



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:

Brend Murgrave

Organisation (if applicable):

Email:

[REDACTED]

Fishstock this submission refers to:

Blue Cod

Your preferred option as detailed in the
discussion paper
(write "other" if you do not agree with
any of the options presented):

Official Information Act 1982

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Submission:¹

Details supporting your views:

I live in [REDACTED]

I have a large Hauler Boat and make regular trips to rocks etc 25 to 35 miles off Lyttelton heads. These places are outside the 12 mile limit.

Fishing pressure whilst it has increased in recent years is still very light. The weather limits numbers of boats and days when you can fish. On most trips we have 4 Tishers between us we usually catch 12-20 large Blue Cod plus other species, to bring this down to 2 per fisher is impractical from a management standpoint. Current limit is 30 and never met. I would suggest for deep sea 6 or 10 would be more applicable.

I do not believe the deep sea fishery is under pressure.

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.



Please continue on a separate sheet if required.

The original discussion in the Canterbury region related to pressure at Motunui. Charges to 2 per fisher there are applicable. In our deep sea area of the hole or le Bas rocks, the bycatch of Blue Cod is significant when targeting groupers / trumpeters. My view is still many Cod would be killed if returned, when caught in 100 metres of water the mortality of returned fish would be very high.



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Submitter details:Name of submitter
or contact person: Shane Mills

Organisation (if applicable):

Email:

SNA7 and GUR7

Your preferred option as detailed in the
discussion paper
(write "other" if you do not agree with
any of the options presented):

Other

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Submission:¹

Details supporting your views:

I wish to see more abundance of all fish species in all of our oceans surrounding New Zealand.

I am an amateur fisherman based in Nelson New Zealand.

I believe that the current model is unsustainable – on this basis, I do not support any increase of quota across the board.

I see amateur fishermen deploying two long-lines, each with twenty-five hooks that will potentially catch fifty Snapper with three people on the boat. Fifty Snapper would exceed their current daily limit.

I disagree with unsustainable net fishing by the commercial industry, particularly bottom trawling and pier trawling. This tends to destroy habitats on the bottom of the oceans and interferes with the natural food chain.

This leads me to assert that the “Quota Management System” is unsustainable and broken.

An example of mismanagement is the decimation of Blue Cod in the Marlborough Sounds. This has resulted in basically a near zero daily bag limit.

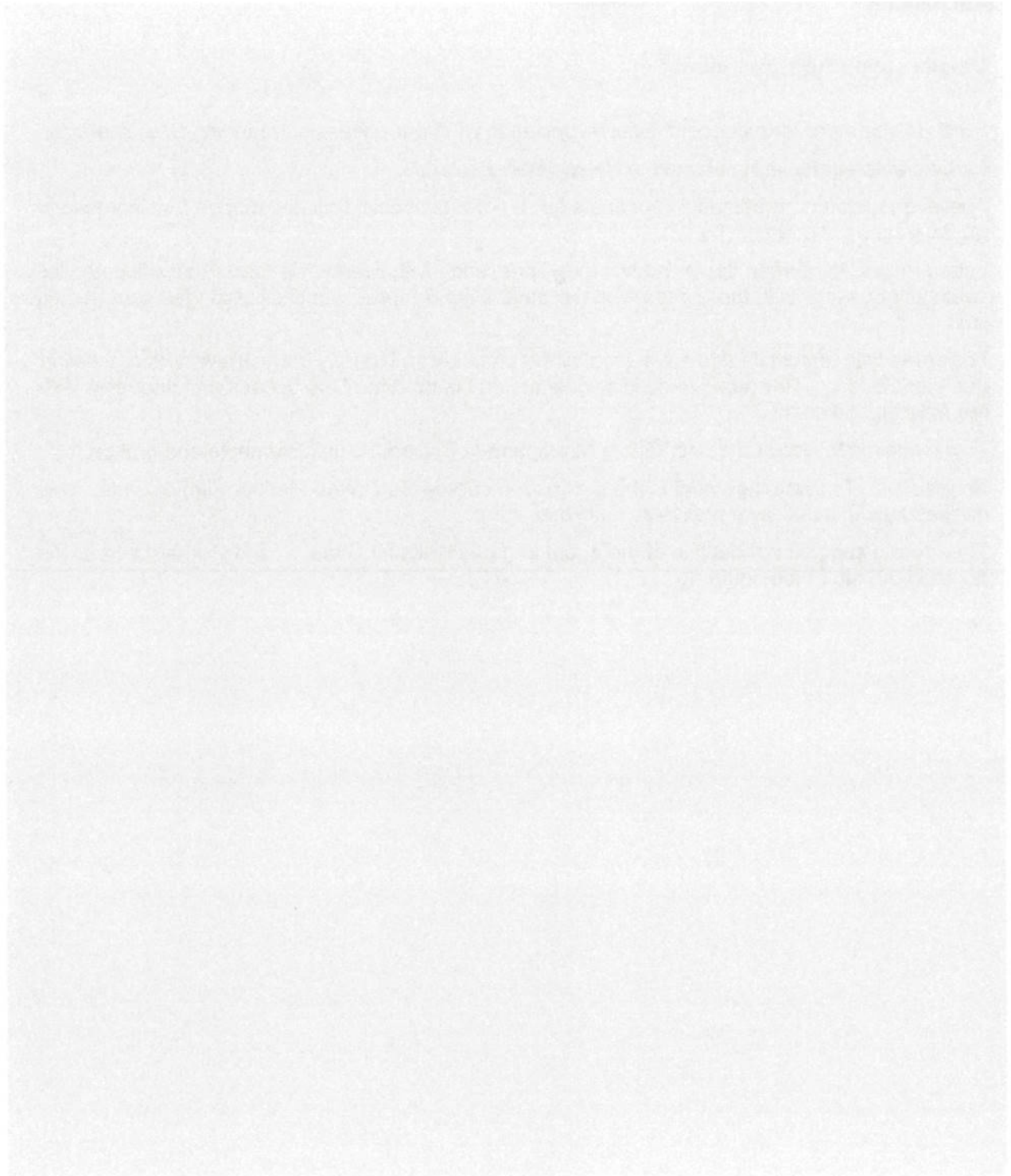
Therefore, I suggest a reduction of the quota and bag limits for Snapper and Gurnard across the board in the top of the south.

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Fisheries New Zealand

Tini a Tangaroa





Tini a Tangaroa

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Submitter details:

Name of submitter Peter van Eekelen
or contact person:

Organisation (if applicable):

Pegasus Bay Game Fishing Club, Zone 7 Representative

Email:

[REDACTED]

Fishstock this submission refers to:

Blue Cod Strategy

Your preferred option as detailed in the
discussion paper
(write "other" if you do not agree with
any of the options presented):

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Submission:¹

National Blue Cod Strategy

Dear Sirs,

This submission is a request for the review of the National Blue Cod Strategy for area BC03 being from the North bank of the Hurunui river through to the South bank of the Rangitata river.

This area encapsulates New Zealand's 2nd largest city, Christchurch, and its environs with a population of 500,000 within the BC03 catchment area. Understanding there are 700,000 recreational fishermen nationally, this equates to 15% of the population. This is based on the 2016 census information. Taking into account the weighting of number of fishermen in the NI vs the SI it is reasonable to extrapolate a percentage of 10% for the Canterbury area. This covers all forms of fishing from freshwater, SW land based fishing and SW inshore coastal.

Taking into account the above information it is estimated that there 25,000 SW fishermen in the BC03 catchment area and they are made up of people who sometimes only go fishing once or twice a year to those who fish regularly, as weather permits, or belong to affiliated fishing clubs that organise outings on a regular basis.

During the consultation period it was raised that in area BC03 fishermen took more than 10 cod per trip 17% of the time with particular concern in the Motunau area. What wasn't discussed at length was the effect of local weather along the Canterbury coast that precluded fishing on a significant number of days. Considering that most recreational fishermen target weekends, the outcome is that whilst some fishermen take more than 10 per trip, the majority do not and the days available to fish are curtailed by prevailing weather and the total recreational take is not as significant as proposed by MPI.

It should also be noted that the local communities have requested from fishermen that there be 'local' limits which are less than the posted daily bag limit. In most cases these 'voluntary' limits are adhered to by the majority of active recreational fishermen.

Further to the weather restrictions are the lack of launching facilities in the BC03 area being primarily Kaikoura, Motunau, Christchurch, and Akaroa which in itself creates a self-management of fishermen with a significant lack of launching facilities and parking for boat trailers. Christchurch offers the best out of Lyttelton with about 50 useable parks for trailers.

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The Christchurch/ Akaroa area is not primarily an inshore fishery for Blue Cod as fishermen have to travel a reasonable distance out to between the 50 and 80M mark to catch fish of a reasonable size.

There are not many areas around Banks Peninsula that are easily accessible by smaller boats due to launching and weather constraints. Larger recreational boats do make the trip out to fish and it is a relatively expensive exercise to have the correct sized boat, equipment and safety gear to fish that far offshore. This further deters the majority of fishermen reducing the take even further.

It was discussed that 6 fish taken instead of 10 and a carryover limit of 2 days would be reasonable for the BC03 area with a greater level of review for Motunau as this was agreed as being a genuine inshore fishery. It was also discussed that both the weather and bar crossing at Motunau also was an effective management tool in reducing available days for fishing.

The issued National Blue Cod Strategy has effectively ignored important feedback with the decision to redefine the BC03 area as a red zone under the traffic light system vs the orange light designation we were consulting on. The primary area of concern was Motunau and it was discussed to reduce the limit to 6 per day with a carryover limit of 2 days. What has been issued being 2 cod per day has negated the ability and right for the greater Canterbury region to effectively go fishing. Kaikoura retained the proposed daily limit of 6 per person yet Christchurch, which has the least pressure on the cod fishery due to lack of launching facilities, distance to travel to fish and more prevalent weather conditions reducing the opportunity to fish was allocated 2 per person. It is a travesty.

The logic is that fishermen will fish for other species however in the Canterbury bight there is extensive inshore trawling for the other species that are available being primarily Gurnard and Red Cod. Grouper can only be caught at depth and is limited only to larger boats travelling well offshore. Kahawai and now Kingfish, are seasonal. Shark and Barracouda have a limited appeal.

The current rules are going to force an increase in the following:

- 1) Breaking of the limit rules
- 2) A greater proportion of fishermen travelling outside of the immediate Canterbury area to Timaru/Moeraki or Kaikoura putting pressure on their fisheries creating further congestion on the roads and putting more pressure on facilities in those areas.
- 3) More pressure on Coastguard as fishermen who do not have the appropriate sized or prepared boats travel further offshore to target deepwater species with the result of a greater Health & Safety risk to all concerned.



If you want to achieve sustainable management of the fishery do this by way of effective education and use local resource to help achieve the goal. There is already an existing framework of affiliated recreational fishing clubs who already promote sustainable fishing measures, provide ongoing education on fishing, boating and Health and Safety protocols that are part of the activity of fishing. Make it a mandatory for SW fishermen to belong to an Affiliated Fishing Club as we are bound by a set of rules as well as a National Code of Ethics through the NZ Sport Fishing Council.

It means we will have the ability to self-manage a number of issues you have raised being local area limits, reliable information gathering and enforcement of sustainable fishing practices.

As you have outlined in the consultation process, blue cod are an inshore species and as such are more valuable to society as a recreational catch rather than as a commercial catch. If the limit is to be reduced for recreational fishermen, then a subsequent and more severe reduction in commercial quota should also apply. Considering Ngai Tahu is the largest commercial fishing operator in the South Island having them 'advise' on recreational fishing is akin to having the fox running the henhouse.

Please review your current position of 2 cod per person for the immediate Canterbury area. It's unreasonable and unsustainable. It causes further economic pressure on local business that relies on fishermen and is also unfair to fishermen who should be able to go out and get a 'feed' at a reasonable cost. To own and maintain a boat and the required fishing equipment, fuel and travel for 2 cod per day is nothing short of madness.

Lastly, I ask that you advise when the traffic light system is reviewed in a meaningful way. The current situation in the Tasman Area is a case in point with the limits being set quite a few years ago and no effective change to the limits even though in some areas we can't even get a hook down to catch any other species as the cod is so prevalent. To be put in the same situation for Canterbury will be untenable.

There is a distinct lack of trust between SI recreational fishermen and MPI as we do not believe you have our interests at heart even though most recreational fishermen are conservationists in a true way, wanting to maintain our fishery for the future.



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Please continue on a separate sheet if required.



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Submitter details:

Name of submitter or contact person: Andy Brannen	
Organisation (if applicable):	n/a
Email:	[REDACTED]
Fishstock this submission refers to:	Snapper and Gurnard - Challenger
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	Option 1 - Status Quo

Official Information Act 1982

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Submission:¹

Details supporting your views:

A large, empty rectangular box with a light gray background, intended for providing details supporting your views.

Please continue on a separate sheet if required.

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Submitter details:

Name of submitter or contact person: Bruce Murdoch	
Organisation (if applicable):	Pegasus Bay Game Fishing Club, [REDACTED]
Email: [REDACTED]	
Fishstock this submission refers to:	National Blue Cod Strategy (BC03 area)
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	

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Submission:¹

Details supporting your views:

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National Blue Cod Strategy

To whom it may concern

This submission is about the National Blue Code strategy proposed for area BC03.

The BC03 area has quite a large population base, therefore quite a large number of recreational fishers.

This area that I call home (Governors Bay), has limited launching facilities. Lyttelton and Akaroa being the main places.

Because of this and the eco structure of Banks Peninsula being so silty, I have had to purchase a bigger boat to go further off shore to catch a feed for my family. Going further off shore means being more dependant on weather and sea conditions. Also having to go this far off shore does not give many opportunities that are actually suitable for fishing, taking into consideration work and other commitments. It has become extremely difficult in today's economic climate to get everything to line up so you can go fishing for your 2 cod. This proposal feels like I may as well sell the boat now.

You have stated that Blue Cod is an inshore species. Does this mean that it should be a recreational caught fish only, and the commercial fisherman will keep further off shore?

The Tasman area still seems to be in a state of nothing happening after so many years of the 2 fish limit being set. What would be the benchmark to lift the 2 fish limit back up once this new limit has been set?

It is believed that if we make the new limit 6, (the same as Kaikoura) it would reduce travel to neighbouring areas, hence lessening pressure on those areas and public roads.



Fisheries New Zealand

Tini a Tangaroa

Please continue on a separate sheet if required.

Review of Sustainability measures for Blue Cod (Bco 5)

Carey McIvor

Submission questions answered:

• Which option(s) do you support for revising the TAC and allowances? Why?

Option 1 - status quo. The consultation document points out many steps the commercial sector has taken to work towards better sustainability for blue cod stocks.

Point 53 of the consultation document states- *“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. The implications of the changes associated with the increase in mesh diameter have not been considered in the stock assessment.”*

Actually, what we as fishers have seen since changing our mesh to the larger size, is that we very rarely bring undersized fish to the surface, and also that legal size fish are escaping through the larger holes as the pot breaks the surface. This means, we have taken a large cut to our catches, and this will show in the catch effort statistics MPI receive daily. We are not catching or disturbing undersized fish, and are greatly improving the recruitment due to letting saleable fish escape for the last 3 years. And, now that this change has been in place for a few years, the fish we are catching are in better condition. Unfortunately “the implications of the changes associated with the increase in mesh diameter have not been considered in the stock assessment”. We believe in another year you will see changes in our fishery for the better.

What also needs to be taken into consideration is that with the Lockdown during the Covid 19 outbreak many blue cod fishers chose to stay at home to keep the country safe. We voluntarily did not work for a month, during the spawning season of blue cod, despite some of the best weather we had seen for months. We believe the commercial sector deserves to keep the quota as is for at least another year to see how our changes are working. The country and small operators are struggling, it would be remiss of the government to cause more financial hardship to the small boats who chase blue cod.

A very well known practice of larger companies who have large shareholdings of the BCO5 TACC have a strategy where they bribe small operators by saying they will be given the opportunity to catch some CRA8 quota IF they catch blue cod. Many of these fishers do not want to target cod, but it is used as a blackmail technique to get them targeting cod. It is unfair that those fishers who do not need BCO to survive are being blackmailed into catching it, often in places that need a rest. MPI needs to abolish this practice, for the wellbeing of the stocks. We believe that many of these fishers would not target BCO if they were not forced to.

We feel more needs to be done to monitor catches from the recreational sector. Some weekends there are hundreds of small boats out on the water targeting blue cod, and we have never seen fisheries officers at the recreational wharves.

• *Has the way you fish changed because it is harder to catch blue cod? How?*

No. We fish the way we have always fished, and lately our catches have improved.

• *Are you travelling further to catch blue cod?*

No. We catch blue cod very close to home. Our fishery is very environmentally friendly, and economical too.

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

We support Option 1 - status quo.

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

The catch limits may be appropriate. However, there needs to be stricter rules placed on how a customary document should look and what it should say. The permits need to be issued with specific dates documented of when it is appropriate to take the fish, so that the same document cannot just be produced "when or if" a fishery officer hops on board and asks for one.

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

No. Recreational allowances need to be reduced. There is no need to take 20 fish per person. When we go out on a recreational trip, 3 fish is more than enough. This is enough for a feed of fresh fish, and some for the freezer.

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

Yes.

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

Place restrictions around who can commercially target BCO; to remove the practice that the companies have adopted whereby they blackmail fishers to target BCO so they can be given access to CRA quota.

Pot limits should be adopted. Many fishers have decided to simply fish more pots which is not beneficial for the stocks. 10 pots per vessel is more than sufficient to make a living chasing BCO. Make rules around how large a cod pot can be - pots do not need to be larger than a 4 x 4 ft. The larger pots hold fish for longer, but are more damaging to the environment and disrupt the fish more than is needed.

Submission: Review of sustainability measures for 1 October 2020 - Fisheries Management Team

To: [REDACTED]

Reviews for Snapper (SNA7) and Red Gurnard (GUR7) for 2020/21

Fisheries Analyst for Ministry of Primary Industry, Jodi Milne, has sent an email requesting submissions to the SNA7 review. I have attended at least one of the SNA7 workshops.

My name is Gwen Struik and my PhD is in Plant and Animal Ecology.

Background

Since the late 1960s I have taken an interest in the Nelson/Wakatu foreshore, initially because an application was made to discharge raw Nelson city sewage into Tasman Bay. This was intended to shift the discharge from the mouth of the Maitai River, i.e. Nelson Haven, into Tasman Bay. It seemed to me that the fishing industry might be concerned with the quality of water of the estuary (Nelson Haven) and Tasman Bay. So I began reading the literature on estuaries and interviewing commercial and recreational fisher folk. My main mentor was Charles Guard who was known to be the most knowledgeable local commercial fisherman. His concern for the habitat of the fish led him to be one of the founders of Friends of Nelson Haven & Tasman Bay in 1973. The Friends continue to be concerned with coastal conservation issues, expanding to the Top of the South - Tasman, Nelson and Marlborough (www.nelsonhaven.org.nz). I am the present chair, but this submission is a personal one. I went on to publish an article on commercial fishing in New Zealand in 1980, which was subsequently included in the Fishing Industry Board book "New Zealand Fisheries" 1986. From 1971 to 2008, my husband and I sampled the fish of a Marlborough Sounds estuary, making this study, I believe, the longest multispecies fish study in the world using the same method in the same place. Our research was published in 2006 and the data is now held at Cawthron Institute, Nelson.

Submission

This submission is to express my belief that the sustainability of fish stocks depends on maintaining a healthy habitat for not only the fish, but also all the organisms upon which the fish feed. The fish habitat includes the benthic substrate, the water column and the air which all these organisms breathe. All these factors have been degraded in recent years resulting in reduced fish productivity, in particular, and biodiversity in general.

Section 5.2 Kaitiakitanga

In this document on sustainability measures, there are some excellent statements about the importance of the habitat of fish, but little or no concrete plan for future actions to improve or even maintain the physical and biological fish habitat. The establishment of taiapure and mataitai reserves are examples of past actions.

Section 7. Relevant plans, strategies, statements and context.

This section lists "the five key focus areas of the Plan" and includes "improving environmental performance". (It is unclear to me the meaning of this - whose performance? The fishing people? tourism people? local land farmers? To my knowledge environments do not perform, but people can maintain, restore, change environments, which in the case of the snapper fishery includes fishing, trawling, dredging and maintaining appropriate areas for spawning and nurseries and feeding.

Past examples of the Nelson fishing industry taking action on the fish habitat was in 1980 when power-fishing methods were banned over bryozoan mounds nursery grounds for snapper, tarakihi and John Dory in Tasman-Golden Bay. As far as I know that is the first and only environmental measure taken in these bays by the fishing industry.

At present the Marlborough Environment Plan (MEP) is under consideration. Originally the MEP was going to separate out land based activities from marine farming activities in a separate plan. The absurdity of such an approach, since land based activities hugely impact coastal activities, was strongly opposed by environment groups. This is an opportunity for the fishing industry to look at, and act upon the impacts of land based activities on the coastal fish environment. (Hopefully it is doing that, but this is not mentioned in this SNA7 review.)

Factors relevant to maintain a healthy fish habitat include considering land based human activities

A study which outlines some of the land factors which impact coastal fishing is "A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand"(2009) written by five scientists from NIWA and Leigh Marine Laboratory (Morrison, M.A. et al). This paper has information about Tasman-Golden Bay as well as snapper habitat considerations and is far more authoritative than what I can contribute here. An example is a study of juvenile snapper and turbidity on land derived suspended silt/clay in the water column and the effect on fish feeding ability. The results "suggest that increased suspended levels in the New Zealand marine environment can, and do, have negative effects on individual fish and their fitness, which may ultimately translate into reductions in subsequent productivity at the levels of populations and fish stocks."

The review also discusses the Separation Point bryozoan beds: "The loss of areas of these biogenic structures has also certainly reduced overall finfish productivities in the surrounding regional ecosystem (and perhaps beyond) for some fished species (e.g. snapper, tarahiki and leatherjacket). There are also broader issues of reduced habitat complexity and associated biodiversity. With the current assemblages being under stress from sedimentation and limited recovery potentials if further damaged, these issues deserve more attention."

My hope is that the fishing industry will take more interest and attention and actions in restoring and maintaining a healthy coastal habitat which is essential for the fish to survive.

Respectfully submitted,

Gwen Struik



LOVE OUR LITTLE BLUES
@Little Kaiteriteri

SUBMISSION

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

Fisheries management team: [REDACTED]

29 June 2020

“Love Our Little Blues” is a community group based at Little Kaiteriteri, Tasman Bay, with our primary focus being to encourage and promote the conservation and sustainable management of the Korora (Little Blue Penguin) in the broad Tasman Bay area, but with specific focus on the coastline between Towers Bay and Tapu Bay. We facilitate projects such as the provision of nesting boxes, predator control programme and raising awareness in the community on matters that enhance the sustainable management of the Korora population and its existing and potentially viable habitat.

In submission to the Proposed Change of the Total Allowable Catch of Snapper and Gurnard in Area 7.

Tasman Bay provides habitat for Korora (Little Blue Penguins).

DOC conservation status: At risk/declining

We oppose any increase in the allowable catch of snapper and gurnard.

Furthermore, we fully support the submission by Tasman Bay Guardians dated 28 June 2020.

Trawling practices in the bay severely compromise the ability for blue penguins to find food such as anchovies, sardines, squid and krill by stirring up the seabed and resuspending sediment. This degrades visibility and the ability for the penguins to hunt for food, thus adding stress to find sufficient sustenance.

Trawlers are already a common sight in close proximity to the coastline and an increase in quota for snapper and gurnard will only increase this type of activity and the food gathering abilities of little blue penguins.



The above images are of a regular trawler off the beach at Little Kaiteriteri.

Conclusion

This submission covers just one of many reasons why we should not increase the status quo on snapper and gurnard. The submission by Tasman Bay Guardians offers many more, scientifically-supported reasons which we fully support.

There is a lot of good work happening to support little blue penguins in our Tasman Bay area and we do not want to see these efforts compromised by an increase in fishing quota and trawling in their feeding grounds.

We hope this submission will be considered and we would be pleased to discuss this with anyone concerned.

Sincerely

Linda Jenkins and Larry Lumsden

"Love Our Little Blues"

References:

Tasman Bay Guardians



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 Taihū 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 lens. 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.

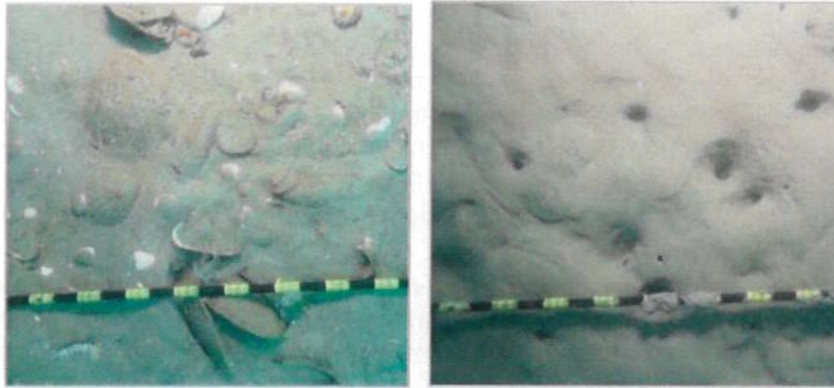
Countries all over the planet are waking up to the fact that bulk harvesting methods such as bottom trawling and set-netting are environmentally detrimental and banning it in their waters. Hong Kong, Indonesia, Palau and Belize have completely banned bottom trawling and many other countries have significant 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 Environment's 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.

