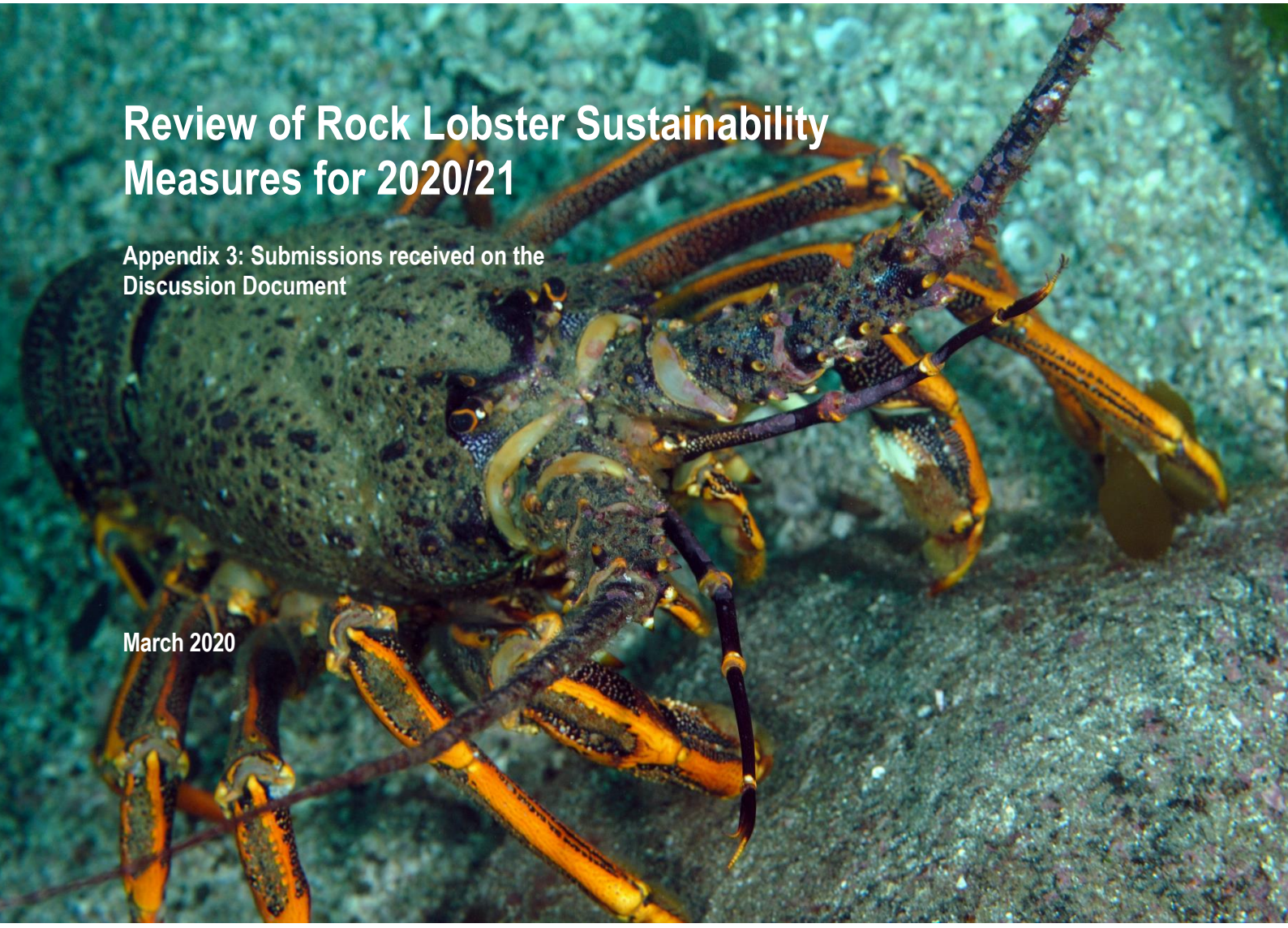
NATIONAL ROCK LOBSTER MANAGEMENT GROUP



Review of Rock Lobster Sustainability Measures for 2020/21

Appendix 3: Submissions received on the Discussion Document

March 2020

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CRA 1 ROCK LOBSTER INDUSTRY ASSOCIATION INC. (CRAMAC 1)

Private Bag 24-901
Wellington, 6142

REVIEW OF ROCK LOBSTER SUSTAINABILITY MEASURES FOR 01 APRIL 2020

SUBMISSION ON BEHALF OF CRAMAC 1

This submission is made by the CRA 1 Rock Lobster Industry Association Inc. The organisation is a fully constituted and incorporated society that is recognised as the commercial stakeholder organisation representing the interests of the commercial rock lobster industry in the Northland region extending from the Kaipara Harbour on the west coast to Te Arai Point, south of Whangarei.

This submission focuses on the proposed sustainability measures for CRA 1.

The consultation document presents two management options for CRA1.

- Option 1.1, proposes the status quo for the Total Allowable Commercial Catch (TACC), accordingly the TAC would be unchanged;
- Option 1.2 (based on the latest CRA 1 stock assessment), proposes to reduce the TACC to 110 tonnes. This represents a decrease of 21 tonnes or 16%. The allowances for recreational catch and other mortality will be reduced to 32 tonnes and 41 tonnes respectively. The TAC will be decreased to 203 tonnes.

CRAMAC 1 are supportive of the stock assessment science process and of the Rock Lobster Stock Assessment Working Group that advises on the quality and therefore the suitability of the science results to be used to inform effective management decisions in the CRA 1 fishery. However, even though CRAMAC 1 accept the results from the latest CRA 1 stock assessment they do not support either Option 1.1 or Option 1.2 but suggest an alternate Option, 1.3.

For Option 1.3, CRAMAC 1 propose that the TACC remains at the current level of 131 tonnes and the CRA 1 quota share owners agree to voluntarily shelve (i.e. not catch) 21 tonne of the CRA 1 Annual Catch Entitlement (ACE), for the fishing year commencing 1 April 2020, at least. All (100%) of CRA 1 quota share owners have agreed to support Option 1.3 and have each agreed to shelve 16% of their ACE in the coming 2020/21 season. To demonstrate the commitment to supporting Option 1.3, FishServe, on request from CRAMAC 1, have started the ACE Transfer process with CRA 1 quota share owners. It is proposed to have all ACE Transferred (I.e. Shelved) by the 11th February 2020.

Rationale for Option 1.3

Since 1993-94, landings in CRA 1 have remained very stable and as such the TACC has remained unchanged for the last 20 years. For many years the CRA 1 quota share owners have chosen to adopt a conservative approach for managing the fishery. This was well demonstrated when quota share owners chose not to take the 6.6 tonne TACC increase, recommended by the 2014 CRA 1 stock assessment, even when the assessment projections suggested an increasing biomass over the following 5 years. There was therefore considerable surprise among the CRA 1 fishers, ACE holders and quota owners when the results from the 2019 CRA 1 stock assessment suggests a decreasing vulnerable biomass over the next 5 years, at the current level of catch.

When interpreting the results from the 2019 stock assessment it is important to also consider several factors:

- Unstandardised CPUE in CRA 1 shows an increasing CPUE in 3 of the 5 statistical areas, while slightly decreasing or essentially unchanged CPUE trends in the other two areas.
- A new parameter was introduced into the 2019 stock assessment model. This qdrift parameter (which estimates improvement in fishing efficiency over time), has impacted markedly on the CRA1 stock assessment model outputs. This parameter is assumed to be a 1.5% increase in catch efficiency per year cumulating over the last 28 years. However, there is uncertainty in the assumption of 1.5%. Projections from the model that did not include the qdrift parameter suggest an increasing spawning stock biomass over the next 5 years compared to the qdrift inclusive model suggesting a decreasing biomass.

Adding to this model uncertainty is (as recognised in the Fisheries New Zealand's consultation document), the unknown affect that the advent of electronic catch and effort reporting will have on commercial CPUE and the subsequent future management procedures that are dependent on this data series. The result being, no new management procedures have been developed for CRA 1 following this year's stock assessment. In light of this however, the consultation document did also note that the Rock Lobster Fisheries Assessment Working Group is currently considering alternative assessment approaches to use as the basis for advice to the Minister and decisions on TAC changes beyond April 2020.

CRAMAC 1 Position

Even with the uncertainty of the stock assessment results, CRAMAC 1 have chosen to maintain a conservative approach to managing the fishery and accept the proposed 16% reduction in the TACC but, via the process of shelving ACE. This decision to shelve ACE was driven by the uncertainty around the stock assessment results together with the uncertainty around future management procedures and the potential for developing alternative approaches for monitoring stock abundance over the next 5 years. In particular our iwi membership asked for this ACE shelving process, due to a strong preference for self-determination over treaty settlement assets.

When taking all factors into consideration, CRAMAC 1 feel the most successful way to allow good fisheries management of the CRA 1 stock is to retain the current long standing TACC of

131 tonne and for the CRA 1 quota share owners to shelve ACE. This option will allow the flexibility for timely annual adjustments to be made to the TACC in conjunction with fluctuations in the stock abundance, much like what has been achieved under the very recent management procedure regime.

Management of Recreational & Illegal Catch

CRAMAC 1 are also aware that any intended management outcome can only be achieved if catch across all sectors is managed to the allowances proposed in the consultation document.

CRAMAC 1 are fully committed to maintaining a healthy, sustainable CRA 1 fishery for the benefit of all sectors and therefore there is a high level of frustration over the lack of commitment from Fisheries New Zealand to implement and enforce better estimation and management of recreational catch. There is currently a high degree of uncertainty in the level of recreational catch, this not only creates uncertainty in the stock assessment model outputs but, until this uncertainty is adequately reduced this catch cannot be effectively managed to the allowance of 32 tonnes. CRAMAC 1 strongly emphasise the need for FNZ to take steps to address this issue.

The current estimate of illegal take in CRA 1 is also highly uncertain. Options 1.2 & 1.3 propose an allowance for "Other Mortality" of 41 tonnes. The lack of supporting evidence for this figure, suggesting moderate to high levels of illegal fishing in CRA 1, are of serious concern to industry and should be to all legitimate extractive users. CRAMAC 1 support MPI/FNZ taking steps to address the uncertainty in this figure and to reduce any level of illegal take.

Impacts of the proposed TACC reduction

A 21 tonne reduction in ACE will result in an estimated $1.8 million loss in annual revenue for the fishing families in the commercial rock lobster fishery alone. This loss to the commercial fishery will also have financial repercussions to a good number of other businesses that rely on the commercial fishery for income. These repercussions will be harsh on Northland's smaller coastal town communities especially.

Even in the face of the harsh financial pressure a reduction in ACE would impose on many within the CRA 1 commercial fishing sector, CRAMAC 1 remain fully committed to maintaining a healthy, sustainable fishery, and indeed at their own expense, the commercial fishers take responsibility for collecting much of the data that supports the stock assessment science. This includes a voluntary log book programme which collects data across the fishery all year round, as well as a catch sampling and tag recapture research programme. The commitment to this work will be maintained.

Summary

- CRAMAC 1 support neither Option 1.1 or 1.2 but propose an alternate Option, 1.3.
- This option would retain the current TACC but would entail the CRA 1 quota share owners each shelving 16% of their ACE.

- FishServe have started the ACE Transfer process with CRA 1 quota share owners. It is proposed to have all ACE Transferred (I.e. Shelved) by the 11th February 2020
- CRAMAC 1 stress the need for FNZ to take action in regard to implementing and enforcing better estimation of recreational catch and illegal take. They also highlight the need for MPI to take steps to reduce any level of illegal take.
- CRAMAC 1 note the financial stress that a 21 tonne reduction in ACE will impose on their members but they remain committed to effective sustainable management of the fishery and remain committed to their data collection/research programmes.

CRA 4 ROCK LOBSTER INDUSTRY ASSOCIATION INC.
CRAMAC 4

PRIVATE BAG 24-901
WELLINGTON 6142

REVIEW OF ROCK LOBSTER SUSTAINABILITY MEASURES FOR 01 APRIL 2020

SUBMISSION - CRAMAC 4

This submission is made by the CRA 4 Rock Lobster Industry Association Inc (CRAMAC 4). CRAMAC 4 is a fully constituted and incorporated society and represents the interests of CRA 4 quota share and ACE owners in the fisheries waters bounded by the Wairoa River and Manawatu River, taking in the Hawkes Bay, Wairarapa and Wellington coasts.

CRAMAC 4 remains committed to maintaining a healthy, productive and sustainable rock lobster fishery open to all legitimate extractive users. In support of those goals the CRA 4 commercial fishermen take responsibility for collecting much of the data that informs stock assessments and management decisions. CRAMAC 4 operates an industry-funded voluntary logbook programme and an ongoing industry-funded tag, release and recapture programme. CRA 4 fishermen also voluntarily provide the working platforms for the observer catch sampling programmes contracted by the Ministry for Primary Industries.

This submission focuses on the proposed sustainability measures for CRA 4.

- The CRAMAC 4 SGM, and the subsequent ballot of QSOs, have indicated a strong preference for a conservative approach, which is to maintain the status quo and make no change to the 318.8 tonnes TACC for the 2020-21 fishing year.

However, that preference was established in advance of the current coronavirus disruption to fishing and export of live rock lobsters to China.

To all intents and purposes the current fishing year was closed to the majority of CRA 4 fishermen from January 25th, at a peak catching and beach price period coinciding with the Chinese New Year.

The effective closure leaves fishermen with a significant quantity of uncaught ACE. At the time this submission was prepared there is no indication from the Ministry or the Minister that a carry forward of unused ACE will be implemented. If it is not, then there is little doubt that the CRAMAC 4 membership will want to revisit the preference for no change to the 2020/21 TACC.

The forfeiture of unused ACE – at 01 January the estimated amount was 127 tonnes, but the final amount will be less – will act as a TACC reduction of considerable magnitude and whilst perhaps a positive contribution to the status of the stock, will be a calamity, for the fishermen and processors most affected.

So CRAMAC 4 notes that this submission outlining the preference for no-change to the 2020/21 TACC is conditional upon the outcome of the work being done to enable a rollover of uncaught ACE to the new fishing year.

PROPOSED CRA 4 TAC/TACC OPTIONS

CRAMAC 4 has a strong commitment to the use of Management Procedures to guide TAC/TACC setting as abundance in the fishery changes. The CRA 4 Management Procedure was designed to allow the stock to rebuild toward an agreed reference level. At the time is was agreed, industry generally considered it to be both safe and relatively conservative.

The management procedure was operated in 2018, generating a TACC increase for the current 2019/20 fishing year. The Minister decided not to use the CRA 4 Management Procedure to set a new TACC. He did so in response to late submissions which clearly in his mind, cast some doubt on the ability of the fishery to sustain the additional catch.

The same CRA 4 Management Procedure was operated to guide the 2020/21 TAC/TACC decision and again recommend a TACC increase. This outcome was reported to a well-attended CRAMAC 4 Special General Meeting convened in January 2020. Those in attendance did not demonstrate unanimous support for an increase. Several speakers urged caution and indicated their preference for no change from 01 April. But there were some members who had greater confidence that the increase was both warranted and sustainable.

As per the Rules of Association for the CRA 4 Rock Lobster Industry Association Inc, the deciding vote on TAC/TACC (and other key decisions) rests with CRA 4 Quota Share Owners (QSOs). A QSO ballot was conducted later in January and the results reflected the more cautious and conservative viewpoints expressed at the SGM.

DISCUSSION

A reasonable level of QSO support for the TACC increase was evident in the recent ballot results.

Those CRAMAC 4 members who support a TACC increase generated by the operation of the CRA 4 Management Procedure highlight the history of the relevant decision making. They note that the most conservative CRA 4 TACC option was implemented in April 2017; one which reduced the CRA 4 TACC below 300 tonnes.

Their view is that if the Management Procedure was deemed acceptable and useful when that TACC reduction was implemented then the same level of utility and acceptance must be accorded to it in the decision for April 2020.

It is evident to them that their fishery and the current Management Procedure are not 'static' - both are dynamic, and the Management Procedure is responding to the agreed fishery performance indicators. They point to the fact that the CRA 4 industry accepted the 2017/18 TACC reduction in expectation of an improvement in CRA 4 stock abundance. That improvement was already evident and was further enhanced by the Minister declining the proposed 2019/20 TACC increase - fish that otherwise would have been landed in the current season remained in the ocean.

Other CRAMAC4 fishermen and processors remain concerned that while some areas of the fishery appear to be stable or doing well, other areas are showing consistently lower CPUE than is preferable for them. They express that view being mindful of the historical variability of abundance and catching success across the main Statistical Areas that comprise the CRA 4 fishery. The relatively static performance of Sta Areas 913 and 914 is cause for some concern. These are historically the most productive of the CRA 4 Statistical Areas.

Those members note that CRA 4 is scheduled for a stock assessment later in 2020, one which will hopefully provide a comprehensive update on the status of the stock and which should allow better informed consideration of TAC/TACC options for the 2021/22 fishing year. However, the uncertainty about availability of compatible CPUE data for one or more seasons will not be completely alleviated by a new assessment. There was mention of the possibility of a new assessment model delivering a more conservative TAC than generated by the most recent one.

The CRA 4 industry has long been committed to and supportive of active responses to observed changes in abundance, and Management Procedures informed by CPUE have generally enabled those.

Preferences for a more conservative management of the fishery are driven by the current uncertainty as to whether the historical time series of CPUE can be maintained given the recent transition to ER/GPR reporting.

Some members are very concerned that if a CRA 4 Management Procedure cannot be operated in 2021 and beyond, there will be no clear and agreed performance indicator against which to reliably determine the appropriate TAC/TACCs.

CONCLUSION

Overall, the CRAMAC 4 membership preference is best reflected in the QSO ballot results. In order to consolidate an increase in stock abundance across all areas of the fishery, the CRAMAC 4 SGM, and the subsequent ballot of QSOs, have indicated a strong preference for a conservative approach, which is to maintain the status quo and make no change to the 318.8 tonnes TACC for the 2020-21 fishing year.

OTHER MATTERS:

RECREATIONAL and ILLEGAL CATCHES

CRAMAC 4 are very aware that any intended management outcome can only be achieved if aggregate catch is managed to the allowances set within the TAC.

CRAMAC 4 are fully committed to maintaining a healthy, sustainable CRA 4 fishery for the benefit of all sectors and therefore, there is a high level of frustration over the lack of commitment from Fisheries New Zealand (FNZ) to implement and enforce better estimation and management of non-commercial removals.

There is currently a high degree of uncertainty as to the actual level of recreational removals; this not only creates uncertainty in the stock assessment model outputs but constrains any practical effort to manage recreational removals to the allowance set for them.

The current estimate of illegal take in CRA 4 is also highly uncertain. The two options in the Sustainability Review propose an allowance for “other mortality” of 75 tonnes. The lack of supporting evidence for this amount, which itself suggests moderate to high levels of illegal fishing activity in CRA 4, is of serious concern to industry and should be to all legitimate extractive users. CRAMAC 4 expects MPI/FNZ to take steps to address the uncertainty in the estimate and to actively constrain illegal removals.

