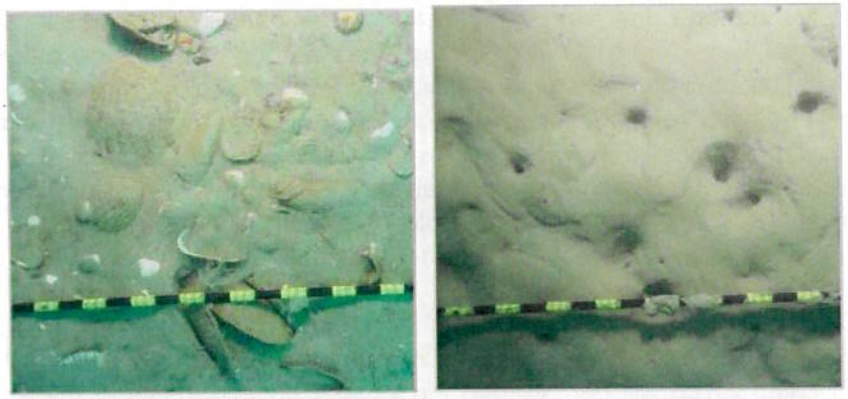
Our rationale:

Historically snapper populations in the Bays were much higher, historical overfishing in the 60's and 70's has decreased the breeding population. The commercial snapper take peaked in 1978

at 3203t, and it has taken over 35 years for the population to show signs of recovery. In that time there have been significant changes to the marine environment. Single species management under the Quota Management System using Maximum Sustainable Yields are failing the environment and local communities. We only have to look at the collapse of the CRA2 and TAR2 last year to show that the system favours fishing businesses' short term gain over ecosystem health.

Tasman Bay once held areas of high biodiversity, the sea floor sustained large areas of biogenic habitat forming organisms. These have mostly been destroyed by the fishing industry, through dredging for mussels, scallops and oysters, and clearing of ground for trawling (Saxton 1980). Handley and Brown 2012 refer to historic maps of biogenic mussel, oyster and scallop beds from the 60's that have long gone. These filter feeding organisms are vital for cycling and filtering the benthic waters of the system.

Bottom contact fishing is not the only stressor on the system. Excessive sediment is impacting the sea bed and increasing water turbidity, choking filter feeding organisms. This is found to have derived from terrestrial disturbance such as forestry and roading combined with river channelization and removal of wetlands is also a major issue. (Newcombe, 2016) These two issues combined are typically considered the main threats to our inshore CMA.



The seabed in Tasman Bay in areas of low disturbance (left) and higher disturbance (right)

There has been a lot of work in recent years on the Sustainable Seas Science Challenge Ecosystem Based Management project. This collaboratively funded national science challenge, has holistically modelled a way forward for fisheries in Aotearoa, yet this discussion document fails to consider this approach. With major government and industry investment in the project, we strongly recommend that the spirit of Ecosystem Based Management be adopted to prepare for a smooth transition in the future.

State of the Environment

The latest New Zealand State of the marine environment report makes for stark reading. The report found that human activities are having a profound impact on the health of the sea and it's

ability and resilience to cope with pressures such as climate change and changing ocean chemistry. Commercial fisheries damage habitat integrity, species population abundance and dynamics, contribute to marine noise pollution and emit carbon. Recreational fisheries have a similar effect, with slightly less habitat degradation.

The Ministry of the Environments 2019 report of the state of our marine environment states:

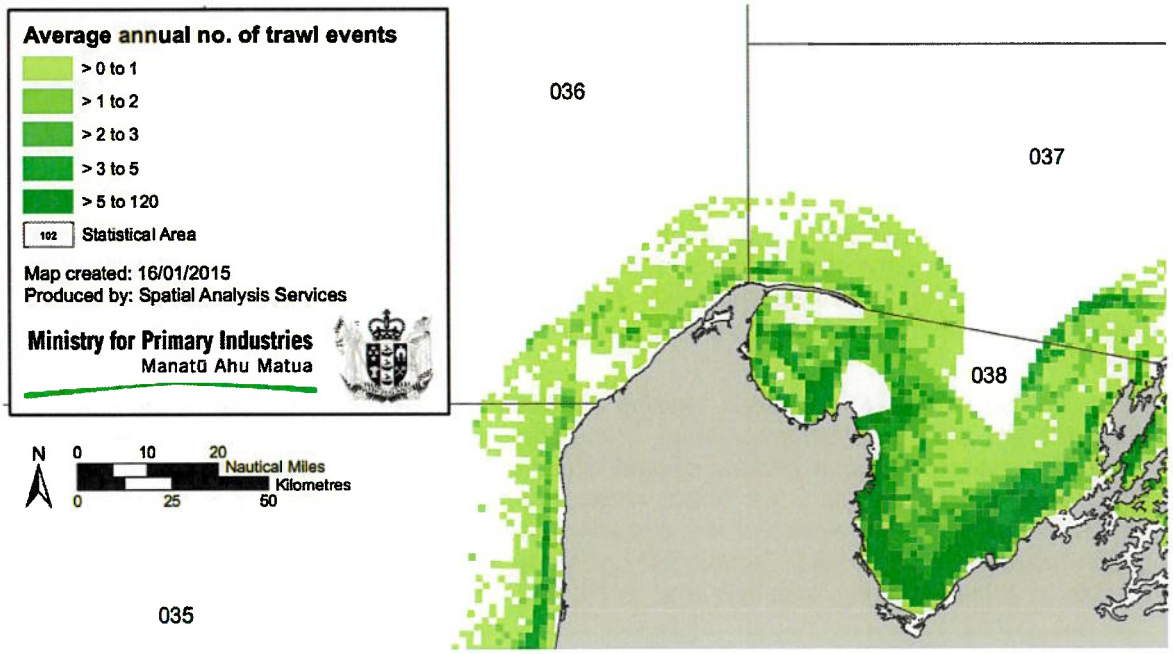
"Fishing changes the population structure of a species as well as reducing the overall number of fish. Fishing changes behaviour, leads to different size or sex ratios, and can affect population genetics (See Environment Aotearoa 2019). Population changes can have cascading effects through the food web by affecting the dynamics of predation, food availability, and competition for food and habitat.

The way we fish matters too. Seabed trawling and dredging alter the structure of the seabed, damage habitats, and re-suspend sediment. Some ecosystems show few signs of recovery and may remain damaged for long periods of time after the activities stop (Clark et al, 2019). For example, reef-forming bryozoans are found in areas of our continental shelf where fishing occurs. Bryozoans are fragile and activities like dredging and bottom trawling have caused loss of bryozoan habitat in some areas. Benthic fishing is a significant threat to bryozoans, especially where fishing activity is high (Anderson et al, 2019)."

We also add that, sedimentation from land based activities, and resuspension of benthic sediments from trawling and dredging continue to degrade the sea floor (Handley, 2020), a layer of fine suspended sediment known as the benthic turbidity layer sits in the water column up to 3m from the bottom. Disturbance from fishing disrupts the biota, fragile epibenthic biogenic organisms such as bryozoan corals(Bradstock and Gordon, 1980), mussels, oysters, tube works, rhodoliths, sponges, ascidians and the like, provide food, shelter and breeding substrate for snapper and many other species. Davidson (2012) describes:
Saxton (1980) provided a historical account documenting the destruction of approximately 160 km2 of bryozoan "coral" by commercial fishermen towing chains. The extent, composition and location of this bed remains unknown, but it was reportedly located offshore of Torrent Bay and dominated by lace coral.

The science is clear, Tuck et al. 2017 describe trawling over soft sediments as the greatest threat to the continental shelf in New Zealand, finding a 21% decrease in species richness of epifaunal species in trawled areas. Hale et al. 2017 found that regular disturbance of the sea floor alters the biogeochemical composition of the sediment as it reduces diversity of the infauna associated with these processes.

Finer (1km) scale trawling maps(below) show the extent of trawling in Tasman Bay. From the map below we can see the intense trawling effort imposed on the inshore benthic marine environment. Note: this map was made in 2015 BEFORE the last Snapper quota increase from 200 to 250t in 2016.

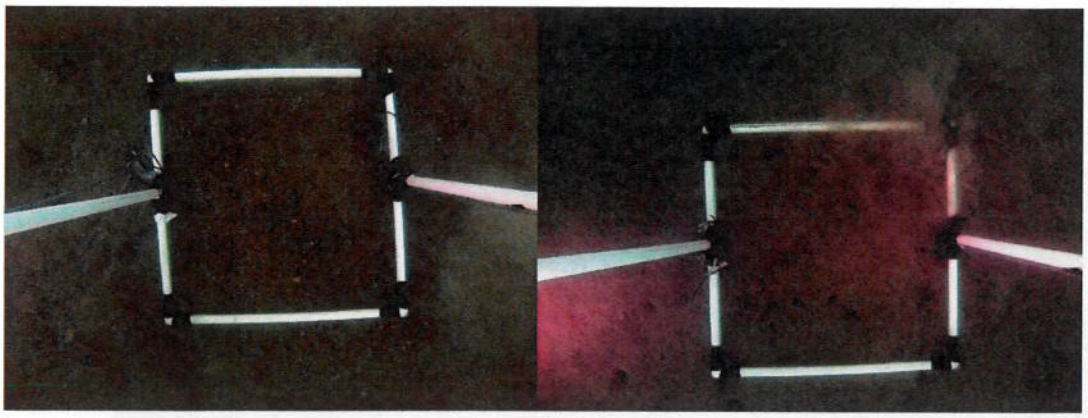


The map indicates the intensity of commercial fishing pressure on Area 7. With some small Marine Reserves, a Taiapure and the Separation Point exclusion zone put together, this still leaves over 95% of the area exposed to trawling pressure which will increase again should the commercial quota be raised.

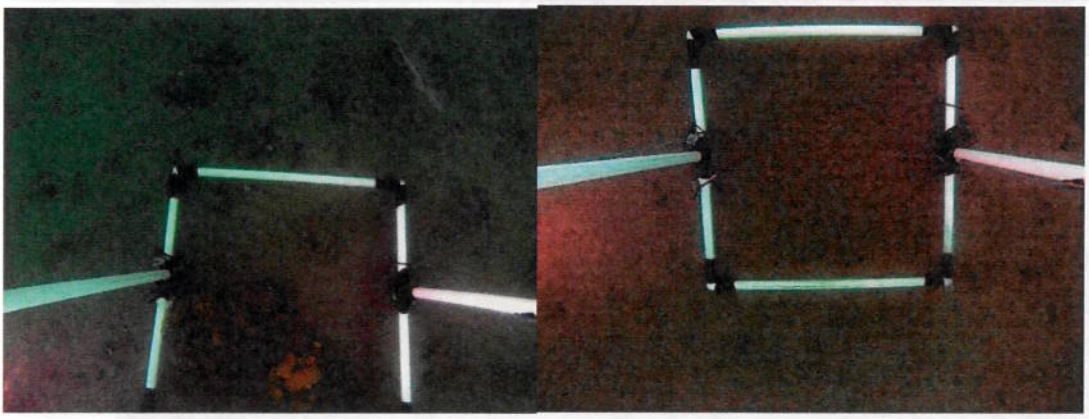
The discussion document states:

"While trawling has an impact on the environment, there are a number of regulatory and voluntary closures in place to reduce the impact of trawling on certain areas within QMA 7 such as the Separation Point bryozoan beds and juvenile fish habitat. In addition, commercial fishers in these fisheries are using lighter gear, fishing further offshore, and the size of the fishing fleet has also reduced significantly over the last twenty years. These closures and changes to fishing practices are likely to mitigate the impacts of additional fishing effort on the existing modified environment"

We would like to challenge this statement, as we do not believe the Separation Point exclusion zone is an effective measure to protect these benthic organisms. Having taken 170 sea floor samples both in and out of the exclusion zone as part of a Phd Thesis through the University of Otago, we only found 1 bryozoan in the middle of the zone. We can only assume that a. Trawling is still occurring within the zone or b. Anchoring from recreational fishers is having as much of an impact as trawling. C. both these impacts are occurring. It is not a completely protected area.