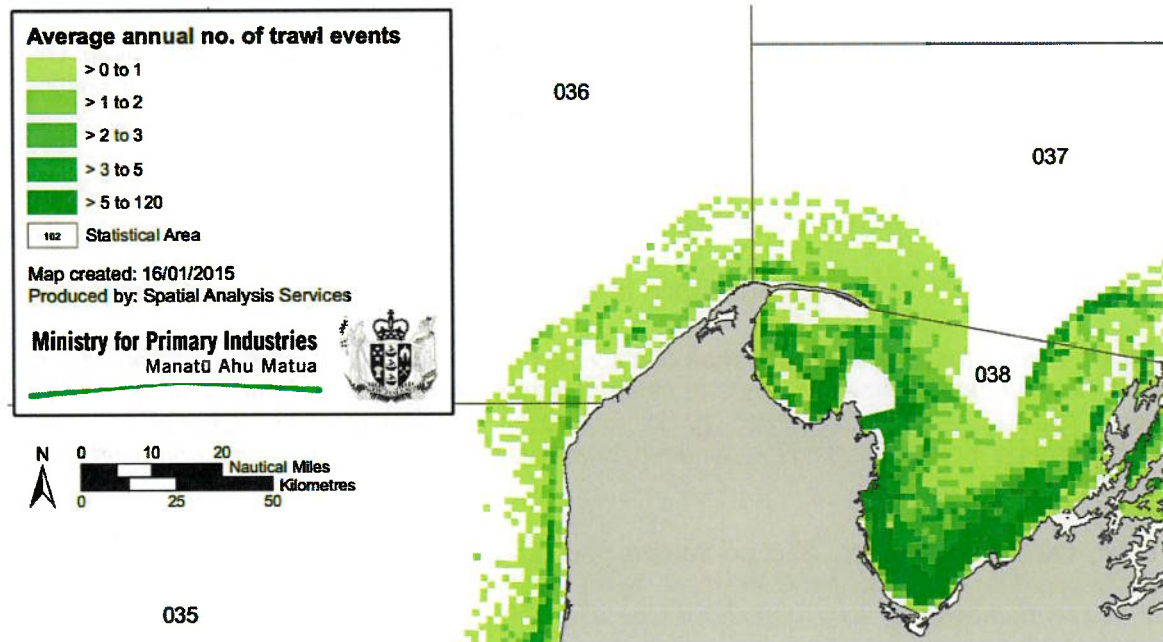
The way we fish matters too. Seabed trawling and dredging alter the structure of the seabed, damage habitats, and re-suspend sediment. Some ecosystems show few signs of recovery and may remain damaged for long periods of time after the activities stop (Clark et al, 2019). For example, reef-forming bryozoans 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.



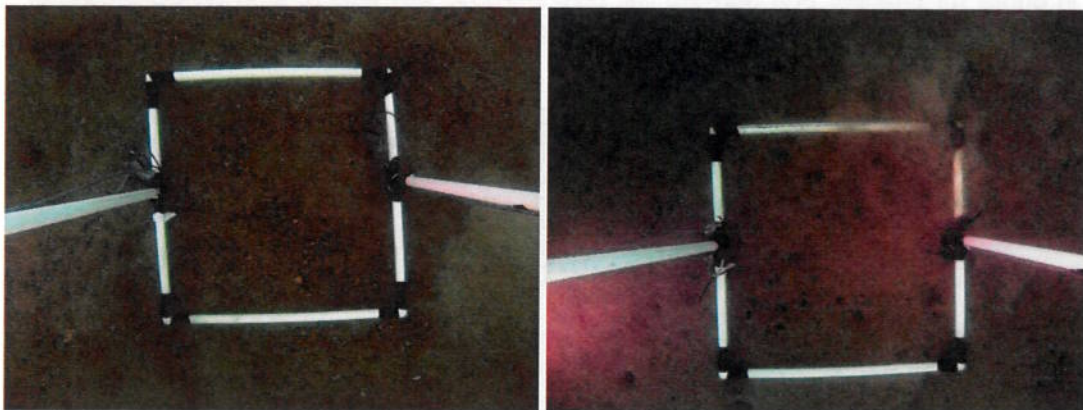
The map indicates the intensity of commercial fishing pressure on Area 7. With some small Marine Reserves, a Taiapure and the Separation Point exclusion zone put together, this still leaves over

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

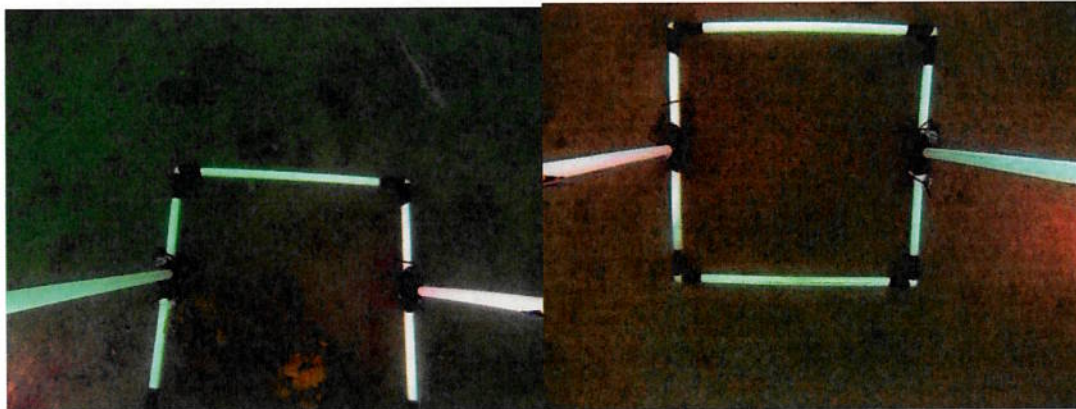
The discussion document states:

"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.

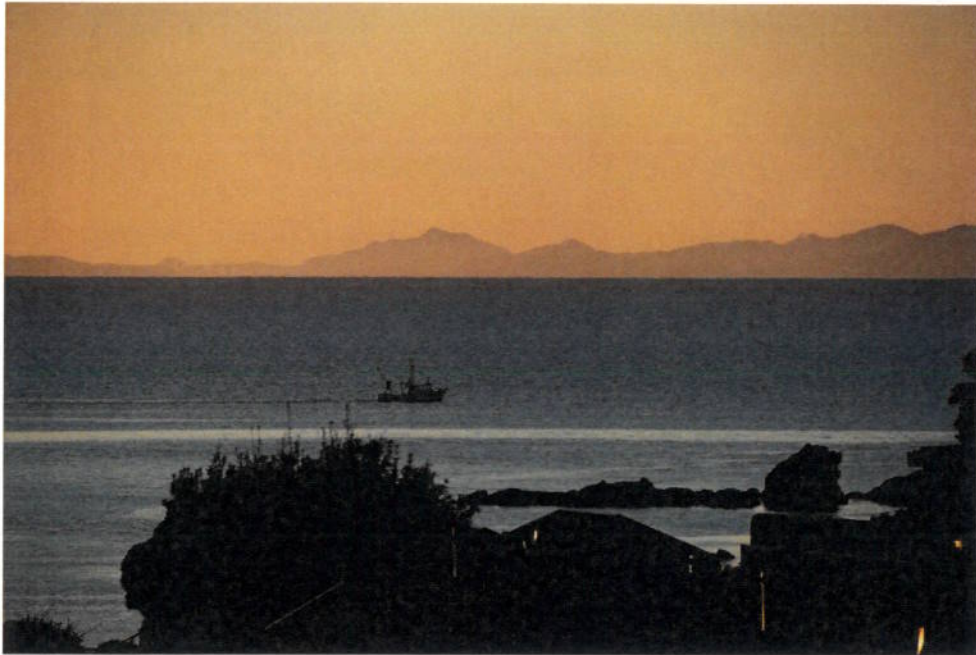


2 Samples taken from within the exclusion zone. The left hand photo is the only bryozoan found within the zone. Right hand photo shows the disturbed barren ground typically found within the exclusion zone.

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.

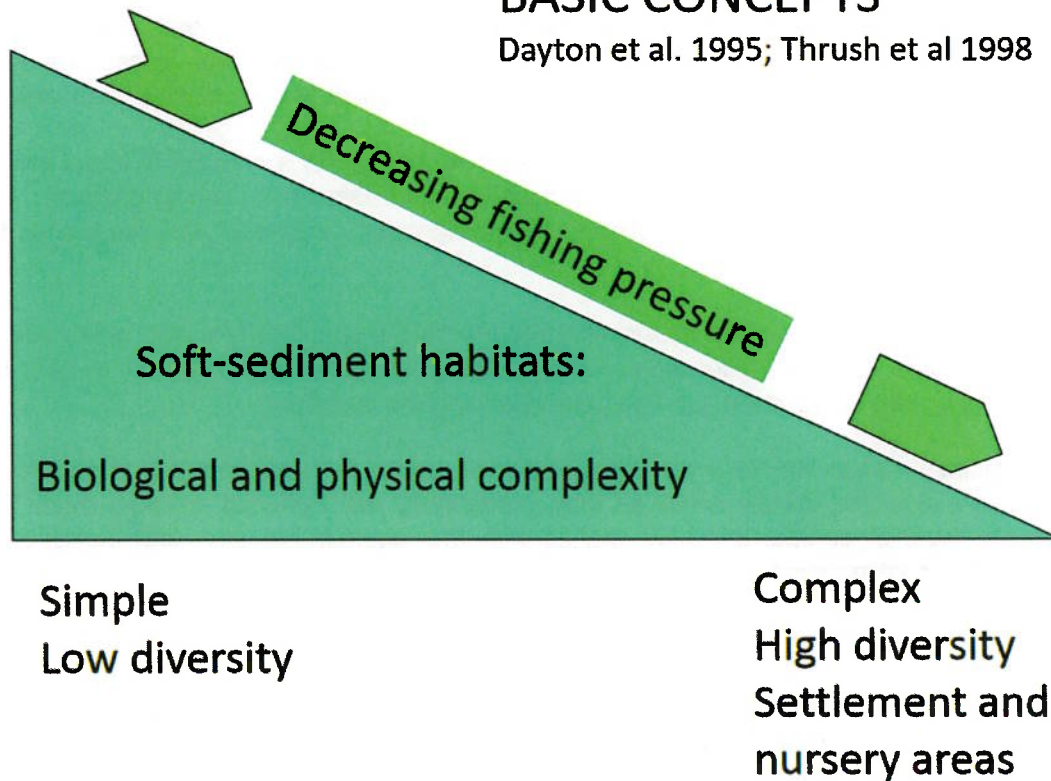
A comment from Thrush 2013 –

"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)

BASIC CONCEPTS

Dayton et al. 1995; Thrush et al 1998

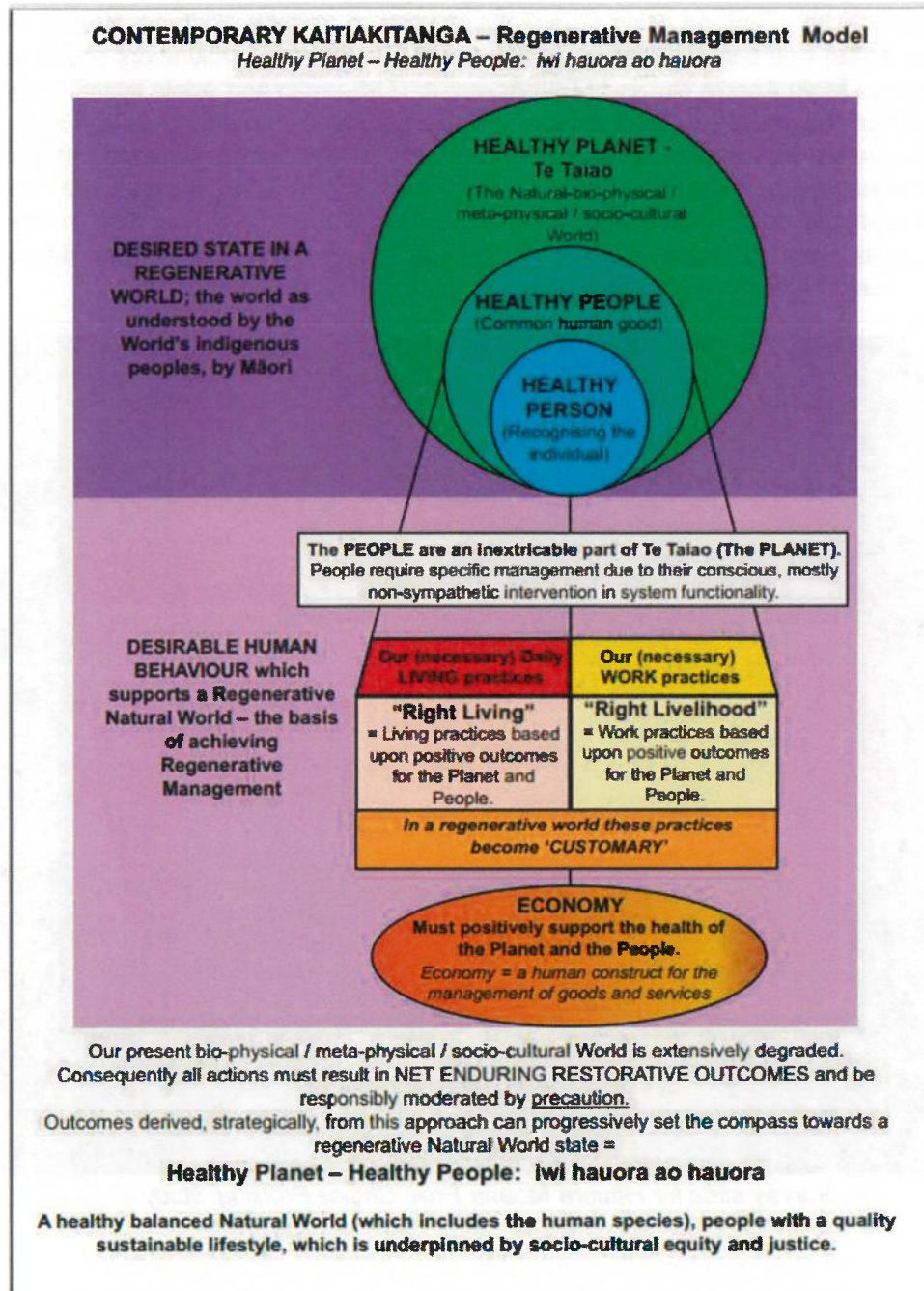


We are not saying don't trawl. Just don't trawl EVERYWHERE. An increase in quota will not have favourable results for ecosystem function and the recruitment of future fish stocks.

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 Taihu 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



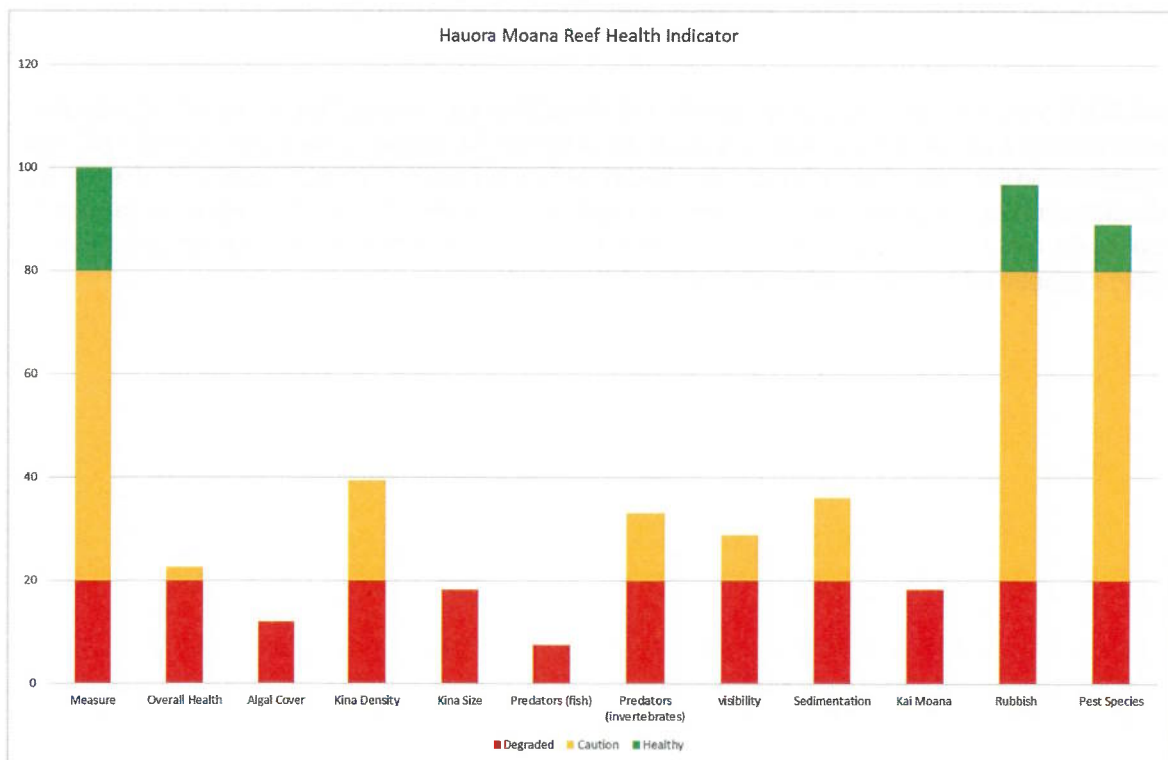
Kina Density

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.



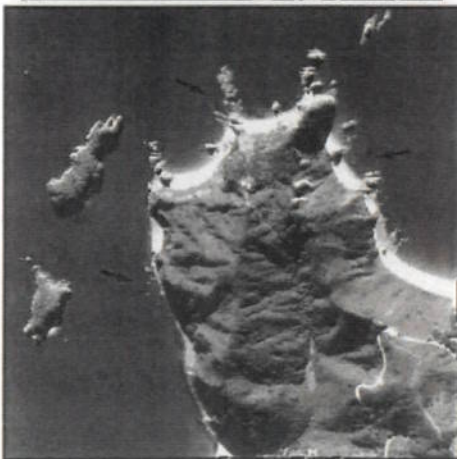
Results from the Hauora Moana Wananga. Column on right shows full scale. Green = least concern no action required. Yellow = Caution, some specific action required, Red = Danger we must act.

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.

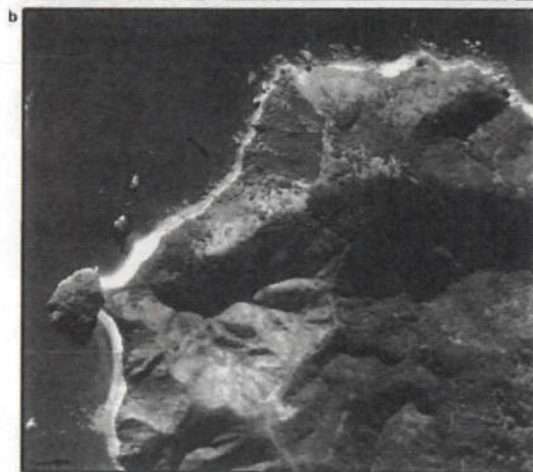
Habitat Degradation, Trophic Cascade and Regime Shift

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."



1 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 Taihū 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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Saxton 1980, The Coral Beds of Tasman and Golden Bay

[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>



Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to: FMsubmissions@mpi.govt.nz

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:

CHRIS PARRIS

Organisation (if applicable):

MOTUEKA FISHERMAN

Email:

Fishstock this submission refers to:

SNA 7

Your preferred option as detailed in the
discussion paper
(write "other" if you do not agree with
any of the options presented):

3

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:

I HAVE BEEN BOTTOM LONG LINING FOR SNAPPER IN AREA
FOR 35 YEARS, AND I STAYED SO WITH THE SAME BOAT
IN THE SAME PLACES IN TASMAN BAY.

AFTER PAIR TRAWLING WAS BANNED MY AVERAGE DAY WAS
3 HUNDRED OF 400 HOOKS PER LINE AND AVERAGEING LESS
THAN 200 GRAMS PER HOOK.

FOR THE 2019/2020 SEASON MY AVERAGE DAY WAS
3 HUNDRED OF 200 HOOKS @ AN AVERAGE OF 500 GRAMS PER
HOOK WITH A BEST DAY OF OVER 1 KG PER HOOK.

YOUR SCIENCE IS DEFINITELY WORKING AND AN
FISHERS ARE ENJOYING THE FISHERY.

M. Parnell

Please continue on a separate sheet if required.

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.



Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to:

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 Rebecca McLeod or contact person:	
Organisation (if applicable):	Fiordland Marine Guardians
Email:	<input type="text"/>
Fishstock this submission refers to:	BCO 5
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	<p>The Fiordland Marine Guardians support: Option 3 that sets the TAC at 825 tonnes allowing 20t for Customary, 85t for Recreational and a TACC of 700 tonnes.</p> <p>The Fiordland Marine Guardians support: BCO 5 quota holders request for approval of a harvest control rule or 'Rebuild Rule'</p>

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:

The Fiordland Marine Guardians (FMG) note the concerns that have been expressed in the paper about the fishery since the mid 2000s. The FMG wish to note that these same concerns have been raised with the FMG by numerous fishers (recreational, commercial and operators of Amateur Charter Vessels) throughout the Fiordland Marine Area over these corresponding years on many an occasion. This anecdotal information is consistent with the findings in the stock assessment that the fishery is in decline. Clearly a significant reduction in the TAC is required to rebuild this fishery for the benefit of all New Zealanders.

We acknowledge the shared nature of this fishery, and the recent decrease in the bag limits for recreational blue cod fishers under the National Blue Cod Strategy.

The FMG acknowledge efforts by BCO 5 quota holders and operators to improve the fishery including shelving of ACE since 16/17 and increased mesh size of commercial cod pots. In addition, in 2011 the TACC was reduced by 20% and bag reductions applied to recreational fishers. Unfortunately, it appears that these measures combined have not been enough to reverse the decline of the fishery.

The FMG's are strongly of the opinion, that the TAC/TACC must be set at a level that constrains the catch of blue cod throughout BCO 5, to allow for an effective biomass rebuild of this important and iconic fishery.

Whilst there are no details in the sustainability paper on the proposed harvest control rule being proposed by the commercial industry, the FMG note the successful implementation that this type of rebuild rule has had on the CRA8 fishery in Southland and would support this in principal. These types of rebuild rules have a demonstrated ability to provide a more responsive path to the recovery of lobster fisheries, whilst allowing a more adaptive approach to TAC setting, to ensure the stock reaches the agreed target biomass.

Please continue on a separate sheet if required.

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.



Fisheries New Zealand

Tini a Tangaroa

Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to: FMSubmissions@mpi.govt.nz

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: David Quintin Hogg	
Organisation (if applicable):	DEMZ Limited
Email:	
Fishstock this submission refers to:	PZL7
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	Option 3

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:



Review of Sustainability Measures for Deepwater (King) Clam (PZL7) for 2020/21

Introduction

1. DEMZ Limited (**DL**) welcomes the review of sustainability measures for geoduck (*Panopea zelandica*) in PZL7.
2. DL is an investor in inshore hand harvested seafood species. DL and its Director has been a strong supporter and part of the development of the transition of the Crayfish (CRA) industry from a frozen low value crayfish tail to the live industry. DL is further and currently also involved in the transition of the paua (PAU) industry from a canning business to the live industry through its work and investment in PauaCo Limited. DL is and has been a strong supporter of the development of the geoduck (PZL) industry through its support of PZL Harvesters Limited (PZLH) and the work that it has done. DL is experienced and understands the market for live and fresh seafood, and in particular for live and fresh seafood markets which exist in Asia. DL owns 8.3% of the shares in the PZL7 fishery.
3. DL has supported and continues to support the work of PZLH and is **STONGLY** supportive of the sustainable development of the fishery. In particular development to a scale that will show the market the strength of the New Zealand quota management system by a gradual development of the resource in New Zealand as opposed to other geoduck resources in particular those in Korea and Canada.
4. DL supports option 3 – i.e., increase the PZL7 TAC to 130 tonnes, with a TACC of 99 tonnes and a 1 tonne allowance each for customary and recreational fishing. DL supports option 3 for the following reasons, each of which is addressed in more detail below:
 - a) **Ensuring sustainability:** A TACC of 99 tonnes will ensure sustainability of the PZL7 stock by providing a highly precautionary level of utilization but at the same time providing sufficient scale to develop targeted Asian markets;
 - b) **Providing for utilisation and economic benefit:** Only option 3 provides for utilisation as a TACC of at least 99 tonnes that is necessary for the stable development of export markets. Less than this does not allow for stable supply lines to be set up that restaurant markets demand;
 - c) **Sharing benefits:** Development of the commercial geoduck fishery has no adverse effects on other fishing sectors. Further it may provide for regional fishery development activity that supports local fishers and businesses. There may also be additional utilisation benefits for customary and recreational fishing of the species;
 - d) **Environmental responsibility:** The best available information indicates that harvesting geoduck has minimal environmental impact; and



- e) **Careful control of harvesting:** The work already completed with PZLH indicates this entity is the sole operator in the fishery as a diver thereby offering closely controllable access and management of specific areas.

Ensuring sustainability

5. The biomass of PZL7 is effectively in an unfished state due to low levels of historical utilisation. The TAC/TACC increases proposed in options 2 and 3 are both *highly precautionary* for the following reasons:

- The biomass estimates that inform the proposed TAC/TACC increases are based on a relatively small surveyed area within PZL7 (i.e., the ‘Collingwood area’) – other areas in PZL7 with suitable geoduck habitat are not included in the biomass estimate and will not be harvested;
- The biomass estimate for the surveyed area – i.e., 4,331 tonnes – uses the ‘*very conservative*’ upper (95%) confidence interval of 30.8% as a multiplier for survey efficiency.¹ The 95% confidence interval range for survey efficiency was 15.9 to 30.8% and alternative multipliers within this range result in much higher biomass estimates – for example, a multiplier of 22% (the mean efficiency achieved on the first day of the survey) results in a biomass estimate of 6,063 tonnes; and
- An annual harvest rate of 3% is conservative in comparison to other fisheries, and well within the range of sustainable yield estimates for *P. zelandica* provided by Breen (1994).