SUMMARY

- CRAMAC 4 confirmed a preference for option 4.1 - status quo to retain the TACC at 318.8t.

- CRAMAC 4 has concerns over the disruption to the time series of CPUE data and the prospect of being without an agreed management procedure to guide future TAC/TACC decisions.

- CRAMAC 4 stresses the need for FNZ to act regarding implementing and enforcing better estimation of recreational catch and illegal take. We also highlight the need for MPI to actively constrain the level of illegal removals.

- CRAMAC 4 remains committed to the industry-funded data collection/research programmes and the support for stock monitoring contracted by MPI.

In conclusion, we again make the point that the coronavirus situation was not evident at the time of the CRAMAC 4 SGM or the QSO ballot. Carry forward of unused ACE is going to be a deal breaker to varying degrees for other CRAMACs, but for CRAMAC 4 it is not something we can ignore given the potential scale of impact on our membership if all unused ACE is forfeit as at 31 March this year.

There is a strong possibility that CRAMAC 4 may need to revisit the 2020/21 TACC preference outlined here.

Your sincerely

CRA 4 Rock Lobster Industry Association Inc.

Mark Peychers

Chairman

29 January 2020

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

SUBMISSION
Review of Sustainability Measures for Rock Lobster (CRA8) April 2020/21

This submission is made by the CRA8 Rock Lobster Industry Association Inc. ("the Association"). This organisation is a fully constituted and incorporated society that is recognised as the commercial stakeholder organisation representing the interests of the commercial rock lobster industry in the southern South Island including South Westland, Fiordland, Stewart Island, Foveaux Strait and adjacent islands.

CRA8
The consultation document presents two management options for CRA8. In both options it is proposed that the status quo applies to the non-commercial allowances.

- Option CRA8_01proposes the status quo for the Total Allowable Commercial Catch (TACC), accordingly the TAC would be unchanged;
- Option CRA8_02 proposes to increase the TACC to 1191.7 tonnes. This represents an increase of 62.1 tonnes or 5%. The TAC would increase to 1,282.7 tonnes.

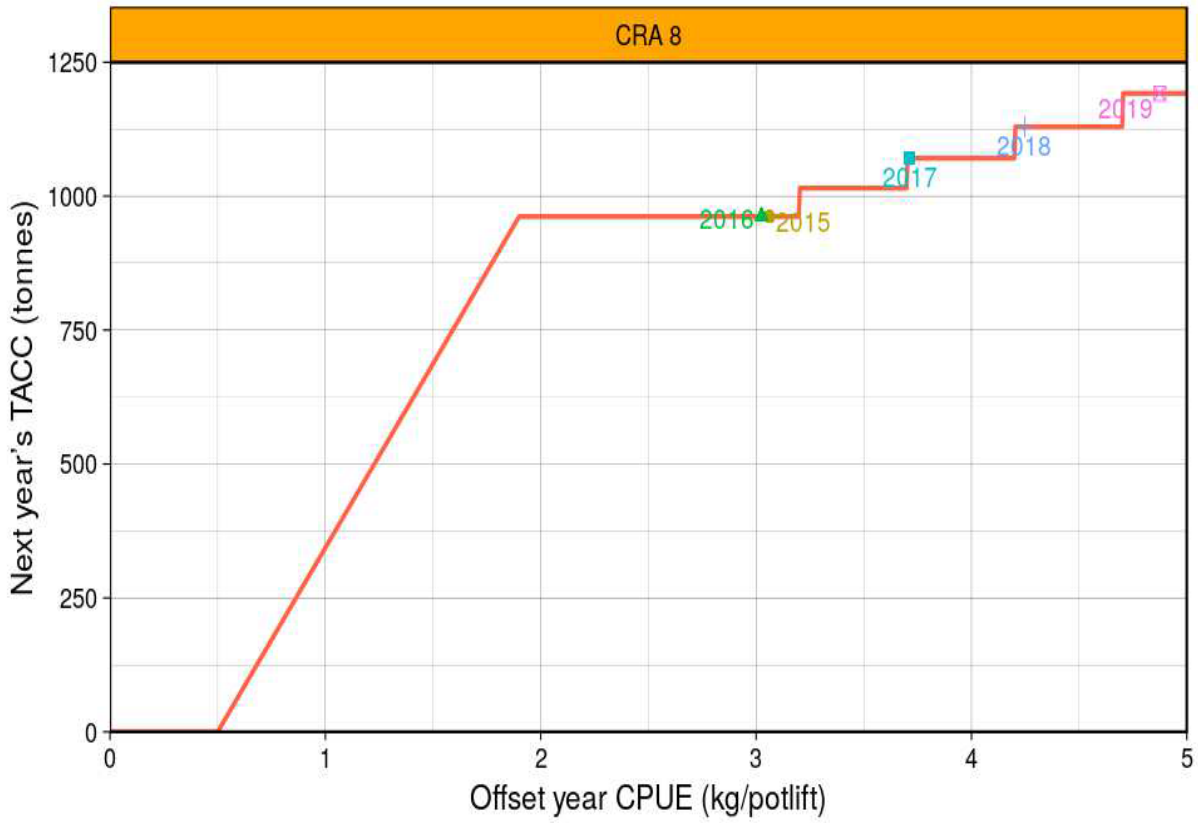
Use of Management Procedure to Guide TAC/TACC Setting for CRA8
The Association is fully supportive of the use of management procedures within rock lobster fisheries to guide TAC/TACC setting. It therefore follows that the Association supports Option CRA8_02 which results from the operation of the CRA8 Management Procedure in respect of the proposed increase to the TACC.

Management Procedures (also called decision rules) have been used as the main management tool in the CRA8 fishery since 1998 and various iterations and their annual results have been accepted by successive Ministers of Fisheries since that time.

When the current CRA8 Management Procedure was developed the Association advocated that a new management procedure should include both biological and economic considerations in its development. As a result, the Association supported a management procedure that includes a range of CPUE values (lower and upper parameters within a plateau) that would maintain the TACC at a constant level and provide stability for the fishery and industry. In turn this design provides confidence and some certainty for business planning and investment. The steps at the upper parameter acknowledge that if abundance, as indicated by CPUE, is at such a level the TACC should increase to take advantage of this heightened abundance without any risk to the stock.

It is recognised within the CRA8 industry the best economic result is not necessarily achieved through maximum exploitation of the vulnerable biomass. The ability to target fishing effort at certain times of the year and certain grades when market prices are at their most favourable is a much more desirable outcome. This desire to achieve Maximum Economic Yield (MEY) is the favoured position for the CRA8 industry. In the absence of a true MEY model it is reasonable to consider the current management procedure as a proxy given the predicted low exploitation rates and constantly high CPUE.

Given that current CPUE is now at 4.83 kgs, an increase from 4.24 kgs, - which triggers an increase of one step on the CRA8 Management Procedure graph – the MEY philosophy remains. As the consultation document explains, there is no risk to the sustainability of the fishery while providing increased utilisation benefits to all sectors[1].



[1] Consultation Document Para 152

The amount of high-grading in the CRA8 fishery is high as a result of the continued high abundance. Data from CRA8 Licenced Fish Receivers show that since 2008 more than 95% of lobsters landed annually have been in the range from minimum legal size to 1.5kgs. MPI in the consultation document estimate that the amount of large (in excess of 1.5kgs) rock lobsters that are returned to the water is 40% by weight[2]. This amount of high-grading, which can also apply to smaller grades at certain times, is the main reason the Association promoted a CPUE algorithm that uses only the weight of lobsters that are landed.

Those lobsters that are returned to the sea may have a reduced economic value but have a very high biological value in that they have resulted in a very large breeding biomass. It is reasonable to assume that the ongoing high abundance in the fishery is a result of this practice coupled with a conservative TACC.

The increase in the TACC will result in an estimated economic return to the CRA8 fishermen of approximately $5.3 million. Export earnings will be higher again. A large portion of these increased earnings will be spent within the southern regional economies. This aligns with the government aim of encouraging regional economic development. It is unlikely that this increase will result in the addition of further vessels to the catching fleet. Instead the existing vessels become more financially efficient and profitable.

This increase will result in a cumulative increase of 23.8% to the TACC in three years. During the middle of 2019 some members expressed some concerns at the prospect of this increase as they thought a period to consolidate the previous increases may be useful. However these concerns diminished after the CPUE result was revealed and the very high level of fishing success was experienced later in the year and into 2020.

In summary, there is no reason that the proposed increase should not be approved.

Summary
The Association supports Option CRA8_02 that reflects:

- The increase in the TAC to 1,1,282.7 tonnes;
- The increase in the TACC to 1191.7 tonnes;
- The continuation of the customary allowance of 30 tonnes;
- The continuation of the recreational allowance of 33 tonnes; and
- The continuation of the allowance for other sources of mortality of 28 tonnes.

Malcolm Lawson
Chief Executive Officer

[2] Consultation Document Para 146

Fisheries New Zealand
Tini a Tangaroa

Submission Form

Review of sustainability measures for 1 April 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 5 February 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 Mike Currie or contact person:	
Organisation (if applicable):	
Email:	[redacted]
Fishstock this submission refers to:	Rock Lobster
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	CRA 1 and CRA 3 Option 1.2 - decrease CRA 4, CRA 7 and CRA 8 Option 7.1 – 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:

In the interests of wildlife conservation and biodiversity sustainability I support decreases preferably in all recreational allowances, or at minimum retain the status quo.

[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 April 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 5 February 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:	Rana King
Organisation (if applicable):	ELBURY HOLDINGS LTD
Email:	[redacted]
Fishstock this submission refers to:	CRA8
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	Support increase in TACC 1129.6 to 1191.7 tonnes in Option 8.2.

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:

Support the option 8.2 to increase TACC by 5%. 1129.6 up to 1191.7 TACC.

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.

5 February 2020

IWI COLLECTIVE PARTNERSHIP

Sustainability Review 2020/21
Fisheries Management
Fisheries New Zealand
P O Box 2526
Wellington 6140

By email only: FMsubmissions@mpi.govt.nz

Tēnā koe,

REVIEW OF ROCK LOBSTER SUSTAINABILITY MEASURES FOR APRIL 2020

The National Rock Lobster Management Group (NZRLMG) has invited submissions on proposals in its Discussion Document (No: 219/20) relating to a review of TAC and TACC settings for rock lobster in various quota management areas (QMAs) starting 1 April 2020. The Iwi Collective Partnership (ICP) has interests in CRA1, CRA3 and CRA4 and submits on these stocks. Submissions close **5 February 2020**.

1. Executive Summary
ICP submits in summary:

- CRA1 - Support for an amended version of Option 1.2 (Option 1.2A) to retain the TACC of 131.062 mt but adopt voluntary shelving of 16% (21 mt) making a fishable commercial volume of 110 mt. The TAC of 273.062 mt should however be reduced to 224 mt to reflect the 49 mt combined reductions to the allowances for Recreational and Other Mortality.

- CRA3 - Support for Option 3.2 to reduce the TAC by 14% from 351.9 mt to 303 mt and the TACC by 13% from 222.9 mt to 195 mt. Incorporated within the TAC reduction is a 21 tonne reduction to the combined allowances for Recreational and Other Mortality.

- CRA4 – Support for Option 4.1 to maintain the current TAC of 513.8 mt and TACC of 318.8 mt.

- Given the relative size of the recreational and mortality allowances and impact on lobster biomass, we urge the Ministry to address their management like the commercial take.

2. Iwi Collective Partnership
ICP is a limited partnership of Iwi fisheries entities representing mana moana mana whenua throughout Te Ika a Maui. It is a collaboration of the Iwi fisheries interests recognised in Te Tiriti o Waitangi and reaffirmed in the Fisheries Treaty Settlement and Deed of Settlement between Iwi Māori and the Crown. ICP is mandated to represent the interests of 20 of the 49 Iwi in Te Ika a Maui. Of these, 16 hold commercial and mana moana interests in CRA1, CRA3 and CRA4 - refer to **table 1** below.

3. CRA1
The Discussion Document refers to two options for consideration:
- Option 1.1 to retain the TAC of 273.062 mt and TACC of 131.062 mt;
- Option 1.2 promotes a 26% reduction to the TAC and a 16% reduction to the TACC.

SITE [redacted]
POSTAL PO Box 445, Shortland Street, Auckland 1140, New Zealand
[redacted]
WEBSITE www.iwicollective.co.nz

In terms of option 1.2, there is currently no provision to retain the current TACC but to reduce commercial harvest through a voluntary shelving mechanism.

The Discussion Document states that the most recent 2019 stock assessment of CRA1 shows the total biomass at 26% of unfished levels, with a projection to decline to 24% by 2023 if it continues to be fished at current levels. A reduction is required in order to maintain and/or improve the percentage total biomass of unfished levels.

ICP supports a reduction of harvest, however, we propose that the reduction is achieved through a voluntary shelving mechanism rather than a formal reduction to the TACC. Given the Discussion Document makes no provision for voluntary shelving, we proposed it as part of an amended 'Option 1.2A'. Option 1.2A would achieve the exact same sustainability outcomes as Option 1.2 the only difference being that the commercial reduction would be achieved via voluntary shelving.

Therefore, ICP supports retention of the TACC of 131.062 mt but to adopt voluntary shelving of 16% (21 mt) making a fishable commercial volume of 110 mt. For clarity, we support reducing the TAC of 273.062 mt down to 224 mt to reflect the 49 mt combined reductions to the allowances for Recreational (18 mt) and Other Mortality (31 mt).

ICP Iwi	Quota Owning Entity
Ngati Porou	Ngati Porou Seafoods Limited
Te Arawa	Te Arawa Fisheries Holding Company Limited
Ngai Te Rangi	Ngai Te Rangi Fisheries AHC Limited
Ngati Awa	Ngati Awa Asset Holdings Limited
Whakatohea	Whakatohea Fisheries Asset Holding Company Limited
Taranaki Iwi	Taranaki Iwi Fisheries Limited
Ngati Tuwharetoa	Ngati Tuwharetoa Fisheries Holdings Limited
Ngaitai	Te Kumukumu Limited
Nga Rauru Kiitahi	Te Pataka o Tangaroa Limited
Ngati Ruanui	Ngati Ruanui Fishing Limited
Ngati Whare	Ngati Whare Holdings Limited
Te Rarawa	Te Waka Pupuri Putea Limited
Rangitaane	Rangitane o te Ika a Maui Limited
Ngati Ranginui	Ngati Ranginui Fisheries Holding Company Limited
Rongowhakaata	Rongowhakaata Iwi Asset Holding Company Limited
Te Aitanga a Mahaki	Te Aitanga a Mahaki Trust Asset Holding Company Limited

Table 1: ICP Iwi Members with Lobster Interests in CRA1, CRA3 and/or CRA4

4. CRA3

Two options are promoted for consideration:

- Option 3.1 to retain the TAC of 351.9 mt and TACC of 222.9 mt;
- Option 3.2 promotes a 14% reduction to the TAC including a 13% (28 mt) TACC reduction and a combined 21 mt reduction to the allowances for Recreational and Other Mortality.

The Discussion Documents states that Like CRA1 there was a stock assessment in 2019, which showed total biomass at 52%-61% of unfished levels. Total biomass is projected to remain the same by 2023, however, vulnerable biomass is projected to decline unless action is taken. More work is required on what the vulnerable biomass target should be.

While total biomass is projected to remain constant, the projected decline in vulnerable biomass warrants action in our view. Therefore, ICP supports Option 3.2 to reduce the TAC from 351.9 mt to 303 mt and the TACC by 13% (28 mt) from 222.9 mt to 195 mt. Incorporated within the TAC reduction is a 21 mt reduction to the combined allowances for Recreational and Other Mortality.

5. CRA4

Two options are promoted:

- Option 4.1 to retain the TAC of 513.8 mt and TACC of 318.8 mt;
- Option 4.2 promotes an 8% increase to the TAC and 17% increase to the TACC based on the current management procedure. All other allowances would remain unchanged on both options.

The Discussion Document states the last stock assessment was conducted in 2016. April 2017 implemented a significant TACC reduction which was followed by a CPUE improvement from 0.7 kg/pot lift to 0.9 kg suggesting abundance has increased. The management procedure automatic response is a 17% TACC increase. The next stock assessment will occur in September 2020 for implementation in April 2021 fishing year.

While there has been a 0.2 kg CPUE improvement to the overall CRA4 fishery, closer inspection shows that catch areas 913 and 914, where the vast majority of CRA4 harvest occurs, are displaying a static CPUE at best. We question whether these key harvest areas can sustain a 17% TACC increase. In the circumstances, we would think it prudent to await the findings of the upcoming stock assessment than to automatically apply the harvest rule under the current management procedure. Therefore, ICP supports Option 4.1 to retain the current TAC and TACC settings.

6. Closing Comments

In closing, we wish to touch on the allowances for Recreational and Other Mortality across all lobster areas including CRA1, CRA3 and CRA4. We believe the Ministry has a responsibility to do more to ensure:

- The accuracy of these allowances, and
- The adherence of Recreational to its allowance, and
- A plan to reduce Other Mortality in the form of illegal harvest.

The current allowance settings make up an extremely high proportion relative to the various TACCs - CRA1 = 93% of TACC; CRA3 = 49% of TACC; CRA4 = 50% of TACC. The current focus is largely on managing the commercial harvest with relatively less energy on these other allowances. We urge the Ministry to adapt its approach.

Ngā mihi,

Maru Samuels
General Manager

[redacted]

Professor Andrew Jeffs
Institute of Marine Science, &
School of Biological Sciences
The University of Auckland
Private Bag 92019
Auckland 1142
New Zealand

[redacted]

14 December 2019

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

Submissions on *Sustainability Review April 2020*
Ministry of Fisheries

Re: Submission on *Sustainability Review April 2020*

I have undertaken scientific research on *Jasus edwardsii* for over 20 years, mostly in relation to the basic biology and ecology of the species. Much of my field research is in CRA1, 2 and 3 and I am concerned by the potential widespread and significant ecological impacts that may be caused by the reduction in densities and size range of rock lobsters in coastal habitats as a result of fishing.

Widespread coastal areas of the Northland, Hauraki Gulf, Bay of Plenty and East Coast have shown marked changes in reef habitats – the transition from macroalgal-dominated habitats to urchin barrens. In some areas, the change has been estimated to have affected well over 50% of reef habitats. There is good evidence that once urchin predator populations (e.g., rock lobster, snapper, blue cod) increase locally that the proportion of macroalgal habitats are restored.

Macroalgal habitats are highly productive (many more times than urchin barrens), are highly biodiverse, provide habitat structure and high-quality food sources for recruiting organisms, such as lobster and fish, and are therefore vitally important in maintaining our coastal ecosystems. Recent evidence also indicates that macroalgal habitats are major contributors to carbon sequestration in the marine ecosystems.