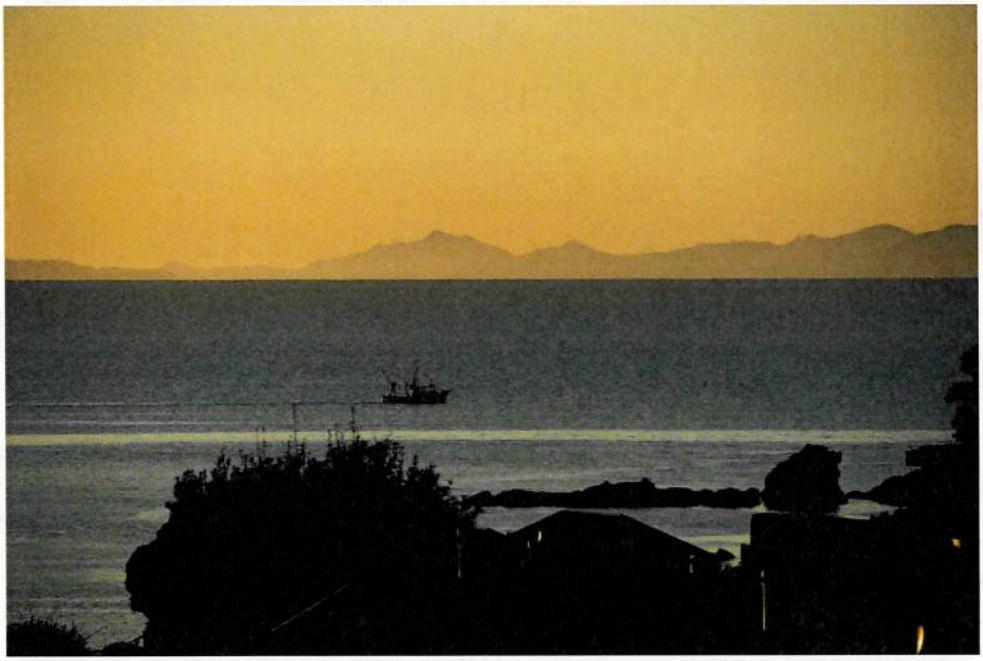
2 Samples taken from North of the Separation Point Exclusion Zone.



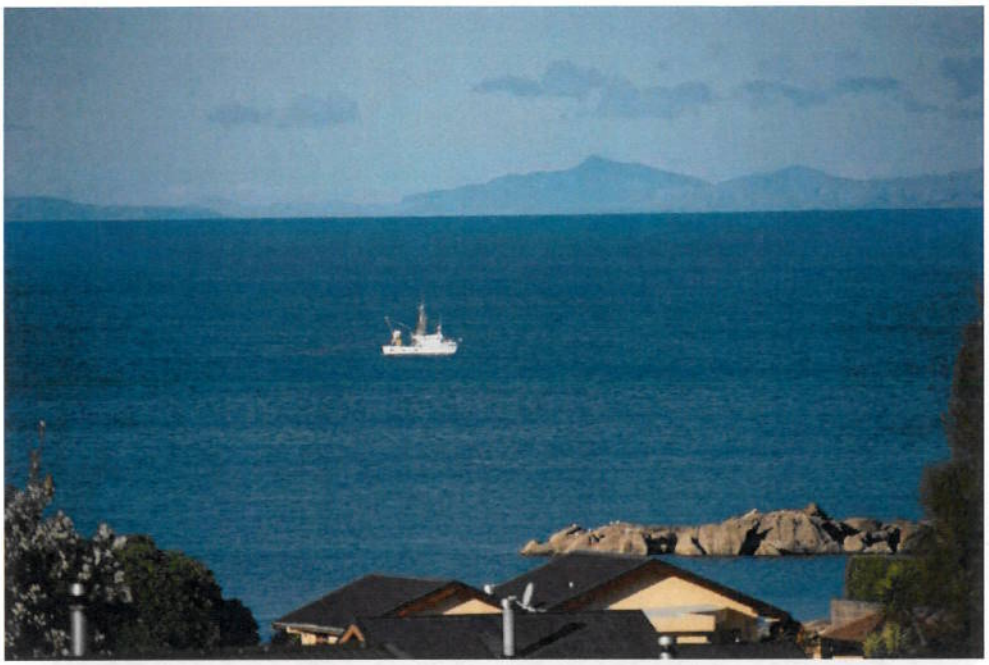
2 Samples taken from within the exclusion zone. The left hand photo is the only bryozoan found within the zone. Right hand photo shows the disturbed barren ground typically found within the exclusion zone.

The reality is that fishers are not fishing far from shore or from the protected areas. There is nothing to stop them from doing this, as they are currently not breaking the law, however this increase in quota for snapper and gurnard will only increase this type of activity. Continuing to disturb the habitat, destroy the benthic life, reduce resilience and ecosystem services and reduce opportunities for recreational and customary fishing.

Trawling around Bark Bay Reef, adjacent to Tonga Island Marine Reserve and Abel Tasman National Park



Trawling next to the shore at Little Kaiteriteri, this is a daily occurrence in the winter.



More Trawling at Little Kaiteriteri

Trawling next to the South Eastern Marker of Tonga Island Marine Reserve. Marine reserve markers are regularly removed by trawl gear. The Department of Conservation struggles to replace them as it is costly and technical. At one point in 2019, there were 6 floats missing from our marine reserves in Tasman Bay.

Trawling the shallows of Marahau, we know this is a fragile habitat of benthic invertebrates such as sand dollars, horse mussels, pipi, tuatua and cockles.

This type of behaviour does no favours for the fishing industry and damages an already fragile social licence (this is purely opinion from multiple conversations with the general public, none of them being supportive of close proximity trawling). Conservationists see habitat damage, recreational fishers see this as an attack on their fishing areas (just two world view examples).

By fishing every available part of the bay, there is no allowance for a network of intact marine ecosystems which organisms can shelter and disperse unmolested from fishing pressure. This must be done through a process of Integrated Spatial Management of the CMA, the sooner the better.

In comment to the lighter gear, the design of a bottom trawl is specifically to stir up the bottom with the trawl doors in order to corral the fish into the cod end. Even the lightest of gear still involves dragging steel across the sea floor, resuspending the sediment.

In conversations Tasman Bay Guardians have had with fisheries managers, it is already clear that fishers are avoiding certain areas as they consistently get 'hung up' in deep mud. This indicates the level of contact this gear makes with the seabed, but also that the issue of sedimentation is getting worse.

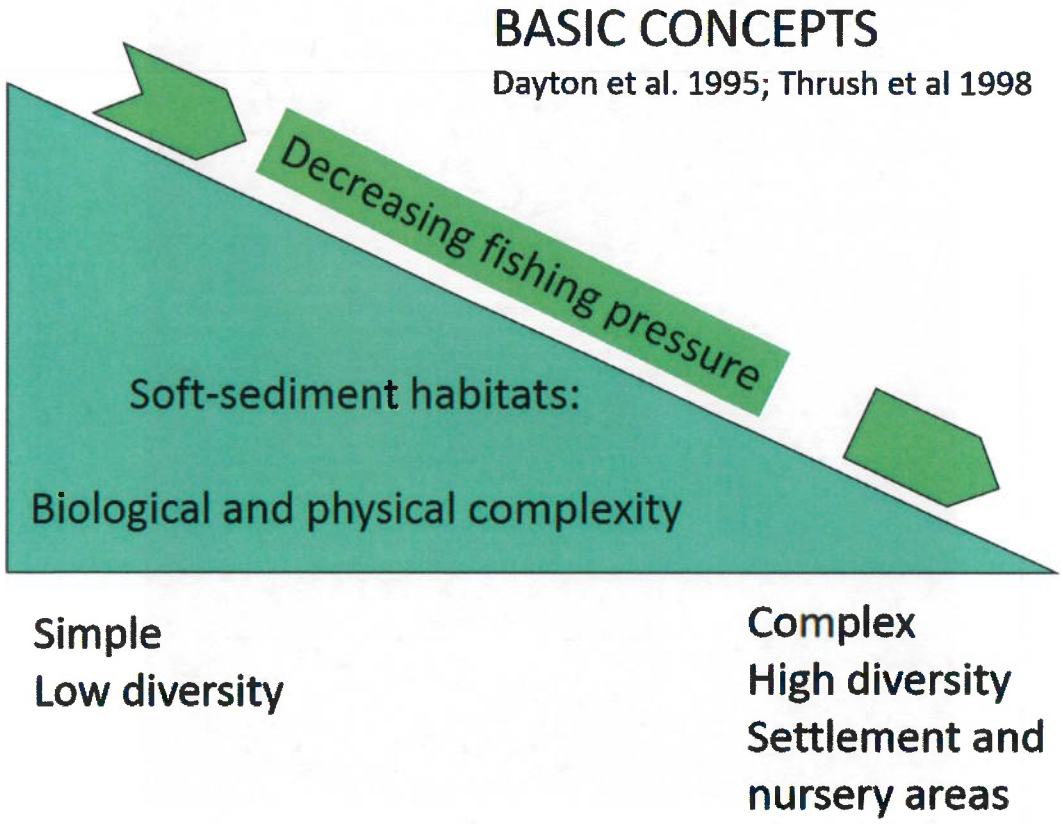
Compliance

We recommend better surveillance of fishing boats in Area 7, we appreciate vessel tracking is now underway, and also call for increased observer coverage and bycatch data.

A comment from Thrush 2013 –

"As well as considering the ecological connectivity of individual species, research has shown that maintaining high biodiversity in some habitat patches enhances the recovery of disturbed patches within the region. As these high diversity source patches become increasingly isolated by disturbance their ability to play this role in rescuing disturbed patches decreases"

In a presentation to Seachange in 2014 Simon Thrush presented this simple and obvious graphic which really illustrates the point well. Stating 'Even the loss of low numbers of animals that define seafloor habitats affect biodiversity...and the abundance of juvenile snapper and scallops. (Thrush et al 2001, 2002)