6. Further precaution is provided by:

- The fact that not all geoduck in a population are vulnerable to harvesting. Some live at depths that are beyond the operation of the fishery, in areas that are not certified for shellfish harvesting, at densities too low to be fished, and in substrates that are difficult to dig. The fishable population is therefore only part of the breeding population;²
- Preliminary surveys in the Collingwood area indicate that high densities of geoduck extend far beyond the traditionally fished beds.³ These currently unharvestable areas may act as refugia providing broodstock for the harvested population;⁴
- The requirement that any TACC increase is to be taken from a confined area of the fishery so that further monitoring and assessment can be undertaken; and

¹ Slater et al (2017).

² Breen (1994).

³ Slater et al (2017).

⁴ Gribben & Heasman (2015).



- The proposed high allowance for other sources of fishing related mortality (as discussed below).
7. DL recognises that there are uncertainties in the best available information, including uncertainties about how the fishery will respond to increases in catch. However, levels of extraction nearly equivalent to option 3 occurred over the period 1989-92 (95 tonnes in 1989/90) with no observed impacts on subsequent biomass. PZLH's special permit authorises the collection of up to 100 tonnes in year three of the research project. Sustainable fisheries for other *Panopea* species have existed for many years in Washington State and British Columbia. Furthermore, the layers of precaution that have been built into the proposed TAC/TACC increases mean that the stock sustainability risks of option 2 and option 3 are both very low. To put it another way, the Fisheries New Zealand consultation document does not propose any 'high TAC/TACC' options and it is therefore incorrect to present option 2 as an 'intermediate option'⁵ – option 3 is still extremely conservative and DL is confident that it will ensure the sustainability of the PZL7 stock.

Providing for utilisation

8. PZLH's current operations have been constrained by the low PZL7 TACC of 23.1 tonnes. Catch volumes have been less than the TACC because it is simply not possible to develop reliable export markets with an annual volume of only 23 tonnes of geoduck. While additional catch volume is possible under a special permit, a special permit does not provide the secure, long-term access rights to the fishery which are necessary to invest in market development.
9. The international geoduck market is highly competitive, with wild-caught and farmed/enhanced geoduck exported to China and other Asian markets from western Canada and the US, and additional production from Mexico and Argentina. Geoduck is not a 'niche market' – secure, regular supply of reasonable volumes of product is necessary in order to access Asian market opportunities. Based on our experience over many years off development of various fisheries resources, DL considers that an annual catch of at least 100 tonnes is required to develop specific high value live markets.
10. Within the constraints of the current TACC, PZLH employs several contractors to undertake harvesting. It operates two vessels – the fishing vessel *Takapu* and a contracted vessel *KJ*. In total, eight local families currently rely on geoduck harvesting for their income. With an increased TACC that enables additional utilisation, PZLH anticipates being able to provide additional economic benefits for the Nelson/Tasman region.
11. At a time when New Zealand is recovering from the economic effects of COVID-19 restrictions, additional employment will provide significant regional benefits and the additional export earnings that will be of regional and national benefit. In addition,

⁵ FNZ consultation document, paragraph 33.



the disruption of Asian markets caused by COVID-19 provides particular market advantages for New Zealand products, and PZLH is well placed to take advantage of this opportunity – provided we have secure access to a reasonable volume of geoduck on an annual basis.

12. As well as an increase in export earnings of \$1.5 million per year,⁶ development of export markets for geoduck will result in increases in quota value for PZL stocks throughout New Zealand, creating a valuable asset for Iwi and other PZL quota owners. Successful development of PZL7 could lead to the expansion of the fishery in other QMAs with a potential industry of over 2000 tonnes per annum and potential export value in excess of \$NZ60 million.⁷
13. We note that the economic analysis of option 2 in the consultation document is incorrect. Option 2 does not provide sufficient catch volume to develop export markets. The TACC will therefore not be fully utilised and the predicted change in revenue (an increase of \$480,000 per annum) will not be realised.
14. The geoduck fishery is poised for development, and as a minor PZL7 shareholder, we strongly believe that if the TAC/TACC is not increased to commercially viable levels in 2020, the opportunity to develop this fishery may be lost. Given that sustainability risks of both options are low, and that only option 3 provides utilisation benefits beyond the *status quo*, DL considers that option 3 best meets the purpose of the Fisheries Act – i.e., to provide for utilisation while ensuring sustainability.

Location of commercial harvesting

15. It is noted that FNZ proposes that any additional commercial catch under options 2 or 3 would *‘only be taken from the areas in Golden Bay that were assessed by the survey and are subject to growing water certification for shellfish.’*⁸ It is not clear how FNZ proposes to implement that requirement – for example, by regulation or by agreement with commercial harvesters. DL is supportive of PZHL who have committed to voluntarily restrict any additional commercial harvest to the surveyed Collingwood beds.
16. Therefore, if the PZL7 TACC is increased, DL will commit to conjointly work with PZLH and FNZ on how best to restrict primary harvesting activities to the Collingwood bed, while also allowing flexibility to survey new areas under an agreed research programme.

Sharing benefits

17. DL considers that commercial development of the PZL7 fishery will have considerable benefits for Iwi at the top of the South Island. Iwi and Te Ohu Kaimoana collectively own 36% of PZL7 quota shares, including settlement quota and ordinary quota. Iwi will therefore benefit from increases in PZL7 quota value that are

⁶ FNZ consultation document, paragraph 41.

⁷ Slater et al (2017).

⁸ FNZ consultation document paragraph n30.



anticipated to arise as a result of the development of the PZL7 fishery, and will also benefit from increased revenue from the sale of ACE.

18. FNZ has indicated that any TACC increase must be taken from the surveyed beds off Collingwood. Areas of significance for customary harvesting, such as mātaihai reserves (in which commercial fishing is prohibited) and the Whakapuaka taiāpure near Nelson, will therefore not be adversely affected by increasing the PZL7 TACC.
19. We are aware that FNZ has consulted with Te Waka a Māui me Ōna Toka Iwi Forum (TWAM) on the review of sustainability measures for PZL7. The FNZ consultation document records that TWAM expressed '*concerns with proposals to increase catch, given the TACC has never been fully caught*'. As noted above, the reason that the PZL7 TACC has never been fully caught is related to the economics of export markets, and not to the abundance of geoduck.
20. We consider that FNZ's option 3 is consistent with TWAM's management objective 3 – i.e., *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*. As noted elsewhere in this submission, the geoduck fishery is environmentally friendly and sustainable and, with a TACC of 99 tonnes, will help create new economic development opportunities for South Island Iwi.
21. DL would like the future development of the geoduck fishery to proceed on a basis of common understanding, support, and mutual benefit with Iwi at the top of the South Island. We therefore request the opportunity to respond to any additional concerns that may be identified by TWAM, prior to FNZ's preparation of final advice and recommendations to the Minister.

Environmentally responsible

22. The FNZ consultation document notes that there is uncertainty regarding how the habitat will respond to fishing. It is suggested that the fishing method (hydraulic water jet) results in resuspension of sediment and potential damage to the benthos and associated organisms.
23. However, the best available information indicates that the effects of geoduck harvesting using hand held water jets are localised (i.e., limited to a 0.5-1m radius around the targeted shellfish) and short-lived.⁹ Liu et al (2015) examined the effects of commercial-scale harvesting of the Pacific geoduck *P. generosa* on the sedimentary benthic environment. The study found that suspended sediments were increased by harvesting but generally limited to the footprint of the harvest area and were not greater than those created by wind or storm conditions. No changes were observed in any of the measured sediment or infaunal variables on or near the harvested plots or in adjacent areas. The study concluded that there was little effect

⁹ FNZ consultation document, paragraph 44.



of commercial geoduck harvesting practices beyond short-lived resuspension of sediment on harvested plots. The authors specifically note that their results are relevant to fisheries for other *Panopea* species.

24. The findings of Liu et al are consistent with the results of earlier research. A study by Breen and Shields (1983) found no significant difference in sediment grain size distribution or changes to infaunal community structure between harvested and non-harvested plots, but did report an *increase* in species diversity in the harvested plot. Price (2011) found that commercial-scale harvesting did not cause any distinct response in infaunal communities and that effects on infauna were within the range of natural variation experienced by the community and not of long-term ecological significance.¹⁰
25. DL notes that although these studies were conducted on a different geoduck species in environments that differ somewhat from Golden Bay, the findings are likely to be equally applicable to *P. zelandica* and are certainly consistent with the observations of PZLH divers in relation to the very limited spatial and temporal effects of geoduck harvesting. We also emphasise that dive fisheries are environmentally benign harvesting methods as they have no interaction with marine mammals, seabirds or fish bycatch.
26. We share the concerns expressed in the FNZ consultation document about the underlying health of the benthic ecosystem in PZL7 area in Golden Bay and Tasman Bay.¹¹ We consider that the presence of a valuable and environmentally responsible geoduck fishery will provide added impetus to regulators to identify and effectively control all threats to the benthic environment, including those of terrestrial origin, so that Golden and Tasman Bays can continue to support healthy ecosystems and sustainable fisheries.

Careful control of harvesting

27. The geoduck fishery is well placed to achieve a high level of industry-initiated fine-scale management. PZLH is currently the sole harvester of geoduck and PZL7 quota ownership is relatively concentrated among a few entities (i.e., PZLH, DL and Iwi). Geoduck species can only be harvested in classified growing areas and harvesters must meet the requirements of the Bivalve Molluscan Shellfish Regulated Control Scheme. All of these factors mean that the likelihood of another large operator entering the fishery is slim. PZLH is therefore able to manage commercial geoduck harvest with a high degree of control.
28. Because the harvesting activity is effectively managed at a fine spatial scale, localised depletion is not an issue.¹² The cryptic nature of geoducks in response to harvesting

¹⁰ The studies by Breen and Shields (1983) and Price (2011) are both cited in Liu et al (2015).

¹¹ FNZ consultation document, paragraph 32.

¹² FNZ consultation document, paragraph 32.



(i.e., withdrawing of siphons) means that not all shellfish in an area are able to be harvested

Additional comments on the FNZ discussion paper

Other sources of fishing related mortality

29. DL considers that the proposed allowance for other sources of fishing related mortality (OSFRM) – approximately 30% of the TACC for all three options in the consultation document – is unjustifiably high. The FNZ consultation document contains no explanation or evidence to justify the high allowance for OSFRM – it simply notes that the allowance for OSFRM is *‘consistent with how the OSFRM was set when geoduck was brought into the QMS’*.
30. There is no documented illegal catch of geoduck.¹³ The FNZ 2020 Plenary Report observes that *‘there is little information on other sources of mortality, although the clam has on rare occasions been captured during trawling operations’*.
31. We note that the water jet harvesting methodology liquefies the sand around the geoduck to allow for extraction with minimal damage. If the incidental mortality rate of 30% is accurate, we would expect to see evidence of dead geoduck at the harvested beds – but divers have never seen dead geoduck or the distinctive geoduck shells when operating in these areas.
32. Some small geoduck may be either caught by mistake or brought to the surface of the seabed incidentally when larger individuals are removed. We are aware that Breen (1994) has suggested that the survival rate of these small geoduck may be low because they may have difficulty re-burying themselves and be vulnerable to predation. In the experience of PZLH, very small geoduck are typically not observed by divers.
33. We note that the suggestion about juvenile survival rates in Breen seems to be inconsistent with research that shows no significant infaunal community changes in harvested plots. Price (2011) suggested that temporal changes in infaunal populations may be short term due to the fact that geoduck harvesting methods have the potential to *displace and yet preserve benthic fauna* so that they can recolonise the disturbed area immediately after harvesting.¹⁴
34. In summary, we consider that FNZ should clarify the basis for the large allowance for OSFRM, or reduce that allowance and add the difference to the TACC.

Irrelevant considerations

35. The FNZ consultation document describes ‘relevant plans, strategies, statements and context’, as required under section 11(2) of the Fisheries Act. However, much of this discussion relates to the Marlborough Environment Plan (MEP), which does not apply in the area off Collingwood in which the PZL7 TACC increase is required to be

¹³ FNZ Fisheries Assessment Plenary May 2020, page 294.

¹⁴ Cited in Liu et al (2015).



caught. Furthermore, the rules in the MEP apply only to bottom trawling and dredging and are therefore not relevant to the harvesting of geoduck.

36. The FNZ consultation document notes the lack of information on the sustainable yield of geoduck in New Zealand /Golden Bay as part of the rationale for option 2.¹⁵ This is not a relevant consideration as any proposed TAC/TACC increase would be required to be taken only from within the certified shellfish area where the PZL7 biomass and yield has been estimated.
37. The FNZ consultation document incorrectly identifies Ecologically Significant Marine Sites in the MEP as habitats of particular significance for fisheries management (HPSFM).¹⁶ The sites identified in the MEP are not HPSFM under the Fisheries Act – these sites were identified for completely different purposes (biodiversity protection) under the Resource Management Act 1991.
38. The FNZ consultation document, when discussing associated or dependent species, focuses on fishing related mortality of geoduck.¹⁷ Associated or dependent species are defined in the Fisheries Act as *non-harvested species* – i.e., not geoduck. Discussion of fishing related mortality of geoduck is relevant to setting an allowance for OSFRM but is irrelevant to consideration of impacts on associated or dependent species. Geoduck harvesting does not have adverse effects on protected species such as seabirds or marine mammals, involves no fish-bycatch, and has no significant ecological effects on benthic infauna – these are the factors that FNZ should have set out in relation to associated or dependent species.

Conclusion

39. DL considers that geoduck is a fishery with significant potential for New Zealand. With careful management, the development of the commercial fishery can proceed in a manner that benefits Iwi and provides local employment and export revenue. The sustainability risks of all the proposed options are low, but only option 3 provides utilisation benefits beyond the *status quo*. Option 3 therefore best meets the purpose of the Fisheries Act – i.e., to provide for utilisation while ensuring sustainability.
40. We are available to provide further information to support the points raised in this submission, and we would welcome the opportunity for further discussion with FNZ and, if required, TWAM, prior to the provision of final advice to the Minister. Please contact David Hogg, DEMZ Ltd. _____ or at _____

References

¹⁵ FNZ consultation document paragraph 33.

¹⁶ FNZ consultation document paragraph 48.

¹⁷ FNZ consultation document paragraph 50.



Breen, P. A. (1994). Sustainable fishing patterns for geoduc clam (*Panopea zelandica*) populations in New Zealand. New Zealand Fisheries Assessment Research Document 94/4. MAF Fisheries, N.Z. Ministry of Agriculture & Fisheries.

Gribben, P. E. & Heasman, K. G. (2015). Developing fisheries and aquaculture industries for *Panopea zelandica* in New Zealand. Journal of Shellfish Research, 31(1):5-10.

Liu, W., C. M. Pearce and G. Dovey (2015). Assessing potential benthic impacts of harvesting the Pacific Geoduck Clam *Panopea generosa* in intertidal and subtidal sites in British Columbia, Canada. Journal of Shellfish Research, Vol 34, No 3, 757-775.

Slater A., R Millar and W White. (2017) Biomass assessment of Geoduc (*Panopea zelandica*) from northern Golden Bay in Fishing Management Area 7. AUT Institute for Applied Ecology New Zealand.

REVIEW OF SUSTAINABILITY MEASURES FOR SNAPPER AND RED GURNARD

SUBMITTER DETAILS

FULL NAME: Environmental Defence Society Incorporated
ADDRESS FOR SERVICE: _____
CONTACT: Cordelia Woodhouse
TELEPHONE: _____
EMAIL: _____
DATE: 30 June 2020

1. Introduction

- 1.1 This is a submission on the Review of Sustainability Measures for Snapper (SNA 7) and Red Gurnard (GUR 7) for 2020/21 as set in the Fisheries New Zealand (Fisheries NZ) Discussion Paper No: 2020/11 (**Discussion Paper**).
- 1.2 EDS is a not-for-profit, non-government national environmental organisation. It was established in 1971 with the objective of bringing together the disciplines of law, science, and planning in order to promote better environmental outcomes in resource management. EDS recently undertook an in-depth study into the operation of the fisheries management system, with a focus on inshore stocks. The study included 60 interviews with people directly involved with fisheries management in New Zealand and was published in 2018 under the title: "Voices from the Sea: Managing New Zealand's Fisheries".

2. Summary of submission

- 2.1. EDS seeks that the use of bottom trawling as a method to catch snapper and red gurnard in QMA7 be prohibited. Unless this is addressed, we do not support any increase in total allowable catch (TAC) or total allowable commercial catch (TACC).
- 2.2. EDS also considers that a decision by the Minister based on the Discussion Paper's advice would be unlawful because it fails to include information necessary to fulfil the Minister's statutory obligations under the Fisheries Act (FA) meaning that a decision on the basis of the Discussion Paper would fail to take into account relevant considerations.

1. Obligations under the Fisheries Act

- 1.1. The Discussion Paper does not adequately address the Minister's environmental obligations under ss8 and 9 FA. It therefore does not provide the Minister with the best available information on which to consider these matters as required under s10(a) FA.

- 1.2. Snapper and red gurnard are primarily harvested through bottom trawl (over 90% of SNA 7 commercial catch)¹ and the Minister therefore needs to consider the impact of this fishing method on:
- a) Biological diversity of the aquatic environment.
 - b) Habitat of particular significance for fisheries management.
- 1.3. There is a wealth of information on this topic which the Minister needs to consider in order to meet his statutory obligations. The information is summarised in the publication “Ministry for Primary Industries (2018). Aquatic Environment and Biodiversity Annual Review 2018 Compiled by the Fisheries Management Science Team, Ministry for Primary Industries, Wellington, New Zealand” (AEBAR) which has a chapter on benthic impacts of fishing activity.
- 1.4. AEBAR provides strong scientific evidence that using bottom trawl gear on hard reef structures and biogenic communities is particularly damaging to those habitats. It summarises the international scientific findings of the benthic impacts of trawling including that:²
- the effects on habitats of mobile bottom fishing gears were that they can:*
- *Damage or reduce structural biota (all reviews, strong evidence or support).*
 - *Damage or reduce habitat complexity (all reviews, variable evidence or support).*
 - *Reduce or remove major habitat features such as boulders (some reviews, strong evidence or support).*
 - *Alter seafloor structure (some reviews, conflicting evidence for benefits or harm).*
- Other emergent conclusions on habitat effects included:*
- *There is a gradient of effects, with greatest effects on hard, complex bottoms and least effect on sandy bottoms (all reviews, strong support, with qualifications).*
 - *There is a gradient of effects, with greatest effects on low energy environments and least (often negligible) effect on high-energy environments (all reviews, strong support).*
 - *Trawls and mobile dredges are the most damaging of the gears considered (three of the reviews considered other gears; all drew this conclusion, often with qualifications).*
- 1.5. AEBAR concludes at page 369 that “The international literature is, therefore, clear that bottom(demersal) trawling and shellfish dredging are likely to have largely predictable and sometimes substantial effects on benthic community structure and function.”
- 1.6. The Discussion Paper also fails to address the interaction between snapper recruitment and survival and habitat. Tasman Bay, within QMA7, is characterised by well-developed bryozoan ‘lace-coral’ beds which are important juvenile fish nursery grounds for snapper. Many

¹ Peart R, 2018, *Voices from the Sea: Managing New Zealand’s fisheries*, Environmental Defence Society, Auckland, 72

² Page 371

bryozoan species are fragile and are particularly vulnerable to damage from fishing methods such as trawling and dredging.³

Of particular relevance to snapper is the scientific assessment undertaken of the impacts of trawling on bryozoan communities in the Tasman Bay area (noting that the Tasman bryozoan beds have been identified as important snapper nursery grounds). Separation Point was first trawled after 1972, and this activity raised concerns about damage to the bryozoan beds and reduction of juvenile fish habitat, which could reduce recruitment into the fishery. In 1980 an area extending 156 km² around the Point was closed to power-fishing methods in order to protect the habitat, comprising just 0.4 per cent of the seabed of Tasman Bay. 30 years later areas within and outside the exclusion zone were examined by scientists. The researchers found that *"grab samples of the sediment from inside the closure area are very coarse, full of shell, and poorly sorted; in contrast, the samples from adjacent fished areas comprise almost entirely soft muds, nearly devoid of shell material and surface-dwelling organisms"*. This was likely due to the ploughing effect of repeated disturbance whereby over time, a coarse shelly seabed is turned into a soft fine mud substrate. Overall, the seabed in the trawled areas had reduced size structure, biomass, and productivity. This has almost certainly impacted on the productivity of associated fisheries including snapper through loss of food sources and juvenile habitat.⁴ A more recent study of the impacts of trawling on Tasman and Golden Bays concluded that the abundance of species which grow above the seabed, such as horse mussels, bryozoans and sponges, was reduced by up to 50% in areas fished on average just 2 to 3 times a year.⁵

- 1.7. Apart from the small protected area in Tasman Bay at Separation Point, important snapper habitats, which are habitats of particular significance to fisheries management under s9(c) FA, have not been protected from trawling impacts and continue to be trawled today. Such benthic habitats are particularly susceptible to damage and destruction by repeated trawling over time which produces cumulative and chronic impacts.
- 1.8. Although snapper and red gurnard stocks are stabilising in the QMA 7 area, it is important that bottom-trawling be prohibited as a fishing method in the area to ensure the future recruitment and viability of these and other marine species.

2. Discussion Paper proposals

- 2.1. The discussion paper puts forward a number of proposals to vary the TAC and TACC for both snapper and red gurnard in QMA 7. As both snapper and gurnard stocks are at or above target biomass, projections are that TAC and TACC can be increased while remaining within the sustainable yield. Given the interdependencies between snapper and red gurnard stocks, any increase in snapper TACC would result in an increase in red gurnard catch.

³ Peart, 2018, 72

⁴ Handley S J, T J Willis, R G Cole, A Bradley, D J Cairney, S N Brown and M E Carter, 2014, 'The importance of benchmarking habitat structure and composition for understanding the extent of fishing impacts in soft sediment ecosystems', *Journal of Sea Research*, 86, 58–68

⁵ Tuck I D, J E Hewitt, S J Handley and C J Lundquist, 2017, 'Assessing the effects of fishing on soft sediment habitat, fauna and process', *New Zealand Aquatic Environment and Biodiversity Report No. 178*

2.2. The measures proposed are:

- a) Maintain the status quo for both SNA 7 and GUR 7
- b) Retain the TAC for SNA7, however increase the TACC by 50 tonnes (and reduce the recreational allowance by 50 tonnes)
- c) Increase the TAC and TACC for SNA 7 by 100 tonnes, and GUR 7 by 108 tonnes

2.3. EDS considers that the use of trawling methods needs to be addressed as a priority. We do not support any increase in TAC without addressing this issue as increasing the TACC is likely to result in increased trawl tows and therefore increased impact on benthic habitats.

3. Conclusion

3.1. EDS seeks that the effects of bottom trawling in QMA7 are addressed and the use of this fishing method prohibited. Until this is done, EDS does not support increasing the TAC or TACC for snapper or red gurnard.

3.2. EDS reiterates its disappointment at the failure of Fisheries NZ to include the best available information on the environmental effects of fishing activity. It is required that this information be provided to the Minister to enable him to make an informed decision on the proposals.



Chatham Islands Airport Limited
Chatham Islands Asset Holding Limited
Chatham Islands Electricity Limited
Chatham Islands Management Limited
Chatham Islands Ports Limited
Chatham Islands Quota Holdings Limited
Chatham Islands Shipping Limited

29th June 2020

Ministry for Primary Industries,
P O Box 2526,
Wellington 6011.

Inshore Fisheries Management,

This is a submission on the Review of Deemed Value Rates for Selected Stocks for 2020/21. The Chatham Islands Quota Holding Company (CIQH) manages a quota share and ACE portfolio in order to enable and facilitate the economic and social well-being of the wider Chatham Islands community.

Having considered the MPI consultation document, CIQH supports the proposal to amend the BNS3 deemed value, but also makes the point that the differential deemed value should only apply to BNS caught in waters adjacent to the Chatham Islands, and landed to and processed by Chatham Island domiciled Licensed Fish Receivers.

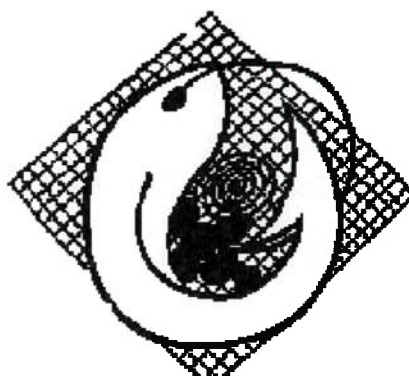
The proposed differential deemed value is appropriate to the value chain derived from wetfish stocks landed to the Chatham Islands and will enable more efficient utilisation of ACE in the local hook and line fishery. A 2018 economic analysis of the Chatham Islands by Martin-Jenkins consultants concluded that BNS by-catch and the lack of available ACE is a significant impediment to the Island's fishing economy.

CIQH endorses key points in the submission made by the Chatham Islands Finfish Association (CIFA).