There is good evidence that the widespread loss of this macroalgal habitat is associated with fishing activity, and it is clear that the scale and nature of the impact qualifies as an "adverse effects of fishing on the aquatic environment" and therefore should be of serious concern to fisheries managers and rock lobster fishers alike.

Given addressing this concern is a requirement of the Fisheries Act, and that the Ministry of Primary Industries has a commitment to managing fisheries in an ecologically sustainable manner, it could be expected that MPI would be actively investigating the potential link between fishing activity and this adverse ecological change. Evidence for this link has been around for over 20 years, and further evidence continues to come in as the years go by.

However, the "Sustainability Review April 2020" dismisses any connection of lobster fishing activity with this observed adverse environmental change and describes the scientific evidence as contradictory. As far as I am aware the only current contradiction to the scientific view that reduction of lobster populations in New Zealand waters leads to kina barrens is an unpublished, publicly unavailable, un-peer reviewed report, prepared and paid for by the commercial rock lobster industry, by a scientist with no track record of research whatsoever in this field in New Zealand waters.

Interestingly this same industry consultant undertook some of the first field research in the 1970s that demonstrated the relationship between the removal of lobsters by fishing and the increase in urchin population and the corresponding loss of macroalgal habitats in North America. His seminal work in this field, which warned of the potential ecological and fisheries impacts, has since been repeated in a number of similar studies around the world and formed the basis of world-wide concern about trophic cascades generated by lobster fisheries.

Given the lack of credible ecological scientific information being utilised, and the unwillingness of the Ministry of Primary Industries to undertake an informed scientific assessment of the potential adverse ecological effects generated by lobster fisheries, then management decisions should be cautious and minimise the future harvests from all coastal rock lobster populations.

The Ministry of Primary Industries needs to address this ecological concern with some scientific credibility in future fisheries assessment as per its stated policy commitment to do so.

I am also concerned that the Sustainability Review April 2020 fails to identify and propose measures better control of disease introduced and maintained in wild rock lobster populations as a result of handling by commercial fishers.

Research in the decade years clearly shows that tail fan necrosis is initiated by injuries inflicted to the carapace of rock lobsters. Injuries are common in lobsters handled from pots, measured and returned.

In addition, the handling of already diseased lobsters as well as healthy lobsters by commercial fishers results in the transfer of bacterial disease from diseased to healthy lobsters, which if undersized are returned to the wild. Disease lobsters are corralled in pots with healthy lobsters also most likely promoting bacterial disease transfer. Together, this serves to spread the disease infection in the population. Furthermore, the ability to high grade lobsters, means that lobster fishers handle diseased lobsters and put them back in the fishery repeatedly – maintaining the disease in the population, and facilitating its further spread.

Some folk in the commercial industry claim that lobsters with tail fan necrosis moult off the disease – they have no evidence to support this claim that I am aware of.

Research examination of lobsters with tail fan necrosis shows they have compromised immunity, and the bacterial infections often extend beyond what can be easily occluded by a carapace moult. The scientific evidence suggests lobsters with tail fan necrosis most likely succumb to the disease, or from secondary infections resulting from compromised immunity and the loss of carapace integrity.

The rates of tail fan necrosis are high in some areas. One study reports 17% of male lobsters in one area infected with the disease on the East Coast of the North Island. Interestingly, the prevalence of the disease in a nearby unfished marine reserve is very low, likely confirming the role of commercial fishing in initiating and maintaining the disease. The likely higher prevalence of disease in these areas is likely to be associated with intensive fishing to the size limit, such that lobsters are being handled and returned repeatedly, and in the process initiating and spreading the disease.

The scientific evidence is clear, handling and returning lobsters is initiating and maintaining disease in our rock lobster populations. We are likely to be losing significant value from the fishery as a result, and there are significant concerns about the long-term ecological implications of maintaining disease in a wild population.

The first evidence of commercial fishing being the cause of the disease was produced over a decade ago and the issue has not been dealt with effectively by industry or MPI to date, despite the significant implications of the disease to the well-being of the wild population and the potential significant economic cost from the loss of productivity of the fishery.

There is no mention in the Sustainability Review April 2020 about the risk of initiating and spreading disease in wild fish populations as a result of handling and return of fish. For example, requiring fishers to land all captured fish would stop the initiation of the disease in the wild population, would result in the removal of already diseased individuals from the population that are currently maintained through high-grading, which is common practice by the industry.

Finally, the Sustainability Review April 2020 uses commercial mortality estimates in the fisheries that are based on extremely limited or no scientific evidence. Given the importance of these figures to overall management of these fisheries, these mortality estimates need to be backed up with some hard scientific evidence.

Overall, it is disappointing to me as a marine scientist that the well-being of these fisheries, and their associated ecosystems on which they rely so heavily, is potentially being compromised by those charged with their management who continue to ignore the available scientific evidence or rely on largely baseless estimates of key management variables.

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Dr Andrew Jeffs
Professor of Marine Science

[redacted]

From: Rachel Jorion [redacted]
Sent: Sunday, 22 December 2019 4:32 PM
To: FMSubmissions; [redacted]
Cc: [redacted]

Subject: SUBMISSION FOR CRA3 PUBLIC CONSULTATION

Stuart Anderson, (cc Hon. Stuart Nash and his secretary [redacted].)
Management MPI,
Wellington.

Dear Stuart,
Keith Ingram president of the statutory advocacy organisation, the NZRFC has asked board members to pass on submissions of where members are concerned. Mine of course is CRA3 as I have been working on the inequity of the crayfish CONCESSION, now called the differential MLS for over 20 years. I will say it again, it was only intended to be an INTERIM measure when in the late 1980s, the fishery was completely depleted.
I have attended all of the Multi Stakeholder Forums and working groups to no avail. I have had to make police reports on threats personally and now Daryl Sykes of the NRLMG is wanting to make me "publically accountable" claiming that I am accusing that the survey that was quoted in The Gisborne Herald from Monday 9th December, but was being done several days before that starting time as "More Corruption" in a personal Email to Keith Ingram. Sykes claims it was sent with a huge list of people but he is wrong as theEmail sent to all these people was simply a Joke to cousins in France. It was sent separately, first of all. Stuart you need to know this and also that I have a mandate of 25 percent of Gisborne city who want the concession GONE.
The Gisborne Tairawhiti mayor is also giving me a letter direct to the minister with other councilors wanting it gone. The 5,200 member club also sent a letter direct to the Minister wanting it gone.
I have some very good friends in MPI and FNZ and they understand our situation. It is so hard to catch legal 54mm males. The considering of reducing our 20T allowance is crazy.
By the way, for your info, the huge amount of illegal take up the coast is to fund the metanthetamine addiction. The Gisborne Herald said Gisborne was second to Northland in NZ after sewerage tests for drugs done by the police here and nation wide.
Reducing the old standing 89 tonnes seems to me the opposite of what should be done. After all, I am on the spot, retired, dying of cancer and have nothing to hide. Trust me. Please bring equity for our people.
So my submission is:
82. 3.2 based in the new stock assessment. The rec. allowance from 20T to 13 T is cruel as we didn't do it. Reduce the commercial TACC.
83. Important to end differential size MLS in Gisborne area.
Mortality 89T to 75T seems wrong owing to the new facts about illegal take to fund metanthetamine.
Agree daily bag limits stay the same.
Number 77. Of course.
78. No change. 20T allowance should stay.
Sorry as this is a little jumbled but we really needed the submissions done ticking boxes with any comments.
Just a reminder to you Stuart, The Minister is very much informed about the city wanting the concession gone. He has the mandate listed, the letters from everywhere, all clubs, Tourism Eastland and maybe Greenpeace NZ by their CEO when back from Climate change meeting in Europe.
All clubs are there including Mahia and my bowling indoors club with signatures and details.

Poor [redacted], the Minister's secretary is kept busy, but this is important. I have had to do all this because at the NRLMG commercial said I was a "lone voice" no mandate and a moaner. One former commercial here said in a letter to the Gisborne Herald, "What has Gisborne done to deserve a person like this?" Concerning everybody wanting the Concession gone.
Sincerely,
Alain JORION [redacted] Board Member NZ Recreational Fishing Council.

NZ Recreational Fishing Council
PO Box 54025
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Auckland 2144
New Zealand
[redacted]

5 February 2020

Fisheries Management, Fisheries New Zealand,
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New Zealand.

FMsubmissions@mpi.govt.nz

Review of Rock Lobster Sustainability Measures for 2020-21

Prepared and submitted by Keith Ingram, President NZRFC

[redacted]

Dear Sirs

Thank you for this opportunity to respond with this submission on behalf of the recreational fishing community in the stated areas. Unfortunately, due to poor timing and the fact many people were away until the end of January including myself, we were late on getting feedback from some areas.

NZRFC POLICY STATEMENT

The country's recreational fisheries provide substantial social benefits to all citizens and to the national economy. These benefits derive from achieving and maintaining sustainable fish populations and related habitats. A concerted effort is required to maintain, restore and increase the productivity of these populations and habitats provide for continuing public benefits.

Government is vested with the management of this resource and must work with recreational fishers to conserve, revive and enhance our fisheries and their habitats.

In unification the NZRFC will pursue every opportunity to support and maintain our natural heritage to have reasonable access to quality recreational fishing.

Here is our submission:

Summary: Review of rock lobster TACs in CRA 1, 3, 4, 7, and 8 for 2020/21

CRA1: We support Option 1.2 reduction to the TAC based on the new CRA1 stock assessment.

CRA1 in a unique rock lobster fishery in that its management stat areas range from the west coast to the Three Kings and then down the east coast of the North Island. Effectively these are three clearly defined fisheries, each with their own management and sustainability problems. While we believe they should be managed separately, sadly they are not, and as result a detrimental effect on local fishery's caused by any shift in effort frequently can happen if not monitored by the fishermen themselves. We remain concerned about the reduction of local stocks in the two east coast sub stat areas, accessed by recreational fishers and as such would like to see Fisheries NZ investigate introducing separate sub area allocations in this fishery.

CRA3: We support Option 3.2 reduction in part to the TACC and mortality, based on the new information available from the CRA3 stock assessment.

In doing so we question the proposed reduction of the recreational allowance and suggest that even if the recreational sector were not catching the allowance. The combined allowance with customary allows for a buffer for customary use.

CRA3 is further under pressure from commercial demands for its fishermen to fish concession size lobster 52mm males during the autumn/winter season. Catch taken predominantly from the nearshore waters to Gisborne. This activity is creating spatial conflict and is the subject of a long-standing dispute between sectors. The existence of the CRA3 differential MLS or concession is unfair on recreational fishers and must be removed.

CRA4: We support Option 4.1 status quo no increase in the TAC.

CRA4 is a fishery where we have become concerned about its fluctuations over the years. This past season we have noticed a shift in effort between sub areas and this movement is of serious concern. Therefore we support taking a precautionary approach to the fishery and support the status quo. No increase.

CRA7: We support Option 7.1 status quo - no increase in the TAC.

CRA7 supports relatively small commercial, customary and recreational fisheries. Most of the of rock lobster available in this fishery are smaller lobsters that tend to migrate into CRA8 after a few years. Catch rates tend to fluctuate with strong and weak years of recruitment. A historic concession is in place that allows commercial fishers to retain concession size males year round. This has an impact on the ability for

recreational and customary fishers to take legal size lobsters in some areas of CRA7. There is no information provided on how much this concession is used or why it is still needed.

CRA8: We support Option 8.2 based on the CRA8 management procedure.

CRA8 management has become a success story and as such we question the need for the ongoing use of the concession to take male rock lobster below the minimum legal size that applies to recreational catch in this fishery? There has been no information provided on how much this concession is used or why it is still needed.

In closing:

The Minister and the National Rock Lobster Management Group must accept that many crayfish stocks are just not as productive as they once were. The use of historic TACs cannot be seen as a baseline or management target. Likewise the continued use of the differential MLS (concessions) in modern rock lobster fisheries should cease immediately.

We remain concerned that 'Catch per Unit Effort' (CPUE) data collected using the electronic reporting system will not be comparable to the existing time series of data collected on paper forms for some years. Therefore any delays in establishing a new agreed monitoring measure, that is robust and can be trusted should require the Minister to adopt a precautionary approach in all fisheries assessments and freeze any further increases in the TACC until this robust trusted data becomes available.

Fisheries New Zealand must commit to upholding the principles of shared fisheries in the Act by ensuring that future proposals include more than a single alternative management option in stocks where rebuilding is required, as in CRA1 and CRA3.

The Minister must ensure that the process and rationale for the last minute changes to agreed management targets for any fishery (for example CRA1 and CRA3 in the document) are fully investigated, documented and published.

We thank you for the opportunity to submit this submission.

Yours sincerely

Margaret Wind
Executive Officer
NZRFC

[redacted]

PO BOX 201 007
AUCKLAND AIRPORT
NEW ZEALAND 2150
[redacted]

SUBMISSION ON REVIEW OF ROCK LOBSTER SUSTAINABILITY MEASURES FOR 01 APRIL 2020 – CRA1

This submission is made by New Zealand Red Ltd [redacted] & New Zealand Red Holdings Ltd [redacted] NZ Red is a CRA quota owning, processing and exporting company.

New Zealand Red support in its entirety, the submission made by the CRA 1 Rock Lobster Industry Association Inc as below. The organisation is a fully constituted and incorporated society that is recognised as the commercial stakeholder organisation representing the interests of the commercial rock lobster industry in the Northland region extending from the Kaipara Harbour on the west coast to Te Arai Point, south of Whangarei.

This submission focuses on the proposed sustainability measures for CRA 1.

The consultation document presents two management options for CRA1.

- Option 1.1, proposes the status quo for the Total Allowable Commercial Catch (TACC), accordingly the TAC would be unchanged;
- Option 1.2 (based on the latest CRA 1 stock assessment), proposes to reduce the TACC to 110 tonnes. This represents a decrease of 21 tonnes or 16%. The allowances for recreational catch and other mortality will be reduced to 32 tonnes and 41 tonnes respectively. The TAC will be decreased to 203 tonnes.

CRAMAC 1 are supportive of the stock assessment science process and of the Rock Lobster Stock Assessment Working Group that advises on the quality and therefore the suitability of the science results to be used to inform effective management decisions in the CRA 1 fishery. However, even though CRAMAC 1 accept the results from the latest CRA 1 stock assessment they do not support either Option 1.1 or Option 1.2 but suggest an alternate Option, 1.3.

For Option 1.3, CRAMAC 1 propose that the TACC remains at the current level of 131 tonnes and the CRA 1 quota share owners agree to voluntarily shelve (i.e. not

catch) 21 tonne of the CRA 1 Annual Catch Entitlement (ACE), for the fishing year commencing 1 April 2020, at least.

All (100%) of CRA 1 quota share owners have agreed to support Option 1.3 and have each agreed to shelve 16% of their ACE in the coming 2020/21 season. To demonstrate the commitment to supporting Option 1.3, FishServe, on request from CRAMAC 1, have started the ACE Transfer process with CRA 1 quota share owners. It is proposed to have all ACE Transferred (I.e. Shelved) by the 11th February 2020.

Rationale for Option 1.3

Since 1993-94, landings in CRA 1 have remained very stable and as such the TACC has remained unchanged for the last 20 years. For many years the CRA 1 quota share owners have chosen to adopt a conservative approach for managing the fishery. This was well demonstrated when quota share owners chose not to take the 6.6 tonne TACC increase, recommended by the 2014 CRA 1 stock assessment, even when the assessment projections suggested an increasing biomass over the following 5 years. There was therefore considerable surprise among the CRA 1 fishers, ACE holders and quota owners when the results from the 2019 CRA 1 stock assessment suggests a decreasing vulnerable biomass over the next 5 years, at the current level of catch.

When interpreting the results from the 2019 stock assessment it is important to also consider several factors:

- Unstandardised CPUE in CRA 1 shows an increasing CPUE in 3 of the 5 statistical areas, while slightly decreasing or essentially unchanged CPUE trends in the other two areas.
- A new parameter was introduced into the 2019 stock assessment model. This qdrift parameter (which estimates improvement in fishing efficiency over time), has impacted markedly on the CRA1 stock assessment model outputs. This parameter is assumed to be a 1.5% increase in catch efficiency per year cumulating over the last 28 years. However, there is uncertainty in the assumption of 1.5%. Projections from the model that did not include the qdrift parameter suggest an increasing spawning stock biomass over the next 5 years compared to the qdrift inclusive model suggesting a decreasing biomass.

Adding to this model uncertainty is (as recognised in the Fisheries New Zealand's consultation document), the unknown affect that the advent of electronic catch and effort reporting will have on commercial CPUE and the subsequent future management procedures that are dependent on this data series. The result being, no new management procedures have been developed for CRA 1 following this year's stock assessment. In light of this however, the consultation document did also note that the Rock Lobster Fisheries Assessment Working Group is currently

considering alternative assessment approaches to use as the basis for advice to the Minister and decisions on TAC changes beyond April 2020.

CRAMAC 1 Position

Even with the uncertainty of the stock assessment results, CRAMAC 1 have chosen to maintain a conservative approach to managing the fishery and accept the proposed 16% reduction in the TACC but, via the process of shelving ACE. This decision to shelve ACE was driven by the uncertainty around the stock assessment results together with the uncertainty around future management procedures and the potential for developing alternative approaches for monitoring stock abundance over the next 5 years. In particular our iwi membership asked for this ACE shelving process, due to a strong preference for self-determination over treaty settlement assets.

When taking all factors into consideration, CRAMAC 1 feel the most successful way to allow good fisheries management of the CRA 1 stock is to retain the current long standing TACC of 131 tonne and for the CRA 1 quota share owners to shelve ACE. This option will allow the flexibility for timely annual adjustments to be made to the TACC in conjunction with fluctuations in the stock abundance, much like what has been achieved under the very recent management procedure regime.

Management of Recreational & Illegal Catch

CRAMAC 1 are also aware that any intended management outcome can only be achieved if catch across all sectors is managed to the allowances proposed in the consultation document.

CRAMAC 1 are fully committed to maintaining a healthy, sustainable CRA 1 fishery for the benefit of all sectors and therefore there is a high level of frustration over the lack of commitment from Fisheries New Zealand to implement and enforce better estimation and management of recreational catch. There is currently a high degree of uncertainty in the level of recreational catch, this not only creates uncertainty in the stock assessment model outputs but, until this uncertainty is adequately reduced this catch cannot be effectively managed to the allowance of 32 tonnes. CRAMAC 1 strongly emphasise the need for FNZ to take steps to address this issue.

The current estimate of illegal take in CRA 1 is also highly uncertain. Options 1.2 & 1.3 propose an allowance for “Other Mortality” of 41 tonnes. The lack of supporting evidence for this figure, suggesting moderate to high levels of illegal fishing in CRA 1, are of serious concern to industry and should be to all legitimate extractive users. CRAMAC 1 support MPI/FNZ taking steps to address the uncertainty in this figure and to reduce any level of illegal take.