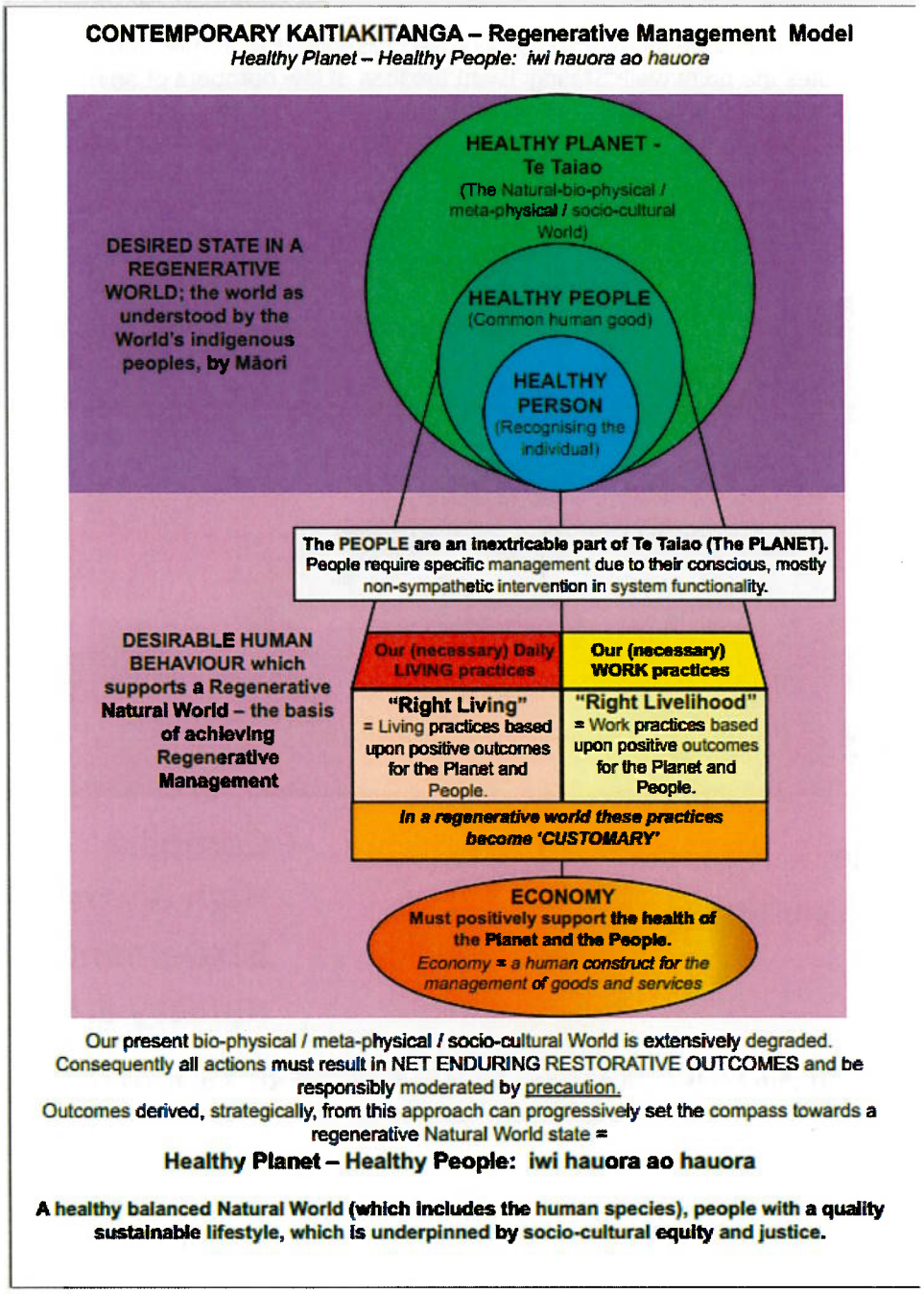


We are not saying don't trawl. Just don't trawl EVERYWHERE. An increase in quota will not have favourable results for ecosystem function and the recruitment of future fish stocks.

In response to the voluntary trawl closure in inner Tasman Bay over the spawning period, this is admirable and is likely to be effective at protecting spawning aggregations, however it does not protect pre-spawning individuals migrating to the area, and it does not protect the spawning habitat which is trawled over in the winter.

Customary Viewpoints

We can not speak for tangata whenua, who have a stake in the fishery. However all the MPI material suggests prioritizing kaitiakitanga in the fishery. Please find below a definition by a prominent Te Tauihu Iwi RMA planner on contemporary kaitiakitanga.



This regenerative management model requires net enduring restorative outcomes, it does not allow for the continued degradation of the environment for the personal gain of a few.

Various customary closures listed in the MPI SNA7 Portal are all intertidal and do not protect areas from bottom contact fishing.

In September 2019, Tasman Bay Guardians trialled a marine Cultural Health Indicator methodology called free choice profiling (Edney, 2012). In summary, volunteers scuba dived 32 transects around Motu Aorere Nui and Motu Aorere Iti (Fisherman and Adele Island) adjacent to the Abel Tasman National Park. Both areas are subject to frequent commercial and recreational pressure. Qualitative videos were taken and edited together. We held a wananga with delegates from mana whenua iwi, TDC, NCC, NIWA, Cawthron Institute, DOC, Independent Scientists. Participants were asked to individually assess the health of the reef they saw in the video. Individual results were calibrated using a consensus process, where each was discussed in smaller breakout groups. We then extrapolated these to the findings below.

Survey sites for Hauora Moana Free Choice Profiling Study

Examples of the Reef Health Indicator Terms and the scale:

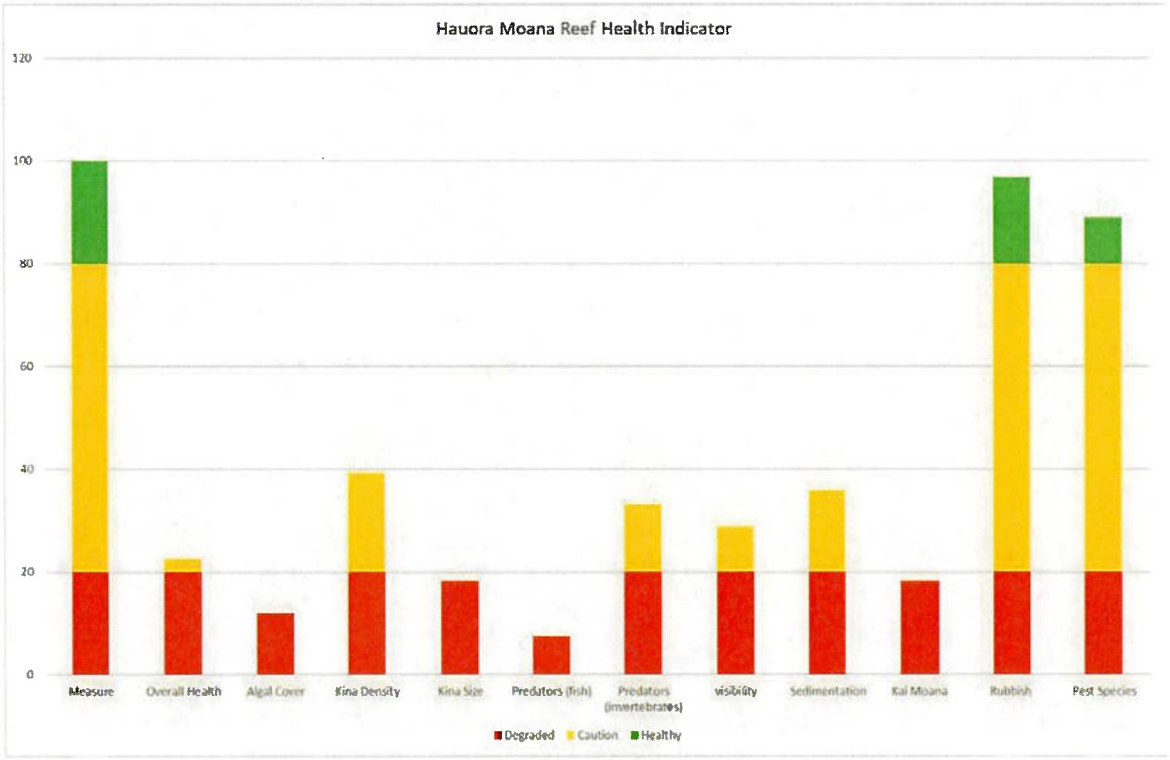
Algae Cover

Rare Abundant

Kina Density .

Abundant Rare

Other terms: Kina Size, Predators (fish), Predators (Sea Stars, snails), Visibility (siltation), Sedimentation (dust on the seafloor), Kai Moana species, Rubbish, Pest Species, Overall health.



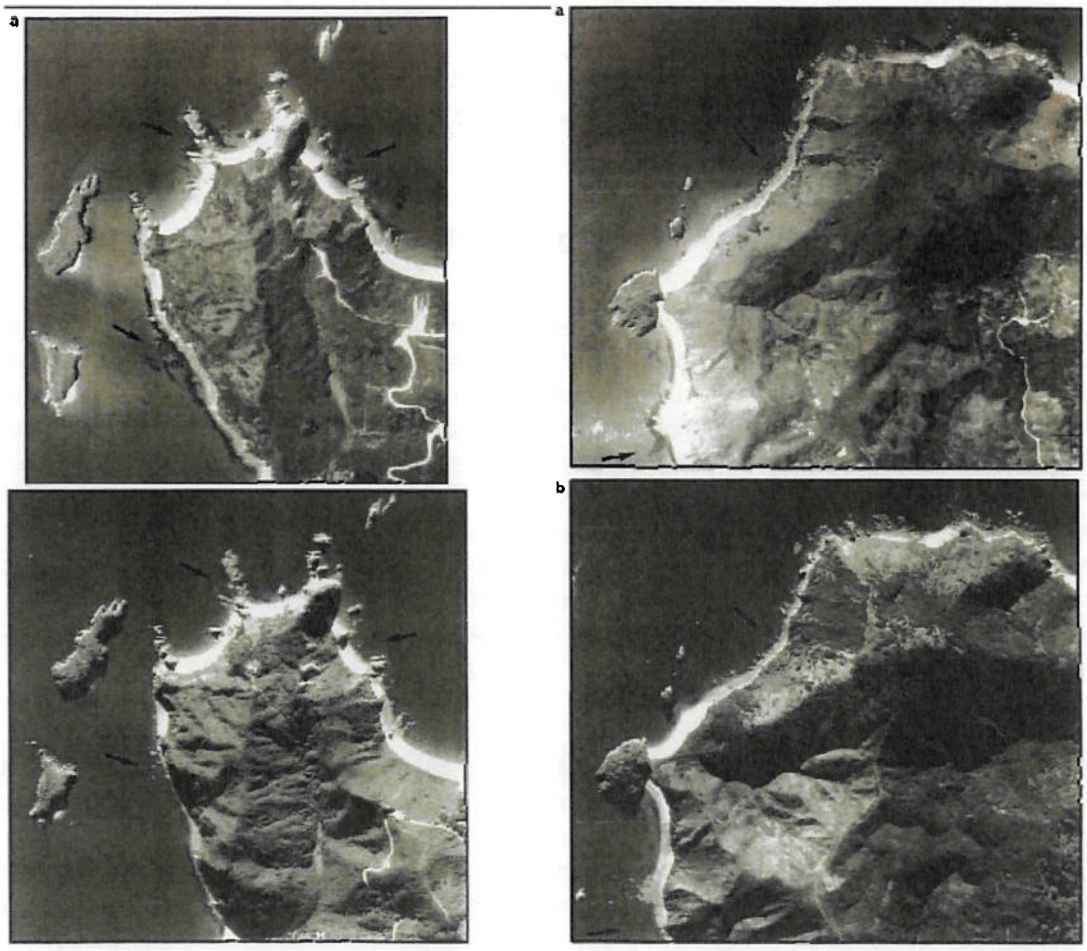
Results from the Hauora Moana Wananga. Column on right shows full scale. Green = least concern no action required. Yellow = Caution, some specific action required, Red = Danger we must act.

The group was unanimous that these reef systems were in a deep state of degradation with action urgently required to revitalize the Mauri (life force). Increasing the intensity of fishing effort in the bay further threatens these systems. This is just a snapshot from one reef system on one day, however it illustrates how differing world views can come together and collectively assess the health of an ecosystem.

Habitat Degradation, Trophic Cascade and Regime Shift

Tasman Bay and the Marlborough Sounds are deeply impacted by the spread of kina barrens. Davidson 1992 shows aerial photographs of the disappearance of algal beds along the Abel Tasman coastline, and this has also been described in the Marlborough Sounds. Through extensive studies in New Zealand's marine reserves, it has been identified that snapper function as a 'keystone species' predating on *Evechinus chloroticus* urchins / Kina, who in turn overgraze algal meadows creating 'kina barrens' (Ling, 2015). This depletion of the predator prey relationship continues as a trophic cascade, resulting in serious impacts on the resilience of Area 7's ecosystems. Less habitat leads to less diversity and less resilience to direct anthropogenic threats such as overfishing and environmental threats such as climate change. This regime shift. is likely to have occurred very early on in Tasman Bay's history, and due to the 'shifting baseline' effect (Thrush and Dayton, 2008), we have come to accept this as normality.