*Phil Seymour
Chairman
CIQH*

Tasman and Sounds Recreational Fishers' Association (Inc)

TASFISH



**Submission
July 2020**

**Review of Sustainability Measures
for Snapper (SNA7) and Red Gurnard (GUR7)
for 2020/21**

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

Introduction

1. The Association can be contacted through Past President, Martyn Barlow, 45 Dawson Road, RD 1 Upper Moutere, Tasman 7173, phone (03) 540 3545, email

2. Tasfish is committed to the sustainable use of our marine resources in the Top of the South and good management of our marine ecosystems.
3. Tasman Bay Amateur Marine Fishers' Association was formed in the 1980's in response to proposals to introduce large scale farming of scallops in the Croisilles Harbour a popular recreational fishing area on the coastline north of Nelson city. Since that time it has been renamed **Tasfish** and become involved in many fishery allocation and management issues affecting all the major species of interest to recreational fishers.
4. This has included being part of many of the species-specific working groups set up by MPI (Mfish), we have worked closely with both Mfish and The Challenger Scallop Enhancement Company in ongoing management and annual allocations within the scallop fishery. We were involved in the attempts to set up multi sector Fisheries Plans for in Area 7 and we have members on the FMA7 recreational forum.
5. We have been significantly involved in space allocation issues for marine farming and in particular limiting their placement over habitat of recreationally important species. This has included many hundreds of submissions to Marlborough District Council on Marine Farm Resource Consent applications and also to Mfish on Marine Farming Permits on how these farms affect fish or fishers. Our toughest case was taking Mfish to judicial review over one permit. We recognize the importance of suitable habitat for all species and accept the need for careful management of marine ecosystems.
6. Membership of Tasfish is both individual and affiliate. While individual membership is relatively low at less than 50 many of the fishing and boating clubs in the Top of the South, from Golden Bay to Nelson and the Marlborough Sounds, affiliate to Tasfish along with several ratepayer groups particularly in the Marlborough Sounds.
7. Tasfish participates as fully as possible for a voluntary organisation in the annual management rounds and in addition we have made submissions on many of the recent Bills before Parliament relating to our marine systems.

Snapper (SNA7)

8. Fisheries NZ proposes the following options for the TAC/TACC and associated allocations.

Proposed options for the TAC, TACC and allowances for SNA7					
	TAC (t)	TACC (t)	Customary Maori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	545	250	20	250	25
Option 2	545	300	20	200	25
Option 3 (working group preferred)	645	350	20	250	25

9. TASFISH supports Option 3 – and Tasfish accepts this is the working groups preferred option.
10. Option 3 increases the TAC and TACC by 100 tonnes while all other allocations remain unchanged, and this increase is within the equilibrium yield estimates where it is probable to maintain the stock at or above the target biomass depending on the strength of the 2017 year class.
11. In the 2016 review MPI stated they wanted to manage the fishery more dynamically, clearly as the options in is review demonstrate nothing has changed. The fishery is continued to be managed with the same blunt instrument that it has been since the QMS was introduced 34 years ago.
12. As the discussion document for this consultation states it is likely that recreational catch has increased since 2017/18 survey.
13. Tasfish does not support option2. Option 2 reallocates recreation allocation to the commercial sector and it will result in the recreational sector over catching their reduced allocation in the foreseeable future, the recreational fishers will then have to fight for an increase to their allocation potentially a reallocation back from industry.
14. The document goes on to note that Option 2 will not constrain utilisation of the recreational fishery and does not propose changes to recreational bag limits.
15. Tasfish disagrees with that premise and submit that no, absolutely no bag limit changes will be accepted by the recreational sector while the TACC is increased, further more if and when recreational utilisation of the recreational allocation is achieved the recreational sector will be actively seeking an allocation increase for the recreational fishers to ensure the fishery remains equitable for all sectors.
16. We do not support Option 2 and the reallocation from the recreational sector to the commercial sector. The commercial sector was instrumental in the demise of the SNA7 fishery in the late 1970's early 1980's and it is only the concerted efforts of recreational representatives that kept the TACC at 160/200 tonnes respectively for almost 30 years until 2016 when it was increased to 250 tonnes.

17. Keeping the TACC at these levels and several strong year classes has been a significant factor in seeing SNA7 abundance increase and this increase has allowed the recreational sector to participate more in the fishery. This participation has seen increased utilisation by the recreational sector and results of the most recent (2017/18) National Panel Survey of Marine Recreational fishers supports this fact with an estimate recreational SNA7 catch that has increased to 149 tonnes,
18. With continued population growth in the region and boat ownership at double the national average¹ in the region recreational fishers will continue to increase utilisation.
19. We therefore submit that the abundance increase trend must be maintained in SNA7.
20. We also submit there should be no decrease in the recreational allocation of 250t.
21. The recreational sector is satisfied that by not utilising the current recreational allocation fully that this contributes towards continued abundance increase and provides the best outcome for the fish and for all other sectors today and into the future.
22. We also submit that the Minister of Fisheries and Fisheries NZ has once again missed an opportunity to manage this fishery far more effectively.
23. There are a range of issues in the fishery and controls and measures could be introduced to protect benthic habitat and significant spawning areas with an equitable management plan to ensure both agreed outcomes and long term viability and certainty.
24. The advancement of a management plan for SNA7 was set out in the 2016 review discussion paper, but alas once again fisheries managers have been not pursued such a management plan.
25. TASFISH sees this as another lost opportunity by the Minister of Fisheries to address issues such as spatial separation, benthic habitat recovery, localized bag limits, gear restrictions, catch reporting, along with other initiatives that would see public buy in for a recovering fishery where industry and amateurs had an equal share.

HISTORY

26. In 1978 (2720t) and 1979 (1776t) 4496 tonnes of snapper were commercially harvested, this was the reason SNA7 declined to such low levels that denied access to recreational fishers for almost 30 years!
27. The following are excerpts from the book Hooked by David Johnson and Jenny Haworth recorded as the story of the NZ fishing industry. The excerpts were taken from the section titled scooping up the snapper and relates to the unrestrained frenzy that took place in the 1970's and early 1980's in Tasman Bay.

¹ Auckland Recreational Boating Survey – Beca Infrastructure Ltd 2012

when it arrived at the factory. The company was unhappy, and so were the crew who were paid more for Jap-pack than for other snapper. On one occasion off Muriwai the *San Christine* and *San Rosalind* finished a tow. The net was passed to the *Rosalind*. She took as much as she could and headed for Onehunga, leaving the *Christine* with the net. There was too much to get on board at once, with the result that the net, with fish in it, was left in the sea while those on board were iced down. Splitting bags to take fish on board was not uncommon on both seiners and trawlers, but in this case the quantity was larger than normal. The snapper left in the net, although closely confined, had whirled around and rubbed against each other until they looked as though they'd been put through a scaling machine. For the skippers, it was part of the learning process.

Greig and Tilby picked up another large haul outside Great Barrier. Greig filled the *San Christine*. With the decks covered she headed for Auckland while the fish were being iced down. By then they had drifted almost to Whangaparaoa. When Greig was off Tiri he received a call from Tilby to say that his boat was full and he still had fish. By that time the *Christine's* load had been iced down and the decks were clear. She returned to pick up the rest. She came in with a full deck load. Fortunately it was dead calm, night time, and it was not far to Auckland. Ice trucks were waiting on the wharf. The complete bag, probably about 40 tons, was safely in the factory before dawn.

By this time pair trawling was a straightforward process. In the beginning there was some trial and error in maintaining the correct distance between vessels. The *San Christine* and *San Rosalind* trawled at a distance of 250 to 300 metres apart. Each vessel carried about 800 metres of wire on their drums. Despite the *Seawyf-Brothers* experience, and that of the *Jay Angela-Loch Lein*, there was a belief that identical vessels were necessary, but that was soon disproved. Experience allowed pair trawling with almost any vessel.¹⁹

At Tauranga, meanwhile, Nicholson had decided against larger vessels and pair trawling on the grounds that it required too much time at sea. The *Seawyf* was sold. He bought a smaller boat. The Gaelics had earlier taken care of the problem of too much fish for Costello's processing capacity by opening their own shop, which they called Tauranga's first fish supermarket.²⁰ The *Paragon*, built for Costello, paired up with the *Serenity* as a successful combination.²¹ Costello sold out to Sanford a second time in 1972, but he remained as manager until 1975.²² The original Costello company, Union Fish & Ice, at last adopted the Sanford name.

At Nelson, Sealord's *Sealord II* had paired up with Rob Gausel's *Victory*. In 1977 Sealord had the *Fifeshire* and *Whitby* built in Japan. Identical in design, they were successful pair trawlers but perhaps too large. Catches were too big for one vessel, and the need to split it was time consuming. That was not unique to the *Fifeshire* and *Whitby*. It applied to all pair trawlers, but seemed to have a greater effect as the size of the vessel increased.

The beginning of pelagic fishing in Tasman Bay led to a chance discovery that gave the hunt for snapper a new perspective. In July 1977 Sealord had taken over responsibility for a lightweight purse-seine project previously carried out by the FIB. It included taking over the charter of the *Rowallan* and her gear.²³ Convinced of the prospects of purse-seining in Tasman Bay, Sealord bought the *Pirimai*, a larger vessel than the *Rowallan*. In December 1977 skipper Chris Sharp was purse seining with the *Pirimai* not far from Nelson. He had pilot Derrick Catley

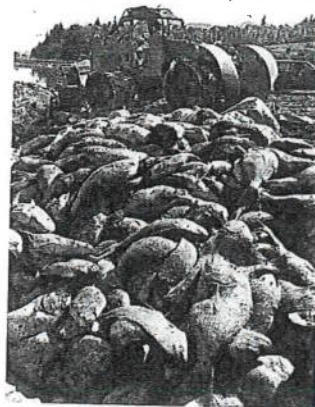
spotting for him from a light aircraft. Catley saw a school of fish in shallow water near Rabbit Island. Sharp set his net and caught 20 tons of snapper. Other Nelson skippers were incredulous. Local lore said that snapper went somewhere else in December. 'Fluke,' they said. 'Snapper are demersal fish. These ones behaved like pelagic fish. Once in a hundred years.'

The next day Sharp caught another school. Sealord had to send two boats to help him bring it in. Everyone sat up and took notice. Other than Sharp, no one had purse-seine gear to scoop fish off the surface. Sealord skipper Mike Connelly spent Christmas converting a trawl net on the *Whitby* so that it would ride high. On New Year's Day he towed it round the bay and caught nothing while the *Pirimai* filled up again. Chris and John Guard were also experimenting. Their vessels, *Dorothy May* and *Da Vinci*, were traditional wooden boats; they had huge orange windy buoys to prevent damage when they came together to change the net over. After failing to catch snapper all morning they tied the buoys to the headline of the net so that it towed 2–3 metres below the surface. The *Whitby* followed to see what would happen. The sea started to boil behind the two wooden boats. They had a bag of snapper, surface trawled. Connelly called up the *Fifeshire*, which had sailed for Kapiti. The message was brief: 'Come home.'

In the harbour Mike Wells and Colin Nunn, two of Nelson Fisheries' skippers, heard the message, rigged up a net with floats, and set out the next morning. On the first shot they caught 50 tons. They then had a problem. It was the New Year holidays. Nelson Fisheries was closed for another week. Boats normally sailed a week before opening so that they could unload their first catch when the factory returned to work, but there was no plan to cope with a catch made immediately outside the harbour within ten minutes of sailing. The bag was towed to Sealord's wharf. Sealord had a fish pump which sucked fish from a vessel up onto the wharf and into the factory. It was put directly into the net. While it pumped, the catch was left in the sea where the water temperature was probably 18 or 19 degrees.

Meanwhile the *Fifeshire* had arrived and a net had been adapted. The *Fifeshire* and *Whitby* sailed out of the harbour, shot their net and picked up 30 tons. Unlike other Nelson vessels, they had ice-making machines on board. Rather than put the fish down in the hold it made more sense to ice down on deck and come straight back to the processing plant. Wells and Munn, still with most of their bag, had to tow it to Nelson Fisheries' wharf so that the *Fifeshire* and *Whitby* could unload into Sealord's plant. While Sealord happily processed its freshly caught and iced fish, Nelson Fisheries struggled to empty the bag. Most of it went to the Nelson tip.²⁴

The bonanza ended as suddenly as it had begun, but a year later fishermen were ready and waiting. As well as the *Fifeshire* and *Whitby* hunting as a pair, Sealord had the purse-seiner *Pirimai* working in conjunction with a spotter plane. Wattie sent its purse-seiner *Marine Countess* south, and Skeggs paired the two large trawlers *Wanaka* and *Hawea*. Almost all the smaller vessels of the Nelson fleet that had enough horsepower and sufficiently heavy lifting gear were involved, along with vessels from other ports. There were mishaps. When the *Wendy J* and *Stargazer* tried to lift their net, the *Stargazer's* gantry broke with the weight. The *Dorothy May* helped clear the net. She tied up at the wharf with a full deck cargo of snapper. There was innovation. Trawl nets were fitted with 'verandahs' to stop fish escaping upwards. There was opportunism. Some bags were so full they spilt fish, others strained seams and spilt fish. Other fish split on the loaded decks. It



Snapper dumped at the Nelson tip: the aftermath of a catch that was too big and taken during the Christmas holiday season. Incidents like this provoked outrage from recreational anglers nationwide.

Nelson Provincial Museum, G.C. Wood 4225 FR23

was a time of frenzy, of near madness. More than 30 vessels dragged fish out of the sea as fast as they could. There was no time to think too hard about quality on most of the boats. Drag them in, ice them if there was time, get them to the processing plant, go and do it again.

Fisheries scientists were concerned. The snapper caught were mostly big, aged from 10 to 40 years, and they were spawning. In the 1977–78 frenzy most of those caught were females. In the second frenzy most were males. These big fish normally migrated away from Tasman Bay after spawning and were not usually caught by normal bottom trawling.²⁵ If the stock of large, old snapper was fished down, what would this do to future stocks? As it was, bottom pair trawling was catching snapper aged from two or three years. The stock was being squeezed from both ends.

Nelson fisheries scientist Jim Mace and Kevin Sullivan from Fisheries Research considered the possibilities.²⁶ Cod-end mesh size could be increased to 12.5 centimetres – although the *Ikitere* research in the Bay of Plenty had shown that survival rate of small snapper was almost negligible once they had been caught in the crush of larger fish in a net. A minimum size could be introduced, but there would still be wastage. Snapper nursery areas could be closed, but that would interfere with trawling for other species. Shallow inshore grounds could be closed. Some fishing methods could be banned, but that had been tried before and was inclined to promote both inefficiency and discontent.

No matter how much some of them disagreed with scientists' views or different estimates of how much fish could be caught, fishermen knew that Tasman Bay's snapper could not withstand an onslaught of this intensity each year.

FIB general manager Nick Jarman chaired a meeting of fishermen and processors in Nelson Fisheries' tea rooms. It allowed a robust exchange of views, but no more than that. Several fishermen, including Wells, Nunn, Connelly and Sharp, were seriously concerned about the situation even though they had some of the most finely-honed hunter instincts in the port. A quota was proposed. The fishermen suggested 2000 tonnes. Fisheries Research wanted 1500 tonnes, and a larger area. Limiting fin-fish catches by imposing quotas was a comparatively new technique, but it was adopted and enforced by regulation.

By that time the second rush had passed, but from 1979–80 there were rules in place. The quota was then 1000 tons. It was to be taken on a first-come, first-served basis, starting on 8 November. That encouraged the frenzy. It was a race. When the race began 150 tons had already been landed but that was not counted. In five weeks 24 sets of pair trawlers and two purse-seiners caught the quota.²⁷ This time they fished in shallower waters, along the Boulder Bank, close in to Rabbit Island and off Ruby Bay bluffs, and began to pick up younger snapper. The squeeze on stocks intensified. The *Fifeshire* and *Whitby* picked up one bag of 90 tons.

In time, the regulations were refined. Targeting snapper with a purse-seine net was banned. The quota period ran from early November through to the end of March to cover all variations in spawning times. In most years the quota was caught early, and the season closed.²⁸

The FIB had made its first public statements expressing concern about fisheries management in 1976. It was soon actively involved with MAF in discussing how to stop some species being overfished. The FIB had no faith in MAF's catch statistics. It considered that both fin-fish and rock lobster figures were 'substantially

understated,' so much so that it recommended that any statistics published should bear a qualification as to their doubtful validity.²⁹ The Board thought that MAF had power under its existing legislation to restrict entry, despite the removal of restrictive licensing. MAF and the Crown Solicitor differed. The FIB became increasingly frustrated by what it saw as a bureaucratic inaction which 'could jeopardise the future of the fishery and the economics of those engaged in it'. It had Nelson scallops in mind. MAF, meanwhile, was principally concerned about snapper in the Hauraki Gulf. This was a year before Nelson fishermen discovered that they could catch big bags of snapper on the surface.

Since delicensing, fisheries management had become a world of consultation rather than regulation. FIB had created a series of advisory committees which were intended to bring together MAF, the Board and local fishing interests. The intention was that these committees would work through local problems, whether they affected snapper in Auckland or oysters in Bluff. Solutions would be found, and people co-operate in the interests of the greater good. That could only work if those involved in the catching and processing were happy with the decisions. One person, fisherman or processor, ignoring the principles espoused by advisory committees, was enough to wreck the system. But as MAF's head office was heavily involved in working out how to control the EEZ, the problems of resource management in the domestic fishery were left to regional fisheries officers. Support was given when it was asked for, but inshore catches were not at the top of the priority list. The attention they got was often too little, too late.

The inaccuracy of fisheries statistics was a large part of the problem. The letter of the law only required fishermen to furnish a monthly return of landings, or a 'nil return' if they had done no fishing. However, MAF also wanted catch-effort information, which was more detailed – like hours trawling or the amount of gear used (such as number of rock lobster pots, or the number of hooks on a longline). Catch-effort information was a basic indicator of how plentiful the fish were. If it showed a long-term decline in catch rates it might provide advance warning of overfishing. That, at least, was the theory, but fishermen were fiercely independent and did not feel they needed MAF to tell them the state of the fishery. And the forms were a nuisance. They weren't well designed. Filling them out was just another chore, and one that did not help them catch more fish.

So the vast majority of fishermen just wrote down their total landed weight of each species on the MAF form (although some under-reported that as well). Little of the fish dumped at sea was recorded. Most of them left the catch-effort information panel blank. Many were always months behind on their paperwork, and some didn't send returns in at all – and got away with it. The system was also bogged down by increasing numbers of part-timers who might fish only one or two months a year and failed to submit 'nil returns' for the other months.

A further complication was the identification of fish. There were at least three different species recorded as 'dogfish'. In Nelson, small snapper were called 'brim' and some fishermen insisted they were a different species. Sometimes different grades of the same species had other names – small tarakihi and snapper were recorded as 'charity'. (They were marginally economical to process so the buyer was being 'charitable' in buying them). All this confused the MAF clerical staff whose job it was to code the information for entry into the computer.

For many species it was a case of 'garbage in, garbage out', and the published data was an embarrassment to MAF fisheries staff. It was a problem they would not

28. Our passion for the protection of snapper in this region cuts to the core of recreational fishers due to what went on in the past and the unrestrained commercial fishing frenzy that took place during this period decimated SNA 7 abundance.
29. What makes it even worse is the fact that the “fishermen knew that Tasman Bay Snapper could not withstand an onslaught of this intensity each year” yet this did not stop them and there was no reduction in effort to ensure the long term viability of the stock.
30. While harvests were lower from 1980 to 1989 effort was not reduced when the QMS was introduced in 1986 or even when the TACC was cut in 1989 to 160t as commercial fishers landed 134t more than the 160t TACC 1989.
31. Effort was finally reduced in 1991 five years after the introduction of the QMS!
32. SNA7 biomass was reduced to such low levels as a result of the unrestrained fishing frenzy and unrestrained effort that recreational fishers who once were able to catch a feed close in shore were unable to access a feed of snapper for almost 30 years.
33. Spatial separation is required in Tasman and Golden Bays, near inshore areas where snapper congregate to spawn should be protected from destructive bulk harvesting methods. TASFISH submit that the Marlborough Sounds and inshore areas (5 nautical miles from MLWS) of Tasman Bay and Golden Bay should exclude bottom trawling as a fishing methods to allow for habitat regeneration for spawning fish..
34. The recreational sector made a significant long term contribution to the any rebuild that is occurring with SNA 7 by going without access to snapper up until the last 3 or 4 years. TASFISH submits that if a rebuild is happening “naturally” assisted by enhancement it is time for the commercial sector to make some contribution towards the ongoing success of the rebuild of SNA 7.
35. Bottom trawling is the primary form of harvesting employed by industry throughout FMA7 and the inshore areas. This bulk harvesting method is claimed and promoted as the only economical method available to industry to harvest fish stocks.
36. Bottom trawling is the single most destructive force in the coastal marine environment. The destructive effects of bottom trawling is accepted by commercial fishers (declared deep water no trawl areas SEAFIC 4 April 2007)
37. The voluntary no trawl lines in Tasman & Golden Bays have been repeatedly ignored by some commercial fishers. There are no repercussions for the commercial fishers who breached these agreements as they are voluntary. It is apparent voluntary agreements do not work.
38. Tasman and Golden Bays and the Marlborough Sounds are recognised important breeding grounds for snapper and many other key recreational stocks and the altered benthic habitat and bottom structure severely deprives fin fish from safe habitat. The ability of juvenile finfish to seek protection from predators in this altered environment through destructive fishing practices cannot be underestimated.
39. Key to increased fish stock abundance is the recovery of the coastal marine area and the removal of bottom trawling will allow the benthic habitat the opportunity to recover.

The link between a healthy benthic habitat and the whole marine eco-system is irrefutable.

40. While there is no historic baseline information to measure the degree of destruction from commercial bottom trawling methods there is significant anecdotal evidence that commercial fishing interests have over several decades knowingly altered and in some cases destroyed the seabed from what was once its natural state.
41. The following is part of the recorded history of how coral beds in Tasman Bay were destroyed by the commercial sector. Published in the commercial publication *Catch* in September 1980.

Coral Loss Could Deplete Fish Stocks

by Frank Saxton

An important nursery area for tarakihi and snapper is located in one of the two declining coral beds in Tasman Bay.

In a recent study of the history of the beds, local fishermen were asked to compare conditions in the past with those prevailing today. The most important finding was that the Separation Point coral bed has been the site of a vast nursery of juvenile tarakihi and snapper. This nursery environment has all but disappeared, and there is cause for concern at the extent to which this will be detrimental to future stocks of these species.

The coral is a bryozoan. It usually occurs in large rock-like pieces, but is made up of the individual homes of very small, almost microscopic, animals, each living in a hard case into which it can withdraw for protection from predators. As each bryozoan dies new ones build their homes on top of the old, and so the colony grows — much like a true coral. The map shows the approximate area of Tasman Bay once covered with these coral colonies.

Foul ground

Commercial trawling in Tasman Bay began in 1946, and it was soon discovered that large areas of the Bay were foul ground. Two coral areas were defined — the Torrent Bay and Separation Point beds, the Separation Point bed being the most dense.

The problem of trawling over coral was simply that the trawl net ripped whenever it encountered coral. If the net picked up coral blocks it became heavier and sank hard onto the bottom, increasing the likelihood of damage. Small pieces of coral in the cod end also caused a lot of damage to the catch.

These problems were considerable in the years before 1956, as all trawl nets were made from natural fibres

(mostly cotton) and were easily torn. However, even before synthetic materials appeared, trawlermen had devised techniques which allowed them to trawl over the Torrent Bay coral.

However, all the fishermen interviewed stressed that whatever technique was used, it was impossible for an otter trawl to fish over coral without causing damage. This was often referred to as "breaking in" a coral bed.

Separation Point

The Separation Point coral bed differs from the Torrent Bay bed in an important way: both fishermen and scientists consider it to be a home to big schools of small juvenile tarakihi and snapper. This is in addition to blue cod and two unmarketable species, red mullet and sea perch, which are fish not normally associated with trawl grounds.

The edges of the Separation Point bed slowly retreated inshore between 1946 and 1975. This was most noticeable in the northern boundary which retreated shorewards about two miles. The western boundary (known as the smoke line) also shifted shorewards. These boundary retreats were caused by unintentional encroachments over the years as trawlermen attempted to fish near the coral.

Trawling did not begin its direct assault on this bed until the mid 1970s. By this time tough buoyant synthetic material was universally used in trawl nets and forays began to be made onto the area over the coral.

In the winter of 1977 trawling on this coral bed became common with four boats consistently working the area. Huge bags of small unmarketable tarakihi and snapper were commonly taken and laboriously sorted through to find marketable-size fish: the rest were discarded overboard with little chance of survival. Often the nets would be seriously

damaged, adding their toll to the profits of the operation.

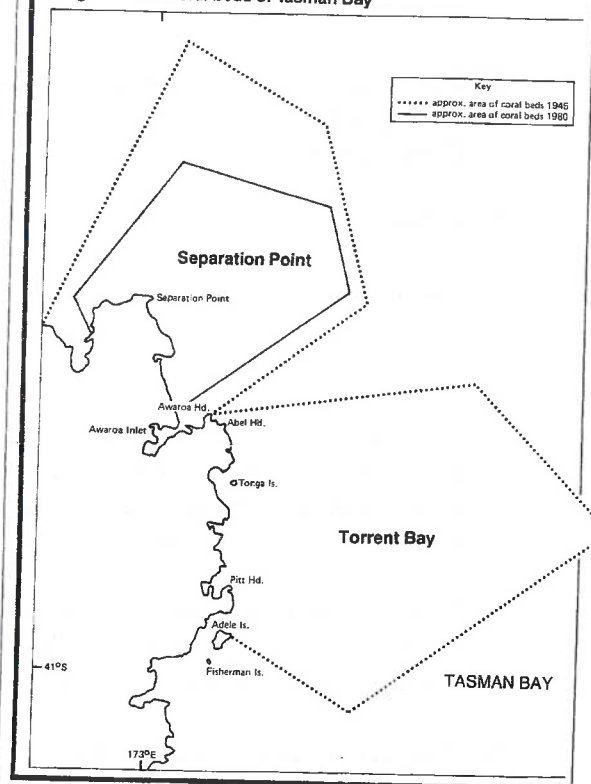
With the serious decline in the scallop fishery in the 1978 and 1979 seasons, more boats spent time trawling in Tasman Bay, chasing a seemingly ever-decreasing fish population. In the winter of 1979 at least six trawlers worked the coral. None of these trawlers exceeded 15 metres in length and most were under 12 metres. There is no evidence that large trawlers with big nets have caused any significant effects. As the coral is broken in it becomes easier to work, and it is therefore easier for

trawlermen with less experience to enter the fishery.