Impacts of the proposed TACC reduction

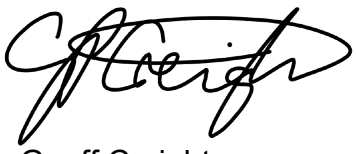
A 21 tonne reduction in ACE will result in an estimated $1.8 million loss in annual revenue for the fishing families in the commercial rock lobster fishery alone. This loss to the commercial fishery will also have financial repercussions to a good number of other businesses that rely on the commercial fishery for income. These repercussions will be harsh on Northland's smaller coastal town communities especially.

Even in the face of the harsh financial pressure a reduction in ACE would impose on many within the CRA 1 commercial fishing sector, CRAMAC 1 remain fully committed to maintaining a healthy, sustainable fishery, and indeed at their own expense, the commercial fishers take responsibility for collecting much of the data that supports the stock assessment science. This includes a voluntary log book programme which collects data across the fishery all year round, as well as a catch sampling and tag recapture research programme. The commitment to this work will be maintained.

Summary

- CRAMAC 1 support neither Option 1.1 or 1.2 but propose an alternate Option, 1.3.
- This option would retain the current TACC but would entail the CRA 1 quota share owners each shelving 16% of their ACE.
- FishServe have started the ACE Transfer process with CRA 1 quota share owners. It is proposed to have all ACE Transferred (I.e. Shelved) by the 11th February 2020
- CRAMAC 1 stress the need for FNZ to take action in regard to implementing and enforcing better estimation of recreational catch and illegal take. They also highlight the need for MPI to take steps to reduce any level of illegal take.
- CRAMAC 1 note the financial stress that a 21 tonne reduction in ACE will impose on their members but they remain committed to effective sustainable management of the fishery and remain committed to their data collection/research programmes.

Yours faithfully,



Geoff Creighton
Director
New Zealand Red Ltd
New Zealand Red Holdings Ltd

NZ ROCK LOBSTER INDUSTRY COUNCIL
Ka whakapai te kai o te moana
PRIVATE BAG 24-901 WELLINGTON 6142
[redacted]

10 February, 2020

REVIEW OF SUSTAINABILITY MEASURES FOR 1 APRIL 2020

A submission from the New Zealand rock lobster industry.

Contents

INTRODUCTION

1. The New Zealand Rock Lobster Industry Council (NZ RLIC) welcomes the opportunity to participate in the statutory consultation process for the TAC/TACC decisions that will come into effect on 1 April 2019.

2. The NZ RLIC is the umbrella organisation for the nine regional organisations known as CRAMACs, which operate in each of the rock lobster (CRA) management areas of New Zealand. CRAMAC membership comprises CRA quota owners, processors, exporters, and fishermen (quota share owner-operators and Annual Catch Entitlement (ACE) owners) in each region. All nine CRAMACs hold a significant majority mandate of rock lobster quota shares owned in the regions. CRAMACs are shareholders in the NZ RLIC, and appoint the Board of Directors.

3. NZ RLIC represents about 360 quota share owners and 290 ACE owners nationally who collectively landed around 2,700 tonnes of rock lobster with an annual export (FOB) value of about $320 million. The industry deploys around 250 vessels, employs 2,400 people directly and indirectly, lands lobster at around 100 landing points with that product going to about 37 processing and export facilities. The industry supports an extensive network of transport, engineering, electronics and provedoring businesses.

SUBMISSION

4. NZRLIC has considered the information contained in the statutory consultation document (Discussion Document No: 2019/20), the most recent assessment documents compiled by the Rock Lobster Fishery Assessment Working Group and the views and information from engagement with the CRAMACs and rock lobster quota share owners.

5. For the stocks under review leading up to 1 April 2020, NZRLIC recommends the following decisions (noting the section on coronavirus below):

   CRA 1

   i) Support the reduction in removals suggested by the stock assessment of 70 tonnes. The recreational allowance should be reduced to 32 tonnes and the proposed adjustments made to other sources of fishing mortality. NZ RLIC supports the reduction of commercial removals for 2020/21 by 21 tonnes and notes this can be achieved by the formal shelving arrangement prosed by CRAMAC 1.

   CRA 3

   ii) Support the reduction in removals suggested by the stock assessment of 48.9 tonnes. The recreational allowance should be reduced to 13 tonnes and the proposed adjustments made to other sources of fishing mortality. NZ RLIC supports the reduction of the TACC for 2020/21 by 28 tonnes. NZ RLIC does not support the review of the MLS regime or the associated arrangements.

CRA 4

iii) NZ RLIC notes the reservations held by the CRA 4 QSOs about putting increased pressure on the fishery through a TACC increase at this time, and that a ballot of CRA 4 QSOs did not support the increase proposed in Option 4.2 in the statutory consultation document.

CRA 7

iv) NZ RLIC supports an increase in the CRA 7 TACC, although it retains reservations about the comparability of EDW and CELR CPUE, and the use of EDW data in the current MP. The Otago Rock Lobster Industry Association (ORLIA) support the increase in the TACC generated by the MP with the use of electronic data (EDW). They are confident in the abundance they are currently experiencing in the fishery and have seen for the last few seasons.

CRA 8

v) Support the application of the current agreed management procedure to increase the TACC to 1191.7 tonnes.

CORONAVIRUS IMPACTS

6. The impact of the coronavirus has had very material impacts on the catch and fishing activity for rock lobster in all QMAs. Since 25 January no rock lobster has been exported to China – the sole high volume and price market. As a result commercial harvesting virtually ceased from this point with very large amounts of ACE uncaught and substantial quantities in holding facilities around the country.

7. Over the last two weeks NZ RLIC has been undertaking urgent discussion with MPI and Fisheries New Zealand about measures that might be taken to mitigate the impacts of this crisis. The measures under discussion have included the return of lobsters to sea in a manner that ensures high survival and addresses any risks, and the availability of carry-forward provisions so that uncaught ACE can be taken in the 2020/21 fishing year.

8. Progress has been made on the development of an application and decision process for release of lobsters from some holding facilities (holding pots and sea and land-based facilities owned by permit holders), but there is still considerable uncertainty about decisions related to LFR holding tanks.

9. No decisions have been made on the carry-forward on uncaught ACE. Decisions are very urgent because for many operators decisions to release lobsters, or to continue fishing even for market returns that may be a substantial financial loss, are contingent on clarity about carry-forward. There are no sustainability risks relating to taking unused ACE in the next fishing year. The situation is particularly dire for operators who have purchased ACE and may face disastrous financial loss even if they can defray some sunk costs by landing remaining ACE.

10. The unique circumstances of this crisis, and the considerable uncertainty around carry-forward decisions in particular, have a bearing on the TACC decisions that are to be made for 1 April

2020. Because this extraordinary situation is still developing NZ RLIC may need to provide additional advice, or amend the positions outlined in this submission.

REVIEW OF THE CRA 1 (NORTHLAND) ROCK LOBSTER FISHERY

CRA 1 STOCK STATUS

11. A new stock assessment was conducted for CRA 1 in 2019. The assessment results suggest 2019 vulnerable biomass is 16% of the unfished level, and total biomass is 26% of the unfished level. Spawning biomass in 2019 was 37% of the unfished level, well above the soft limit of 20% where it is Fisheries New Zealand policy to implement a rebuilding plan.

12. Over the next five years, with 2019 catch levels and recent recruitment, vulnerable biomass is projected to decline from 16% to 14% of the unfished level by 2023 and total biomass is projected to decline to 24% of the unfished level by 2023. Spawning biomass is projected to remain constant.

TAC

13. The stock assessment suggests CRA 1 vulnerable biomass will decline at current catch levels, but spawning biomass will remain fairly constant and above the soft limit of 20% over the next five years.

14. If the TAC and removals are decreased by 70 tonnes the assessment suggests the CRA 1 vulnerable biomass will remain at current levels over the next five years with 50% probability. Spawning biomass is predicted to increase by 3% under this option and remain well above the soft limit of 20%.

15. Work is underway to determine an appropriate target biomass reference level for CRA 1. This work is expected to allow the CRA 1 TAC to be reviewed again for 1 April 2021. A management procedure has not been developed for CRA 1 because a time series of the data from electronic reporting that commenced in 2019 is needed.

CUSTOMARY CATCH

16. Information on CRA 1 customary catches is available under the Fisheries (Kaimoana) Regulations 1998, and regulation 50 of the Fisheries (Amateur Fishing) Regulations 2013. In the 2017 calendar year, approximately 580 rock lobsters were reported as customary harvest from CRA 3. This information is considered incomplete, because customary take of rock lobster that occurs under the Amateur Regulations for the purposes of hui and tangi is not required to be reported.

17. NZ RLIC supports initiatives by tangata whenua and Te Ohu Kaimona to improve reporting of customary take so that the best estimate is used to inform the assessment. It is important that the best estimate available of catch is used in the assessment.

18. An estimate of 10 tonnes was used in the 2019 CRA 1 stock assessment model to represent customary catches. We do not recommend any change to the current allowance of 20 tonnes for customary fishing.

RECREATIONAL CATCH

19. Recreational fishers are not required to report the quantities of rock lobsters they catch, other than the incomplete reporting that occurs from recreational charter vessels. For the 2019 CRA 1 stock assessment, recreational catch estimates from those recreational surveys thought to provide useable results were used to construct a recreational catch trajectory. The trajectory was developed by assuming that recreational catch was proportional to the CRA 1 spring-summer commercial CPUE from statistical areas 903 and 904. The 2019 stock assessment model input was 31.5 tonnes. The most recent estimate of recreational catch from the 2017/18 National Panel Survey is 15.9 tonnes.

20. The current 50 tonne recreational allowance significantly exceeds these estimates of catch. The allowance was set taking into account estimates available from surveys at the time, some of which are now considered to be unreliable and overestimates. The information available is highly uncertain and provides relatively poor information to inform the stock assessment and management decisions. New information on the CRA 1 recreational harvest is not likely to be available until mid 2024, more than another 4 years.

21. The NRLMG proposes that the allowance for recreational fishing is reduced to 32 tonnes. No adjustments to management controls are proposed to constrain recreational catch and therefore the allowance will not necessarily constrain catch levels. NZ RLIC suggests that at the time of the review of the CRA 1 TAC for 1 April 2021, unless the revised TAC suggest that higher removals can be sustained, the recreational allowance should be adjusted to reflect the most recent estimates of removals (NPS 207/18) at most, and that recreational controls (principally bag limits) should be adjusted to provide a level of certainty the recreational catch will be constrained to that allowance as the stock rebuilds and abundance and catch rate increases. The recreational sector needs to play a role in contributing to the rebuild of the CRA 1 stock. This will require more regular assessment of recreational catch that provides estimates with adequate precision to inform management decisions.

OTHER SOURCES OF MORTALITY

22. Allowances need to be made for other sources of mortality, such as illegal catch and handling mortality from fishing. The NRLMG proposed that the 72 tonne CRA 1 allowance for other sources of fishing-related mortality (i.e. illegal catch and handling mortality) be reduced to 45 tonnes, to reflect the model estimates used in the stock assessment. NZ RLIC supports this course of action in the circumstances.

23. Unfortunately there has been little focus on improving estimates of illegal catch and the data are out of date and highly unreliable. The Rock Lobster Fisheries Assessment Working Group has been forced to use a fixed percentage of 20% of the total commercial catch each year from 1981 to 2018. The Working Group also scaled the catch proportionately to commercial CPUE for each year over the same period, to suggest illegal take could vary with available abundance.

24. NZ RLIC is very concerned that these estimates of illegal take are excessive, particularly in the last two decades. There is considerable risk of overestimation of productivity by using an inflated figure. It is not credible that the equivalent of 3 or more additional full time commercial vessels are operating in the CRA 1[1], or over 7,000 illegal dives (assuming 6 lobsters per dive). Such a level of illegal activity would be apparent to commercial vessels and would presumably be detected by MPI Compliance, or at least they would be aware that this scale of activity was occurring.

TACC

25. Under Option CRA1_02 in the statutory consultation document, the CRA 1 TACC would be decreased to 110 tonnes from 1 April 2020. The proposed reduction in the level of commercial harvest of 21 tonnes would result in a loss of annual revenue to the catching sector alone of approximately $1.8 million (based on 2018/19 average port price information of $85.839 per kg). A reduction of this level will significantly impact on the 13 vessels involved, particularly those ACE purchase dependent vessels.

26. CRAMAC 1 remain fully committed to the voluntary and industry funded data collection program that supports the stock assessment. The voluntary log book programme collects data across the fishery all year round, and the industry funds observer catch sampling and a tag recapture research programme.

27. The reductions in revenue and activity by fishing and receiving businesses may have flow on impacts in reduced economic activity for a number of associated servicing and support businesses such as transport, storage, provedoring, engineering, boatyards, marine electronics, and bait suppliers.

28. In Northland these fishing and support businesses are in smaller regional towns and communities along the coastline. In some of these communities rock lobster fishing is an important proportion of economic activity. Most rock lobster fishing operations are wholly reliant on rock lobster and don't fish other species or use other methods. They therefore don't have alternatives to maintain or substitute income.

29. CRAMAC 1 propose that the TACC remains at the current level of 131 tonnes and the CRA 1 quota voluntarily shelve (i.e. not catch) 21 tonne of the CRA 1 Annual Catch Entitlement (ACE), for the fishing year commencing 1 April 2020, through a formal ACE transfer process with FishServe.

30. All (100%) of CRA 1 quota share owners (QSOs) have agreed to support Option 1.3 and have each agreed to shelve 16% of their ACE in the coming 2020/21 fishing year. To demonstrate their commitment to effecting the catch reduction through this mechanism, FishServe, on request from CRAMAC 1, have started the ACE Transfer process with CRA 1 quota share owners. It is proposed to have all ACE Transferred (i.e. shelved) prior to advice being provided to the Minister.

[1] The most recent CELR CPUE is 1.6kg/pot lift. 38 tonnes represents 24,000 pots lifts. The average vessel would lift 100 pots 80 days a year. This assumes poachers are as efficient as commercial vessels - this is very unlikely.

31. CRA 1 QSOs have consistently demonstrated a conservative approach to managing the fishery. The QSOs have always taken a strong interest in taking responsibility for management of the fishery and this has been reinforced by the Iwi membership of CRAMAC1 who have a strong preference for self-determination over treaty settlement assets. Given the likely review of the management arrangements for 1 April 2021 based on the management target to be developed, shelving for 2020/21 represents a pragmatic interim arrangement.

REVIEW OF THE CRA 3 (GISBORNE) ROCK LOBSTER FISHERY

CRA 3 STOCK STATUS

32. A new stock assessment was conducted for CRA 3 in 2019. The assessment results suggest 2019 vulnerable biomass is 18-19% of the unfished level, and total biomass is 52-61% of the unfished level. Spawning biomass in 2019 was 80% of the unfished level, well above the soft limit of 20%.

33. Over the next five years, with 2019 catch levels and recent recruitment, vulnerable biomass is projected to decline to 15% of the unfished level by 2023 and total biomass is projected to remain stable at 52-61% of the unfished level. Spawning biomass is projected to remain constant.

TAC

34. The stock assessment suggests CRA 3 vulnerable biomass will decline at current catch levels, but spawning biomass will remain constant and above the soft limit of 20% over the next five years.

35. If the TAC and removals are decreased by 48.9 tonnes the assessment suggests the CRA 3 vulnerable biomass will remain at current levels over the next five years with 50% probability. Spawning biomass is predicted to increase by 1% under this option and remain well above the soft limit of 20%.

36. Work is underway to determine an appropriate target biomass reference level for CRA 3. This work is expected to allow the CRA 3 TAC to be reviewed again for 1 April 2021. A management procedure has not been developed for CRA 3 because a time series of the data from electronic reporting that commenced in 2019 is needed.

CUSTOMARY CATCH

37. Information on CRA 3 customary catches is available under the Fisheries (Kaimoana) Regulations 1998, and regulation 50 of the Fisheries (Amateur Fishing) Regulations 2013. In the 2017 calendar year, approximately 10,400 rock lobsters were reported as customary harvest from CRA 3. This information is considered incomplete, because customary take of rock lobster that occurs under the Amateur Regulations for the purposes of hui and tangi is not required to be reported.

38. NZ RLIC supports initiatives by tangata whenua and Te Ohu Kaimona to improve reporting of customary take so that the best estimate is used to inform the assessment. It is important that the best estimate available of catch is used in the assessment.

39. An estimate of 20 tonnes was used in the 2019 CRA 3 stock assessment model to represent customary catches. We do not recommend any change to the current allowance of 20 tonnes for customary fishing.

RECREATIONAL CATCH

40. Recreational fishers are not required to report the quantities of rock lobsters they catch, other than the incomplete reporting that occurs from recreational charter vessels. For the 2019 CRA 3 stock assessment, recreational catch estimates from those recreational surveys thought to provide useable results were used to construct a recreational catch trajectory. The trajectory was developed by assuming that recreational catch was proportional to the CRA 3 spring-summer commercial CPUE. The 2019 stock assessment model input was 11 tonnes. The most recent estimate of recreational catch from the 2017/18 National Panel Survey is 12.2 tonnes.

41. The current 20 tonne recreational allowance exceeds these estimates of catch. The allowance was set taking into account estimates available from surveys in 2005, some of which are now considered to be unreliable and overestimates. The information available is highly uncertain and provides relatively poor information to inform the stock assessment and management decisions. New information on the CRA 3 recreational harvest is not likely to be available until mid 2024, more than another 4 years.

42. The NRLMG proposes that the allowance for recreational fishing is reduced to 13 tonnes. No adjustments to management controls are proposed to constrain recreational catch and therefore the allowance will not necessarily constrain catch levels. NZ RLIC suggests that at the time of the review of the CRA 1 TAC for 1 April 2021, unless the revised TAC suggest that higher removals can be sustained, that recreational controls (principally bag limits) should be adjusted to provide a level of certainty the recreational catch will be constrained to that allowance as the stock rebuilds and abundance and catch rate increases. The recreational sector needs to play a role in contributing to the rebuild of the CRA 3 stock. This will require more regular assessment of recreational catch that provides estimates with adequate precision to inform management decisions.

OTHER SOURCES OF MORTALITY

43. Allowances need to be made for other sources of mortality, such as illegal catch and handling mortality from fishing. The NRLMG proposed that the 89 tonne CRA 1 allowance for other sources of fishing-related mortality (i.e. illegal catch and handling mortality) be reduced to 75 tonnes, to reflect the model estimates used in the stock assessment. NZ RLIC supports this course of action in the circumstances.