Doak 2019 describes the worsening situation of 'Kina Barrens' around New Zealand. "Gradual as a slow-motion train wreck; as destructive as an asteroid hit; longer lasting than an oil spill: the transformation of many of New Zealand's coastal reefs into barren moonscapes is part of a planet-wide catastrophe. Over-exploitation of inshore waters by modern fishing techniques is to blame: large scale removal of sea urchin (kina) predators such as snapper and crayfish produces a trophic cascade where sea urchins thrive, but little else."



Aerial photos of Tata Islands and adjacent coastline. Dated (a) October, 1966 and (b) May, 1988. Scale 1:10000.

late 2 Aerial photos of Taupo Point and adjacent coastline. Dated (a) October, 1966 and (b) May, 1988. Scale 1:10000.

Aerial photos from Davidson 1992 showing the depletion of algal meadows between 1966 and 1988.

A shallow reef in the Tonga Island Marine Reserve in 2020 showing signs of algal recovery.

A shallow reef at Fisherman's Island near Marahau, with 0% algal cover and very high kina density.

Climate Change

Sea Temperature Change - We know that our seas are changing rapidly. Sea temperatures are increasing which appears to have coincided with a pulse in snapper and gurnard productivity. Snapper spawning conditions have been extended as the water warms for longer beyond 18°C. There is evidence from fisheries that fish species are migrating south (Pers comms. Doug Loder 2018). The snapper fishery itself is on the move. We just don't know how this will affect stocks in the future and we must be cautious.

Ocean acidification – There has been a 7.1% increase in acidity between 1997 and 2017 (Stats NZ Website). This is happening at an alarming rate and has dangerous repercussions to marine food webs. Many invertebrate species are at risk from this, snapper and gurnard both feed predominately on invertebrates, and although generalists, are extremely vulnerable to a restriction in the food supply. Acidification could cause food chain collapse, and this will be magnified with increased cumulative pressures.

Carbon Emissions – Increased trawling will lead to an increase in carbon emissions. Activities that do not involve using fossil fuels to drag gear across the seabed will lower fishers emissions, making fishing companies more sustainable, in line with what they already claim to be.

Carbon Sequestration – The 'keystone species' role of snapper in the control of echinoderm grazers i.e. urchins is well proven. A rebuild in the snapper stocks will increase predation pressure on kina, resulting in increased abundance of algae, which is a proven carbon sink and habitat.

Related legislative and strategical context that will be impacted by an increase in fishing effort.

Kotahitanga mo te Taiao Alliance – A recently formed agreement between all Te Tauihu Territorial Authorities, six Iwi, DOC and a number of NGO's forming a roadmap to regeneration of our natural spaces. This included the CMA, expect for there to be processes instigated to account for wider habitat protection in Fisheries Area 7.

Nelson Biodiversity Forum – Ratified to protect at least 10% of Nelson City waters. Working on facilitating an Integrated Spatial Plan for Tasman and Golden Bays.

Tasman BioStrategy – Working on a transformative approach to protecting biodiversity including marine in Tasman Region in accordance with the upcoming National Policy Statement on Indigenous Biodiversity (of which all of our marine fishes and invertebrates are).

Marlborough Coastal Plan – Still allows trawling but seeks resource consent from trawl operators to damage identified high diversity marine environments in Marlborough.

Hectors and Maui Threat Management Plan – Set netting banned to 4nm in Tasman and Golden Bays, but not Marlborough or the West Coast Golden Bay. No impact on Snapper and Gurnard Trawl fishery, but will be contested by environmental groups as not going far enough. Area 7 is a

known Hector's dolphin hotspot and there is an ongoing court case lead by Sea Shepherd to ban NZ fish imports to the US if we do not comply with International cetacean protection regulations.

Motiti RMA Decision – Obliges and empowers Territorial Authorities and communities to protect marine habitats under the Resource Management Act.

Social and Economic Impact Analysis

Who will be affected by an increase in Snapper and Gurnard Quota?

Benefited	How?	Disadvantaged	How?
Quota Owners (including Iwi)	Increased Short Term Revenue	**Quota Owners**	Threat to long term sustainability of the fishery, diminished social licence.
Non Quota Fishers	Increased Short Term Revenue	**Non Quota Fishers**	Threat to long term sustainability of the fishery, diminished social licence. More effort required. No requirement to transition and innovate to more sustainable methods that will benefit their children. Degraded ecosystem.
Ancillary Businesses	Engineers, net makers, fuel companies will see an increase in demand.	**Customary Fisheries**	Less available fish to catch inshore. Continued degradation of ecosystem. More commercial pressure, less opportunity to practice kaitiakitanga. Mahinga kai opportunities diminished.
		Recreational Fishers	Less available fish to catch inshore. Continued degradation of ecosystem. Conflict and animosity with commercial fishers.
		The General Public	Subjected to more commercial fishing close to shore. Noise pollution, habitat disturbance.

		Conservationists	Continued degradation of the marine environment, less opportunity and available space to trial restoration and protection interventions.
		Scientists	Few control sites for marine monitoring as all available space is disturbed by fishing.
		Education and Tourism	Reduced opportunity to experience thriving marine ecosystems except in small marine reserves.

Who stands to gain from applying a precautionary approach and transitioning to Ecosystem Based Management?

All of the above, and most importantly the environment who's health is essential for our survival.

Recreational Fishers

A thriving recreational fishery is a major drawcard for attracting New Zealand tourism markets. Much work has been done on the value of a recreationally caught fish over a commercial one. Rec fishers inherently eat in restaurants, use our local shops, stay in local accommodation, use our tackle stores.

That said, with population growth, technological advances and cheaper fuel, recreational fishing pressure is likely to increase. A reduction in the bag limit should be considered.

We also strongly recommend to increase the minimum snapper size to 30cm, as the current 25 cm does not allow that fish to reproduce (minimum breeding size is 28cm). Larger minimum size and smaller bag limit will help to further regenerate the fishery, making it easier for everyone to catch a feed.

Food Sovereignty

Covid 19 showed us a glimpse of society without intense commercial activity. It also really highlighted the exposure we as humans have to the supply chain system. Local people need to be able harvest their own food easily if they are able to. The intrinsic value of an abundant fishery for the community far outweighs the benefits that quota owners gain from continuing to destroy the marine environment for personal profit.

Conclusion

This submission hopefully covers the reasons why we should retain the status quo on the Snapper and Gurnard for now. Business as usual is not serving our environment or our communities. We have become apathetic to the degraded state of our Bays and in this rapidly changing time we need to build resilience and allow the natural ecosystems to breath and recover in the face of

rapidly changing climate. Increasing fishing pressure at the slightest glimpse of a stock recovery plays into the predictable cycle of our dated QMS, and we need to be brave and think towards the future. What do we want the sea to be like for our future generations? Will they be able to feed themselves? Will our ailing marine ecosystems be able to cope with the massive changes forecast with climate change. The world is changing, people are waking up to the finite nature of our planet. The ocean is all too often the poor cousin and is abused as a resource, out of sight out of mind. We need to give our marine environment some space. New Zealand was once a leader in marine protection, of late, we have failed. The failure of the Hauraki Gulf Marine Park and the SeaChange process, below par Hector's and Maui Protection, New Zealand vessel trawling protected sea mounts and essentially getting away with it, Commercial Trawler fishing in the Hikurangi Marine Reserve and the skipper getting away with a small fine, Leader of the Opposition starting a petition to revoke new protections in Bay of Plenty, this has all happened in the last year.

There is so much good work happening in this country to, local communities looking after their rohe, not just protection but restoration of ecosystem services. Our community sees fish abundance as the health of the sea, people are happy that there are more snapper in the water, let them be happy.

We need to change the way we manage our seas and we need to do it fast. We hope this submission will be considered and we are happy to discuss this with anyone concerned.

Nga mihi nui

Stew Robertson on behalf of Tasman Bay Guardians

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Sustainable Seas Website

News Articles

https://www.stuff.co.nz/environment/120618736/former-coastal-scientist-says-proposed-marlborough-environment-plan-sinks-the-sounds

https://www.nzherald.co.nz/nz/news/care-for-our-marine-environment-has-sunk-without-a-trace

From: erin hawke
To: FMSubmissions
Subject: Fwd: Review of SNA7 and GUR7 sustainability measures
Date: Wednesday, 1 July 2020 8:01:34 PM
Attachments: Tasman Bay Guardians SNA7 Submission.docx

Fisheries New Zealand: Review of SNA7 and GUR7 sustainability measures for 1 October 2020 – DEADLINE 1 July 2020

Fisheries management team: [redacted]

Kia ora

I live in Golden Bay and have long awaited a marine management plan, and a set net and trawling ban for Golden Bay in order to protect and repair our fragile marine environment. This previously productive ecosystem has been poorly managed by the existing QMA system, and previous harvesting regimes.

Golden Bay is an Outstanding Natural Landscape and has National Protection under the Resource Management Act, 1991.

Option 1 is my preferred option, however I also endorse the concept of a mixed stock quota as particularly relevant to Golden Bay. This would would enable more sensitive harvesting, more food for other species, including the resident group of Hectors dolphin, and the Little Blue Penguin population that is suspected of declining due to food depletion in their nearby area thus having to forage further out, as well as other bird species relying on a coastal food supply. Loss of local food supplies for these species would increase with increased quota.

Golden Bay is well suited for the establishment and/or extension of the adjacent marine reserves, or at least a Marine Management plan that supports these reserves. Large Marine reserves are more effective at increasing fish stock thus supporting the fishing industry.

Golden Bay residents would like to see a complete ban on trawling and set netting in Golden Bay which would allow the reestablishment of the rich biodiversity once abundant in Golden Bay and enhance the tourism and low impact recreational fishing benefiting so many more people in this post covid difficult times.

I endorse the comprehensive submission of Tasman Bay Guardians (see attached,) as I recognise the robust scientific analysis provided which relates intimately to our area.

I look forward to seeing the consultation results.

All the best, Erin Hawke

[redacted]

[redacted]

SUBMISSION

Fisheries New Zealand: Review of SNA7 and GUR7 sustainability measures for 1 October 2020 – DEADLINE 1 July 2020

Fisheries management team: [redacted]

22 June 2020

Tasman Bay Guardians are a Te Tauihu based social enterprise focused on protecting, restoring and regenerating the Coastal Marine Area of Te Tai o Aorere / Tasman and Golden Bays, through Conservation, Education and Collaboration. In addition to this, we operate a marine tourism venture, Abel Tasman EcoTours, and spend the majority of our time at sea appreciating nature through a scientific and increasingly cultural lense. Our two organisations work in conjunction with each other and we collaborate with a range of Iwi, Department of Conservation, local councils, education and science institutions. The core purpose of our Trust is to deliver environmental education programmes, Experiencing Marine Reserves, Whitebait Connection and Drains to Harbour Programme. We contract to Nelson City and Tasman District councils to deliver these programmes. We are also working with mana whenua Iwi on pathways to develop a 'cultural health indicator' based monitoring programme for the bays. We are members of the Nelson Biodiversity Forum and sit on the Tasman Bio Strategy working group.

In submission to the proposed change of the Total Allowable Catch of Snapper and Gurnard in Area 7.