Patches of coral still exist off Separation Point, but they are decreasing in size and number. The large bags of juvenile fish of the past are seldom taken these days. Those that are taken are now sold for about 4 cents a kilogram and used for rock lobster bait. The coral that afforded them so much protection for so long has been broken up and so made them vulnerable to the ubiquitous trawl net.

Catch, September 1980

Fig 6.6 The coral beds of Tasman Bay



Source: *Catch* September 1980

42. There are also numerous scientific studies conducted in other fisheries and marine environments that conclude trawl fishing has caused the destruction and alteration of the habitat that further conclude the marine environment will not recover until the practice of bottom trawling ceases.
43. Bottom trawling and the use of other mobile fishing gear have effects on the seabed that resemble clear felling forests, a terrestrial disturbance recognised as a major threat to biological diversity and economic sustainability. Structures in marine benthic communities are generally much smaller than those in forests, but structural complexity is no less important to their bio diversity.
44. Berman and Hup (1992) demonstrated 10-65% reductions in echinoderm, polychaete, and mollusk densities after trawling. This result suggests that removal of habitat structure in relatively low-structure soft-sediment systems such as Tasman and Golden Bays and the Marlborough Sounds will significantly decrease their biodiversity, and consequently that of the wider marine ecosystem.
45. Stopping trawling significantly increases the density of large epifauna and by removing this activity we would see evidence of broad scale changes in benthic communities that can be directly related to the removal of bottom trawl fishing.
46. It is essential to recognise that the risks of trawling include many factors in addition to the direct effects on target species. By catch is perhaps the most serious general environmental impact of modern fisheries. Given Trawling gear is dragged on or near the bottom to recover benthic or near benthic species in the water column or on the soft bottom, the effects of trawling are extensive and potentially severely damaging to the ecosystem.
47. Epifaunal species are especially vulnerable, and there are overseas reports of trawlers destroying sea pens and beds of the reef building polychaete Sabellaria, the oyster *Ostrea edulis*, and sea grass *Zostera marina*.
48. In New Zealand, Bradstock and Gordon (1983) also reported the loss of large beds of bryozoans as a result of trawling. In each of the above cases the habitats that were destroyed by trawling probably represent very important nursery areas for many species, often including some of the target species of fisheries.
49. Extensive areas of benthic habitat in the Tasman Coastal Marine Area have been lost or their physical integrity compromised as a result of trawl fishing. Mobile fishing gears are a major cause for concern because of the size of the affected fishing grounds, the associated modification of the substrate, disturbance of benthic communities, and removal of non-target species.
50. Random research surveys may underestimate the actual environmental impact of the commercial bottom fishing activities. Another problem is that research surveys are often much more reduced in time and space than the actual fishing effort.
51. They report long lists of benthic species destroyed, and that most good areas are trawled over many times a year even 25% mortality is extremely serious for long lived species that recruit episodically and live in areas exposed to trawling several times a year.

52. In addition to direct impacts, there are many indirect impacts caused by trawling resulting from increased turbidity likely to reduce or eliminate *sea grass habitats*. In most cases these are important habitats that become dominated by small deposit feeding polychaetes. Such shifts have serious implications because deposit-feeding communities may resist recovery of suspension feeding species. Epifauna play key roles in influencing the structure and stability of benthic communities.
53. Trawl fishing exerts a profound effect on almost all components of associated communities and ecosystems. The most sensitive components are rare habitats that serve as nurseries and the species with low reproductive rates. It is accepted that Tasman and Golden Bays and the Marlborough Sounds areas are nursery grounds for many species including our favoured Snapper. Blue Cod were even once abundant in Tasman and Golden Bays but they now have nowhere to hide from predators.
54. Fisheries managers attempt to address the sustainability of fish-stocks through the Quota Management System a system that fails to minimise the direct and indirect impacts of fishing on other components of the ecosystem. A number of recent international fisheries agreements have specifically identified the need to provide for habitat protection and restoration to ensure long-term sustainability of fisheries.
55. TASFISH submits that if we are to improve habitat and ultimately improve fish stock abundance that bottom trawling must be removed from key breeding areas such as Golden and Tasman Bays and the Marlborough Sounds.
56. TASFISH cannot support any increases in TACC's until inter sector spatial separation is achieved through the removal of bottom impacting fishing methods and the creation of no trawl areas 3 miles from mean low water springs (MLWS).
57. As scientific hypotheses are never proven, only disproven, conservative management is very difficult because exploiters can always point out uncertainties about the casual relationships between exploitation and environmental degradation. **TASFISH submit that the burden of proof lies with the exploiter.**

Red Gurnard (GUR 7)

1. Fisheries NZ proposes to review the TAC for red gurnard in GUR7 and proposes the following options.

Proposed options for the TAC, TACC and allowances for GUR7					
	TAC (t)	TACC (t)	Recreational Allowance (t)	Customary Maori (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	1176	1073	38	15	50
Option 2	1283	1180	38	15	50

1. *The recreational allocation of 38t represents 0.67 of a red gurnard per recreational fisher each year!*

2. TASFISH supports option 1, “the status quo”. Tasfish submits the recreational allocation needs to be increased to reflect both the importance of red gurnard to the recreational sector and the increasing recreational catch.
3. TASFISH is disappointed with this discussion document as it fails to discuss or acknowledge that GUR7 is a shared fishery, and the recreational sector has been disregarded by Fisheries NZ with regard to GUR7.
4. There is no recognition of the significance and importance of red gurnard to recreational fishers and the increasing utilization of recreational fishers as abundance has increased. in FMA7.
5. The recreational allocation of 38t represents 0.67 of a red gurnard per recreational fisher each year!
6. The population of the Tasman, Nelson and Marlborough regions in 2016 was 142,300. 40% of the population go fishing, therefore there are 56,920 resident recreational fishers in the region (this does not include the populations of Kaikoura and the West Coast which are also covered by FMA7).
7. An average red gurnard weighs 1kg, 38t equals 38,000 red gurnard allocated to the recreational sector.
8. 38,000 red gurnard shared by more than 59,200 recreational fishers = 0.667 of a red gurnard per fisher! The SNA7 recreational allocation is 4.39 fish per recreational fisher.
9. The recreational daily bag limit for red gurnard is 20 fish per person per day, that is 1,900 recreational fishers – 3.3% of the 56,920 recreational fishers catching a (1 yes one) red gurnard daily bag limit per year.
10. Alternatively, if every recreational fisher caught 1 red gurnard per year the recreational allocation would need to be 59t.
11. Red gurnard has over recent years become a far more important and highly regarded target species for the recreational sector as they seek to target other species due to the blue cod restrictions in Challenger East and fishers spend more time on the water due to the increased abundance of snapper in the area which has seen increasing participation by a growing population not just targeting snapper but also focusing efforts on red gurnard while they are on the water.
12. TASFISH acknowledges an increase and availability in red gurnard abundance and this increases the availability to and the ability of the recreational sector to utilize this stock in increased numbers
13. When targeting red gurnard it is not uncommon for an individual fisher to catch between 5 – 7 red gurnard several times per year. If 15% (8,943) of recreational fishers caught 5 red gurnard once a year the recreational allocation needs to be 45t!
14. TASFISH submits the current allocation and the lack of acknowledgement of this shared fishery in the paper fails to recognise the importance of red gurnard to the

recreational sector and further submits it does not reflect the growing utilisation of red gurnard by the recreational sector..

15. There is an opportunity to correct the allocation for the recreational sector before allocating it away to industry and TASFISH submits that the Minister should take this opportunity now.
16. Red gurnard has been regularly reviewed of the last 12 years with an increase to industry of 392tonnes since 2009, and an increase of 18 tonnes to the recreational sector.

Fishing Year	TACC (t)	Change (t)	Recreational (t)	Change (t)
2008=9	681		20	
2009-10	715	+34	20	
2013-14	785	+70	20	
2015-16	845	+60	22	+2
2016=17	975	+130	25	+3
2019-20	1073	+98	38	+13
2020-21*	1180	+107	38	+0

*2020/21, current sustainability review

17. Despite the high percentage increase of recreational allocation from 20t to 38t of 90% the 18 tonnes in reality is at best a token gesture by the Minister.
18. The allocation for other sources of fishing related mortality of 50 tonnes is 12 tonnes or 32% higher than the recreational allocation.
19. We submit that the recreational allocation must be reviewed and increased to 50t before any further increase in the TACC.
20. The Minister of Fisheries will be failing in his obligations by not increasing the recreational allocation, and only increasing the TACC. Therefore we cannot support any further increases in TACC until the recreational allocation is also increased to cater for greater recreational utilisation.
21. There are several references in the Fisheries Act 1996 to levels at which stocks must be maintained. The level most often quoted is Bmsy and pursuit of MSY has been at the forefront of fisheries manager's minds for many years. MSY as an outcome has led to this management objective being referred to as a "knife edge", and given the uncertainty of available information on many stocks, creating real danger of stock collapse if MSY is overestimated.
22. The recent Supreme Court decision on the Kahawai case states the Minister can maintain a biomass in any given fishery at above BMSY if he/she decides to. This is especially important in many of our high value shared inshore stocks, including those we are submitting on here, where abundance is the key driver for non-commercial success.
23. The Court also directed that the Minister must provide an allowance that is "reasonable" for non-commercial interests and that the entire TAC, once set, must be allocated. Therefore it is unacceptable the TAC be reviewed without including any

provision in the paper for a change in the allowance for non-commercial interests that is reasonable.

24. It appears under this years review of sustainability measures and the TAC is reviewed to only accommodate a TACC increase and MSY is the management outcome, the only possible beneficiaries are ITQ holders.
25. TASFISH submits that GUR 7 stock must be managed at levels significantly above Bmsy if there is to be any chance of access equity for non-commercial sectors.
26. As we have mentioned in our submission on SNA7 earlier in this submission growth in population and double the national average of boat ownership in the region will be provided for by increased abundance, and the recreational allocation needs to reflect the continued growth in utilisation because of the increased abundance.
27. Given the pivotal importance of inshore stocks and red gurnard to non-commercial interests it is crucial they continue to be moved to a level above Bmsy. We submit the Minister would be acting entirely within his rights by allowing the standing stock biomass to continue to increase and maintain the TAC at its present level. Recent research coordinated by Worm and Hillborn and reported in the journal "Science" published in late July 2009, points to strong indicators on an international level that managing fisheries at biomass levels recognised as significantly above those historically used to calculate MSY provides win win situations.
28. They also found that using an ecosystem based approach and calculating yields on a multi species basis rather than the accepted single species system, lead to higher levels of productivity and certainty of sustainable long term yields.

Local Area Management

1. FMA7 is a complex and varied fishery which covers the West Coast of the South Island, Tasman and Golden Bays, the Marlborough Sounds and the upper East Coast of the South Island.
2. The recreational sector fish under the amateur regulations for FMA7 as well as the two sub area regulations; those for the Challenger East Area and those for the Marlborough Sounds Area. These sub areas of FMA7 have additional stricter regulations that better reflect the varying geographical nature and varying abundance of stocks within FMA7.
3. While there are various gear restrictions on the commercial sector the harvest of the TACC can be achieved from anywhere within FMA7.
4. In the case of snapper it is known that in some areas of FMA 7 recreational fishers have experienced increased catches, there are however a number of other popular areas, in particular adjacent to intensively commercial bottom trawled areas, where no increase has been detected and low catches remain the norm (e.g. the western shores of Tasman Bay). Any increase in the TAC/TACC's will only allow increased commercial effort which will continue to deny access to the fishery in these areas.

5. It is obvious that spreading commercial effort and catch within FMA7 could achieve increased TACC while also allowing better access to these fisheries for the recreational sector.
6. It is our submission that finer scale management on a more local basis of commercial effort and their catch entitlements within FMA7 needs to be implemented to allow for increased utilisation and thereby creating greater equity and higher value.
7. It is a nonsense that tighter restrictions apply to only one sector whose overall catch allocation and catch is a fraction as that provided for the commercial sector.
8. The TACC should be broken down to be management by statistical reporting areas that better reflect the varying geographical nature and varying abundance levels within FMA7 and to avoid localised depletion and provide for all sectors equally.

Deemed Values for Fish Stocks

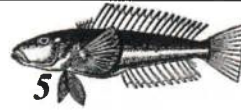
9. The minister is required to set deemed value rates that will provide incentive for every commercial fisher to acquire and hold sufficient ACE that is not less than the total catch of that stock taken by the commercial fisher.
10. TASFISH submits that even when the deemed value rate provides this incentive TACC's continue to be exceeded. Furthermore, the fish receiver or processor, who in most cases is the quota owner, processes the catch, adds value to it and still makes a profit from it.
11. TASFISH submits that any over catch of ACE or the TACC should be taken of the following years TACC and ACE.
12. This will ensure the quota holder retains more control over the commercial fisher in adhering to catching only what the commercial fisher has ACE for.
13. Any over catch impacts negatively on stock abundance and denies the recreational sector access to their share of the TAC. TASFISH submit that by reducing the following years TACC and ACE when commercial fishers catch more than they are entitled to should be implemented immediately as a sustainability measure.
14. TASFISH also submits that MPI should develop the ability to monitor catch landings in real time to enable catch landing forecasts. These accurate forecasts will enable fisheries managers to close fisheries in total before TACC's are exceeded and or ensure commercial fishers which hold no ACE are also forced to cease fishing.
15. TASFISH submits if these measures were introduced then deemed value payments will be less significant and deeming will cease to be a way of just accessing more ACE.
16. The policy of having a deemed value rate of somewhere between the ACE and the Port price does not work, there are many instances where over-catch continues regardless.
17. Any level of over catch cannot be sustained and denies access to the fishery for other sectors. TASFISH submits that commercial fishers must not only be penalised

financially by way of deemed value but MPI must also reduce TACC and ACE in following year when TACCs are over caught.

18. It unacceptable and defies logic to allow commercial fishers to carry forward 10 % of TACC if uncaught one year yet not deduct the TACC the following year when a TACC has been exceeded.
19. To further ensure ACE is not exceeded TASFISH submit that all deemed values should be set at a minimum of 3 times the port price.
29. TASFISH submits that we have an opportunity to break out from the cycle of boom and bust and use humanities increasing understanding of the complexities of the marine environment to improve our fisheries productivity. The benefits of this can then be shared by all sectors of society, not just a handful of quota owners.

A handwritten signature in black ink, appearing to read 'Martyn Barlow', with a long horizontal stroke extending to the right.

Martyn Barlow



Email:

Ministry for Primary Industries,
PO Box 2526,
Wellington 6140

30th June 2020

Dear Sir/Madam

Re: Submission from the BCO5 Association (BCO5) on the Review of Sustainability Measures for Blue Cod (BCO 5) for 2020/21.

Fisheries New Zealand Discussion Paper No: 2020/12

The BCO5 Association (BCO5) represents the majority of commercial fishermen (quota owners and ACE fishermen) who utilise the blue cod resource in Fisheries Management Area 5 (FMA5). The objectives of BCO5 are to promote sustainable management of FMA 5 blue cod stocks, protect harvest and access rights and protect/enhance quota value. Most commercial blue cod fishing in BCO5 is done by cod-potting.

The address for service for this submission is: Attn: Bill Chisholm,|_____

BCO5 has carefully considered the information provided in the Discussion Document (Fisheries New Zealand Discussion Paper No: 2020/12), which outlines three options for the future management of the Southland blue cod resource. On March 10th 2020, BCO5 held a Special General Meeting to discuss the development and implementation of a Harvest Control Rule (HCR). At this meeting, it was resolved that the introduction of an HCR as a method of managing the BCO5 fishery is necessary for its ongoing management. The meeting also concluded that the HCR should have a starting reference point (i.e. total allowable commercial catch – TACC) of 874 Tonnes.

After discussions with fisheries scientists, further recommendations were made as to the operation of the HCR. These recommendations currently meet the MPI Harvest Strategy Standard, so they are able to be implemented immediately. They have also been discussed at the Southern Inshore Working Group. The Working Group agreed that the BCO5 fishery could be managed by HCR, although some more modelling work could be undertaken to verify its precise specifications. This additional modelling work is underway.

Therefore, after consideration of scientific research, and discussions amongst members, BCO5 recommends Option 2 on the proviso that it is simultaneously accompanied by an HCR “rebuild rule” (i.e. implemented at the same time as the new TACC), as outlined in Section 15.1 of the Discussion Document.

BCO5 has no comment to make on the provisions for customary and recreational catch described under Option 2.

Yours faithfully

A handwritten signature in black ink, appearing to read "W. Smellie". The signature is fluid and cursive, with a prominent initial "W" and a long, sweeping underline.

pp: Bill Smellie

Chairman – BCO5 Association Inc.

Ngāti Mutunga O Wharekauri Asset Holding Co Ltd

PO Box 50
Waitangi
Chatham Islands

Tel: 03 3050 500
Fax: 03 3050 566

Email: _____

Inshore Fisheries Management
Ministry for Primary Industries
PO Box 2526
Wellington 6140

26 June 2020

REVIEW OF DEEMED VALUE RATES FOR BNS3 FOR 2020/21

By email: _____

1. This submission, in relation to the proposed Deemed Value reduction for BNS3 landed to the Chatham Islands, is made by Ngāti Mutunga o Wharekauri Asset Holding Company Ltd ('NMOW AHC'), the fully owned commercial subsidiary of the Ngāti Mutunga o Wharekauri Iwi Trust ('NMOWIT'), Wharekauri (Chatham Islands).
2. The NMOWIT and NMOW AHC are fully committed to the sustainable management of its fisheries and ensuring their protection and continued productivity for future NMOW and Wharekauri generations to come. This is paramount to NMOW's and the Island's own sustainability and economic viability.
3. NMOW AHC is heavily invested in fisheries quota and, specifically, inshore to mid-water quota stocks.
4. 85% of the ACE derived from NMOW AHC's quota by value is allocated to, and harvested by, NMOW fishers and fishing companies based on Wharekauri.
5. Fishing remains fundamental to the economic and social sustainability of Wharekauri. It is the key employment sector and main income provider for many Wharekauri whanau.

6. NMOW AHC fully supports Fisheries New Zealand's 'Proposed Option' in relation to deemed value rates for BNS3 landed to the Chatham Islands, i.e. the reduction of deemed value rates at each step of the differential schedule with the maximum annual rate (i.e. at >160%) at \$2.80/kg.
7. To put context around the NMOW AHC position, the three largest Wharekauri based longline quota owners – NMOW AHC, Hokotehi Moriori Trust and Chatham Island Enterprise Trust – own a combined 3.4mt of BNS3 quota compared to 226.5mt of HPB4, 423.7mt of LIN4 and 167.4mt of SCH4 (BNS, HPB, LIN and SCH being the core Wharekauri longline species). Based on the current BNS3 deemed value rates, the full \$10/kg rate is hit at 7.5mt of BNS or, on a catch comparative basis, 3% of the HPB4 volume, 2% of LIN4 and 4% of SCH4. This is a profound catch plan imbalance. At \$10/kg and taking into account yield factors and the significantly higher costs associated with processing and logistics (primarily energy and freight) on Wharekauri, the economic viability of a sustainable longline operation is marginal, at very best, all owing to the significant losses incurred from the unavoidable BNS by-catch.
8. The existing Deemed Value settings are excessively punitive – they not only make bluenose fishing completely uneconomic in the Wharekauri fishery, they render longline fishing in Wharekauri uneconomic. This is inconsistent with the purpose of the Deemed Value regime.
9. The root cause for the current situation, and which remains a core long-standing Wharekauri grievance, is the misalliance and inequity of Fisheries New Zealand's (formerly the Ministry of Fisheries) decision to have split HPB3 and HPB4 fisheries, LIN3 and LIN4 fisheries, SCH3 and SCH4 fisheries yet only establish a single BNS3 fishery. The consequence of this decision is evident in terms of the irrational mix of longline quota allocated to the 2 iwi/imi and the Chatham Islands Enterprise Trust as detailed above.
10. We would be happy to speak to this submission.

Ngā mihi nui



Joseph Thomas
Chair

Ngati Mutunga o Wharekauri Asset Holding Company Limited



Submission on Review of Sustainability Measures for Deepwater (King) Clam (PZL 7) for 2020/21

1 July 2020

Introduction

1. The Pāua Industry Council (PIC) is the national representative body for the pāua industry. PIC has a strong interest in the sustainable utilisation of all dive fisheries in New Zealand's waters. Dive fisheries tick lots of boxes for consumers and for the environment – they are carefully targeted at high value species, have no interactions with marine mammals or seabirds, have minimal environmental impact, and support coastal communities and regions by providing local employment.
2. We consider it advantageous for New Zealand to have a range of successful dive fisheries, so that commercial divers have the choice to gain experience with different species and harvesting methods and, if they wish, are able develop an ACE portfolio that straddles a range of fisheries. The flexibility to operate in multiple areas and species helps improve the resilience of all of our dive fisheries. For that reason, the pāua industry welcomes the proposed development of the geoduck fishery in PZL7.

Support for option 3

3. PIC supports FNZ's **option 3** – i.e., increase the TAC to 130 tonnes, with a TACC of 99 tonnes and a 1 tonne allowance each for customary and recreational fishing.
4. We consider that all of the options in FNZ's consultation document are conservative and will ensure the sustainability of geoduck in PZL7. However, options 1 (*status quo*) and 2 do not provide for utilisation as they cannot provide the regular volume of product that is necessary for export market development in species such as geoduck. Option 3 best achieves the purpose of the Fisheries Act 1996 as it is the only option that provides for utilisation while ensuring sustainability.

Integration between the Fisheries Act and the RMA

5. The FNZ consultation document touches on various matters related to the intended integration between the Fisheries Act and the Resource Management Act 1991 (RMA). PIC was involved in recent litigation seeking to clarify the interface between these two statutes in relation to the Marlborough Environment Plan (MEP) and the *Motiti Rohe Moana* appeals. We therefore have an interest in ensuring that RMA issues are dealt with appropriately in FNZ's consultation material. This is important, because it may set a precedent for how future consultation and decision-making under the Fisheries Act takes account of RMA-related issues (and *vice versa*).

Identification and analysis of relevant RMA planning documents

6. We were pleased to see that the PZL7 consultation document includes some discussion of relevant plans prepared under the RMA. We note that this is a statutory requirement under Fisheries Act s.11(2), which provides that before setting or varying any sustainability measure the Minister must have regard to any provisions of '*any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act... that that apply to the coastal marine area and are considered by the Minister to be relevant*'.
 7. However, we do not understand why the consultation document goes into some detail about the MEP but does not identify the other relevant regional plans or policy statements that apply in QMA7. The Tasman Regional Policy Statement (RPS), Tasman Resource Management Plan, Nelson RPS, Nelson Resource Management Plan, West Coast RPS, West Coast Regional Coastal Plan, and West Coast Regional Land and Water Plan are all RMA planning documents that apply in and may be relevant to fisheries in QMA7. From the information provided in FNZ's consultation document, submitters won't know whether any of these plans contain objectives, policies, rules or other methods that are relevant to the sustainability or utilisation of geoduck. We are unsure whether FNZ has identified and reviewed the plans for Nelson, Tasman and the West Coast. PIC and other submitters are therefore unfortunately unable to provide input on the RMA planning context to help inform the Minister's decision – even though it is a mandatory relevant consideration under s.11(2).
 8. FNZ proposes that any increase to the PZL7 TACC must be caught in the surveyed area in Golden Bay. This area is in the jurisdiction of the Tasman District Council, not the Marlborough District Council – so the Tasman RPS and Resource Management Plan are far more relevant to the Minister's deliberations on PZL7 than the MEP. The Ecologically Significant Marine Sites (ESMS) identified in the MEP do not prohibit fishing using UBA and hand-held water jets – only dredging and bottom trawling are prohibited in ESMS. It is therefore not correct to state that these rules apply to harvesters of PZL7.¹
 9. In summary, while it is good to see an attempt at integration between the Fisheries Act and the RMA in the PZL consultation document,² FNZ has some way to go in improving the accuracy and relevance of its analysis of RMA planning documents.
- Habitat of particular significance for fisheries management**
10. The FNZ consultation document states that the ESMS identified in the MEP are habitat of particular significance for fisheries management (HPSFM).³ This is incorrect. The ESMS were identified for biodiversity protection reasons that are *unrelated* to any fisheries habitat considerations under the Fisheries Act.
 11. HPSFM has a specific and particular meaning under s.9 of the Fisheries Act, even though it is not defined in the Act. As far as we are aware, FNZ does not have a working policy definition of HPSFM, but the Ministry of Fisheries 'Front End' Policy Definition (2001) states that:

... in practice this principle [i.e., FA s.9(c), HPSFM should be protected] is likely to mean taking into account the waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity. HPSFM should be interpreted in the light of the purpose of the Fisheries Act 1996 to mean those habitats where failure to provide for their explicit

¹ FNZ consultation document, paragraph 20.

² We note that some of the other consultation documents in FNZ's 2020/21 sustainability round contain no mention of relevant RMA planning documents.

³ FNZ consultation document, paragraphs 48 & 49.

management is likely to result in failure to provide for the utilisation of fisheries resources while ensuring sustainability.