44. Unfortunately there has been little focus on improving estimates of illegal catch and the data are out of date and highly unreliable. The Rock Lobster Fisheries Assessment Working Group has been forced to use a fixed percentage of 20% of the total commercial catch each year from 1981 to 2018. The Working Group could not scale the catch proportionately to commercial CPUE for

each year over the same period because this approach led to unrealistically large illegal catches over the period. Instead they used a constant average of 61 tonnes.

45. NZ RLIC is very concerned that these estimates of illegal take are excessive, particularly in the last two decades. There is considerable risk of overestimation of productivity by using an inflated figure. It is not credible that the equivalent of around 6 additional full time commercial vessels are operating in CRA 3[2], or over 13,000 illegal dives (assuming 6 lobsters per dive). Such a level of illegal activity would be apparent to commercial vessels and would presumably be detected by MPI Compliance, or at least they would be aware that this scale of activity was occurring.

TACC

46. Under Option 3.2 in the statutory consultation document, the CRA 3 TACC would be decreased to 195 tonnes from 1 April 2020. The proposed reduction in the level of commercial harvest of 28 tonnes would result in a loss of annual revenue to the catching sector alone of approximately $2.4 million (based on 2018/19 average port price information of $85.84 per kg). A reduction of this level will significantly impact on the 25 vessels involved, particularly those ACE purchase dependent vessels.

47. CRAMAC 3 remain fully committed to the voluntary and industry funded data collection program that supports the stock assessment. The voluntary log book programme collects data across the fishery all year round, and the industry funds observer catch sampling and a tag recapture research programme. In addition CRAMAC 3 have funded sampling in statistical area 909 specifically to provide information about the abundance of lobsters in the inshore area that is of particular interest to recreational fishers.

48. The reductions in revenue and activity by fishing and receiving businesses may have flow on impacts in reduced economic activity for a number of associated servicing and support businesses such as transport, storage, provedoring, engineering, boatyards, marine electronics, and bait suppliers.

49. In CRA 3 these fishing and support businesses are spread across the coastline, some in Gisborne but many in smaller regional towns and communities along the coastline. In some of these communities rock lobster fishing is an important proportion of economic activity. Most rock lobster fishing operations are wholly reliant on rock lobster and don't fish other species or use other methods. They therefore don't have alternatives to maintain or substitute income.

50. The Tairawhiti Rock Lobster Industry Association Inc (TRLIA) the stock assessment science process as a basis to inform management decisions in the CRA 3 fishery. They therefore support the 28 tonne decrease in the TACC proposed. However, they note that any intended management outcome can only be achieved if catch across all sectors is managed to the allowances proposed.

[2] The most recent CELR CPUE is 1.4kg/pot lift. 61 tonnes represents 44,000 pots lifts. The average vessel would lift 100 pots 80 days a year. This assumes poachers are as efficient as commercial vessels - this is very unlikely.

CRA 3 DIFFERENTIAL MINIMUM LEGAL SIZE

51. The NRLMG has been asked to consider whether a change is required to the CRA 3 differential minimum legal size regime. CRA 3 commercial fishers can land male rock lobsters at or above 52 mm tail width, rather than 54 mm tail width, during June, July and August. Commercial fishers also voluntarily refrain from fishing in statistical areas 909 (East Cape) and 910 (Gisborne) from 1 September to 15 January.

52. NZ RLIC and the TRLIA do not support this review, but of necessity will contribute. NZ RLIC does not believe that any change to the regime is necessary or appropriate. The key information to support this position is outlined below. More detail can be discussed at the NRLMG. Removal of the current voluntary closure arrangements has the potential to increase tension between commercial and recreational fishers.

53. The recent stock assessment specifically examined harvesting male lobsters at 52 or 54mm tail width. There was no difference for yield or biomass even for long term projections of 50 years. Commercial fishers taking smaller males during autumn-winter does not impact on stock sustainability – the current MLS regime is taken into account in the stock assessment process and catch projections. MPI Compliance have now suggested they are prepared to support the male MLS applying to recreational fishers in the winter period.

54. Recreational fishers are concerned that the commercial differential size is affecting the availability of rock lobsters to them over summer in the near shore waters close to Gisborne. Observer catch sampling data shows a substantial proportion of males in statistical areas 909 and 910 are >54mm tail width. The availability of male lobster at and above 54mm tail width in spring summer is also supported by the substantial commercial landings taken in the period 15 January to 31 March every fishing year.

55. The TRLIA emphasise the effectiveness and importance, over a good number of years, of the 52mm tail differential as a fishery management tool in areas 909 & 910 in CRA 3. The current regime means that much of the harvest is taken over a period when lobsters are at their best in strength. Although not the issue it was in the 1990s, the management regime helps reduce poaching for commercial fishing gear. With no commercial pots in the water for four and half months, the opportunity for poachers to adversely impact on the sustainability of the fishery is significantly mitigated. This management tool also helps mitigate spatial conflict in the fishery by moving commercial fishing effort away from spring and summer and into winter and allowing recreational and customary fishers, exclusive access to the fishery during the months (spring/summer) when they are most active.

REVIEW OF THE CRA 4 (HAWKE'S BAY / WELLINGTON) ROCK LOBSTER FISHERY

CRA 4 STOCK STATUS

56. The results of the CRA 4 stock assessment carried out in 2016 suggested that stock biomass was 75% of the agreed reference level, $B_{REF.}$ Spawning stock biomass in 2016 was 51% of the unfished level, well above the soft limit of 20% where it is Fisheries New Zealand policy to implement a formal, time-constrained rebuilding plan.

57. Following the 2016 stock assessment results, a conservative new management procedure was agreed for use in guiding CRA 4 TAC setting from April 2017. This was to ensure stock biomass was rebuilt towards the agreed reference level in the next five years. The operation of the management procedure in its first year resulted in a substantial 27% TACC reduction for 1 April 2017. No changes were made to management controls for other sectors at that time.

58. Standardised CPUE is considered to be a reliable indicator of relative stock size in CRA 4 and is used the management procedure. CRA 4 CPUE has increased since 2016 from 0.69 to 0.89 kg/potlift, although the trend has been flat between the 2017/18 and 2018/19 offset years. Overall, the CPUE trend suggests the reductions to commercial catch have assisted an increase in rock lobster abundance in CRA 4. The CRA 4 CPUE value for 2018/19 offset year (October to September) did not differ with or without the inclusion of electronic reporting data. The current management procedure suggests a TACC increase of 55.5 tonnes.

CUSTOMARY CATCH

59. Information on Māori customary catch of rock lobster indicates that tangata whenua use of customary Māori harvesting rights for taking rock lobster is minimal and was well within the current customary Māori allowance for CRA 4 of 35 tonnes. This information is considered incomplete, because customary take of rock lobster that occurs under the Amateur Regulations for the purposes of hui and tangi is not required to be reported. In the 2017 calendar year, approximately 430 rock lobsters were reported as harvested from CRA 4.

60. An estimate of 20 tonnes was used in the 2016 CRA 4 stock assessment model to represent customary catches. It is important that the best estimate of removals is used in the stock assessment. NZ RLIC supports initiatives by tangata whenua and Te Ohu Kaimona to improve reporting of customary take. We do not recommend any change to the allowance for customary fishing.

RECREATIONAL CATCH

61. Recreational fishers are not required to report the quantities of rock lobsters they catch. For the 2016 CRA 4 stock assessment, recreational catch estimates from 1994, 1996 and 2011 recreational surveys were used to construct a recreational catch trajectory. The trajectory was also developed by assuming that recreational catch was proportional to the CRA 4 spring-summer abundance, as reflected by spring-summer commercial CPUE for CRA 4. The model estimate of recreational catch in the 2016 assessment was 37.5 tonnes.

62. The stock assessment is forced to make these assumptions and deal with high uncertainty in available information because of the infrequent and imprecise recreational catch estimates. The 85 tonne recreational allowance was first set in 1999 on the basis of estimates available from surveys at the time, which are now considered to be unreliable and overestimates. The most recent comes from the 2017/18 National Panel survey, which estimated that the recreational catch of rock lobsters in CRA 4 was 41.4 tonnes. This estimate should be used as a baseline to set the recreational allowance and work undertaken to review the management controls so that catch remains close to the allowance. This will require more frequent estimates of take.

OTHER SOURCES OF MORTALITY

63. Other sources of mortality such as illegal catch and handling mortality caused by fishing need to be provided for in the assessment. Unfortunately the Rock Lobster Fisheries Assessment Working Group needs to use the best available information which is now very dated. For the 2015/16 fishing year, while uncertain, the illegal catch estimate assumed for the model was 40 tonnes. These very high estimates are not credible and pose a risk to the accuracy of the stock assessment and therefore management decisions based on the assessment (see discussion in the CRA 1 and CRA 3 sections of this document).

64. The 2016 CRA 4 assessment also assumed that handling mortality was 10% of returned lobsters until 1990 and then 5% thereafter. The 2016 model estimate of handling mortality was 18.14 tonnes. The 75 tonne CRA 4 allowance for other sources of fishing-related mortality (i.e. illegal catch and handling mortality) in the TAC needs to be corrected to 58 tonnes, to reflect the model estimate used in the stock assessment.

TACC

65. The current CRA 4 management procedure was first applied in 2017 and provides a basis to inform management action until the 2021/22 fishing year. When the rule was operated with the 2019 CPUE of 0.89 kg/potlift, it resulted in a proposed increase in the TACC to 374.4 tonnes for the 2020/21 fishing year (well above the minimum change threshold).

66. NZ RLIC supports using the management procedure to adjust the TACC unless there are compelling reasons to depart from the operation of the rule. A well attended CRA 4 Special General Meeting (SGM) in January in Masterton considered the operation of the management procedure and their recent experiences of the fishery across its range of five statistical areas from southern Hawkes Bay to the coast west of Wellington. Operators in many, but not all, areas have reported reasonable fishing success, and some areas have reported good fishing. Some operators reported densities of smaller lobsters they believed was cause for optimism for future years. However, the majority of attendees held reservations about putting increased pressure on the fishery through a TACC increase at this time.

67. Operators were aware that the CRA 4 stock assessment has been pulled forward to 2020 and will be available to inform decisions for 1 April 2021. Following the SGM in January which approved the wording of a formal ballot, a vote of CRA 4 QSOs was undertaken. That ballot did not support the increase proposed in Option 4.2 in the statutory consultation document.

REVIEW OF THE CRA 7 (OTAGO) ROCK LOBSTER FISHERY

CRA 7 STOCK STATUS

68. The results of the CRA 7 stock assessment carried out in 2015 suggested that 2015 vulnerable stock biomass was twice the agreed target biomass level. There are no reliable spawning biomass estimates available for CRA 7 because of the high level of emigration estimated for the stock.

69. Standardised CPUE is considered to be a reliable indicator of relative stock size in CRA 7, and is the abundance indicator used in the CRA 7 management procedure. There has been a greater uptake of electronic data reporting in CRA 7 than in other areas; therefore, electronic data makes up a greater proportion of the CPUE series. CRA 7 CPUE values for the 2018/19 offset year (October to September) differed by 25% without and with the inclusion of electronic reporting data (Figure 15). CRA 7 CPUE has increased substantially from 2012, suggesting CRA 7 abundance has increased.

CUSTOMARY CATCH

70. Information on Māori customary catch of rock lobster indicates that tangata whenua use of customary Māori harvesting rights for taking rock lobster is minimal and was well within the current customary Māori allowance for CRA 7 of 10 tonnes. NZ RLIC supports initiatives by tangata whenua and Te Ohu Kaimona to improve reporting of customary take. We do not recommend any change to the allowance for customary fishing.

RECREATIONAL CATCH

71. There are no reliable recreational catch survey estimates for CRA 7. In the absence of any reliable information, in the 2015 CRA 7 stock assessment recreational catch estimates were assumed to be at 1 tonne in 1945 and were increased to 5 tonnes in 1979. A constant estimate of 5 tonnes was assumed from 1979 to 2014 for recreational catch. There is no reliable National Panel Survey estimate for CRA 7 given the low number of fishers and events covered in the survey and the high variance (0.09 tonnes in 2017/18 ($\pm$0.2 tonnes)).

72. A new CRA 7 stock assessment is proposed for 2021 and will provide updated estimates of recreational harvest. This information will inform whether a change is required to the recreational allowance, or whether a review of other recreational management controls is needed to manage catch.

OTHER SOURCES OF MORTALITY

73. In the most recent (2014) CRA 7 stock assessment, the Rock Lobster Fisheries Assessment Working Group used available Ministry of Fisheries estimates from 1990 to 2002 and assumed illegal catch of 1 tonne per year from 2002-14. An estimate of handling-related mortality is not currently available for CRA 7, but will be generated by the CRA 7 stock assessment proposed for

2021. These estimates should be re-set at the time of the next proposed CRA 7 stock assessment in 2021.

TACC

74. The two options for TACC adjustments outlined in the statutory consultation document are guided by the use of the CRA 7 management procedure that was agreed to in 2013. However, two different 2018/19 offset year CPUE values have been used to operate the procedure.

75. Under Option CRA7_01, the CRA 7 TAC would stay at its current level of 117 tonnes from 1 April 2020. This option is based on the operation of the CRA 7 management procedure with a 2018/19 CPUE value without the inclusion of the new electronic reporting data. The option suggests a 9.6% TACC increase, falling just below the 10% threshold for change.

76. Under Option CRA7_02, the CRA 7 TACC would be increased by 31% to 126.9 tonnes. This option is based on the operation of the CRA 7 management procedure with a 2018/19 CPUE value that has the new electronic reporting data included. The Rock Lobster Fishery Assessment Working Group and the NRLMG have reservations about using electronic data to operate the CRA 7 management procedure, because the paper-based and electronic CPUE series are probably not comparable.

77. This is the last year the current CRA 7 management procedure will be operated, because of the effects of electronic reporting on the commercial CPUE that is used to operate the procedure. A new CRA 7 stock assessment is proposed for 2021. It is not likely that there will be information available to reset the TAC or TACC before April 2022.

78. The Otago Rock Lobster Industry Association (ORLIA) support the increase in the TACC generated by the MP with the use of electronic data (EDW). Although they recognise that the EDW CPUE data may not be comparable, they are confident in the abundance they are currently experiencing in the fishery and have seen for the last few seasons. They point out that CPUE based increases in the past have been constrained by the 50% change threshold in the MP. Industry in the area believe there is a considerable accumulation of lobsters on the grounds as a result of the “conservative “ TACC of recent years and there is concern that if fish are left on the ground they may migrate out of CRA 7.

79. NZ RLIC supports an increase in the CRA 7 TACC, although it retains reservations about the comparability of EDW and CELR CPUE, and the use of EDW data in the current MP.

REVIEW OF THE CRA 8 (SOUTHERN) ROCK LOBSTER FISHERY

CRA 8 STOCK STATUS

80. The results of the CRA 8 stock assessment carried out in 2015 suggested that there are no sustainability concerns for the CRA 8 fishery. Stock biomass in 2015 was 1.4 times the agreed reference level, $B_{REF,}$ and has continued to increase. Spawning stock biomass in 2015 was 44% of the unfished level, well above the soft limit (20% of the unfished level).

81. Standardised CPUE is considered to be a reliable indicator of relative stock size in CRA 8 and is the abundance indicator used in the CRA 8 management procedure. The CPUE type used for CRA 8 is unique in that it relates only to the fish that were landed and does not consider fish that were of legal size but were legally returned to the water. In CRA 8 the substantial difference in price at market for different grades of lobsters means that economic return can be substantially increased by selecting retaining lobsters with the highest current market value.

82. CRA 8 commercial offset year CPUE has now been increasing since 2011 and was 4.8 kg/potlift in 2019 (the highest CPUE in the observed history).

CUSTOMARY CATCH

83. In the 2017 calendar year, approximately 16,500 rock lobsters, plus 2.3 tonnes, were reported as harvested from CRA 8. An estimate of 6 tonnes was used in the 2015 CRA 8 stock assessment model to represent customary catches from 1963 to 2012, which was then increased proportionately to 15 tonnes in 2014 (the last year of the stock assessment model).

84. No change is proposed to the 30 tonne customary Māori allowance. Current harvest is considered to be conservative and is well within the allocation.

RECREATIONAL CATCH

85. The CRA 8 fishery has a number of areas closed to commercial fishing, which provide non-commercial fishers with exclusive access to rock lobsters. In Fiordland, the inner fiords are closed to commercial rock lobster fishing and were established in 2005 by the Fiordland Marine Guardians.

86. Little is known about recreational catch in CRA 8. The 2017/18 National Panel Survey estimate of CRA 8 recreational catch was 16.17 tonnes (±11.4 tonnes).

87. The 33 tonne recreational allowance was first set in 2009 on the basis of estimates available from surveys at the time. The estimate of 20 tonnes is dated and very uncertain and does not provide a basis to change the allowance.

88. A new CRA 8 recreational harvest estimate is due in mid 2019 from the 2017/18 National Panel Survey or recreational harvest. This estimate will be used in setting the allowance for recreational fishing and in review of other management controls. That allowance will need to

take into account the most recent reported information of rock lobsters take by commercial fishers for non-commercial purposes (section 111 take).

OTHER SOURCES OF MORTALITY

89. In the most recent (2015) stock assessment for CRA 8, the Rock Lobster Fisheries Assessment Working Group used available Ministry of Fisheries estimates from 1990 to 2002 to estimate illegal catches. An estimate of 3 tonnes was used from 2011-14, with the missing years from 2003-10 interpolated from the 18 tonnes estimated for 2002. An estimate of handling-related mortality is not currently available for CRA 8, but will be generated by the CRA 8 stock assessment proposed for 2021. This information should then be used to adjust the provision for other sources of mortality in the TAC.

TACC

90. The current CRA 8 management procedure was first applied in 2017 and will be reviewed in 2021. The CRA 8 industry has an intent to manage the QMA at a high biomasses and selected the procedure to approximate a stock status thought to maximise economic return.

91. The proposed TACC for 2020/21 generated by the rule will increase the TACC to 1,191.7 tonnes. Given the assessed stock status and trends there is no reason not to apply the management procedure. The increase in the TACC will recognise the careful management of the stock and provide increased economic return to the commercial sector with utilisation benefits increasing for all sectors by maintaining the high CRA 8 abundance levels. The elevated stock levels achieved with this management target are supported by the CRA 8 industry, not only because it more than ensures stock sustainability, but because it delivers economic benefits through an ability to target fishing effort at certain times of the year and certain grades when market prices are at their most favourable.

92. This is the last year the current CRA 8 management procedure will be used, because of the effects of electronic reporting on the commercial CPUE that is used to operate the procedure. A new CRA 8 stock assessment is proposed for 2021. It is likely that the TAC increase proposed could be fixed until April 2022, when new information becomes available from the stock assessment to inform TAC setting.

OTHER RELEVANT MATTERS

93. The review of rock lobster stocks has again identified a number of generic issues that impede the sustainable and effective managements of all of New Zealand's rock lobster fisheries.