Having read the discussion document, we see that there is a push to increase the Total Allowable Catch for both Snapper and Gurnard. We understand that in its current state, the Area 7 trawl fishery is a mixed fishery, making it very hard for fishers to specifically select a species for targeting. In pursuit of other species such as flat fish, john dory and rig; species such as snapper and gurnard will be caught as will a multitude of other bycatch. Non-quota bycatch species do not provide limitation, however with a limited quota for snapper, this is regarded as 'choke' species, that limits where and when trawlers can put fishing effort in. Increasing the available snapper quota will (as stated in the discussion) will increase the overall fishing effort for all species in the bay.

As stated in the document, the MV Kaharoa trawl survey stock assessment found the stock to be increasing to 40% of virgin biomass. This is forecast to surpass this, however this forecast was attributed to a strong 2017 year class. We do not know if this is an upward trend or a short-term anomaly. Tasman Bay Guardians recommends a precautionary approach, as the modelling shows a flattening of the Spawning Biomass curve, with the 2017 recruitment spike removed. We comment on the following options:

Option 1 to maintain the status quo. This should be considered at the very least for the next few years, to see if the increase in stock size is a trend or not.

Option 2 is an exercise in paperwork, allowing the commercial take to increase by 100t, while no change in effort will be felt on the water from the other sectors. This will not sit well politically, as recreational and customary fishers will feel victimised, benefitting commercial at their expense. In reality there will be no less recreational effort, as no bag limit adjustments are being considered.

Option 3 has been acknowledged as the preferred option by the panel and also holds the greatest sustainability risk, as this will legitimize an overall increase in trawling effort.

We believe that all three of these options represent an outdated approach to fisheries management. Much work has been done by the government funded Sustainable Seas National Science Challenge to develop better ways to manage our seas in a more holistic manner. The Science Challenge's vision is:

Vision Mātauranga

"Mātauranga Māori informing and underpinning Ecosystem Based Management for Aotearoa."

With such heavy investment in this visionary process, it is counter – intuitive to increase the fishing pressure using an antiquated habitat-destroying fishing method that we know is contributing to the decline in ecological integrity and resilience of our bays.

Fish stocks do not act independently of one another, they are part of an ecosystem, relying on every other species and their habitat to exist. Disturbing their habitat to extract them is inappropriate, and the social licence for this type of fishing is decreasing.

We propose Option 1 at the very least –

We strongly recommend using the precautionary approach and keep the quota at status quo for now. We also recommend the commencement of an on-the-ground Ecosystem Based Management process, considering all of the species and habitat involved in this fishery. Keep the status quo to allow fishers to continue to earn a living and allow the stocks to rebuild, investing in a transition to less destructive, more selective, higher value fishing methods such as long lining. Support an Iwi lead and science driven integrated spatial management plan, that allows for fishing in a less destructive way, protecting breeding habitats, fragile seabeds, reef systems, juvenile areas. Invest in sub-tidal restoration and promote habitat protection, allowing the ecosystem services inherent with thriving fish stocks to provide resilience.

Treat Snapper, Gurnard, John Dory and Rig as mixed stock, with a combined quota, to minimize the 'choke species' effect. This will benefit fishers, as less effort will be required to fulfil their quota. Land all dead bycatch which will be recorded for a better understanding of the abundance of

species such as sharks. These can be used as fish meal if they are inedible. Less habitat will be destroyed and more fish will be left in the bay to fulfil their ecological functions.

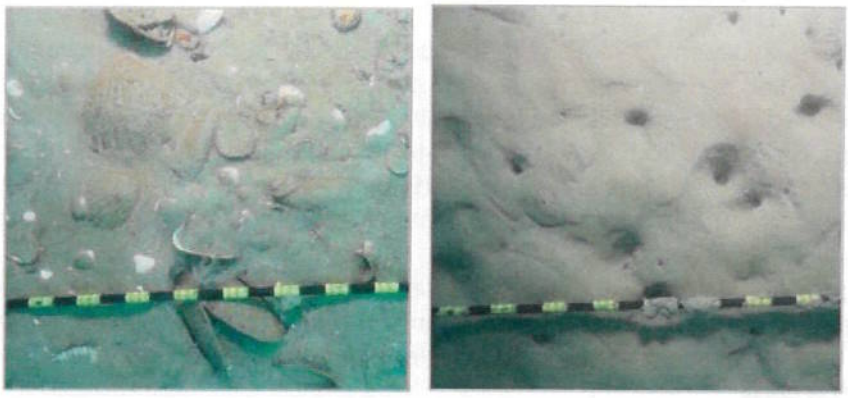
Countries all over the planet are waking up to the fact that bulk harvesting methods such as bottom trawling and set-netting are environmentally detrimental and banning it in their waters. Hong Kong, Indonesia, Palau and Belize have completely banned bottom trawling and many other countries have significant no-trawl zones. (Time Magazine Article, 2011)

Our rationale:

Historically snapper populations in the Bays were much higher, historical overfishing in the 60's and 70's has decreased the breeding population. The commercial snapper take peaked in 1978 at 3203t, and it has taken over 35 years for the population to show signs of recovery. In that time there have been significant changes to the marine environment. Single species management under the Quota Management System using Maximum Sustainable Yields are failing the environment and local communities. We only have to look at the collapse of the CRA2 and TAR2 last year to show that the system favours fishing businesses' short term gain over ecosystem health.

Tasman Bay once held areas of high biodiversity, the sea floor sustained large areas of biogenic habitat forming organisms. These have mostly been destroyed by the fishing industry, through dredging for mussels, scallops and oysters, and clearing of ground for trawling (Saxton 1980). Handley and Brown 2012 refer to historic maps of biogenic mussel, oyster and scallop beds from the 60's that have long gone. These filter feeding organisms are vital for cycling and filtering the benthic waters of the system.

Bottom contact fishing is not the only stressor on the system. Excessive sediment is impacting the sea bed and increasing water turbidity, choking filter feeding organisms. This is found to have derived from terrestrial disturbance such as forestry and roading combined with river channelization and removal of wetlands is also a major issue. (Newcombe, 2016) These two issues combined are typically considered the main threats to our inshore CMA.



The seabed in Tasman Bay in areas of low disturbance (left) and higher disturbance (right)

There has been a lot of work in recent years on the Sustainable Seas Science Challenge Ecosystem Based Management project. This collaboratively funded national science challenge, has holistically modelled a way forward for fisheries in Aotearoa, yet this discussion document fails to consider this approach. With major government and industry investment in the project, we strongly recommend that the spirit of Ecosystem Based Management be adopted to prepare for a smooth transition in the future.

State of the Environment

The latest New Zealand State of the marine environment report makes for stark reading. The report found that human activities are having a profound impact on the health of the sea and it's ability and resilience to cope with pressures such as climate change and changing ocean chemistry. Commercial fisheries damage habitat integrity, species population abundance and dynamics, contribute to marine noise pollution and emit carbon. Recreational fisheries have a similar effect, with slightly less habitat degradation.

The Ministry of the Environments 2019 report of the state of our marine environment states:

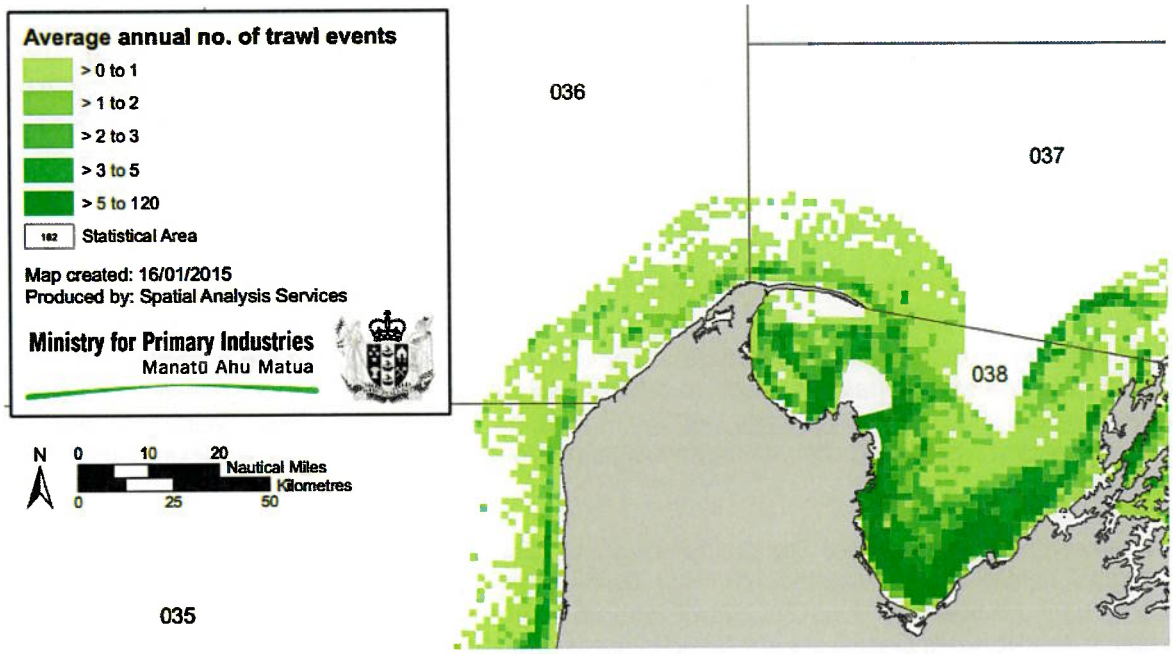
"Fishing changes the population structure of a species as well as reducing the overall number of fish. Fishing changes behaviour, leads to different size or sex ratios, and can affect population genetics (See Environment Aotearoa 2019). Population changes can have cascading effects through the food web by affecting the dynamics of predation, food availability, and competition for food and habitat.

The way we fish matters too. Seabed trawling and dredging alter the structure of the seabed, damage habitats, and re-suspend sediment. Some ecosystems show few signs of recovery and may remain damaged for long periods of time after the activities stop (Clark et al, 2019). For example, reef-forming bryozoans are found in areas of our continental shelf where fishing occurs. Bryozoans are fragile and activities like dredging and bottom trawling have caused loss of bryozoan habitat in some areas. Benthic fishing is a significant threat to bryozoans, especially where fishing activity is high (Anderson et al, 2019)."

We also add that, sedimentation from land based activities, and resuspension of benthic sediments from trawling and dredging continue to degrade the sea floor (Handley, 2020), a layer of fine suspended sediment known as the benthic turbidity layer sits in the water column up to 3m from the bottom. Disturbance from fishing disrupts the biota, fragile epibenthic biogenic organisms such as bryozoan corals(Bradstock and Gordon, 1980), mussels, oysters, tube works, rhodoliths, sponges, ascidians and the like, provide food, shelter and breeding substrate for snapper and many other species. Davidson (2012) describes:
Saxton (1980) provided a historical account documenting the destruction of approximately 160 km2 of bryozoan "coral" by commercial fishermen towing chains. The extent, composition and location of this bed remains unknown, but it was reportedly located offshore of Torrent Bay and dominated by lace coral.

The science is clear, Tuck et al. 2017 describe trawling over soft sediments as the greatest threat to the continental shelf in New Zealand, finding a 21% decrease in species richness of epifaunal species in trawled areas. Hale et al. 2017 found that regular disturbance of the sea floor alters the biogeochemical composition of the sediment as it reduces diversity of the infauna associated with these processes.

Finer (1km) scale trawling maps(below) show the extent of trawling in Tasman Bay. From the map below we can see the intense trawling effort imposed on the inshore benthic marine environment. Note: this map was made in 2015 BEFORE the last Snapper quota increase from 200 to 250t in 2016.