12. It is clear that the available legal and policy guidance on the meaning of HPSFM is specific to a fisheries management context and does not include areas identified for completely different purposes, under other statutes, by other agencies. Even though FNZ has not formally identified and protected any HPSFM, the pāua industry has undertaken to identify HPSFM for pāua using the mechanism of fisheries plans approved under s.11A of the Fisheries Act. We then intend to work with FNZ and regional councils to ensure that HPSFM for pāua is protected from any identified threats arising from other activities.
13. In light of the policy definition of HPSFM above, the consultation document could usefully have identified whether: (a) any areas or habitat is considered to be HPSFM for geoduck; (b) any HPSFM for other species lies within the PZL7 harvesting area; and (c) any threats to identified HPSFM are adequately managed (under the Fisheries Act or other relevant legislation) – as these matters would all be directly relevant to the Minister’s decision. Instead, paragraphs 48 and 49 of the PZL7 consultation document have nothing to do with HPSFM.
14. PIC considers the implication that ESMS are HPSFM is extremely unhelpful given the contested and unclear nature of the Fisheries Act/RMA legal interface. Equating these two completely different measures sets a dangerous precedent that needs to be corrected in advice to the Minister and in future consultation documents.

Yours sincerely

A handwritten signature in black ink, reading 'Storm Stanley' in a cursive, slightly slanted script.

Storm Stanley
Chair, Pāua Industry Council



Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to:

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: Liam Meek

Organisation (if applicable):

Email:

Fishstock this submission refers to:

SNA7 GUR7

Your preferred option as detailed in the
discussion paper
(write "other" if you do not agree with
any of the options presented):

SNA7 Status Quo , keep the commercial catch at 250 ton,
the recreational at 250 ton and the customary Maori at 20 ton
allocation

GUR7 Status Quo

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:

The fishery will not be sustainable if the commercial catch is raised. It is not in the best interests of future generations to take so many fish for commercial purposes.

Please continue on a separate sheet if required.

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.



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Review of sustainability measures for 1 October 2020

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Submitter details:Name of submitter
or contact person: Chris Meek

Organisation (if applicable):

Email:

Fishstock this submission refers to:

SNA7 GUR7

Your preferred option as detailed in the
discussion paper
(write "other" if you do not agree with
any of the options presented):

SNA 7

Status Quo , keep the commercial catch at 250 ton, the
recreational at 250 ton and the customary Maori at 20 ton
allocation

GUR7

Status Quo

Official Information Act 1982

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Submission:¹

Details supporting your views:

I don't think that the snapper fishery is as good as made out to be. I would prefer to see it grow for the future generations rather than see more being taken.

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.



Fisheries New Zealand

Tini a Tangaroa

Please continue on a separate sheet if required.



Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to

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 Tracey Meek or contact person:	
Organisation (if applicable):	
Email:	<input type="text"/>
Fishstock this submission refers to:	SNA7 GUR7
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	SNA7 Status Quo , keep the commercial catch at 250 ton, the recreational at 250 ton and the customary Maori at 20 ton allocation GUR7 Status Quo

Official Information Act 1982

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Submission:¹

Details supporting your views:

We have struggled to catch snapper in our usual spots (between Oct and Feb) The first snapper caught was in late Feb. They are not plentiful.

Increasing the commercial catch will only make this more difficult. (For both snapper and gurnard)

Ideally I would like to see a line drawn in Tasman bay where commercial boats are unable to enter.

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.



Tini a Tangaroa

Please continue on a separate sheet if required.



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Submitter details:Name of submitter
or contact person: Oliver meek

Organisation (if applicable):

Email:

SNA7 GUR7

Your preferred option as detailed in the
discussion paper
(write "other" if you do not agree with
any of the options presented):SNA7 Status Quo , keep the commercial catch at 250 ton,
the recreational at 250 ton and the customary Maori at 20 ton
allocation
GUR7 Status Quo**Official Information Act 1982**

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Submission:¹

Details supporting your views:

There are limited fish around for us to be taking. Whilst commercial say they will take them from growing stocks down the coast, which I think is debateable. The commercial fishers will top up their quota in Tasman and Golden Bay.

Please continue on a separate sheet if required.

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.



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Submitter details:

Name of submitter or contact person: Edwin Pollard	
Organisation (if applicable):	
Email: <input type="text"/>	
Fishstock this submission refers to:	SNA7
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

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Submission:¹

Details supporting your views:

[The following text is a faint, mirrored representation of the content on the reverse side of the page, appearing as bleed-through. It is not legible.]

Please continue on a separate sheet if required.

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.



Email|_____

30th June 2020

To: Inshore Fisheries Management, Ministry for Primary Industries, PO Box 2526,
Wellington 6140.

**Re: Submission on Review of Deemed Value Rates for Selected Stocks for 2020/21
Fisheries New Zealand Discussion Paper No: 2020/21**

The Specialty and Emerging Fisheries Group (S&EF Group) is a representative collective of commercial fishing associations operating mainly niche fisheries and markets, including Chatham Islands finfish (BCO4, HPB4, SCH4, BNS3, & LIN4). The contact person for this submission is:

L _____
L _____
L _____

This submission relates to the proposed new deemed value rates for Chatham Island Bluenose (BNS*). S&EF Group has no comment to make on any other deemed value.

S&EF Group supports the proposed new deemed value rates for Chatham Island Bluenose (BNS3*), as described in the Review Discussion Paper No: 2020/21. S&EF Group also supports the submission of the Chatham Islands Finfish Association and endorses all statements made in that submission.

Yours faithfully

Bill Chisholm – manager

SPECIALTY & EMERGING FISHERIES GROUP



Chatham Islands Finfish Association

Email: _____

Inshore Fisheries Management,
Ministry for Primary Industries,
P O Box 2526,
Wellington 6011.

29th June 2020

- **Submission from the Chatham Islands Finfish Association (CIFA) on the Review of Deemed Value Rates for Selected Stocks for 2020/21**
- **Fisheries New Zealand Discussion Paper No: 2020/21**

Introduction

This is a submission on the Review of Deemed Value Rates for Selected Stocks for 2020/21 (the Review). The Chatham Islands Finfish Association (CIFA) represents FMA4 (Chatham Island) quota holders and ACE fishermen; and fish processors who make their living from catching and processing wetfish from FMA4. The objectives of CIFA is to promote sustainable management of Chatham Islands fish stocks, protect harvest and access rights and protect/enhance quota value.

The address for service for this submission is: Attn: Bill Chisholm, _____

This submission relates to the proposed new deemed value rates for Chatham Island Bluenose (BNS*). CIFA has no comment to make on any other fish stock.

CIFA supports the proposed new deemed value rates for Chatham Island Bluenose (BNS3*) described in the Review. This is highlighted in red in Table 1 below:

	CURRENT DEEMED VALUES \$			PROPOSED NEW DEEMED VALUES \$		
	Interim	Annual	Maximum	Interim	Annual	Maximum
BNS3	3.60	4.00	10.00	2.70	3.00	7.50
BNS3*	1.26	1.40	11.00	1.26	1.40	2.80

Table 1: Current and proposed new deemed values for BNS3 and BNS3* (Chatham Island deemed value rate).

The proposed BNS3 deemed value rates have partly been lowered because bluenose now fetch a lower port price. CIFA agrees with the Review in that a lower deemed value for the Chathams (compared to the rest of NZ) largely reflects the “freight differential”, which is the cost of freighting chilled or frozen bluenose from the Chathams to mainland ports. In the past, this “freight differential” was not fairly

reflected in the maximum deemed value rate. CIFA also agrees that the risk of mis-reporting has been reduced by new ER/GPR reporting requirements.

For CIFA, the key change is the maximum deemed value rate for BNS3* (figures in red) and consequent changes to the ramping rate. CIFA strongly supports the proposal that the maximum deemed value rate reduces from \$11.00 per kilo to \$2.80 per kilo.

This means that Chathams-based fishermen can go longlining for Ling, Hapuka/Bass and School Shark without undue financial risk if they get a large bluenose bycatch.

CIFA members wish to set up a Chathams-based longline fishery which actively avoids targeting BNS. This has not been possible for some years because of the high BNS bycatch and correspondingly high deemed values (\$11.00 per kilo). The difficulty has been that too many bluenose are being caught when longlining for other species from the Chathams. There is sufficient island-based ACE available for the other longline species (i.e. SCH4, HPB4 and LIN4), but there is little ACE available for BNS. The only Chathams-based BNS3 ACE available is held by iwi (853kgs), imi (850kgs) and the Chatham Islands Enterprise Trust (141 kg).

It is accepted that there are serious concerns about NZ-wide bluenose stocks, including BNS3 (which includes the Chatham Rise and Chatham Islands). BNS had been fished down to their soft limit of 20% of original biomass. To recover stocks, since 2007/08 the TACC of BNS 3 has been progressively reduced from 925 tonnes to 93 tonnes. However, the proposed new deemed values should not significantly affect BNS stocks. The total amount of BNS landed to Chathams-based LFR's by *bona fide* Chathams-based longline fishermen is likely to be small compared to that which is landed elsewhere. CIFA will investigate methods for maintaining the BNS by-catch to the lowest possible, through promoting research into methods, locations and timing to avoid excessive BNS by-catch from Island-based longline vessels.

There has been serious economic damage caused to the Island's economy by the present \$11.00 per kilo BNS3* deemed values regime. A 2018 economic analysis of the Chatham Islands by Martin-Jenkins consultants clearly states that BNS by-catch and the lack of available ACE is a significant impediment to the Island's economy. This Martin-Jenkins Report states that 1000 tonnes of high-value fish (SCH4, HPB4 & LIN4) are prevented being landed on the Island because of it.

Given Fisheries NZ's desire for a more streamlined and responsive management approach, and the effects of Covid-19 on the Island's and wider NZ economy, the lower BNS deemed value is entirely appropriate. This will provide welcome relief and improved confidence in the Island's fisheries-based economy at a time when it is most needed.

Yours faithfully



Bill Chisholm – secretary, Chatham Islands Finfish Association.



Mapua Boat Club

Submission July 2020

Review of Sustainability Measures for Snapper (SNA7) and Red Gurnard (GUR7) for 2020/21

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

Introduction

1. The Mapua Club Inc (MBC) can be contacted through Secretary Clare Kininmonth
2. MBC and its membership are committed to the sustainable use of our marine resources and good management of our marine ecosystems.
3. MBC was formed in the 1980's in response to save the Mapua Wharf then owned by Nelson Harbour Board, and since been involved significantly in running and maintenance of the Mapua Wharf.
4. Membership of MBC is both individual and family and currently have in excess of 120 family memberships.

Snapper (SNA7)

5. Fisheries NZ proposes the following options for the TAC/TACC and associated allocations.

Proposed options for the TAC, TACC and allowances for SNA7					
	TAC (t)	TACC (t)	Customary Maori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	545	250	20	250	25
Option 2	545	300	20	200	25
Option 3 (working group preferred)	645	350	20	250	25

6. MBC supports Option 3 – and understands this is the working groups preferred option.
7. Option 3 increases the TAC and TACC by 100 tonnes while all other allocations remain unchanged, and this increase is within the yield estimates where it is probable to maintain the stock at or above the target biomass depending on the strength of the 2017 year class.
8. As the discussion document for this consultation states it is likely that recreational catch has increased since 2017/18 survey.
9. MBC does not support Option 2. Option because it firstly reallocates some of the current recreation allocation to the commercial sector and will result in the recreational sector over catching their allocation in the coming years.
10. Recreational fishers will then have to fight to have their reallocation increased or restored and if this was unachievable be required to cut bag limits.

11. The discussion document goes on to note that Option 2 will not constrain utilisation of the recreational fishery and does not propose changes to recreational bag limits.
12. We submit that no, absolutely no bag limit changes will be accepted by the recreational sector while the TACC is increased, further more if and when recreational utilisation of the recreational allocation is achieved the recreational sector will be actively seeking an allocation increase for the recreational fishers to ensure the fishery remains equitable for all sectors.
13. We do not support Option 2 and the reallocation from the recreational sector to the commercial sector. The commercial sector was instrumental in the demise of the SNA7 fishery in the late 1970's early 1980's and it is only the concerted efforts of recreational representatives that kept the TACC at 160/200 tonnes respectively for almost 30 years until 2016 when it was increased to 250 tonnes.
14. Keeping the TACC at these levels and several strong year classes has been a significant factor in seeing SNA7 abundance increase and this increase has allowed the recreational sector to participate more in the fishery.
15. This increased participation has seen increased utilisation by the recreational sector and results of the most recent (2017/18) National Panel Survey of Marine Recreational fishers supports this fact with an estimate recreational SNA7 catch that has increased to 149 tonnes,
16. With continued population growth in the region and boat ownership at double the national average¹ in the region recreational fishers will continue to increase utilisation.
17. We therefore submit that the abundance increase trend must be maintained in SNA7.
18. We also submit there should be no decrease in the recreational allocation of 250t.
19. The MBC is satisfied that by not utilising the current recreational allocation fully that this contributes towards continued abundance increase and provides the best outcome for the fish and for all other sectors today and into the future.
20. We also submit that the Minister of Fisheries has once again missed an opportunity to manage this fishery far more effectively.
21. There are a range of issues in the fishery and various controls and measures could be introduced to protect benthic habitat and significant spawning areas in Tasman Bay with an equitable management plan to ensure both agreed outcomes and long term viability and certainty.
22. The advancement of a management plan for SNA7 was set out in the 2016 review discussion paper, but alas once again Fisheries NZ have not pursued such a management plan.
23. MBC sees this as another lost opportunity by the Minister of Fisheries and Fisheries NZ to address issues such as spatial separation, benthic habitat recovery, localized bag

¹ Auckland Recreational Boating Survey – Beca Infrastructure Ltd 2012

limits, gear restrictions, catch reporting, along with other initiatives that would see public buy in for a recovering fishery where industry and amateurs had an equal share.

Red Gurnard (GUR 7)

1. Fisheries NZ proposes to review the TAC for red gurnard in GUR7 and proposes the following options.

Proposed options for the TAC, TACC and allowances for GUR7					
	TAC (t)	TACC (t)	Recreational Allowance (t)	Customary Maori (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	1176	1073	38	15	50
Option 2	1283	1180	38	15	50

1. *The recreational allocation of 38t represents 0.67 of a red gurnard per recreational fisher each year!.*
2. MBC supports option 1, “the status quo” and submits the recreational allocation needs to be increased before the TACC is increased to reflect both the importance of red gurnard to the recreational sector and the increasing recreational catch.
3. MBC is disappointed with this discussion paper as it fails to discuss or acknowledge that GUR7 is a shared fishery, and the recreational sector has been disregarded by Fisheries NZ with regard to GUR7.
4. There is no recognition of the significance and importance of red gurnard to recreational fishers and the increasing utilization of recreational fishers as abundance has increased.
5. The recreational allocation of 38t represents 0.67 of a red gurnard per recreational fisher each year!
6. The population of the Tasman, Nelson and Marlborough regions in 2016 was 142,300. 40% of the population go fishing, therefore there are 56,920 resident recreational fishers in the region (this does not include the populations of Kaikoura and the West Coast which are also covered by FMA7).
7. An average red gurnard weighs 1kg, 38t equals 38,000 red gurnard allocated to the recreational sector.
8. 38,000 red gurnard shared by more than 59,200 recreational fishers = 0.667 of a red gurnard per fisher! The SNA7 recreational allocation is 4.39 fish per recreational fisher.
9. The recreational daily bag limit for red gurnard is 20 fish per person per day, that is 1,900 recreational fishers – 3.3% of the 56,920 recreational fishers catching a (1 yes one) red gurnard daily bag limit per year.

10. Alternatively, if every recreational fisher caught 1 red gurnard per year the recreational allocation would need to be 59t.
11. Red gurnard has over recent years become a far more important and highly regarded target species for the recreational sector in the region as they seek to target other species due to the blue cod restrictions in Challenger East and fishers spend more time on the water due to the increased abundance of snapper in the area which has seen increasing participation by a growing population not just targeting snapper but also focusing efforts on red gurnard while they are on the water.
12. MBC acknowledges an increase and availability in red gurnard abundance and this increases the availability to and the ability of the recreational sector to utilise this stock in increased numbers
13. When targeting red gurnard it is not uncommon for an individual fisher to catch between 5 – 7 red gurnard several times per year. If 15% (8,943) of recreational fishers caught 5 red gurnard once a year the recreational allocation needs to be 45t!
14. MBC submits the current allocation and the lack of acknowledgement of this shared fishery in the document fails to recognise the importance of red gurnard to the recreational sector and further submits it does not reflect the growing utilization of red gurnard by the recreational sector..
15. There is an opportunity to correct the allocation for the recreational sector before allocating to industry, MBC submits that the Minister should take this opportunity now.
16. Red gurnard has been regularly reviewed of the last 12 years with an increase to industry of 392tonnes since 2009, and an increase of 18 tonnes to the recreational sector.

Fishing Year	TACC (t)	Change (t)	Recreational (t)	Change (t)
2008=9	681		20	
2009-10	715	+34	20	
2013-14	785	+70	20	
2015-16	845	+60	22	+2
2016=17	975	+130	25	+3
2019-20	1073	+98	38	+13
2020-21*	1180	+107	38	+0

***2020/21, current sustainability review**

17. Despite the high percentage increase of recreational allocation from 20t to 38t of 90% the 18 tonnes in reality is at best a token gesture by the Minister. The allocation for other sources of fishing related mortality of 50 tonnes is 12 tonnes or 32% higher than the recreational allocation.
18. MBC submit that the recreational allocation should be increased to 50 tonnes before any further increase of the TACC and the MBC does not support any TACC increase unless this is the case.
19. The Minister of Fisheries has failed in in his obligations to increase the recreational allocation in an “reasonable” fashion, and we cannot support any further increases in

TACC until the recreational allocation is also increased to cater for greater recreational utilisation.

20. There are several references in the Fisheries Act 1996 to levels at which stocks must be maintained. The level most often quoted is Bmsy and pursuit of MSY has been at the forefront of fisheries manager's minds for many years. MSY as an outcome has led to this management objective being referred to as a "knife edge", and given the uncertainty of available information on many stocks, creating real danger of stock collapse if MSY is overestimated.
21. The recent Supreme Court decision on the Kahawai case states the Minister can maintain a biomass in any given fishery at above BMSY if he/she decides to. This is especially important in many of our high value shared inshore stocks, including those we are submitting on here, where abundance is the key driver for non-commercial success.
22. The Court also directed that the Minister must provide an allowance that is "reasonable" for non-commercial interests and that the entire TAC, once set, must be allocated. Therefore it is unacceptable the TAC be reviewed without including any provision in the paper for a change in the allowance for non-commercial interests that is reasonable.
23. It appears under this years review of sustainability measures and the TAC is reviewed to only accommodate a TACC increase and MSY is the management outcome, the only possible beneficiaries are ITQ holders.
24. MBC submits that GUR 7 stock must be managed at levels significantly above Bmsy if there is to be any chance of access equity for non-commercial sectors.
25. As we have mentioned in our submission on SNA7 earlier in this submission growth in population and double the national average of boat ownership in the region will be provided for by increased abundance, and the recreational allocation needs to reflect the continued growth in utilisation because of the increased abundance.
26. Given the pivotal importance of inshore stocks and red gurnard to non-commercial interests it is crucial they continue to be moved to a level above Bmsy. We submit the Minister would be acting entirely within his rights by allowing the standing stock biomass to continue to increase and maintain the TAC at its present level. Recent research coordinated by Worm and Hillborn and reported in the journal "Science" published in late July 2009, points to strong indicators on an international level that managing fisheries at biomass levels recognised as significantly above those historically used to calculate MSY provides win win situations.
27. They also found that using an ecosystem based approach and calculating yields on a multi species basis rather than the accepted single species system, lead to higher levels of productivity and certainty of sustainable long term yields.
28. The Mapua Boat Club Inc would like to take this opportunity to thank Fisheries NZ to include us in thus review process.



Submission Form

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Once you have completed this form

Email to: FMSubmissions@mpi.govt.nz

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Submitter details:

Name of submitter or contact person:	Lester Brewer
Organisation (if applicable):	
Email:	<input type="text"/>
Fishstock this submission refers to:	Quota management area (QMA) 7 (Challenger /Cenral (Plateau) for snapper and red gurnard
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	Option 1

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**Submission:¹**

From the three options provided option 1 is preferred. In the summary (SNA7 (3)) of the review document it is indicated that the snapper stock is at or about target biomass (13.1 Options for varying TAC (Total allowable catch) (44)) and therefore should not be increased. There is uncertainty around the stock status and forward projections especially arising from the strength of the 2017 year class. With this uncertainty in stock status the risk to future snapper stocks is too high and TAC should not be adjusted until the next biennial trawl survey is completed in March 2021 (51) page 12. This trawl survey should be undertaken in the best statistical manner to ensure the highest stock abundance accuracy.

If the 2017 year fish class is of average size and either option 2 or 3 is proceeded with the probability that SNA 7 stock abundance will remain at or above current target TACC will reduce to an unacceptable 50.8% for 300 tonne commercial take and 44.9% if a 350 tonne allocation (13.1 Options for varying TAC (46) page 11). Snapper growth rates would suggest that the 2017 class of fish would be approximately 21cm in length during the 2019-20 season and would be just above the minimum size for harvest in 2021 www.oceanhunter.co.nz and would still be too young to spawn. This fish size is not large enough to maximise the tonnage return on the stock.

From our experience fishing Tasman Bay as a recreational fisherman during the last season most fish caught have been larger than 35cm and range up to 60cm all old fish between 6-20 something years old. There have been almost a total absence of fish stocks ranging from 3-5 years old 20-33cm in length unless fishing very close to shore. This raises major questions about the stock health suitable for harvest over the coming years. The snapper stocks are not evenly spread across Tasman Bay and there appears to be areas that snapper are not frequenting. With stock levels that show recovery levels it would be expected that the large area sectioned off for harvesting mussel spat and is expected to provide an ideal area for fish to congregate, offering prolific food supply there should be large numbers of fish. Snapper levels in this area appear to be at low levels. I challenge the MPI staff involved in this assessment to go on a recreational fishing trip in Tasman Bay without an experienced escort to experience the true fish levels in the bay. In the review document it indicates that commercial fishing in Tasman Bay and Golden Bay is completed by 9 boats and is happening further from shore than in previous years. This may be the case but I would like to outline two experiences that have occurred over the last few years while fishing close to shore (15m water depth). On the first occasion when we were fishing in the spring (September) two fishing trawlers were visible in the distance. Over time both boats ended up trawling within a few hundred metres of our anchored boat. It was upsetting at the time because they had the whole of Tasman Bay to fish and it displayed a lack of integrity from the two skippers involved. If stock levels were in excess of requirement why did the trawlers need to fish so close to our position. I rang the MPI office to try and find out whether there were regulations determining how close commercial trawlers are allowed to fish near anchored boats and was told they could not help with my enquiry and I should ring the Nelson harbour master who would not return my call.

On another occasion again in the spring there were approximately 20 recreation boats fishing in one area close to shore on November 12 2018 (approximately 15m depth) and again a fishing trawler came from the horizon to weave their boat and trawl net through and around the anchored recreational boats. I believe this again displays a lack of integrity from the trawler skipper involved, and for him to do this may reflect that snapper stock levels are not as they are indicated in the discussion document (10.3 Commercial (40)). From our experience at least two of the nine skippers actions show the lack of integrity and a lack of protection for recreational fisherman's rights.

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.



For the protection of base snapper stocks it is of major concern that 80% of the total commercial snapper catch in SNA7 is harvested in Tasman in Golden Bays from a very large Challenger/Central area (13.3 Options for varying the TACCs (68)). Tasman and Golden Bay is also where recreational and customary snapper catch occurs mostly through ease of fishing access and safety of boating. The commercial harvest of snapper is very much concentrated in the spawning grounds. I see nothing in this document which indicates how MPI are protecting the spawning grounds and the productive future of snapper populations derived from within Tasman Bay. Currently almost all of the commercial snapper harvest is taken from fish waiting in Tasman Bay to spawn. As a minimum there should be a protective zone around the coast where no commercial harvest is possible e.g. 4 nautical miles. Although the voluntary trawl closure from 1 November to 30 April is in place to protect juvenile snapper is positive it is only voluntary i.e. not enforceable. This voluntary trawl closure is put in place after a large portion of the snapper quota (almost all of spawning age) is harvested from snapper congregating for spawning. Many of the small fish that this voluntary agreement is put in place to protect are too young to be capable of spawning.

There has been much discussion in the review of sustainability whether the estimated fish quota for recreational and to a lesser extent customary allowance of snapper are being harvested. There has been a massive increase in amateur fisherman number in the last 5 years and therefore increasing volume of fish taken. Again for accuracy of this recreational take another scientific study should be undertaken as it is important to get this more accurate.

When early British settlers came to New Zealand, they brought with them their common law recreational fishing rights; essentially recreational fishing has remained access to a common resource (Cocklin et al, 1998; Kirk & Memon, 2010) (Page 201 PalliserAnna2015phD). Being able to catch fish has been an engrained part of New Zealand culture since Europeans and Maori first came to New Zealand. My ancestors first arrived in Motueka in 1848 and family members have remained settled here since this time living from the land and the sea. This desire for fishing was passed to me by my parents and it was devastating to witness the collapse of the snapper fishing stocks in Tasman Bay during that time. My snapper fishing right was taken away by the actions of the commercial fishing companies and fishermen who at the time filled their boats with fish and some additionally dragged full nets into Nelson harbour only to have to dump the fish. This instigated the introduction of the quota management system which in turn rewarded the commercial fishing companies and fishermen that had caused the dramatic stock collapse and additionally took away the right for recreational fisherman's ability to catch snapper. It is very good that more recently that fishing right that is part of kiwi culture has been recognised with an allocation of quota. This allocation of quota should be looked upon differently to the current allocation of predicted caught quota to a percentage of the total stock. When the allocation is an estimate of what is being caught the incentives are very different as it encourages the catching of more fish to keep the quota. If it was a percentage of the total stock there would be more emphasis on conservation as there would be a much higher expectation that the fish will survive through to spawning or to be caught again i.e. the quota will not be reallocated. It would give a true incentive to build fish stocks for future generations which is not indicated by the current system incentive. It seems to maximise the fish stock harvest at all cost and not continue to improve the stocks for the future. Although I am very supportive of catch and release this is something that I will currently not do in Tasman Bay where the commercial harvest pressure is so high, and there is no protection for the spawning grounds, therefore release is a waste of time. There has been mention of "fishing for the fridge" not "the freezer". This is an admirable goal that all recreational fisherman would welcome if the fish stock was pitched at a level that allowed fisherman to catch snapper on every trip during the season in Tasman and Golden Bay to meet this goal. Increasing the target biomass from 40% to 50-60% and increase the fish numbers and performance for both the Commercial, recreational and customary fishermen would be required



achieve this. An increase to 60% target biomass could be completed over a 4 year period increasing 5% per year to minimise the short term impact on commercial operations.