POOR ESTIMATES OF AMATEUR TAKE

94. The legislative construct for managing fisheries in New Zealand is based on controlling all sources of removals to sustainable levels. This requires good information on fishing related mortality and illegal catch. In 2019 the results of the 2017/18 NPS surveys were available providing new estimates of recreational take. Unfortunately many of these surveys had high CVs and standard errors and therefore provide very uncertain results for use in management. The next NPS survey results will not be available until mid 2024.

95. Clearly the ability to undertake stock assessments that provide an accurate and timely assessment of stock state on which to based management action is compromised by this poor and infrequent information. The outcome is that we take unnecessary risks with stock status and the utilisation interests of all sectors can be adversely affected. In CRA 2, the acknowledged historical overestimates of non-commercial take resulted in overestimating productivity of the stock, and were a contributing factor, in combination with poor recruitment, to management settings not being adequate to arrest the depletion of the stock earlier.

96. The stock assessment and management strategy evaluation for CRA 2 demonstrated the impact of unmanaged increases in recreational catch on delaying the stock rebuild. Government has a responsibility, since it undertake these surveys on recreational fishing, to implement more frequent surveys designed to provide estimates with usable precision.

97. Through the Marine Amateur Fishery Assessment Working Group we need to encourage examination of methods that could be used to produce timely and cost effective estimates of recreational catch. Lobster fisheries pose particular issues because of the relatively low participation rate and the large proportion of take by diving, including from many shore based access points. These features pose particular issues for the methods historically used in New Zealand which rely on trying to survey to obtain a representative sample of the population, and calibrate this with measurements from boat ramps. We need to push the group to undertake more analysis of methods, taking into account cost and precision, that may be different to historical approaches taken, such as the tagging used in Victoria, Australia.

98. The tagging approach would appear to have major advantages in cost-effectiveness for rock lobster fisheries and steps around the issue of trying extrapolate from a (inevitably small) sample by providing a means to have all take reported.

99. Poor information on recreational take means that subsequent management action is ill informed or simply does not occur. The focus of management action remains on commercial catch only. In his decision for 1 April 2018, the Minister confirmed that all sectors must contribute to the rebuilding of stocks. In some cases TACC increases have occurred with no change to recreational allowances. However, the recreational sector has gained through increased catch

rates and an ability to increase participation. In many recent circumstances the commercial sector has contributed disproportionately to rebuilding depleted stocks as no changes have been made to recreational allowances, or if they have been, no subsequent changes have been made to recreational controls to actually constrain take. For CRA 2 recreational controls, of unknown effectiveness, will come into effect 2 years after that TACC was cut by 60%.

100. Attention needs to be directed to the effective management of recreational take. Poor information of recreational take contributes, but there has also been little attention paid to managing recreational take to allowances set by amending management controls. This means that in some cases stock rebuild is compromised, and in effect re-allocation to the recreation sector occurs with uncontrolled recreational catch expansion.

101. An additional outcome of inadequate measurement and management of recreational take is that the industry faces uncertainty about receiving benefits from catch reductions and the impacts of the associated adverse economic impacts. Industry incentives to continue voluntary management initiatives and invest in stock monitoring are undermined if there is no clarity that stock rebuild will result in re-instatement of TACC reductions or that the industry share of a stock is eroded by the absence of management of the recreational sector.

102. Victoria, South Australia and Tasmania all take the same species as in the New Zealand fishery (*Jasus edwardsii*). All three jurisdictions have had quota management regimes in place to closely manage catch from their commercial fisheries for a considerable period, and as pressure from recreational fishing has increased, have progressively moved to introduce more effective measures to measure and manage recreational take. In New Zealand improved arrangements to manage recreational fishing are lagging and compromise the outcomes sought from fisheries management.

103. Industry is happy to share the benefits of good stock status, and in many stocks supports stock levels that bring benefits to the non-commercial sector, but it has for a very long period expressed dissatisfaction about the poor information and lack of management of the recreational sector. Meaningful steps to address this situation are long overdue.

RECREATIONAL CHARTER VESSEL INDUSTRY

104. The other component of recreational catch that needs serious attention is take by the recreational charter vessel industry. Since 2010 these charter vessels have had a statutory responsibility to report their catch of rock lobster. From the records MPI holds it is quite apparent that administration of this obligation has been ignored to an unacceptable extent.

105. For most areas the amateur charter vessel data shows a substantial reduction in numbers of lobsters caught in recent years. Given the status of most rock lobster fisheries, this data is not credible and suggest charter vessel operators are in breach of their statutory obligations. Despite this clear trend, it is not apparent MPI has attempted to consistently enforce these obligations, or issue fines or take prosecutions. Such a level of misreporting would have visited timely and serious consequences on commercial sector operators.

106. This issue needs attention and consideration of steps to better manage recreational charter fishing overall and its expansion and the consequent increase in take. NZ RLIC suggest the

NRLMG must have a focus on providing advice to the Minister to better manage the recreational charter sector during 2020. It is now nearly a decade since the reporting obligations were introduced, but the information is clearly deficient, and no meaningful steps have been taken to manage the sector.

ILLEGAL TAKE

107. The current poor and dated estimates of illegal take are inadequate to support assessments and coherent management, and represent a potential loss of catch to the legitimate sectors. MPI have acknowledged that the current estimates of illegal catch are very dated and not credible. These poor estimates of illegal unreported removals compromise assessments of stock status when TACs are set. It is now evident that overestimates of non-commercial and illegal removals lead to overestimating productivity of the CRA 2 stock, and contributed to the decline in the stock despite the management procedure and shelving.

108. In his 1 April 2018 decision, the Minister directed MPI to look closely at methods to estimate illegal take, so that better information is available to support his decisions. The NRLMG has been informed of some internal work in MPI, but we believe only limited progress has been made on the collection of new information collection, or a revised approach being undertaken, nearly two years after this direction from the Minister. Estimating illegal take is not straightforward but other jurisdictions have done it through the collection and analysis of the right metrics. Other than reducing impact on the legitimate sectors, and providing better information for assessments to mitigate risks to sustainability, such information is important to guide tasking and deployment of compliance resources.

109. For all of the stocks being reviewed for 1 April 2020, there is very poor information on illegal take. The NRLMG needs to put effort into working with the Ministry to address this situation. The absence of work on estimating illegal catch for more than two decades in some cases is a real shortcoming of current management by MPI and Fisheries New Zealand.

RECREATIONAL ACCUMULATION LIMITS

110. For most QMA's, at present there is no effective limit on the amount of rock lobster people can have in their possession at any one time. The availability of the defence provision in regulation 29(3) of the Amateur Regulations (where a person can be in possession of more than the daily bag limit if they can satisfy the court that the fish were taken over a number of fishing days) is currently exploited by illegal operators.

111. As in 2019, NZ RLIC recommends that the work program for the NRLMG should include the provision of advice to the Minister on the application in all QMAs of an accumulation limit and the associated 'bag and tag' conditions that limit the ability to store and transport large quantities of rock lobster where people deliberately exceed the daily bag limit or where the bag limit is consistently taken for sale or barter. This measure would complement the other measures in place to address illegal take nationally.

TELSON CLIPPING

112. The intent of telson clipping is to impede the illegal sales of rock lobsters, and therefore the landing of lobsters for such unlawful purposes. Poaching and black-market activity (i.e., taking rock lobsters for sale or barter outside of commercial entitlements) is a significant issue in a number of lobster fisheries.

113. Illegal removals slow or prevent the rebuild of fisheries, can contribute to localised depletion, and deprive legitimate users of the catch they are entitled to, and depress the catch rate they could otherwise expect.

114. The assumed prevalence and scale of illegal activity in some rock lobster fisheries is significant and impacts on stock sustainability. The allowance made in TAC setting for illegal unreported removals can reduce the TACCs that might otherwise be set, and therefore represent a direct and quantifiable economic loss to New Zealand.

115. Telson clipping would provide Fishery Officers with an additional 'tool in the toolbox' to address illegal take for sale in rock lobsters fisheries by:

a) Opportunistic non-commercial fishers who sell or barter their catch for financial gain; or
b) Dedicated fish thieves who conceal their activity under legitimate non-commercial fishing.

116. Compulsory telson clipping for recreational fishers and voluntary specification of telson clipping on customary permits/authorisations could complement enforcement activities carried out by the Ministry and can be relatively easily enforced in the course of normal inspections of amateur fishers. Based on the Kaikoura experience, the measure should help address the potential for illegally taken lobsters to end up being sold and displacing legally taken product in the restaurants, retail and hospitality trade. MPI Compliance personnel have confirmed that the implementation of telson clipping in the Kaikōura Marine Management Area in 2014 has successfully reduced the supply of recreationally caught rock lobsters illegally being sold commercially.

117. NZ RLIC recommends that the NRLMG should advise the Minister to adopt nationally telson clipping for recreationally caught lobsters.

MANAGEMENT PROCEDURES SHOULD BE BASED ON TACs

118. Although management procedures (MPs) are not a short term prospect (at least using CPUE) when they become an available option they need to be improved to incorporate the management of the recreational sector as well as the TACC. MPs are recognised as best practise management and provide responsiveness to changed stock status and certainly, but all the effort put into the design of management procedures will not deliver the intended outcomes for the stock if aggregate landings are not constrained to the allowances under the TAC. The Ministers decision letter in April 2018 clearly stated the need for MPs focus on operation at the level of the TAC, rather than just the TACC and stated "I reiterate the fact that in shared fisheries I am keen for all users to bear the cost of rebuild and share in the benefits of an increase".

DIGITAL MONITORING

119. The transition to electronic reporting is expected to improve the quality and reduce the cost of data collected from the commercial fishery. However, there are issues still to be resolved with excessive detail of information being required and duplication with information collected already in the stock monitoring programme through the log books and observer catch sampling. These issues have not been resolved over the last year of effort and remain issues with the new EDW regime

120. The issues with data collection risk of compromising the collection of data from fishermen at sea on legal state retained animals and destination X animals (lobster of legal state returned to the sea). This data forms the core of the CPUE relative abundance index.

121. The current settings in the regulations and circulars also create an illogical situation and very poor reporting incentives for predated fish and theft from commercial holding pots. Commercial fishers cannot legally land moribund or dead animals as in proposed in regard to predated lobsters. A requirement to report theft from holding pots and have that amount of fish covered by ACE is both inequitable and can be clearly seen to create poor incentives to report, and therefore have information and resources directed at addressing the theft.

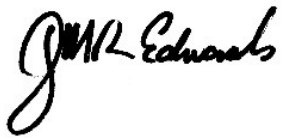
122. The requirement, at least until the review of landings and returns policy, to retain all live QMS finfish species taken in pots will create significant problems. Rock lobster fishers have generally never retained, and therefore reported the catch of QMS finfish. Those fish have been returned alive to the sea to the benefit of the stocks and for use by other sectors. A requirement to retain those fish will create a very difficult issue for commercial lobster fishermen who will not be able to obtain ACE as the TACCs have never taken into account this catch.

……..

Supplementary inquiries on this submission can be directed to –

NZ Rock Lobster Industry Council

123. Note that CRAMAC 1, the TRLIA, CRAMAC 4, the ORLIA and the CRA 8 RLIA have also made submissions.



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5 February 2020

Submission: Review of rock lobster TACs in CRA 1, 3, 4, 7, and 8 for 2020/21

Recommendations

1. The Minister revoke the concessions that allow commercial fishers to take male rock lobster with a tail width less than the recreational size limit of 54 mm tail width in CRA 3, 7 and 8.
2. The Minister acknowledge the concession in CRA 3 is unfair and must be removed to provide for the needs of customary and amateur fishers in the wider Gisborne/East Cape region.
3. The Minister must acknowledge that Catch per Unit Effort (CPUE) data collected using the electronic reporting system will not be comparable to the existing time series of data collected on paper forms.
4. Given the lack of comparable CPUE data the Minister must direct FNZ to both stop using management procedures based on commercial catch rates (CPUE) to maximise commercial yield, and develop a new approach to timely management reviews.
5. The Minister directs FNZ to complete the work to establish an agreed method of setting management targets for rock lobster in 2020 that will meet stakeholder and environmental standards in line with kaitiakitanga and international best practice.
6. The Minister acknowledges that the interim management targets for CRA 1 and CRA 3 will do nothing to rebuild the stock, and only has a 50% probability of halting the decline in abundance in these fisheries.
7. The Minister must require that the process and rationale for the last minute changes to agreed management targets for CRA 1 and CRA 3 are fully documented and published.
8. The Minister and the National Rock Lobster Management Group accept that many crayfish stocks are just not as productive as they used to be, and historic TACs cannot be seen as a baseline or management target.

9. Fisheries New Zealand commits to ensuring that future proposals include more than a single alternative management option in stocks where rebuilding is required, as in CRA 1 and CRA 3.
10. The Minister insists that the interim management targets for CRA 1 and CRA 3 are reassessed with full science working group involvement and reviewed by the Plenary in 2020.
11. The Minister retains the existing recreational allowance of 20 tonnes in CRA 3.
12. The Minister delays management changes in CRA 4 until the new stock assessment and long-term management targets are available in 2021.
13. The Minister retains the current TAC of 117 tonnes and TACC of 97 tonnes in CRA 7.
14. The Minister must revoke the concession before approving any TAC and TACC increases in CRA 7 and CRA 8.
15. The Minister increase the allowance for other fishing related mortality in CRA 8 to 35 tonnes if the TACC is increased again this year.

The submitters

16. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the proposals to review Total Allowable Catch (TAC), allowances and the Total Allowable Commercial Catch (TACC) for rock lobster (*Jasus edwardsii*) in Quota Management Areas CRA 1, 3, 4, 7 and CRA 8. Advice was received on 13 December 2019 with submissions due 5 February 2020.

17. The New Zealand Sport Fishing Council is a recognised national sports organisation with over 36,200 affiliated members from 55 clubs nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.

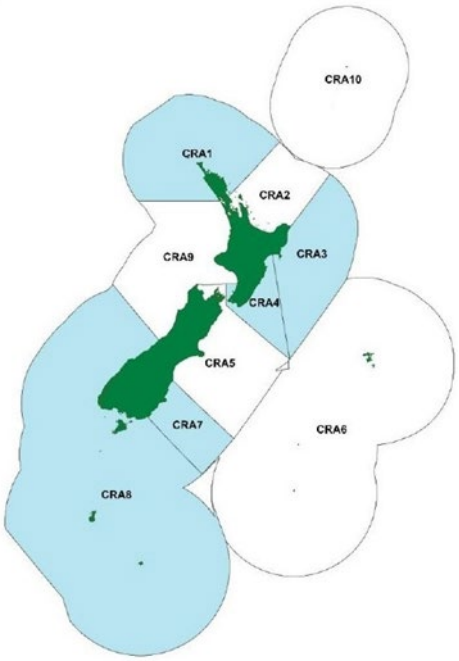
18. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing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

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

20. The submitters note and appreciate the consultation timeframe of about 30 working days for this process. This is an improvement from the 18 working days that had become standard MPI practice. This time frame has allowed some consultation with local recreational interests, affected clubs and other representatives organisations including the New Zealand Underwater Association and Spearfishing New Zealand.

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

Background



22. Rock lobster is an important species and fishery for all sectors in the quota management areas under review. In the past rock lobster were abundant and played a significant role in coastal ecosystems. Large catches were taken out of some ports in the 1920s for canning and export to Europe. Widespread commercial rock lobster fishing has occurred since 1945. Updated estimates of recreational harvest are available from the 2017–18 National Panel Survey. Few of the 7000 New Zealand residents on the panel caught rock lobster, so the estimates are best in areas where most fishing occurred.

23. CRA 1 is fished on the east and west coast of Northland. Since 1999 a large proportion of the commercial catch has come from the Three Kings area, a group of 13 islands about 55 kilometres northwest of Cape Reinga. A new stock assessment for CRA 1 was completed in 2019.

24. CRA 3 supports an unusual fishery, dominated by large numbers of small male rock lobster north of Tūranganui-a-Kiwa / Poverty Bay, while in the south rock lobster are generally larger and females are often caught. There is also a concession to allow commercial fishers to take small male rock lobster in winter months in CRA 3, which is used in the northern area. Anecdotal information suggests that a significant portion of the winter commercial catch is between 52 mm and 54 mm tail width, as permitted under the concession. A new stock assessment for CRA 3 was completed in 2019.

25. CRA 4 was the second largest rock lobster fishery in New Zealand for many years, with miles of rugged rocky coastline and high rock lobster settlement rates. There have been periods of low commercial catch rates and the Total Allowable Commercial Catch (TACC) has been reduced four times and increased four times over the last 10 years.

26. CRA 7 supports relatively small commercial, customary and recreational fisheries. Most of the of rock lobster available in the fishery are young fish that tend to migrate into CRA 8 after a few years. Catch rates tend to fluctuate with strong and weak years of recruitment. A concession is in place that allows commercial fishers to retain males between 52 mm and 54 mm tail width year round. There is no information provided on how much this concession is used or why it is still needed.

27. CRA 8 supports by far the largest commercial rock lobster fishery, with the highest catch rates for commercial and recreational fishers in New Zealand. While there is no doubt the population has been fished down, the remote rugged coastline and cool water supports a productive stock of red rock lobster. Commercial fishers have a concession to take male rock lobster below the minimum legal size that applies to recreational catch. There is no information provided on how much this concession is used or why it is still needed.

Management proposals

28. Fisheries New Zealand and the National Rock Lobster Management Group (NRLMG) have released a Discussion Document proposing changes to the total allowable catch (TAC) for rock lobster in five quota management areas from 1 April 2020. In some areas fishers have changed to the new electronic reporting system which provides more detailed information, but the catch rates (CPUE) that have been used to inform decision rules may not be directly comparable with the previous system.

29. The results of the new stock assessments in CRA 1 and CRA 3 and application of existing management procedures in other areas have been used to develop the proposed management options in Table 1.

30. The alternatives to the status quo includes:

    - A TACC decrease of 16% for CRA 1 (Northland) and 13% for the CRA 3 (Gisborne) fishery with reductions to the other allowances for recreational catch and other mortality in line with the estimates used in last year's stock assessments;
    - TACC increases of 17% for the CRA 4 (Hawke's Bay to Wellington), 31% for CRA 7 (Otago) and 5% for CRA 8 (South Coast/Fiordland) fisheries to provide increased commercial utilisation opportunities.

Table 1: Proposed management options (in tonnes) for CRA 1, CRA 3, CRA 4, CRA 7, and CRA 8 from 1 April 2020.