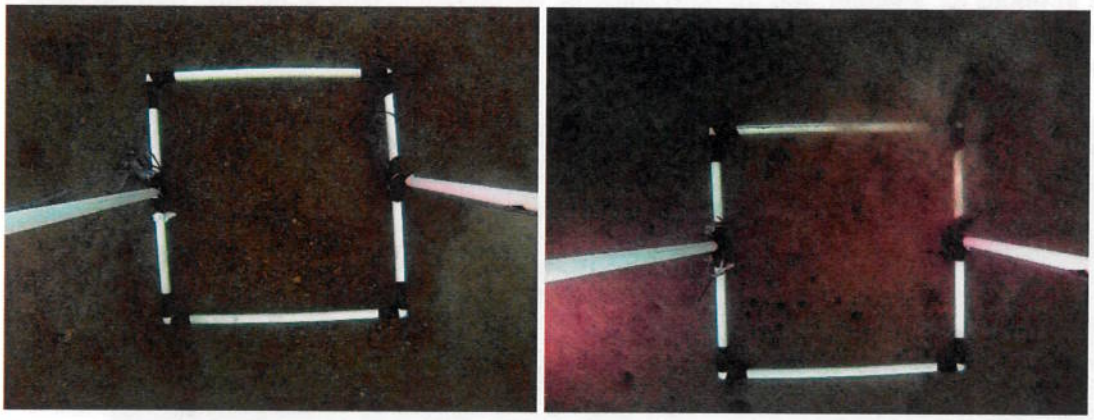
The map indicates the intensity of commercial fishing pressure on Area 7. With some small Marine Reserves, a Taiapure and the Separation Point exclusion zone put together, this still leaves over

95% of the area exposed to trawling pressure which will increase again should the commercial quota be raised.

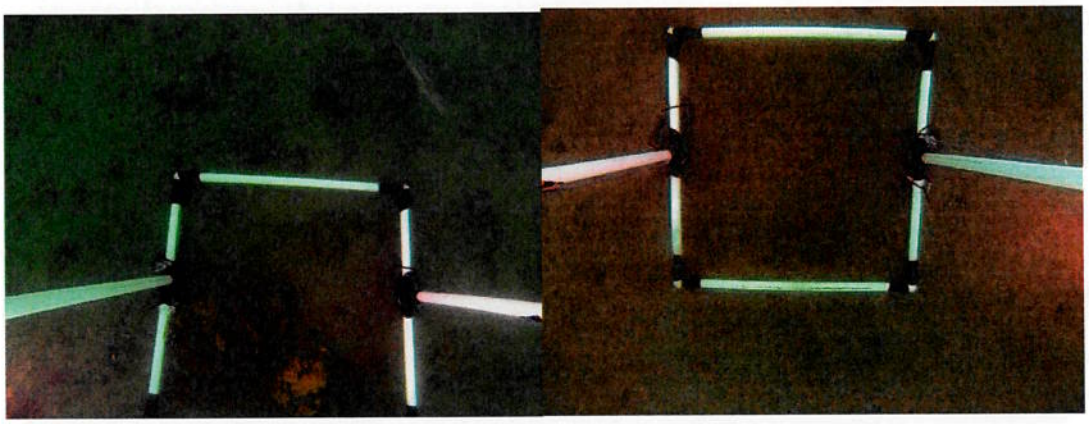
The discussion document states:

"While trawling has an impact on the environment, there are a number of regulatory and voluntary closures in place to reduce the impact of trawling on certain areas within QMA 7 such as the Separation Point bryozoan beds and juvenile fish habitat. In addition, commercial fishers in these fisheries are using lighter gear, fishing further offshore, and the size of the fishing fleet has also reduced significantly over the last twenty years. These closures and changes to fishing practices are likely to mitigate the impacts of additional fishing effort on the existing modified environment"

We would like to challenge this statement, as we do not believe the Separation Point exclusion zone is an effective measure to protect these benthic organisms. Having taken 170 sea floor samples both in and out of the exclusion zone as part of a Phd Thesis through the University of Otago, we only found 1 bryozoan in the middle of the zone. We can only assume that a. Trawling is still occurring within the zone or b. Anchoring from recreational fishers is having as much of an impact as trawling. C. both these impacts are occurring. It is not a completely protected area.



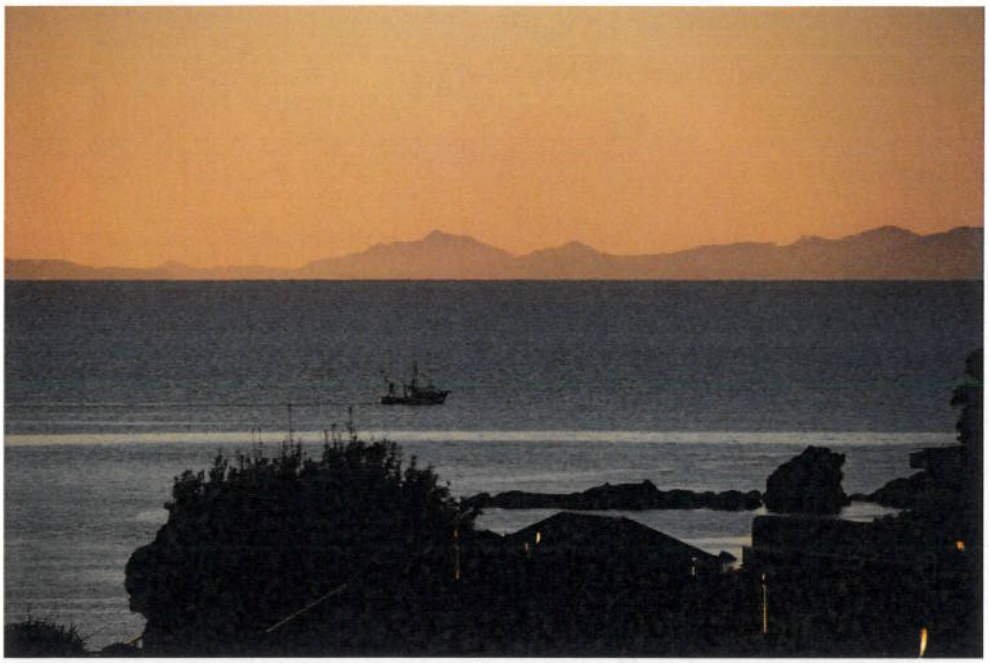
2 Samples taken from North of the Separation Point Exclusion Zone.



2 Samples taken from within the exclusion zone. The left hand photo is the only bryozoan found within the zone. Right hand photo shows the disturbed barren ground typically found within the exclusion zone.

The reality is that fishers are not fishing far from shore or from the protected areas. There is nothing to stop them from doing this, as they are currently not breaking the law, however this increase in quota for snapper and gurnard will only increase this type of activity. Continuing to disturb the habitat, destroy the benthic life, reduce resilience and ecosystem services and reduce opportunities for recreational and customary fishing.

Trawling around Bark Bay Reef, adjacent to Tonga Island Marine Reserve and Abel Tasman National Park



Trawling next to the shore at Little Kaiteriteri, this is a daily occurrence in the winter.

More Trawling at Little Kaiteriteri

Trawling next to the South Eastern Marker of Tonga Island Marine Reserve. Marine reserve markers are regularly removed by trawl gear. The Department of Conservation struggles to replace them as it is costly and technical. At one point in 2019, there were 6 floats missing from our marine reserves in Tasman Bay.

Trawling the shallows of Marahau, we know this is a fragile habitat of benthic invertebrates such as sand dollars, horse mussels, pipi, tuatua and cockles.

This type of behaviour does no favours for the fishing industry and damages an already fragile social licence (this is purely opinion from multiple conversations with the general public, none of them being supportive of close proximity trawling). Conservationists see habitat damage, recreational fishers see this as an attack on their fishing areas (just two world view examples).

By fishing every available part of the bay, there is no allowance for a network of intact marine ecosystems which organisms can shelter and disperse unmolested from fishing pressure. This must be done through a process of Integrated Spatial Management of the CMA, the sooner the better.

In comment to the lighter gear, the design of a bottom trawl is specifically to stir up the bottom with the trawl doors in order to corral the fish into the cod end. Even the lightest of gear still involves dragging steel across the sea floor, resuspending the sediment.

In conversations Tasman Bay Guardians have had with fisheries managers, it is already clear that fishers are avoiding certain areas as they consistently get 'hung up' in deep mud. This indicates the level of contact this gear makes with the seabed, but also that the issue of sedimentation is getting worse.

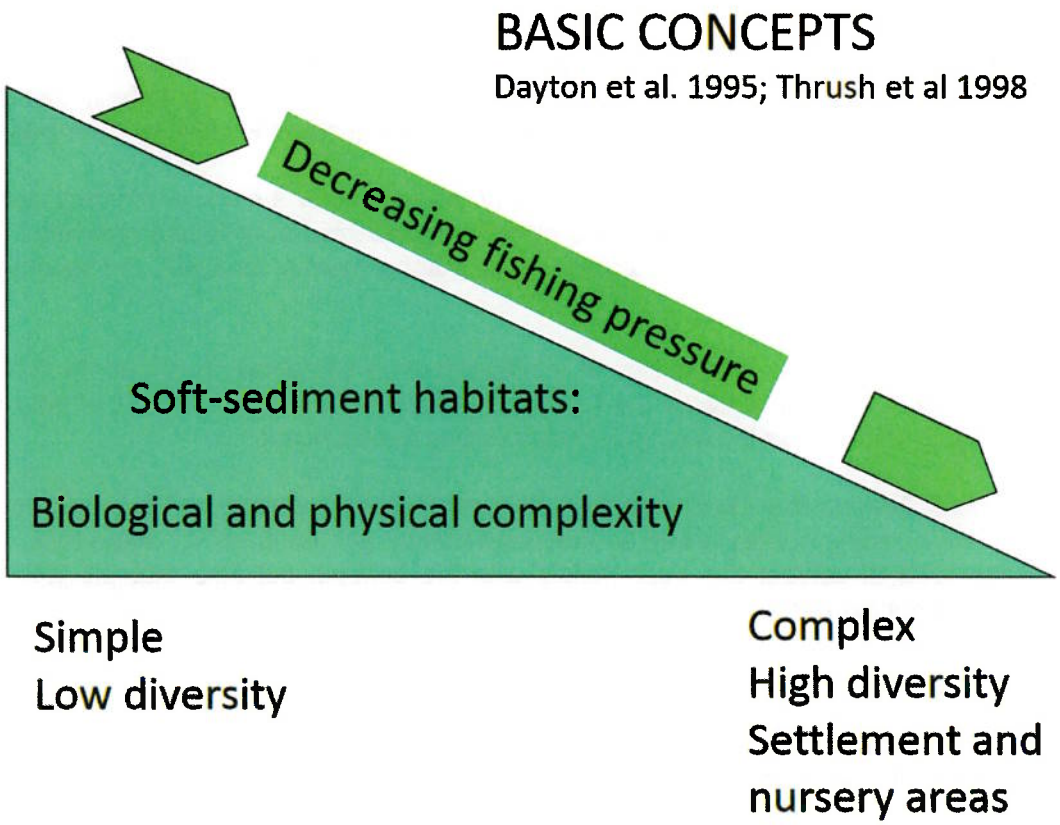
Compliance

We recommend better surveillance of fishing boats in Area 7, we appreciate vessel tracking is now underway, and also call for increased observer coverage and bycatch data.