The fact that there is a large population of seals in Abel Tasman park and the presence of Hector and Maui dolphins that are endangered is great for tourism and very important to protect. While fishing we have been lucky enough to see Maui dolphin on two trips (Video taken). Although recently set netting is being restricted to protect these fish this will almost exclusively effect recreational fisherman. Restrictions should also be placed on commercial trawling within 4 nautical miles to ensure the dolphins are not accidently caught and have the best chance of survival. Although their have only been two observed captures of fur seals observed on commercial trawlers (15.1 Marine animals (79)) this will have been when observers have been present on the boats concerned. What about all of the fishing trips when no observers have been present and no independent cameras are present to verify this. A four nautical mile non trawling zone would also give the spawning zones of snapper some protection and help protect the seabed floor that is being adversely affected by bottom trawling. Trawling technology is available to stop the sea floor damage and legislation should be introduced to ensure that nets that do not damage the sea floor are used. We have seen commercial trawlers operating close to the area where we filmed Maui dolphins. It is essential as a minimum that all inshore trawlers be fitted with cameras independently operated from the interests of the commercial fishing industry to ensure these dolphins and seals are not caught.

Gurnard stocks should also remain the same, any increase would have an adverse effect on the snapper by-catch.

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Gurnard stocks should also remain the same, any increase would have an adverse effect on the snapper by-catch.

Summary:

- No increase in snapper total allowable catch maintain base stock levels
- Protect snapper spawning areas in Tasman and Golden bay, restrict commercial harvest within 4 nautical miles from shore.
- Protect seal colonies and Maui and Hector dolphins by 4 nautical mile no commercial trawl zone and have cameras fitted on all commercial trawlers
- Protect the sea floor in Tasman and Golden Bay by ensuring modern trawl technology is used on all commercial trawlers
- Protect kiwi culture and the right of recreational fishermen to catch fish by ensuring a more healthy snapper biomass and a percentage allocation to ensure future generations are able to experience the joys of fishing.

Please continue on a separate sheet if required.



PZL Harvesters Limited P O Box 175 Kaikoura 7340.

Review of Sustainability Measures for Deepwater (King) Clam (PZL7) for 2020/21

Introduction

1. PZL Harvesters Limited (**PZLH**) welcomes the review of sustainability measures for geoduck (*Panopea zelandica*) in PZL7.
2. PZLH was set up in 2008 to develop the New Zealand geoduck fishery. We are a major PZL7 shareholder with 48% of PZL7 quota shares and quota holdings in other geoduck fisheries throughout New Zealand. PZLH is currently New Zealand's only commercial harvester of geoduck.
3. Since 2014 we have held a special permit (Special Permit 653) granted by the Director-General of the Ministry for Primary Industries. The special permit has enabled us to invest in and undertake a research programme that has been reviewed by Fisheries New Zealand's (FNZ) Shellfish Working Group and has informed FNZ's current review of sustainability measures for PZL7. We are committed to the sustainable development of the geoduck fishery in the Golden Bay area and beyond, in association with Iwi and others who may have an interest in the fishery.
4. PZLH supports option 3 – i.e., increase the PZL7 TAC to 130 tonnes, with a TACC of 99 tonnes and a 1 tonne allowance each for customary and recreational fishing. We support option 3 for the following reasons, each of which is addressed in more detail below:
 - a) **Ensuring sustainability:** A TACC of 99 tonnes will ensure sustainability of the PZL7 stock by providing a highly precautionary level of utilisation;
 - b) **Providing for utilisation and economic benefit:** While all three FNZ options ensure sustainability, only option 3 provides for additional utilisation as a TACC of at least 99 tonnes is necessary for the stable development of export markets for geoduck;
 - c) **Sharing benefits:** Development of the commercial geoduck fishery has no adverse effects on other fishing sectors and may provide additional utilisation benefits for customary and recreational fishing of the species;
 - d) **Environmental responsibility:** The best available information indicates that harvesting geoduck has minimal environmental impact; and
 - e) **Careful control of harvesting:** As an experienced sole harvester, PZLH is well-placed to manage the development of the PZL7 fishery in a way that is highly responsive to observed changes in the fishery or the environment and avoids localised depletion.

Ensuring sustainability

5. The biomass of PZL7 is effectively in an unfished state due to low levels of historical utilisation. The TAC/TACC increases proposed in options 2 and 3 are both *highly precautionary* for the following reasons:

- The biomass estimates that inform the proposed TAC/TACC increases are based on a relatively small surveyed area within PZL7 (i.e., the 'Collingwood area') – other areas in PZL7 with suitable geoduck habitat are not included in the biomass estimate and will not be harvested;
- The biomass estimate for the surveyed area – i.e., 4,331 tonnes – uses the 'very conservative' upper (95%) confidence interval of 30.8% as a multiplier for survey efficiency.¹ The 95% confidence interval range for survey efficiency was 15.9 to 30.8% and alternative multipliers within this range result in much higher biomass estimates – for example, a multiplier of 22% (the mean efficiency achieved on the first day of the survey) results in a biomass estimate of 6,063 tonnes; and
- An annual harvest rate of 3% is conservative in comparison to other fisheries, and well within the range of sustainable yield estimates for *P. zelandica* provided by Breen (1994).

6. Further precaution is provided by:

- The fact that not all geoduck in a population are vulnerable to harvesting. Some live at depths that are beyond the operation of the fishery, in areas that are not certified for shellfish harvesting, at densities too low to be fished, and in substrates that are difficult to dig. The fishable population is therefore only part of the breeding population;²
- Preliminary surveys in the Collingwood area indicate that high densities of geoduck extend far beyond the traditionally fished beds.³ These currently unharvestable areas may act as refugia providing broodstock for the harvested population;⁴
- The requirement that any TACC increase is to be taken from a confined area of the fishery so that further monitoring and assessment can be undertaken; and
- The proposed high allowance for other sources of fishing related mortality (as discussed below).

7. PZLH recognises that there are uncertainties in the best available information, including uncertainties about how the fishery will respond to increases in catch. However, levels of extraction nearly equivalent to option 3 occurred over the period 1989-92 (95 tonnes in 1989/90) with no observed impacts on subsequent biomass. On this basis, PZLH's special permit authorises the collection of up to 100 tonnes in year three of the research project. Sustainable fisheries for other *Panopea* species have existed for many years in Washington state and British Columbia. Furthermore, the layers of precaution that have been built into the proposed TAC/TACC increases mean that the stock sustainability risks of option 2 and option 3 are both very low. To put it another way, the FNZ consultation document does not propose any 'high TAC/TACC' options and it is

¹ Slater et al (2017).

² Breen (1994).

³ Slater et al (2017).

⁴ Gribben & Heasman (2015).

therefore incorrect to present option 2 as an '*intermediate option*'⁵ – option 3 is still extremely conservative and we are confident that it will ensure the sustainability of the PZL7 stock.

Providing for utilisation

8. PZLH's current operations have been constrained by the low PZL7 TACC of 23.1 tonnes. Catch volumes have been less than the TACC because it is simply not possible to develop reliable export markets with an annual volume of only 23 tonnes of geoduck. While additional catch volume is possible under a special permit, a special permit does not provide the secure, long-term access rights to the fishery which are necessary to invest in market development.
9. The international geoduck market is highly competitive, with wild-caught and farmed/enhanced geoduck exported to China and other Asian markets from western Canada and the US, and additional production from Mexico and Argentina. Geoduck is not a 'niche market' – secure, regular supply of reasonable volumes of product is necessary in order to access Asian market opportunities. Based on our experience over the past decade, PZLH considers that an annual catch of at least 100 tonnes is a required for an economically sustainable fishery in PZL7.
10. Within the constraints of the current TACC, PZLH employs several contractors to undertake harvesting. We operate two vessels – our own fishing vessel *Takapu* and a contracted vessel *KJ*. In total, eight local families currently rely on geoduck harvesting for their income. With an increased TACC that enables additional utilisation, PZLH anticipates being able to provide additional economic benefits for the Nelson/Tasman region.
11. At a time when New Zealand is recovering from the economic effects of COVID-19 restrictions, additional employment will provide significant regional benefits and the additional export earnings will be of regional and national benefit. In addition, the disruption of Asian markets caused by COVID-19 provides particular market advantages for New Zealand products, and PZLH is well placed to take advantage of this opportunity – provided we have secure access to a reasonable volume of geoduck on an annual basis.
12. As well as an increase in export earnings of \$1.5 million per year,⁶ development of export markets for geoduck will result in increases in quota value for PZL stocks throughout New Zealand, creating a valuable asset for Iwi and other PZL quota owners. Successful development of PZL7 could lead to the expansion of the fishery in other QMAs with a potential industry of over 2000 tonnes per annum and potential export value in excess of \$NZ60 million.⁷
13. We note that the economic analysis of option 2 in the consultation document is incorrect. Option 2 does not provide sufficient catch volume to develop export markets. The TACC will therefore not be fully utilised and the predicted change in revenue (an increase of \$480,000 per annum) will not be realised.

⁵ FNZ consultation document, paragraph 33.

⁶ FNZ consultation document, paragraph 41.

⁷ Slater et al (2017).

14. The geoduck fishery is poised for development, and as the major PZL7 shareholder and the only commercial harvester, we strongly believe that if the TAC/TACC is not increased to commercially viable levels in 2020, the opportunity to develop this fishery may be lost. Given that sustainability risks of both options are low, and that only option 3 provides utilisation benefits beyond the *status quo*, PZLH considers that option 3 best meets the purpose of the Fisheries Act – i.e., to provide for utilisation while ensuring sustainability.

Location of commercial harvesting

15. We note that FNZ proposes that any additional commercial catch under options 2 or 3 would ‘*only be taken from the areas in Golden Bay that were assessed by the survey and are subject to growing water certification for shellfish.*’⁸ It is not clear how FNZ proposes to implement that requirement – for example, by regulation or by agreement with commercial harvesters. PZHL is willing to voluntarily restrict any additional commercial harvest to the surveyed Collingwood beds. However, in order to develop the fishery efficiently, we also need to be able to:

- Complete the survey of the second (Patons Rock) area specified in Special Permit 653; and
- Potentially survey new or expanded areas, subject to addressing classified growing area requirements and ongoing engagement with Iwi.

16. Therefore, if the PZL7 TACC is increased, PZLH would like to discuss with FNZ how best to restrict our primary harvesting activities to the Collingwood bed, while also allowing flexibility to survey new areas under an agreed research programme that is developed with Iwi involvement.

Sharing benefits

17. PZHL appreciates that geoduck is a taonga and that Iwi have a strong customary and commercial interest in the management and development of the fishery. For that reason we have taken steps to involve Iwi in the fishery, including by:

- Releasing a copy of the PZL7 biomass survey to Te Waka a Maui me Ōna Toka Iwi Forum (TWAM) in November 2019; and
- Expanding opportunities for direct Maori involvement in commercial geoduck harvesting operations by offering harvesting positions to local Iwi members on the fishing vessel *Takapu*.

18. We were unfortunately unable to consult directly with TWAM prior to the release of FNZ’s consultation document as we had no warning that FNZ was intending to include PZL7 in the 2020 sustainability round. Nevertheless, PZHL would like to meet with TWAM to discuss how and where any increase in the PZL7 TACC will be harvested, the design of future biomass surveys, and longer-term plans for management of the fishery, as set out in paragraphs 29-32 of this submission.

⁸ FNZ consultation document paragraph n30.

19. PZLH considers that commercial development of the PZL7 fishery will have considerable benefits for Iwi at the top of the South Island. Iwi and Te Ohu Kaimoana collectively own 36% of PZL7 quota shares, including settlement quota and ordinary quota. Iwi will therefore benefit from increases in PZL7 quota value that are anticipated to arise as a result of the development of the PZL7 fishery, and will also benefit from increased revenue from the sale of ACE.
20. We also note that increasing the PZL7 TAC and setting an allowance for customary harvest will provide additional opportunity for customary harvest of geoduck to be taken from commercial vessels, making use of our specialised diving expertise and harvest technology.
21. FNZ has indicated that any TACC increase must be taken from the surveyed beds off Collingwood. No new harvesting areas will be targeted, except for the purpose of further biomass surveys (in which case, PZLH is committed to engaging with Iwi on the survey design). Areas of significance for customary harvesting, such as mātaihai reserves (in which commercial fishing is prohibited) and the Whakapuaka taiāpure near Nelson, will therefore not be adversely affected by increasing the PZL7 TACC. The FNZ consultation document records that TWAM expressed '*concerns with proposals to increase catch, given the TACC has never been fully caught*'. As noted above, the reason that the PZL7 TACC has never been fully caught is related to the economics of export markets, and not to the abundance of geoduck.
22. We consider that FNZ's option 3 is consistent with TWAM's management objective 3 – i.e., *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*. As noted elsewhere in this submission, the geoduck fishery is environmentally friendly and sustainable and, with a TACC of 99 tonnes, will help create new economic development opportunities for South Island Iwi.
23. PZLH would like the future development of the geoduck fishery to proceed on a basis of common understanding, support, and mutual benefit with Iwi at the top of the South Island. We therefore request the opportunity to respond to any additional concerns that may be identified by TWAM, prior to FNZ's preparation of final advice and recommendations to the Minister.

Environmentally responsible

24. The FNZ consultation document notes that there is uncertainty regarding how the habitat will respond to fishing. It is suggested that the fishing method (hydraulic water jet) results in resuspension of sediment and potential damage to the benthos and associated organisms.
25. However, the best available information indicates that the effects of geoduck harvesting using hand held water jets are localised (i.e., limited to a 0.5-1m radius around the targeted shellfish) and short-lived.⁹ Liu et al (2015) examined the effects of commercial-scale harvesting of the Pacific geoduck *P. generosa* on the sedimentary benthic environment. The study found that suspended sediments

⁹ FNZ consultation document, paragraph 44.

were increased by harvesting but generally limited to the footprint of the harvest area and were not greater than those created by wind or storm conditions. No changes were observed in any of the measured sediment or infaunal variables on or near the harvested plots or in adjacent areas. The study concluded that there was little effect of commercial geoduck harvesting practices beyond short-lived resuspension of sediment on harvested plots. The authors specifically note that their results are relevant to fisheries for other *Panopea* species.

26. The findings of Liu et al are consistent with the results of earlier research. A study by Breen and Shields (1983) found no significant difference in sediment grain size distribution or changes to infaunal community structure between harvested and non-harvested plots, but did report an *increase* in species diversity in the harvested plot. Price (2011) found that commercial-scale harvesting did not cause any distinct response in infaunal communities and that effects on infauna were within the range of natural variation experienced by the community and not of long-term ecological significance.¹⁰
27. PZLH notes that although these studies were conducted on a different geoduck species in environments that differ somewhat from Golden Bay, the findings are likely to be equally applicable to *P. zelandica* and are certainly consistent with the observations of our divers in relation to the very limited spatial and temporal effects of geoduck harvesting. We also emphasise that dive fisheries are environmentally benign harvesting methods as they have no interaction with marine mammals, seabirds or fish bycatch.
28. We share the concerns expressed in the FNZ consultation document about the underlying health of the benthic ecosystem in PZL7 area in Golden Bay and Tasman Bay.¹¹ We consider that the presence of a valuable and environmentally responsible geoduck fishery will provide added impetus to regulators to identify and effectively control all threats to the benthic environment, including those of terrestrial origin, so that Golden and Tasman Bays can continue to support healthy ecosystems and sustainable fisheries.

Careful control of harvesting

29. The geoduck fishery is well placed to achieve a high level of industry-initiated fine-scale management. PZLH is currently the sole harvester of geoduck and PZL7 quota ownership is relatively concentrated among a few entities (i.e., PZLH and Iwi). Geoduck species can only be harvested in classified growing areas and harvesters must meet the requirements of the Bivalve Molluscan Shellfish Regulated Control Scheme. All of these factors mean that the likelihood of another large operator entering the fishery is slim. PZLH is therefore able to manage commercial geoduck harvest with a high degree of control.

¹⁰ The studies by Breen and Shields (1983) and Price (2011) are both cited in Liu et al (2015).

¹¹ FNZ consultation document, paragraph 32.

30. Because the harvesting activity is effectively managed at a fine spatial scale, localised depletion is not an issue.¹² The cryptic nature of geoducks in response to harvesting (i.e., withdrawing of siphons) means that not all shellfish in an area are able to be harvested. It is also not in PZLH's interests to deplete areas of the fishery – we want to be able to spread our catch as broadly as possible within the allowed areas in order to maintain economically efficient yields across the entire extent of the harvested beds. Furthermore, we note that the risk of localised depletion cannot be addressed by setting or adjusting a TACC – this risk exists irrespective of the size of a TACC and can be managed only by fine scale management controls implemented by quota owners and harvesters.
31. In our research programme under the special permit, PZLH has demonstrated that our harvesting activities are managed, reported and monitored at a fine spatial scale. As the fishery continues to develop, we intend to maintain a carefully controlled fine-scale approach to harvesting, including the development of a 'paddock' system of rotational harvesting.
32. We would be happy to discuss these proposals in more detail with FNZ, Iwi, and with other parties who have an interest in the PZL7 fishery, and to document agreed management and monitoring measures. However, in order to engage constructively and invest in fisheries management all parties need certainty that a commercially viable TACC is available.

Additional comments on the FNZ discussion paper

Other sources of fishing related mortality

33. PZLH considers that the proposed allowance for other sources of fishing related mortality (OSFRM) – approximately 30% of the TACC for all three options in the consultation document – is unjustifiably high. The FNZ consultation document contains no explanation or evidence to justify the high allowance for OSFRM – it simply notes that the allowance for OSFRM is '*consistent with how the OSFRM was set when geoduck was brought into the QMS*'.
34. There is no documented illegal catch of geoduck.¹³ The FNZ 2020 Plenary Report observes that '*there is little information on other sources of mortality, although the clam has on rare occasions been captured during trawling operations*'.
35. We note that the water jet harvesting methodology liquefies the sand around the geoduck to allow for extraction with minimal damage. If the incidental mortality rate of 30% is accurate, we would expect to see evidence of dead geoduck at the harvested beds – but our divers never see dead geoduck or the distinctive geoduck shells when operating in these areas.
36. Some small geoduck may be either caught by mistake or brought to the surface of the seabed incidentally when larger individuals are removed. We are aware that Breen (1994) has suggested that the survival rate of these small geoduck may be low because they may have difficulty re-burying themselves and be vulnerable to predation. In our experience, very small geoduck are typically not

¹² FNZ consultation document, paragraph 32.

¹³ FNZ Fisheries Assessment Plenary May 2020, page 294.

observed by divers. While it is not possible to determine the size of a geoduck by its siphon, divers can ascertain the size of a targeted geoduck by feel or visually while harvesting. Any smaller geoduck are either not removed from the liquefied sand or are reinserted while the sand remains soft. Geoduck that have been disturbed by harvesting are therefore not knowingly left on the surface of the sand.

37. We note that the suggestion about juvenile survival rates in Breen seems to be inconsistent with research that shows no significant infaunal community changes in harvested plots. Price (2011) suggested that temporal changes in infaunal populations may be short term due to the fact that geoduck harvesting methods have the potential to *displace and yet preserve benthic fauna* so that they can recolonise the disturbed area immediately after harvesting.¹⁴
38. In summary, we consider that FNZ should clarify the basis for the large allowance for OSFRM, or reduce that allowance and add the difference to the TACC.

Irrelevant considerations

39. The FNZ consultation document describes 'relevant plans, strategies, statements and context', as required under section 11(2) of the Fisheries Act. However, much of this discussion relates to the Marlborough Environment Plan (MEP), which does not apply in the area off Collingwood in which the PZL7 TACC increase is required to be caught. Furthermore, the rules in the MEP apply only to bottom trawling and dredging and are therefore not relevant to the harvesting of geoduck.
40. The FNZ consultation document notes the lack of information on the sustainable yield of geoduck in New Zealand /Golden Bay as part of the rationale for option 2.¹⁵ This is not a relevant consideration as any proposed TAC/TACC increase would be required to be taken only from within the certified shellfish area where the PZL7 biomass and yield has been estimated.
41. The FNZ consultation document incorrectly identifies Ecologically Significant Marine Sites in the MEP as habitats of particular significance for fisheries management (HPSFM).¹⁶ The sites identified in the MEP are not HPSFM under the Fisheries Act – these sites were identified for completely different purposes (biodiversity protection) under the Resource Management Act 1991.
42. The FNZ consultation document, when discussing associated or dependent species, focuses on fishing related mortality of geoduck.¹⁷ Associated or dependent species are defined in the Fisheries Act as *non-harvested species* – i.e., not geoduck. Discussion of fishing related mortality of geoduck is relevant to setting an allowance for OSFRM but is irrelevant to consideration of impacts on associated or dependent species. Geoduck harvesting does not have adverse effects on protected species such as seabirds or marine mammals, involves no fish-bycatch, and has no significant

¹⁴ Cited in Liu et al (2015).

¹⁵ FNZ consultation document paragraph 33.

¹⁶ FNZ consultation document paragraph 48.

¹⁷ FNZ consultation document paragraph 50.

ecological effects on benthic infauna – these are the factors that FNZ should have set out in relation to associated or dependent species.

Conclusion

43. PZLH considers that geoduck is a fishery with significant potential for New Zealand. With careful management, the development of the commercial fishery can proceed in a manner that benefits Iwi and provides local employment and export revenue. The sustainability risks of all the proposed options are low, but only option 3 provides utilisation benefits beyond the *status quo*. Option 3 therefore best meets the purpose of the Fisheries Act – i.e., to provide for utilisation while ensuring sustainability.

44. We are available to provide further information to support the points raised in this submission, and we would welcome the opportunity for further discussion with FNZ and, if required, TWAM, prior to the provision of final advice to the Minister. Please contact Geoff Pacey, PZL Harvesters Ltd. _____

References

- Breen, P. A. (1994). Sustainable fishing patterns for geoduck clam (*Panopea zelandica*) populations in New Zealand. New Zealand Fisheries Assessment Research Document 94/4. MAF Fisheries, N.Z. Ministry of Agriculture & Fisheries.
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- Liu, W., C. M. Pearce and G. Dovey (2015). Assessing potential benthic impacts of harvesting the Pacific Geoduck Clam *Panopea generosa* in intertidal and subtidal sites in British Columbia, Canada. Journal of Shellfish Research, Vol 34, No 3, 757-775.
- Slater A., R Millar and W White. (2017) Biomass assessment of Geoduck (*Panopea zelandica*) from northern Golden Bay in Fishing Management Area 7. AUT Institute for Applied Ecology New Zealand.



Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to: FMSubmissions@mpi.govt.nz

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:	
Organisation (if applicable):	Dawnbreakers Fishing Club, Nelson
Email:	<input type="text"/>
Fish stock this submission refers to:	SNA 7 and 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 for both fisheries

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: As per next page

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.



To whom it may concern,

This submission is being made on behalf of the Dawnbreakers Fishing Club, Nelson. As recreational fishers, we have chosen to support option 1 and maintain status quo for both SNA 7 and GUR 7 fisheries.

The document suggests that there is some uncertainty in the stock assessment data used in forming these decisions, based mainly around the strength of the 2017 year class of snapper. We would like to highlight the following points:

- 1) The document states that the best available information suggests that SNA 7 stock is at or about the target biomass, and that although projections suggest that an increase in biomass may be on the cards, these are based on the strong 2017 year class. We believe that decisions should be made on current biomass levels (more certainty), rather than on projected levels (potentially flawed).
- 2) Figures 2 and 2a (page 7 of review document) compare the trend in spawning biomass relative to the target biomass, including or not including the 2017 year class. The inclusion of the 2017 year class makes a massive difference in biomass estimates. Relying on a single year class so heavily when adjusting TAC and TACC levels poses a mismanagement risk for the fishery. The review document itself states that there is potential for having overestimated the strength of the current stock based on a good season of fishing – resulting from the 2017 year class.
- 3) Data, and figure 3 in the review document, demonstrate that the snapper stocks are characterised by variable recruitment with a strong recruitment period occurring every 7 – 10 years. This seems like the perfect reason to NOT base future TAC levels on data that is so influenced by a strong recruitment year class.

With the points above, it makes sense in our eyes to remain at current TAC levels for SNA 7 and observe the stocks for at least another recruitment cycle. This way, we would rule out any bias based on a strong year class and would be making quota management decisions based on more reliable stock estimates. If we have had a bumper recruitment event, as some are suggesting, the fishing should remain excellent through next season and we may have evidence and data to suggest an increase in TAC the following year.

Regarding the GUR 7 fishery, the same concept stands. The review document states that there are no new trawl survey indices available for stock assessment, but observations suggest that the red gurnard stock may be at or above target biomass. Until this observation can be based on sound assessment data, we do not believe that TAC or TACC should be adjusted for red gurnard in GUR 7.