Stock	Option	TAC	TACC	Allowances		
				Customary Māori	Recreational	Other mortality
CRA 1 Northland	**Option 1.1:** *Status quo*	273.062	131.062	20	50	72
	Option 1.2: Based on the new CRA 1 stock assessment	203 ↓ (26%)	110 ↓ (16%)		32 ↓ (36%)	41 ↓ (43%)
CRA 3 Gisborne	**Option 3.1:** *Status quo*	351.9	222.9	20	20	89
	Option 3.2: Based on the new CRA 3 stock assessment	303 ↓ (14%)	195 ↓ (13%)		13 ↓ (35%)	75 ↓ (16%)
CRA 4 Wellington Hawke's Bay	**Option 4.1:** *Status quo*	513.8	318.8	35	85	75
	Option 4.2: Based on the CRA 4 management procedure	552.4 ↑ (8%)	374.4 ↑ (17%)			
CRA 7 Otago	**Option 7.1:** *Status quo*	117	97	10	5	5
	Option 7.2: Based on the CRA 7 management procedure	146.9 ↑ (26%)	126.9 ↑ (31%)			
CRA 8 Southland	**Option 8.1:** *Status quo*	1220.6	1129.6	30	33	28
	Option 8.2: Based on the CRA 8 management procedure	1282.7 ↑ (5%)	1191.7 ↑ (5%)			

Management Procedures

31. The submitters do not support the use of management procedures designed to maintain commercial catches and maximise yield. The Minister must acknowledge that current management procedures do not adequately take into account efficiency gains made by rock lobster fishers since 1980 or the downward trend in productivity of all rock lobster stocks in New Zealand (Breen 2018)[1]. This decline appears to be particularly problematic in eastern North Island fisheries.

32. The last three stock assessments for CRA 1, CRA 2 and CRA 3 have raised serious concerns about low levels of the vulnerable biomass in each area and in each case the TACC has been fixed for five years rather than being reviewed annually using management procedures. The standardised commercial catch rate (kilos per pot lift) used to inform changes to the TACC includes self-reported estimates of the weight of released fish (apart from CRA 8). Retention rates and reporting behaviour have changed over time yet this was not reflected in the management procedures or previous stock assessments for these stocks. In 2018 efficiency gains were factored into the CRA 2 stock assessment and that provided a turning point, showing that previous estimates of current and future abundance were too optimistic.

33. We are concerned that the management targets used to develop existing management procedures rely on outdated analysis and may be too low in most cases.

34. The management procedure process advantages commercial interests at the expense of the ecosystem, and the social, economic and cultural wellbeing of the majority of New Zealanders. We submit a new approach to timely management reviews is required.

National Rock Lobster Management Group

35. For several years we have been asking Fisheries New Zealand and the Minister to review the membership and role of the National Rock Lobster Management Group (NRLMG). Currently our representatives can attend NRLMG meetings as observers only. While this has provided insight into how the group functions, it has only reinforced our belief that change is needed. Last minute changes to the management targets for CRA 1 and CRA 3 without any review by the full Rock Lobster Fishery Assessment Working Group or a Plenary Meeting is clear evidence that the Rock Lobster Industry Council holds sway over the NRLMG and FNZ. This is a serious concern for the submitters and public interests, and adds more uncertainty to the advice provided to the Minister when making decisions.

36. In June 2019 we responded, in good faith, to a Fisheries New Zealand survey on aspects of the NRLMG. In our submission we emphasised the need to review the Group's Terms of Reference. However, a recent letter from the Minister indicates membership changes but no improvements to the Group's Terms of Reference[2]. The New Zealand Sport Fishing Council will respond to the Minister's letter in due course.

[1] Breen (2018) Trends in surplus production in New Zealand rock lobster stocks.
[2] B19-0704. Hon Stuart Nash. 28 January 2020.

37. We remind MPI and the Minister that crayfish are a taonga, a treasured species, for many New Zealanders not just the few who sit around the NRLMG table and much more transparency is needed.

Remove the concessions

38. The submitters and NZSFC member clubs in CRA 3 have made it very clear repeatedly that the concession that allows commercial fishers to take male rock lobster below the 54 mm recreational minimum legal size, those with a tail width of 52 mm or 53 mm, is unfair and must be removed. In 2014 these groups developed a Crayfish 3 policy that aims to increase the size and abundance of rock lobster in CRA 3 and ensure the needs of customary and amateur fishers are met. That policy has been shared with FNZ and the NRLMG.

39. The Minister must revoke the concession before approving any Total Allowable Catch (TAC) and Total Allowable Commercial Catch (TACC) increases in CRA 7 (Otago) and CRA 8 (Southland).

ROCK LOBSTER – PROPOSALS

Crayfish 1 (CRA 1) Northland

CRA 1 stock assessment

40. CRA 1 has a range of environments from rugged exposed coastline to the west, to the Three Kings area with upwellings and strong currents, and East Northland with extensive rocky coastline warmer waters and sheltered bays. Since the late 1990s there has been a significant increase in the proportion of catch taken from the reporting areas for the Three Kings area (901) and the west coast (939) where catch rates are higher and less from East Northland (903 and 904) where catch rates are lower. While area is taken into account in the analysis of CRA catch rates, much of the data used in the stock assessment comes from the north western area.

41. The assumption that growth rates and recruitment are the same for the north western area and East Northland is probably wrong, but there has been insufficient data collected from the East Northland commercial fishery to use separate areas in the stock assessment model.

42. There have however been some important changes to the model assumptions, including taking account of increased fishing efficiency over time and having a separate catch rate analysis (CPUE) for the pre-1990 commercial data. The estimate for other sources of mortality was reduced based on a general assessment that it was unrealistically high and a new method of estimating annual recreational harvest between surveys was used. The biomass reference points (Bref and B min) derived from the previous assessments have been dropped.

43. The overall effect of model changes and adding 5 years of available data on the trend in stock abundance in CRA 1 is a change, from a gradually increasing trend in vulnerable biomass over the last 25 years to a flat or declining trend over that period (red line in Figure 1). The base case estimated vulnerable biomass to be 15.5% of unfished biomass while spawning stock (mature female) biomass was at 37%.

New reference points

44. There has been ongoing discussion and work on developing new target reference points for CRA stock management. A modelling approach has been used to select target biomass for rock lobster. While the science working group agreed on the method, the NRLMG did not like the results, which they considered were too conservative. It is very important that work continues on finding an agreed method of setting management targets for rock lobster that will meet stakeholder and environmental standards in line with kaitiakitanga [guardianship] and international best practice. This work must be a priority in 2020.

45. The Rock Lobster Fisheries Assessment Working Group agreed on a method of setting interim targets for CRA 1 and CRA 3, based on the previous management procedure. This proposal was agreed to at the Rock Lobster Plenary meeting in November 2019. The intent was to hold the commercial cate rate (CPUE) at reasonable level. However, the CRA 1 projections were that biomass at the current catch would decline, and to reach the catch rate target in 5 years would require significant cuts to the TACC.

46. The submitters object to the process that followed the Plenary meeting. The NZSFC and other stakeholders were shut out of the process that followed, which appeared to be a negotiation between Rock Lobster Industry Council and Fisheries New Zealand on how to set a target that would be acceptable to quota holders. The result was a take it or leave it proposal to maintain current vulnerable biomass at 15.5% of unfished level in the short term.

47. **This is yet another example of the current dominance of commercial interests in fisheries management decisions,** even in science working groups and the National Rock Lobster Management Group.

48. We acknowledge that the science does not always get it right, but there is no justification for backroom deals. Good process and transparency must be maintained.

49. To achieve good process and transparency in decision-making **we make the following recommendations:**
    - The rationale and process for that last-minute change to the agreed management targets in CRA 1 and CRA 3 must be thoroughly documented and published.
    - Work needs to continue on setting independent science based management targets for CRA, and this must be a priority in 2020.
    - The role of Rock Lobster Industry Council in managing and directing the rock lobster science process must be reviewed.
    - The workload and resourcing of the stock assessment team must be reassessed to ensure it is reasonable.
    - There needs to a wider acceptance that many rock lobster stocks are just not as productive as they used to be, and historic TACs cannot be seen as a baseline or management target.

CRA 1 Management

50. Overall the 2019 stock assessment is an improvement on the previous CRA 1 assessments. **There is an urgent need for more commercial logbook data to track recruitment and more tagging data to determine current growth rates. These data must be collected for east coast areas as well as northwest Northland.** There are anecdotal reports of declining CRA stocks and concerns

about sustainability from commercial and non-commercial fishers. This fits with the current status of the vulnerable biomass of 498 t for all of CRA 1 (Figure 1)

51. The estimate of recreational catch from the 2017-18 National Panel Survey was 16 tonnes but the confidence interval was large (CV of 46%). It is likely that the recreational catch has been declining over recent years on the east coast of Northland where the main fishing effort is. This fits with the decline in spring/summer commercial catch rates in East Northland over the last six years. In 2013-14 a survey that combined data from over 12,000 boat trips with National Panel Survey data from shore based trips estimated the recreational harvest from CRA 1 at 37.3 t (CV 17%) with an additional 4.4 tonnes taken as recreational catch from commercial fishing vessels. The total of 41.7 t was probably an underestimate as the interview survey did not cover boats returning to swing moorings or boats staying out overnight on survey days.

52. The management proposals are based on a revised interim target that was not presented to the Plenary meeting and only revealed at the final NRLMG meeting of the year. **The projections show that the stock will decline if the current catch levels are retained** (even using the reduced catch estimates for recreational harvest and illegal take).

53. We submit our concerns that the short term objective is to maintain vulnerable biomass at current levels and this will do nothing to rebuild the stock, and it may not halt the current decline in abundance in East Northland.

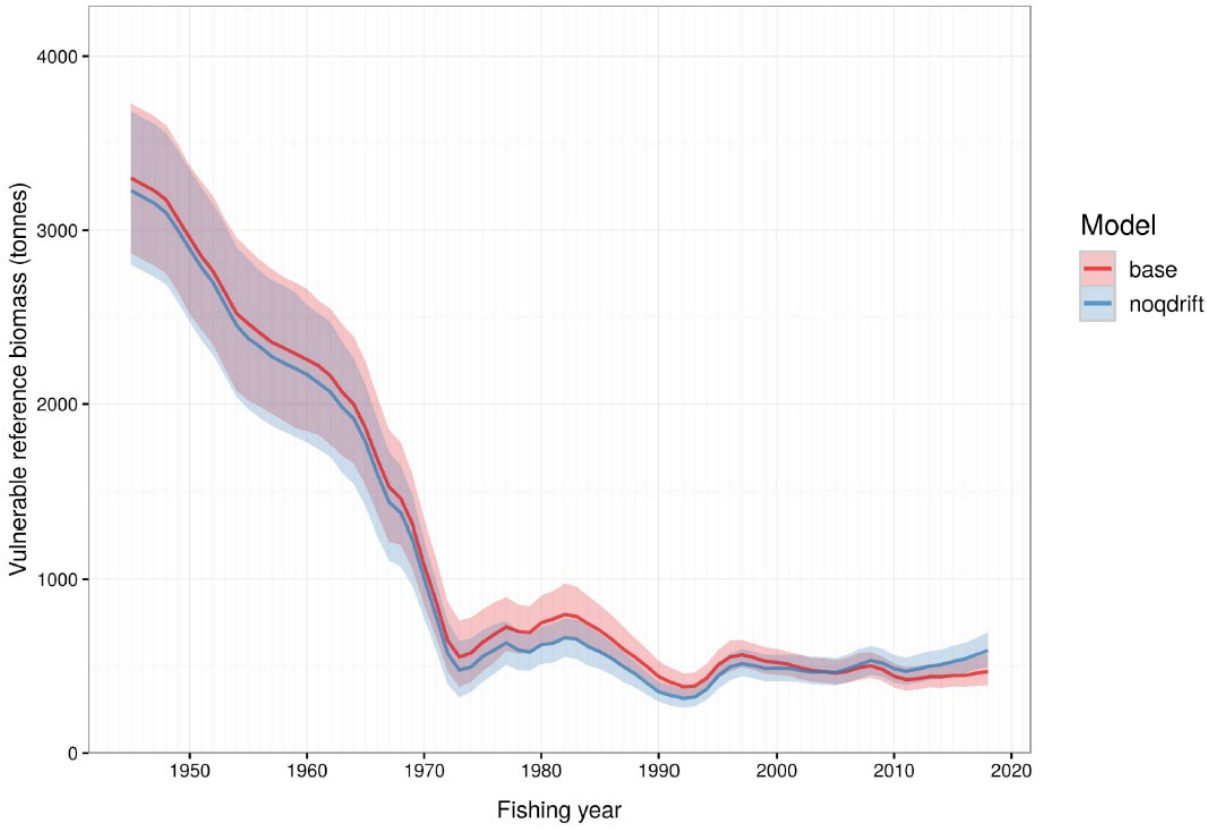


Figure 1. The stock assessment estimates of the legal sized male rock lobsters at the beginning of each fishing year in tonnes. The base case estimates start at 3216 t in 1945 and end at 498 t in 2018, red line. If there is no allowance for steady improvements in fishing gear and technology since 1990 (labelled no Q drift) the end point is 654 t, blue line.

54. **We submit that the CRA 1 stock needs to be rebuilt.** The current size of the overall vulnerable biomass at 15.5% of the unfished level is well below where it should be and is close to the lowest biomass ever. Given the much lower commercial catch rates in East Northland it is highly likely the vulnerable biomass in the area is below 10% of the unfished level, very similar to where CRA 2 was two years ago. Low stock abundance is severely limiting access to the fishery for recreational and customary fishers in East Northland.

55. **In 2019 the NZSFC requested FNZ include an additional consultation option** that would start to rebuild the CRA 1 stock. This was deferred for a year by the NRLMG, on basis that time ran out.

56. More work is required on real management targets in the coming year, there will also be a review of CRA 1 and CRA 3 management options, plus two new stock assessments. Fisheries New Zealand and the National Rock Lobster Management Group need to consider the resources available in the stock assessment team and their workload to ensure that there is sufficient time to develop and discuss a range of management options.

57. **The submitters support option 1.2 as there is effectively no other choice at this time.**

Crayfish 3 (CRA 3) East Cape to Mahia

CRA 3 stock assessment

58. CRA 3 is another area with extensive rocky coastline and reef areas suitable for rock lobster. However, the distribution of crayfish is unusual, with an abundance of small males and few females north of Gisborne, and larger crayfish with more females further south, around Mahia Peninsula.

59. In the past CRA 3 was assessed with a one area model. In recent years there have been different trends in stock abundance between the north and the south. In CRA 3 there was enough information to split the assessment into two areas.

60. Other changes to the model assumptions include taking account of increased fishing efficiency over time and having a separate catch rate analysis (CPUE) for the pre-1990 commercial data. The estimate for other sources of mortality was reduced based on a general assessment that it was unrealistically high and a new method of estimating annual recreational harvest between national surveys was used. The biomass reference points (Bref and B min) derived from the previous assessments have been dropped.

61. The overall effect of model changes and adding 5 years of available data on the trend in stock abundance in CRA 3 is to lower estimates of overall biomass. At times there are large numbers of small CRA but this varies in what appears to be a long-term cycle. The peak of the current cycle was in 2013 and stock biomass has been in a gradual decline since then (Figure 2).

62. The base case estimated vulnerable biomass to be around 18% or 19% of unfished biomass while spawning stock (mature female) biomass was at 80%.

63. The very high spawning biomass is a result of the assumption in the stock assessment model that equal numbers of male and female rock lobster settle and grow. Catch sampling shows that few females are ever caught so the model estimates that they are somewhere in CRA 3, but just not vulnerable to fishing. This is one reason why the female biomass as a proportion of unfished spawning stock biomass is not a good measure of stock status in many New Zealand crayfish stocks.

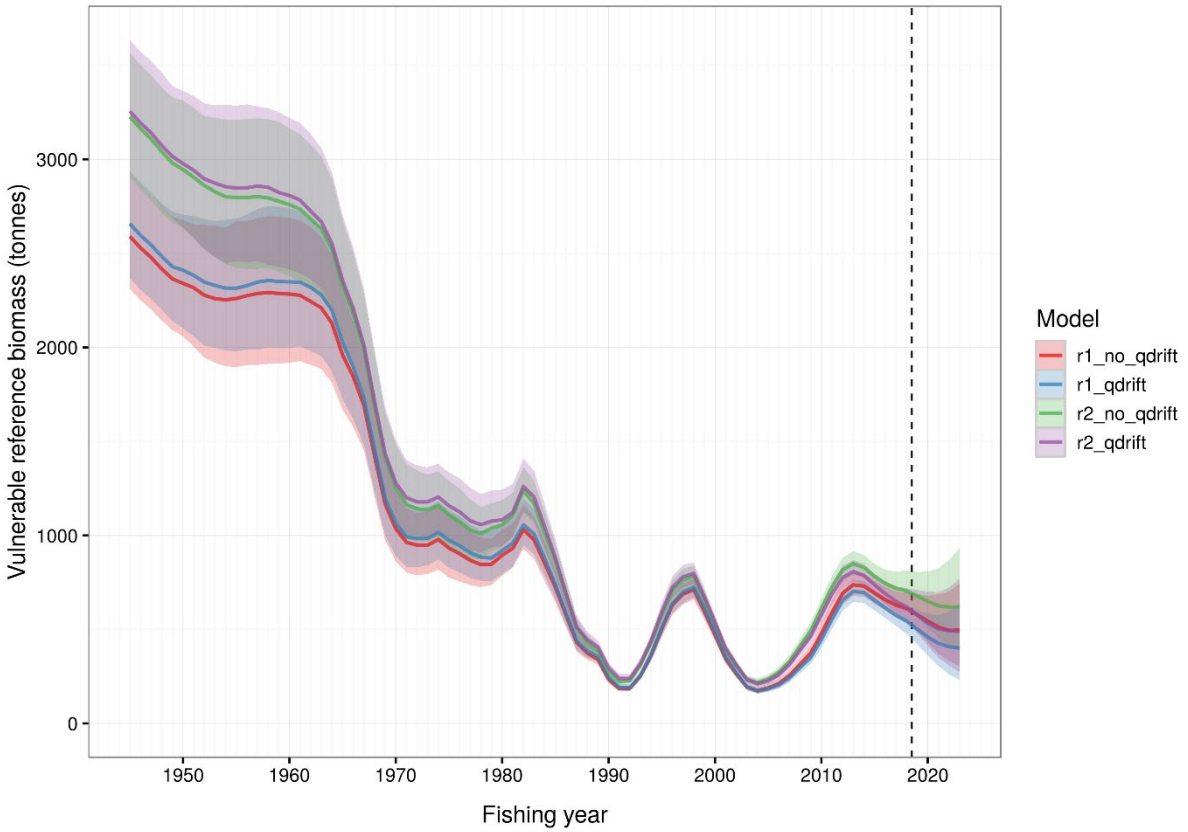


Figure 2: The CRA 3 stock assessment estimates of the legal sized male rock lobsters at the beginning of each fishing year in tonnes. The range of models include with and without an allowance for commercial fishing efficiency gains (Q drift) and two growth rate assumptions (r1 and r2). The dotted vertical line is 2019 with the model projections to 2023 to the right.