A comment from Thrush 2013 –

"As well as considering the ecological connectivity of individual species, research has shown that maintaining high biodiversity in some habitat patches enhances the recovery of disturbed patches within the region. As these high diversity source patches become increasingly isolated by disturbance their ability to play this role in rescuing disturbed patches decreases"

In a presentation to Seachange in 2014 Simon Thrush presented this simple and obvious graphic which really illustrates the point well. Stating 'Even the loss of low numbers of animals that define seafloor habitats affect biodiversity...and the abundance of juvenile snapper and scallops. (Thrush et al 2001, 2002)

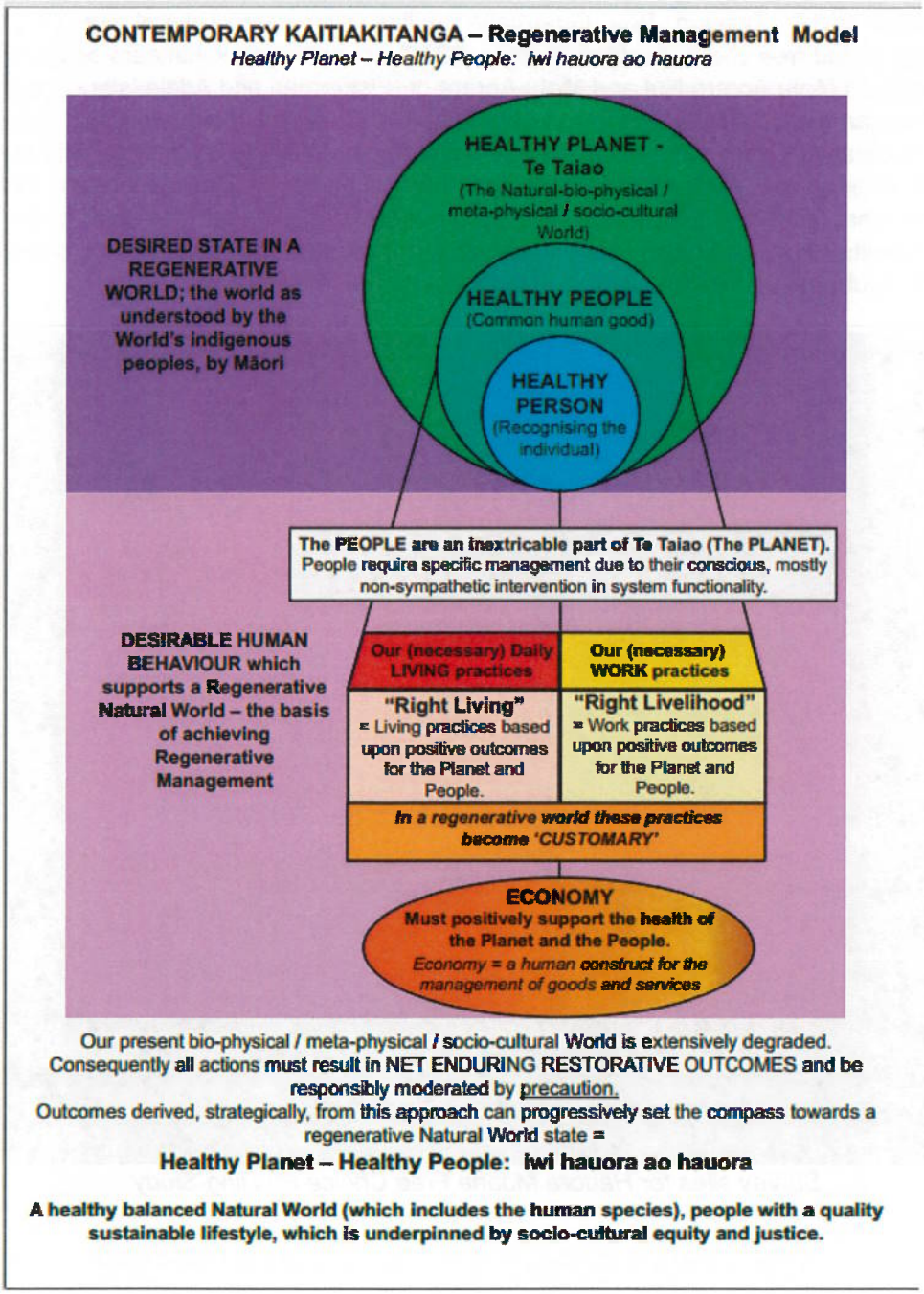


We are not saying don't trawl. Just don't trawl EVERYWHERE. An increase in quota will not have favourable results for ecosystem function and the recruitment of future fish stocks.

In response to the voluntary trawl closure in inner Tasman Bay over the spawning period, this is admirable and is likely to be effective at protecting spawning aggregations, however it does not protect pre-spawning individuals migrating to the area, and it does not protect the spawning habitat which is trawled over in the winter.

Customary Viewpoints

We can not speak for tangata whenua, who have a stake in the fishery. However all the MPI material suggests prioritizing kaitiakitanga in the fishery. Please find below a definition by a prominent Te Tauihu Iwi RMA planner on contemporary kaitiakitanga.



This regenerative management model requires net enduring restorative outcomes, it does not allow for the continued degradation of the environment for the personal gain of a few.

Various customary closures listed in the MPI SNA7 Portal are all intertidal and do not protect areas from bottom contact fishing.

In September 2019, Tasman Bay Guardians trialled a marine Cultural Health Indicator methodology called free choice profiling (Edney, 2012). In summary, volunteers scuba dived 32 transects around Motu Aorere Nui and Motu Aorere Iti (Fisherman and Adele Island) adjacent to the Abel Tasman National Park. Both areas are subject to frequent commercial and recreational pressure. Qualitative videos were taken and edited together. We held a wananga with delegates from mana whenua iwi, TDC, NCC, NIWA, Cawthron Institute, DOC, Independent Scientists. Participants were asked to individually assess the health of the reef they saw in the video. Individual results were calibrated using a consensus process, where each was discussed in smaller breakout groups. We then extrapolated these to the findings below.

Survey sites for Hauora Moana Free Choice Profiling Study

Examples of the Reef Health Indicator Terms and the scale:

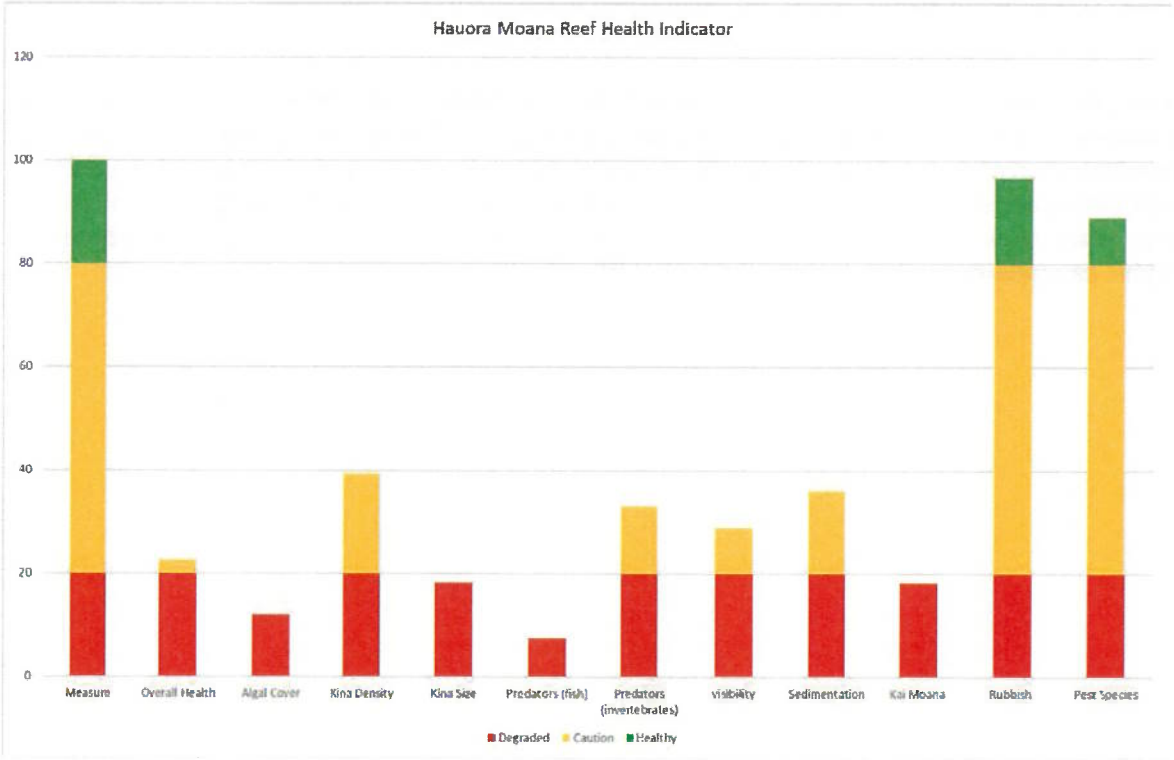
Algae Cover

Rare — Abundant

Kina Density

Abundant — Rare

Other terms: Kina Size, Predators (fish), Predators (Sea Stars, snails), Visibility (siltation), Sedimentation (dust on the seafloor), Kai Moana species, Rubbish, Pest Species, Overall health.



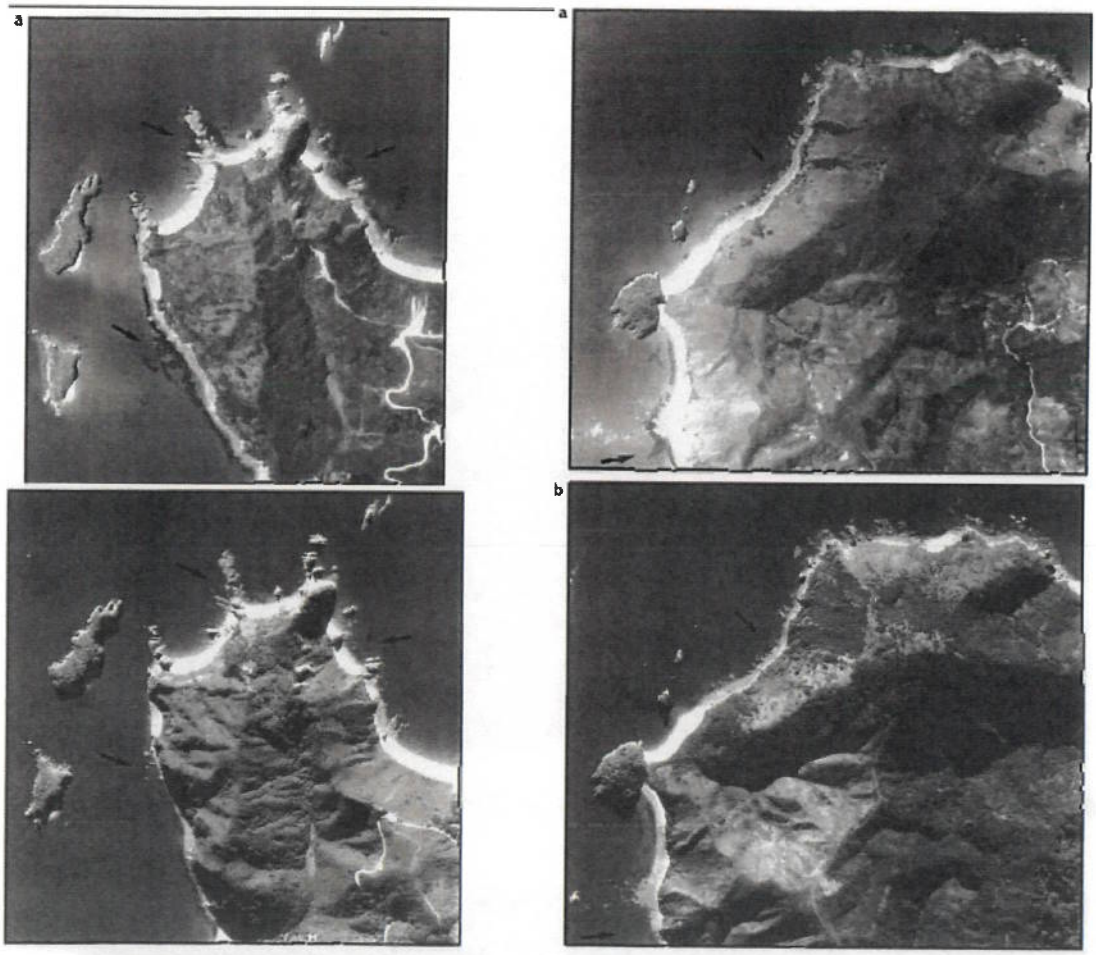
Results from the Hauora Moana Wananga. Column on right shows full scale. Green = least concern no action required. Yellow = Caution, some specific action required, Red = Danger we must act.