We would also like to add that, if it is decided that there will be an increase in TACC and therefore commercial effort in our region, we would like to see commercial exclusion zones established to improve the fishing experience of recreational fishers in these areas, and allow us to have more say in managing and conserving our own segment of the fishery in future. We would like to propose



having inner Tasman Bay closed to commercial fishing and developing a two-mile commercial exclusion zone along the shoreline of Tasman bay to initiate this movement.

Thank you for your time and considerations. Please do not hesitate to contact the club if further information is required.

Yours sincerely,

The Dawnbreakers Fishing Club Committee



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SUBMISSION

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

Fisheries management team: FMSubmissions@mpi.govt.nz

22 June 2020

Tasman Bay Guardians are a Te Taiuhi 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.

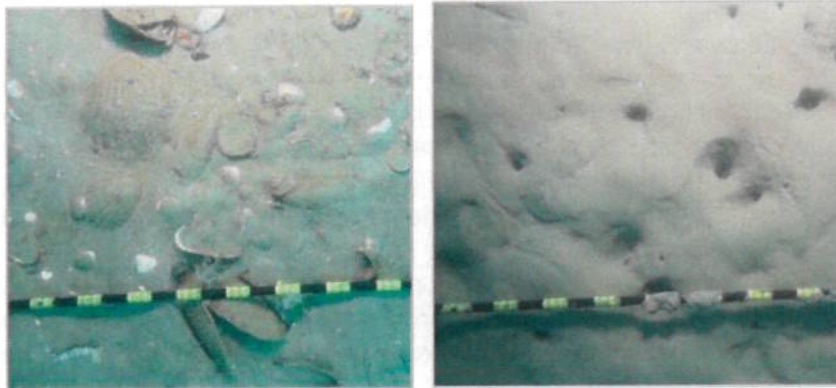
Countries all over the planet are waking up to the fact that bulk harvesting methods such as bottom trawling and set-netting are environmentally detrimental and banning it in their waters. Hong Kong, Indonesia, Palau and Belize have completely banned bottom trawling and many other countries have significant 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 its 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 Environment's 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.

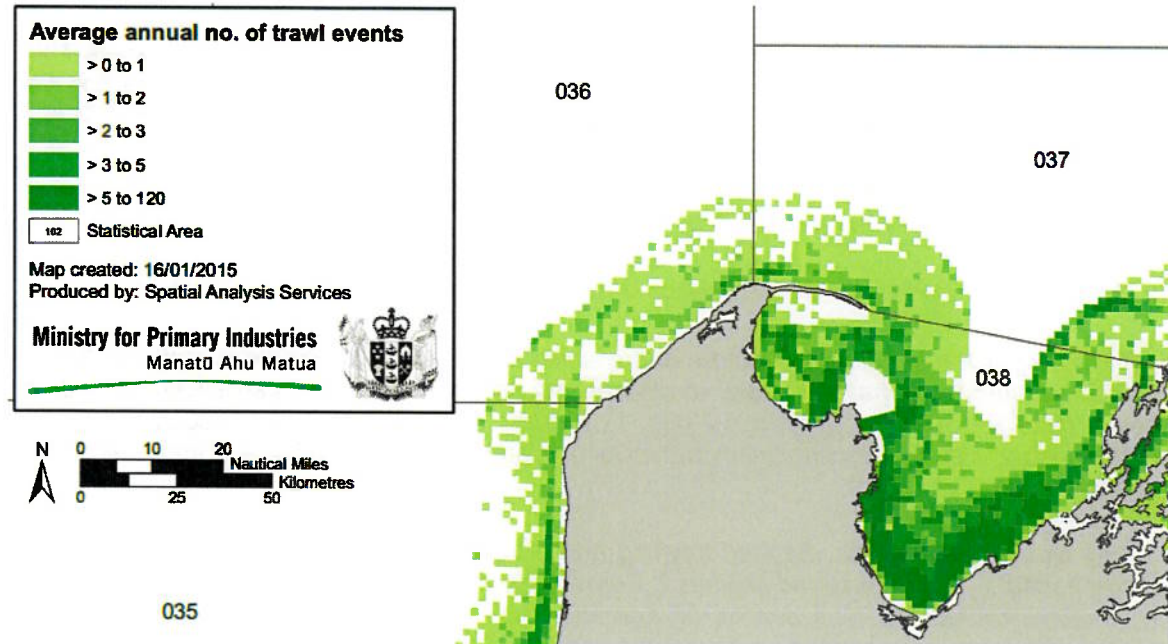
The way we fish matters too. Seabed trawling and dredging alter the structure of the seabed, damage habitats, and re-suspend sediment. Some ecosystems show few signs of recovery and may remain damaged for long periods of time after the activities stop (Clark et al, 2019). For example, reef-forming bryozoans 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.



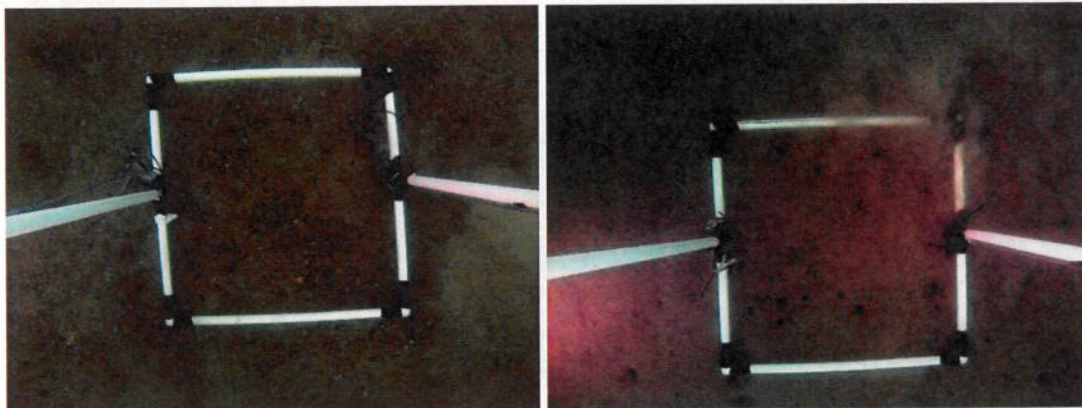
The map indicates the intensity of commercial fishing pressure on Area 7. With some small Marine Reserves, a Taiapure and the Separation Point exclusion zone put together, this still leaves over

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

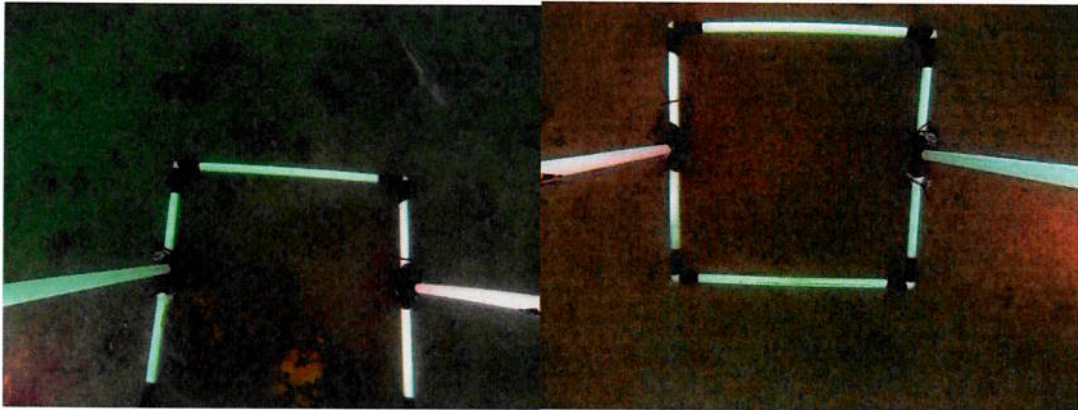
The discussion document states:

"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.

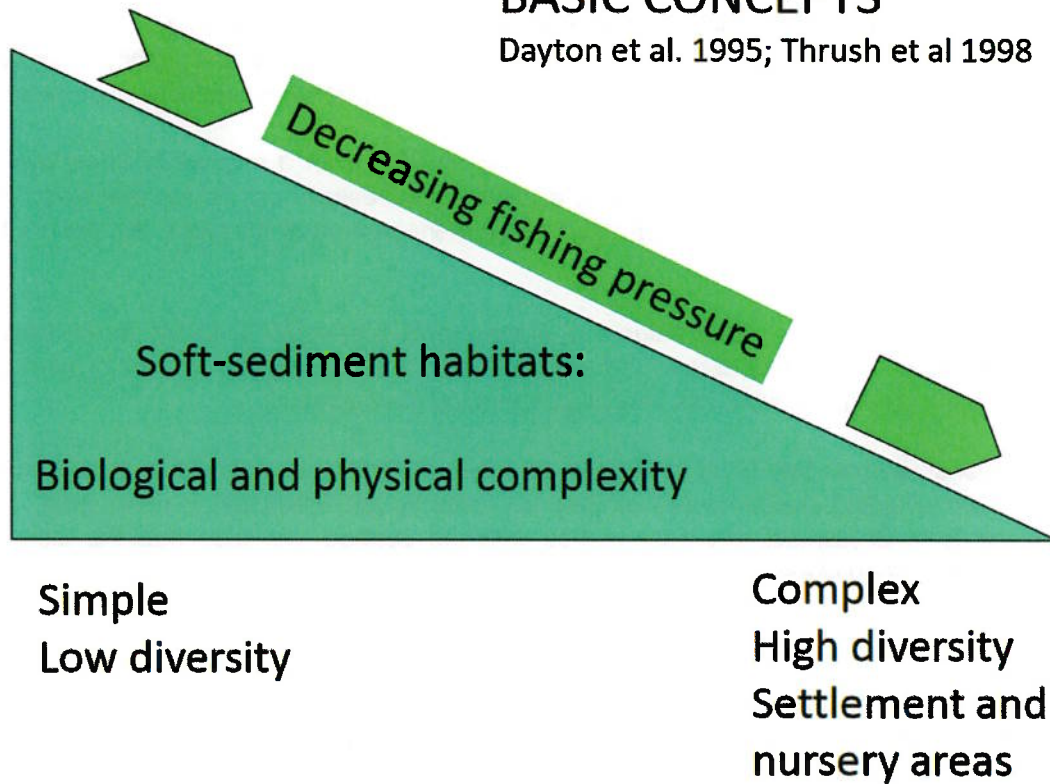
A comment from Thrush 2013 –

"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)

BASIC CONCEPTS

Dayton et al. 1995; Thrush et al 1998

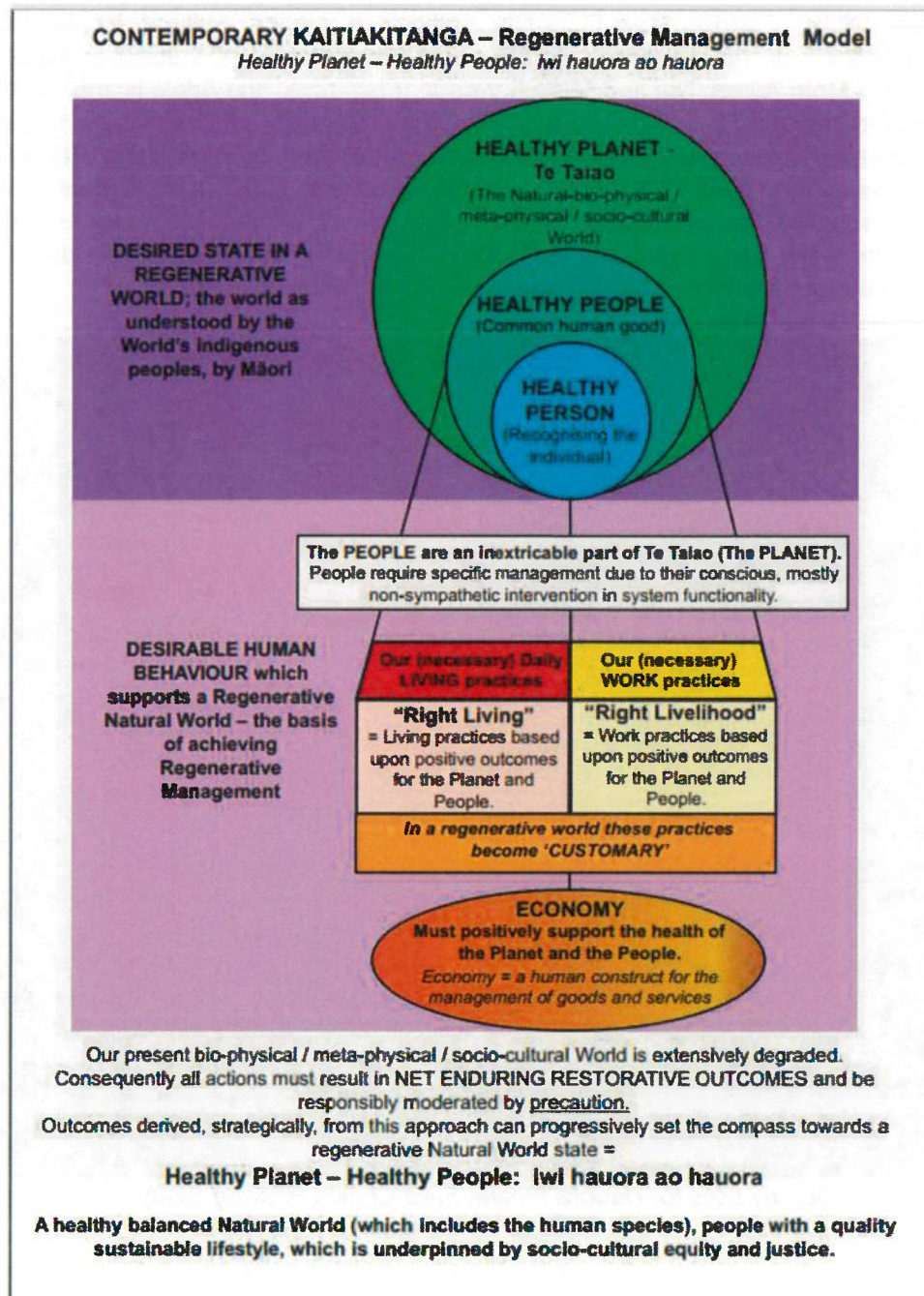


We are not saying don't trawl. Just don't trawl EVERYWHERE. An increase in quota will not have favourable results for ecosystem function and the recruitment of future fish stocks.

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 Taihu 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

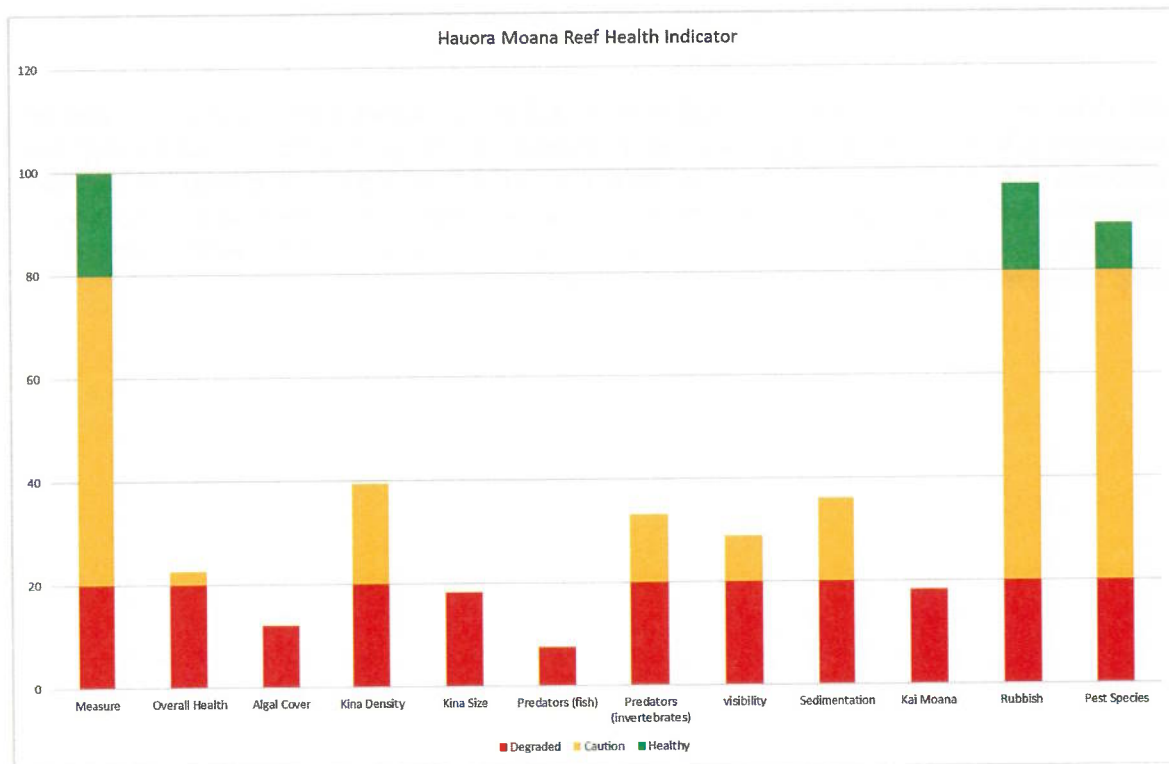
Abundant

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.

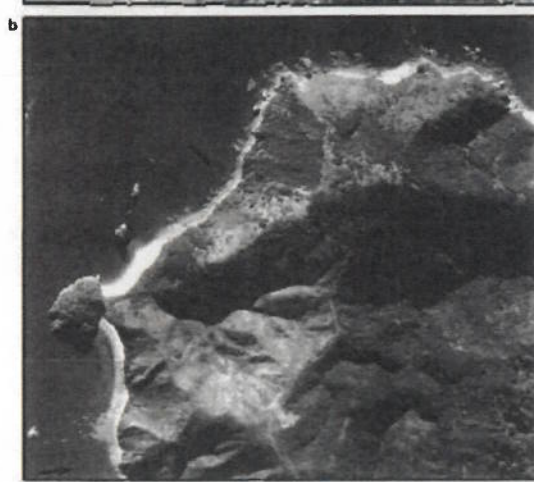
Habitat Degradation, Trophic Cascade and Regime Shift

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."



1 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 Taihū 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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- Thrush et al 2001, Fishing Disturbance and marine biodiversity: the role of habitat structure in simple soft-sediment systems.
- Thrush et al. 2002, Habitat structure in soft-sediment environments and abundance of juvenile snapper *Pagrus auratus*.
- Thrush and Dayton 2008, Disturbance to Marine Benthic Habitats by Trawling and Dredging: Implications for Marine Biodiversity
- Thrush and Dayton 2010, What can ecology contribute to ecosystem-based management?
- Tuck et al. 2017, Assessing the effects of fishing on soft sediment habitat, fauna and process

Saxton 1980, The Coral Beds of Tasman and Golden Bay

[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>



Submission Form

Review of sustainability measures for 1 October 2020

Once you have completed this form

Email to: FMsubmissions@mpi.govt.nz

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 Aroha Dorset or contact person:	
Organisation (if applicable):	Te Arawa Fisheries
Email:	<input type="text"/>
Fishstock this submission refers to:	CDL5 FRO 3,4,7,8 and 9 ORH3B POR1 RBY4 SCA1 SKI1 SPE9 SWA 3 and 4
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	



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

Details supporting your views:

SPECIES	COMMENTS
CDL5	<p>Te Arawa Fisheries supports option 2 - an increase based on infrequency of large catches and fact this is a non-targeted species with sustainability being a low level of risk.</p> <p>Bycatch of Warehou and Hake and sometimes catch limit is exceeded in a single fishing event making the catch inefficient and costly.</p>
FRO 3,4,7,8 and 9	<p>Te Arawa supports the view of Iwi Collective Partnership (ICP) – Sustainability Rounds are not the correct forum for to debate quota property rights. There are no sustainability issues for this species so an increase to FRO 4, 8, and 9 is supported as per option 1. However, we do not support a decrease to FRO 3 and 7. Instead we advocate for status quo of these stocks.</p>
ORH3B	<p>Te Arawa Fisheries supports option 1 and an increase to the customary allowance. Agree with ICP and Sealord that survey missed in 2020 be undertaken before TAC and TACC increased any further than this.</p>
POR1	<p>Te Arawa Fisheries notes that recreational increases are proposed, yet Maori customary rights are not – why is this? Given the abundant stocks we support ICP proposal to increase the TACC further than Ministry proposals and leave recreational allocation as status quo. Further to this Te Arawa Fisheries suggests increasing customary allocations.</p> <p>Bycatch species of inshore trawlers - stock is beginning to choke other catches as it is so abundant, and overfishing is rare historically.</p>
RBY4	<p>Te Arawa Fisheries supports option 1 to increase TACC.</p> <p>Bycatch of Warehou and Hoki and sometimes catch limit is exceeding in a single fishing event - support increase based in infrequency of large catches and fact this is a non-targeted species.</p>
SCA1	<p>Te Arawa Fisheries supports Option 1 – 10% increase. Commercial partners and Ministry science indicate a healthy fishery with a highly probability of reaching 40% management target. Sustainability issues are of as much importance as economic and therefore suggest being conservative in this round is best practise.</p>
SKI 1	<p>Te Arawa Fisheries supports ICP view that 28N rights must be protected and retention of proportionality of iwi quota relative to total quota maintained. Neither of the suggested options are sufficient to guarantee this.</p>
SPE9	<p>Te Arawa Fisheries supports option 2 - an increase based on the species being bycatch across all sectors – mostly caught by commercial fishers and seldom targeted. Further to this the stock has not been reviewed since QMS was established in 1998.</p> <p>Fishers report going deeper to avoid Maui dolphin restrictions, and, species is more plentiful in deeper waters. This stock is healthy and therefore an increase is consistent with principle of matching TACC to catch levels.</p>
SWA 3 and 4	<p>Te Arawa Fisheries supports option 2 due to the high deemed values produced in the past 5 years. CPUE and trawl survey suggest increased abundance of stock, but further work is needed. We support ICP and Sealord's suggestion to review annually.</p>



This submission has been crafted after consultation with Iwi Collective Partnership (ICP), Te Ohu Kaimoana, and by extension Sealord, and other Iwi. Our submission supports the ICP view that fisheries management and fisheries related science is complex and often difficult to digest. This makes the process of forming critical analysis and vital submission input equally difficult. An interactive and user-friendly method of communicating information for feedback is needed.

Te Arawa wishes to acknowledge their support for the fishing industry to move towards high value products as championed by recreational fishing lobbyists Legasea. While we do not support their fundamental strategy to dismantle the QMS we do agree that wild stocks are declining and species sustainability is of great importance. The industry must look to alternative means if it is to thrive long term. We are committed to a whole value chain approach to fisheries that will see us move away from commodity-based revenue streams. Wild stocks will not continue to be our main source of revenue. Te Arawa are currently leading three projects that we believe will transform the way the fishing industry operates.

The first is a partnership with Otago University. The project scope involves converting fish waste, by extracting nutrients, to make high value nutritional products. Driving this project is our desire to grow Te Arawa, and more widely Māori, people and capability. For the past 10 years Te Arawa have given tertiary scholarships and kept a database of applicants that is now 2000 strong. This database is being utilised to find aspiring masters and PhD students to work alongside our head scientist to develop the capability required to be successful. Currently we are in the research and development phase but are mobilising adjacent pathways to commercialise the final products.

The second is a new Maori and First Nations professional exchange program. Te Arawa is facilitating and leading this initiative. The program sees Maori and First Nations people working together on indigenous issues. The first stage is a virtual exchange over a 4week period where cohorts will break into small groups and workshop indigenous specific topics and provide recommendations that illuminate solutions. These potential solutions will be presented to a panel consisting of both Canadian and New Zealand ministers. Collaboration with First Nations will assist in the global extension of indigenous rights and facilitate future trade opportunities.

The third is an iwi led aquaculture review and business case. This is being supported by MPI, and Minister of Fisheries, and is initially a desktop review of aquaculture globally. The global review we currently have underway will help iwi make informed, calculated decisions when it comes to possible investment pathways and aquaculture strategy. Bay of Plenty iwi including Whakatohea and Te Arawa are leading this initiative with the support of MPI, Te Ohu Kaimoana, Waikato University, Tim Morris (Economist), and Penelope Gibson (PhD- Thesis: Patent Law, Technology, SME's, and Economic Impact). The stage one review will then inform stage two, a full economic analysis, and finally a full business case will be prepared at stage three. The project stages two and three are Bay of Plenty specific, but the IP will have wide reaching impacts on the future of the New Zealand fishing industry.

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

Please continue on a separate sheet if required.

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.

Submission on Review of Sustainability Measures for Deepwater (King) Clam (PZL 7) for 2020/21

Fisheries New Zealand Discussion Paper No: 2020/13

Geoff and Kath Pacey
WR & P Pacey Ltd
Ingles Drive Kaikoura

28th June 2020

QRN 9570049

We hold and represent the below PZL shares.

PZL Shareholding

PZL 1	40,000,000
PZL 2	40,000,000
PZL 3	21,916,666

We support the FNZ Option 3 to increase the TACC to 99 tonnes for PZL 7 and fully endorse the submission from PZL Harvesters Ltd.

This is a unique opportunity for FNZ and industry to showcase the QMS in a truly sustainable way by fine scale managing a virgin fishery.

This will create jobs that are important to regional New Zealand and everyday New Zealanders. The other side of this is that if option 3 isn't actioned then jobs could potentially be lost as the viability of the businesses could be compromised.

The science for a quota share increase has been done, this has been approved by the Shellfish Working Group and therefore should be actioned.

I also note that TWAM was given the biomass survey information from MPI back in November 2019 so some consultation has happened and PZL Harvesters Ltd are willing to discuss any concerns that haven't been addressed.

We are happy to discuss our submission if needed.

Regards

Geoff & Kath Pacey

Directors

WR & P Pacey Ltd.