The group was unanimous that these reef systems were in a deep state of degradation with action urgently required to revitalize the Mauri (life force). Increasing the intensity of fishing effort in the bay further threatens these systems. This is just a snapshot from one reef system on one day, however it illustrates how differing world views can come together and collectively assess the health of an ecosystem.

Habitat Degradation, Trophic Cascade and Regime Shift

Tasman Bay and the Marlborough Sounds are deeply impacted by the spread of kina barrens. Davidson 1992 shows aerial photographs of the disappearance of algal beds along the Abel Tasman coastline, and this has also been described in the Marlborough Sounds. Through extensive studies in New Zealand's marine reserves, it has been identified that snapper function as a 'keystone species' predating on *Evechinus chloroticus* urchins / Kina, who in turn overgraze algal meadows creating 'kina barrens' (Ling, 2015). This depletion of the predator prey relationship continues as a trophic cascade, resulting in serious impacts on the resilience of Area 7's ecosystems. Less habitat leads to less diversity and less resilience to direct anthropogenic threats such as overfishing and environmental threats such as climate change. This regime shift. is likely to have occurred very early on in Tasman Bay's history, and due to the 'shifting baseline' effect (Thrush and Dayton, 2008), we have come to accept this as normality.

Doak 2019 describes the worsening situation of 'Kina Barrens' around New Zealand. "Gradual as a slow-motion train wreck; as destructive as an asteroid hit; longer lasting than an oil spill: the transformation of many of New Zealand's coastal reefs into barren moonscapes is part of a planet-wide catastrophe. Over-exploitation of inshore waters by modern fishing techniques is to blame: large scale removal of sea urchin (kina) predators such as snapper and crayfish produces a trophic cascade where sea urchins thrive, but little else."



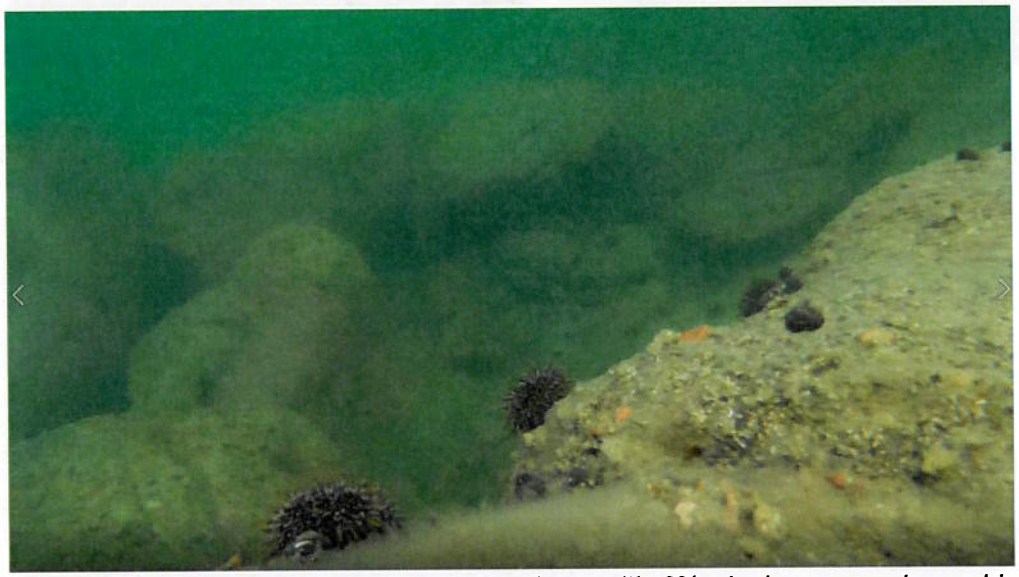
Aerial photos of Tata Islands and adjacent coastline. Dated (a) October, 1966 and (b) May, 1988. Scale 1:10000.

late 2

Aerial photos of Taupo Point and adjacent coastline. Dated (a) October, 1966 and (b) May, 1988. Scale 1:10000.

Aerial photos from Davidson 1992 showing the depletion of algal meadows between 1966 and 1988.

A shallow reef in the Tonga Island Marine Reserve in 2020 showing signs of algal recovery.



A shallow reef at Fisherman's Island near Marahau, with 0% algal cover and very high kina density.

Climate Change

Sea Temperature Change - We know that our seas are changing rapidly. Sea temperatures are increasing which appears to have coincided with a pulse in snapper and gurnard productivity. Snapper spawning conditions have been extended as the water warms for longer beyond 18°C. There is evidence from fisheries that fish species are migrating south (Pers comms. Doug Loder 2018). The snapper fishery itself is on the move. We just don't know how this will affect stocks in the future and we must be cautious.

Ocean acidification – There has been a 7.1% increase in acidity between 1997 and 2017 (Stats NZ Website). This is happening at an alarming rate and has dangerous repercussions to marine food webs. Many invertebrate species are at risk from this, snapper and gurnard both feed predominately on invertebrates, and although generalists, are extremely vulnerable to a restriction in the food supply. Acidification could cause food chain collapse, and this will be magnified with increased cumulative pressures.

Carbon Emissions – Increased trawling will lead to an increase in carbon emissions. Activities that do not involve using fossil fuels to drag gear across the seabed will lower fishers emissions, making fishing companies more sustainable, in line with what they already claim to be.

Carbon Sequestration – The 'keystone species' role of snapper in the control of echinoderm grazers i.e. urchins is well proven. A rebuild in the snapper stocks will increase predation pressure on kina, resulting in increased abundance of algae, which is a proven carbon sink and habitat.

Related legislative and strategical context that will be impacted by an increase in fishing effort.

Kotahitanga mo te Taiao Alliance – A recently formed agreement between all Te Tauihu Territorial Authorities, six Iwi, DOC and a number of NGO's forming a roadmap to regeneration of our natural spaces. This included the CMA, expect for there to be processes instigated to account for wider habitat protection in Fisheries Area 7.

Nelson Biodiversity Forum – Ratified to protect at least 10% of Nelson City waters. Working on facilitating an Integrated Spatial Plan for Tasman and Golden Bays.

Tasman BioStrategy – Working on a transformative approach to protecting biodiversity including marine in Tasman Region in accordance with the upcoming National Policy Statement on Indigenous Biodiversity (of which all of our marine fishes and invertebrates are).

Marlborough Coastal Plan – Still allows trawling but seeks resource consent from trawl operators to damage identified high diversity marine environments in Marlborough.

Hectors and Maui Threat Management Plan – Set netting banned to 4nm in Tasman and Golden Bays, but not Marlborough or the West Coast Golden Bay. No impact on Snapper and Gurnard Trawl fishery, but will be contested by environmental groups as not going far enough.

Area 7 is a known Hector's dolphin hotspot and there is an ongoing court case lead by Sea Shepherd to ban NZ fish imports to the US if we do not comply with International cetacean protection regulations.

Motiti RMA Decision – Obliges and empowers Territorial Authorities and communities to protect marine habitats under the Resource Management Act.

Social and Economic Impact Analysis

Who will be affected by an increase in Snapper and Gurnard Quota?

Benefited	How?	Disadvantaged	How?
Quota Owners (including Iwi)	Increased Short Term Revenue	**Quota Owners**	Threat to long term sustainability of the fishery, diminished social licence.
Non Quota Fishers	Increased Short Term Revenue	**Non Quota Fishers**	Threat to long term sustainability of the fishery, diminished social licence. More effort required. No requirement to transition and innovate to more sustainable methods that will benefit their children. Degraded ecosystem.
Ancillary Businesses	Engineers, net makers, fuel companies will see an increase in demand.	**Customary Fisheries**	Less available fish to catch inshore. Continued degradation of ecosystem. More commercial pressure, less opportunity to practice kaitiakitanga. Mahinga kai opportunities diminished.
		Recreational Fishers	Less available fish to catch inshore. Continued degradation of ecosystem. Conflict and animosity with commercial fishers.
		The General Public	Subjected to more commercial fishing close to shore. Noise

			pollution, habitat disturbance.
		Conservationists	Continued degradation of the marine environment, less opportunity and available space to trial restoration and protection interventions.
		Scientists	Few control sites for marine monitoring as all available space is disturbed by fishing.
		Education and Tourism	Reduced opportunity to experience thriving marine ecosystems except in small marine reserves.

Who stands to gain from applying a precautionary approach and transitioning to Ecosystem Based Management?

All of the above, and most importantly the environment who's health is essential for our survival.

Recreational Fishers

A thriving recreational fishery is a major drawcard for attracting New Zealand tourism markets. Much work has been done on the value of a recreationally caught fish over a commercial one. Rec fishers inherently eat in restaurants, use our local shops, stay in local accommodation, use our tackle stores.

That said, with population growth, technological advances and cheaper fuel, recreational fishing pressure is likely to increase. A reduction in the bag limit should be considered.

We also strongly recommend to increase the minimum snapper size to 30cm, as the current 25 cm does not allow that fish to reproduce (minimum breeding size is 28cm). Larger minimum size and smaller bag limit will help to further regenerate the fishery, making it easier for everyone to catch a feed.

Food Sovereignty

Covid 19 showed us a glimpse of society without intense commercial activity. It also really highlighted the exposure we as humans have to the supply chain system. Local people need to be able harvest their own food easily if they are able to. The intrinsic value of an abundant fishery for the community far outweighs the benefits that quota owners gain from continuing to destroy the marine environment for personal profit.

Conclusion

This submission hopefully covers the reasons why we should retain the status quo on the Snapper and Gurnard for now. Business as usual is not serving our environment or our communities. We

have become apathetic to the degraded state of our Bays and in this rapidly changing time we need to build resilience and allow the natural ecosystems to breath and recover in the face of rapidly changing climate. Increasing fishing pressure at the slightest glimpse of a stock recovery plays into the predictable cycle of our dated QMS, and we need to be brave and think towards the future. What do we want the sea to be like for our future generations? Will they be able to feed themselves? Will our ailing marine ecosystems be able to cope with the massive changes forecast with climate change. The world is changing, people are waking up to the finite nature of our planet. The ocean is all too often the poor cousin and is abused as a resource, out of sight out of mind. We need to give our marine environment some space. New Zealand was once a leader in marine protection, of late, we have failed. The failure of the Hauraki Gulf Marine Park and the SeaChange process, below par Hector's and Maui Protection, New Zealand vessel trawling protected sea mounts and essentially getting away with it, Commercial Trawler fishing in the Hikurangi Marine Reserve and the skipper getting away with a small fine, Leader of the Opposition starting a petition to revoke new protections in Bay of Plenty, this has all happened in the last year.

There is so much good work happening in this country to, local communities looking after their rohe, not just protection but restoration of ecosystem services. Our community sees fish abundance as the health of the sea, people are happy that there are more snapper in the water, let them be happy.

We need to change the way we manage our seas and we need to do it fast. We hope this submission will be considered and we are happy to discuss this with anyone concerned.

Nga mihi nui

Stew Robertson on behalf of Tasman Bay Guardians

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