New reference points

64. As with CRA 1, there has been ongoing discussion and work on developing new target reference points for CRA stock management. The Rock Lobster Fisheries Assessment Working Group agreed on a method of setting interim targets for CRA 1 and CRA 3, based on the previous management procedure. This proposal was agreed to at the Rock Lobster Plenary meeting in November with the intent of holding the commercial cate rate (CPUE) at a reasonable level.

65. However, the CRA 3 projections were that biomass at the current catch would decline. **In order to reach the catch rate target in 5 years significant cuts to the TACC would be required.**

66. The submitters object to the process that followed the Plenary meeting. The NZSFC and other stakeholders were shut out of the process that followed, which appeared to be a negotiation between the Rock Lobster Industry Council and Fisheries New Zealand on how to set a target that

would be acceptable to quota holders. The result was a take it or leave it proposal to maintain current vulnerable biomass in CRA 3 at 18% or 19% of unfished level in the short term.

67. **This is yet another example of the current dominance of commercial interests in fisheries management decisions,** even in science working groups and the National Rock Lobster Management Group.

68. The science does not always get it right, but there is no justification for backroom deals. Good process and transparency must be maintained.

69. It is very important that work continues on finding an agreed method of setting management targets for rock lobster that will meet stakeholder and environmental standards in line with kaitiakitanga [guardianship] and international best practice.

70. To achieve good process and transparency in decision-making **we make the following recommendations:**
    - The rationale and process for that last-minute change to the agreed management targets in CRA 1 and CRA 3 must be thoroughly documented and published.
    - Work needs to continue on setting independent science based management targets for CRA, and this must be a priority in 2020.
    - The role of Rock Lobster Industry Council in managing and directing the rock lobster science process must be reviewed.
    - The workload and resourcing of the stock assessment team must be reassessed to ensure it is reasonable.
    - There needs to a wider acceptance that many CRA stocks are just not as productive as they used to be, and historic TACs cannot be seen as a baseline or management target.

CRA 3 Management

71. Overall the 2019 stock assessment is an improvement on the previous CRA 3 assessments. The same long term cycle seen in previous assessments is apparent with the CRA 3 stock 4 or 5 years into the declining phase (Figure 2). This fits with the current estimate of the vulnerable biomass of 501 t to 575 t for all of CRA 3 depending on which growth assumption is used.

72. The estimate of recreational catch in CRA 3 from the 2017-18 National Panel Survey was 12.2 tonnes with a confidence interval (CV) of 26%. This is slightly higher than the previous National Panel Survey estimate but not statistically different. In addition, about 3 tonnes is reported as recreational catch taken from commercial fishing vessels under Section 111 provisions.

73. **The proposed 35% reduction of the recreational allowance, to 13 tonnes, in the discussion document does not cover the current estimates of combined take** under the amateur fishing regulations (12.2 t) and Section 111 provisions (3 t).

74. The recreational harvest of CRA along the East Coast and Mahia Peninsula will vary from year to year, depending on weather and swell conditions over the summer period as well as availability of legal size crayfish. **The submitters recommend the Minister retains the existing recreational allowance of 20 t in CRA 3**. If the recreational allowance is reduced as abundance declines then it must also take account of survey results and be increased as the stock is rebuilt.

75. **The submitters strongly support the removal of the concession** for commercial fishers allowing them to harvest male CRA down to 52 mm tail width during winter. This has been an ongoing issue for NZSFC members in the CRA 3 area for many years, particularly in the Gisborne region. The stock assessment shows that there was no change in the productivity of the stock if the concession was removed, but it would remove the unfair advantage that the commercial fishers have on top of their obvious advantage in fishing power and ability to shift fishing effort to maintain catch rates.

76. A three-year potting survey was undertaken using standard rock lobster pots, fished inside the Te Tapuwae o Rongokako Marine Reserve and on similar reef structures to the north and south of the reserve. It found a much higher incidence of tail fin necrosis (TFN) for males outside the reserve (17%) than inside the reserve (2%).[3] This incidence is consistent with damage caused by pots and handing. The necrosis blackens and rots the tail reducing commercial value, increases mortality and potentially spreads to other lobsters.

77. The potting survey also provides data on the size distribution of rock lobster caught inside the marine reserve and on adjacent fished areas. The survey was conducted between November 2003 and November 2006, just 4 to 7 years after the reserve was established. 90% of rock lobster caught were male. Even in this short period, there is a remarkable difference in the size of male rock lobster inside the reserve with a broad spread of sizes and mode from 58 to 61 mm. Outside the reserve 84% of males were 48 to 53mm with just 2% were 58 mm or larger. Inside the reserve 60% of rock lobster were 58 mm or larger (Figure 3).

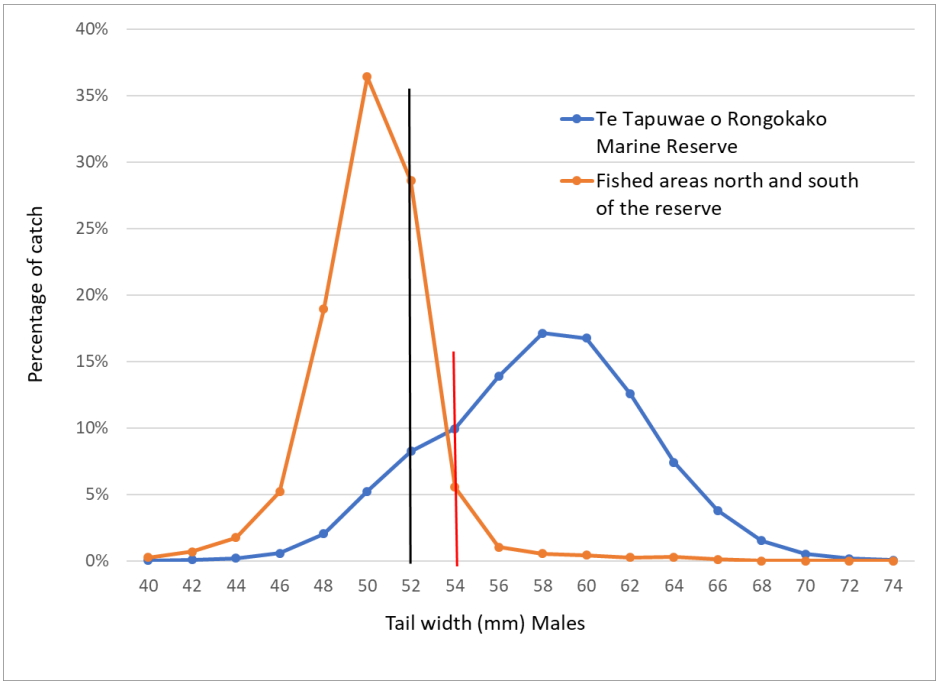


Figure 3: Percentage of male rock lobster by 2 mm tail width bin outside (orange) and within Te Tapuwae o Rongokako Marine Reserve (blue). The winter commercial male tail with size limit of 52 mm is the black vertical line the recreational size limit of 54 mm is the red vertical line.

[3] Freeman and McDiamond. (2009). Healthier lobsters in a marine reserve: effects of fishing on disease incidence in the spiny lobster, *Jasus edwardsii.*

78. The management proposals are based on a revised interim target that was not presented to the Plenary meeting and only revealed at the final NRLMG meeting of the year. The projections show that **the stock will decline if the current catch levels are maintained** (even using the reduced catch estimates for recreational harvest and illegal take). The short term objective to maintain vulnerable biomass at current levels is a stop gap measure until long-term management targets can be established.

79. **The submitters support a decrease to the Total Allowable Catch (TAC) to 310 t** by reducing the Total Allowable Commercial Catch (TACC) by 13% to 195 tonnes, retaining the current allowances for Maori customary and recreational fishing interests at 20 t, and reducing the allowance for other sources of mortality by 16% to 75 t.

Crayfish 4 (CRA 4) Hawke Bay to Wellington

80. Previous Fisheries New Zealand advice has stated: "*For CRA 4, the biomass level that can produce the maximum sustainable yield (B_{MSY}) is not known. An MSY-compatible reference level, B_{REF}, is instead used for CRA 4. …. a new CRA 4 management procedure was agreed for use in guiding TAC setting from April 2017. This was to ensure stock biomass was rebuilt towards the agreed reference level in the next five years.*"

81. MPI now propose to increase the Total Allowable Catch (TAC). Within this, MPI propose to increase the Total Allowable Commercial Catch (TACC) by 56 tonnes or 17.4% based on the increase in commercial catch rates over the last two years.

82. The submitters do not consider that the increase in commercial catch rates (CPUE) using the old standardisation procedure is a reliable measure of the increase in CRA 4 stock abundance.

83. As stated in previous submissions, no allowance is made for changes in market demands, fishing operations, increased efficiency, shifts in area fished, changes in discard rates or reporting rates. There is no data collected on many of these factors and no consistent way of taking account of these types of changes in the stock assessment or management procedure.

84. The CRA 1, CRA 2, and CRA 3 CPUE standardisations now include vessel effects to account for some increased fishing efficiency since 1990. There have been significant changes in the CRA 4 fishing fleet since 1990 so the vessel standardisation will likely have resulted in lower current biomass estimates in this area as well. In addition, there have been improvements in the stock assessment assumptions since the last CRA 4 assessment in 2016. The Minister needs to be well informed of the increased uncertainty and risks if the best available information, including CPUE standardisation by vessel, is omitted from the assessment of CRA 4.

85. A CRA 4 stock assessment is proposed for 2020 to provide a comprehensive update on stock status and an approach for future TAC setting.

86. Given the results of the recent CRA 1, CRA 2 and CRA 3 stock assessments **the submitters urge the Minister to delay management changes in CRA 4 until the new assessment and long-term management targets are available.**

87. The National Panel Survey estimate 41 t (CV 23%) of crayfish was harvested by amateur fishers in 2017–18. Fisheries New Zealand propose to retain the current allowance of 85 t until next year when the stock assessment will be complete. **The submitters agree with retaining the current 85 t recreational allowance until the stock assessment is completed.**

88. In Table 1 of the proposal document there is an error in the TAC for option 4.2. While it was proposed in 2019, the Minister decided against reducing the other mortality allowance by 58 tonnes yet it appears to be the value used in the TAC for CRA 4.

Crayfish 7 (CRA 7) Otago

89. Fisheries New Zealand advise for CRA 7 "*There has been a greater uptake of electronic data reporting in CRA 7 than in other areas; therefore, electronic data makes up a greater proportion of the CPUE series. CRA 7 CPUE values for the 2018/19 offset year (October to September) differed by 25% without and with the inclusion of electronic reporting data*."

90. While it is early days, it appears that the concerns about a step change in commercial catch rates (CPUE) with the introduction of the electronic reporting system are well founded. Again, the submitters do not consider that the increase in commercial catch rates (CPUE) using the old standardisation procedure is a reliable measure of the increase in CRA 7 stock abundance, regardless of which data point is used for 2019. That is because there is no allowance is made for changes in market demands, fishing operations, increased efficiency, shifts in area fished, and changes in discard rates or reporting rates.

91. Another factor is that older fish migrate out of CRA 7, so the catch rate from the previous year may not be a good predictor of availability and abundance in the coming year.

92. **The submitters recommend the Minister retains the current TAC of 117 t and TACC of 97 tonnes in CRA 7 while the concession remains.**

93. The uncertainty about the CPUE will continue for several years. Raising the TACC to 127 t (up 31%) in 2020 may mean that it remains at that level for 5 years as there will be no credible information to determine the current status of the stock.

94. The catch history over the last 20 years shows that annual commercial catches over 120 t in CRA 7 cannot be sustained for long.

Crayfish 8 (CRA 8) South Coast/Fiordland

95. Fisheries New Zealand advise for CRA 8 "*CPUE has increased steadily since 2015, to the highest CPUE in the observed history in 2019 (a CPUE of 4.83 kg/potlift)*."

96. Fisheries New Zealand propose an increase to the Total Allowable Catch (TAC) by increasing the Total Allowable Commercial Catch (TACC) by 62 tonnes, which is a 5.5% increase.

97. CRA 8 is a productive rock lobster fishery with by far the highest commercial catch rates in New Zealand. This is a remarkable turnaround for this fishery considering the catch rates were well below 1 kg per pot lift from 1990 to 2001. Operation of the management procedure increased the TACC by 5.5% t in 2018 and again in 2019. The proposal is for a fourth increase in consecutive years in CRA 8.

98. While the current rebuild is encouraging, CRA 8 used to be a very large stock and a large fishery. The stock assessment in 2015 estimated the start of year vulnerable biomass was still at a relatively low level, 13% of the unfished level. Presumably this includes concession sized rock lobster with tail width of 52 mm and 53 mm.

99. Historically, a concession was introduced to allow commercial fishers to harvest male rock lobster below the 54 mm national minimum legal size when fishing was hard, and a high proportion of catch was small.

100. **The submitters recommend the Minister revoke all concessions in the rock lobster fisheries, including CRA 8,** as the original purpose of the concession is no longer valid.

101. The submitters recommend the Minister revoke the concession before approving any TAC and TACC increase in CRA 8.

102. The submitters recommend the Minister examine the level of concession fish before approving any TAC and TACC increase in CRA 8.

103. The National Panel Survey estimated the recreational harvest in CRA 8 to be about 16 t (CV 36%), well below the current allowance of 33 t. It is concerning to hear of proposals from some groups to severely limit individual catch by recreational fishers on charter boats in Fiordland. If recreational catch is roughly proportional to abundance (as assumed elsewhere) then the allowance for recreational harvest could also be increased if the TAC is to increase.

104. If the Minister decides to increase the TACC again this year then he must also consider an increase in the allowance for other fishing related mortality. A lot of CRA are returned to the sea in CRA 8 based on market preference and price. The TACC will have increased 24% from 962 tonnes over the last 4 years and the 28 tonne allowance for other fishing related mortality has not changed.

105. **The submitters recommend the Minister increase the allowance for fishing related mortality to 35 tonnes if the TACC and TAC is increased again this year**.

New Zealand Underwater Association
[redacted]
[redacted]
www.NZUnderwater.org.nz

4 February 2020

Fisheries Management
Team Ministry for Primary
Industries
PO Box 2526
Wellington 6140
FMSubmissions@mpi.govt. nz

Submission: Review of rock lobster TACs in CRA 1, 3, 4, 7, and 8 for 2020/21

Recommendations

1. The Minister revoke the concessions that allows commercial fishers to take male rock lobster with a tail width less than the recreational size limit of 54 mm tail width in CRA 3, 7 and 8.
2. The Minister acknowledge the concession in CRA 3 is unfair and must be removed to provide for the needs of customary and amateur fishers in the wider Gisborne/East Cape region.
3. The Minister must acknowledge that Catch per Unit Effort (CPUE) data collected using the electronic reporting system will not be comparable to the existing time series of data collected on paper forms.
4. Given the lack of comparable CPUE data the Minister must direct FNZ to both stop using management procedures based on commercial catch rates (CPUE) to maximise commercial yield, and develop a new approach to timely management reviews.
5. The Minister directs FNZ to complete the work to establish an agreed method of setting management targets for rock lobster in 2020 that will meet stakeholder and environmental standards in line with kaitiakitanga and international best practice.
6. The Minister acknowledges that the interim management targets for CRA 1 and CRA 3 will do nothing to rebuild the stock, and only has a 50% probability of halting the decline in abundance in these fisheries.
7. The Minister must require that the process and rationale for the last minute changes to agreed management targets for CRA 1 and CRA 3 are fully documented and published.

8. The Minister and the National Rock Lobster Management Group accept that many crayfish stocks are just not as productive as they used to be, and historic TACs cannot be seen as a baseline or management target.
9. Fisheries New Zealand commits to ensuring that future proposals include more than a single alternative management option in stocks where rebuilding is required, as in CRA 1 and CRA 3.
10. The Minister insists that the interim management targets for CRA 1 and CRA 3 are reassessed with full science working group involvement and reviewed by the Plenary in 2020.
11. The Minister retains the existing recreational allowance of 20 tonnes in CRA 3.
12. The Minister delays management changes in CRA 4 until the new stock assessment and long-term management targets are available in 2021.
13. The Minister retains the current TAC of 117 tonnes and TACC of 97 tonnes in CRA 7.
14. The Minister must revoke the concession before approving any TAC and TACC increases in CRA 7 and CRA 8.
15. The Minister increase the allowance for other fishing related mortality in CRA 8 to 35 tonnes if the TACC is increased again this year.

The submitters

16. The submitters appreciate the opportunity to submit on the proposals to review Total Allowable Catch (TAC), allowances and the Total Allowable Commercial Catch (TACC) for rock lobster (*Jasus edwardsii*) in Quota Management Areas CRA 1, 3, 4, 7 and CRA 8. Advice was received on 13 December 2019 with submissions due 5 February 2020.

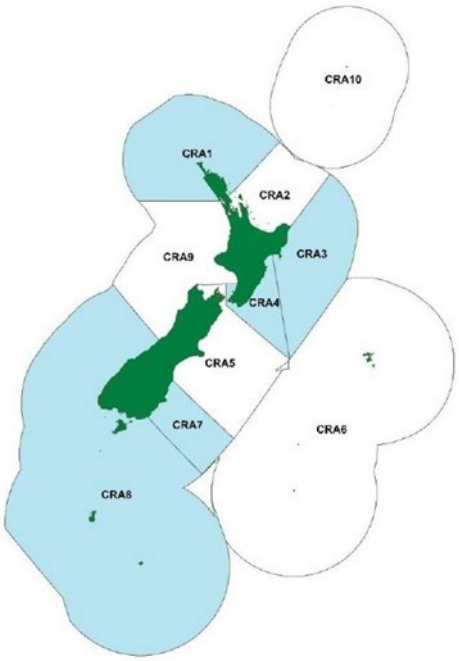
17. The New Zealand Underwater Association (NZUA) was established in 1953, and currently represents Scuba Diving, Spearfishing and Underwater Hockey Clubs. We are the country's recognised leading not-for-profit organisation promoting and advocating safe and enjoyable underwater activities and a healthy marine environment. https://www.nzunderwater.org.nz/

18. Spearfishing New Zealand (SNZ) is an Incorporated Society elected by the spearfishing clubs to represent the spearfishing community in New Zealand, which is estimated at circa 20,000 participants. We report directly to over 7,000 people. We administer competition rules, national records, national competition events, and national teams for the sport in this country. The SNZ committee is authorised to make submissions to government agencies regarding the interests of our members. Our members frequently harvest crayfish whilst freediving, and they are important to our members in terms our environmental interests and for providing sustenance and recreational enjoyment.

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

20. Our representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from this review and would like to be kept informed of future developments. Our contacts are Andrea McFarlane, [redacted] and Reid Quinlan secretary@spearfishingnz.co.nz

Background



21. Rock lobster is an important species and fishery for all sectors in the quota management areas under review. In the past rock lobster were abundant and played a significant role in coastal ecosystems. Large catches were taken out of some ports in the 1920s for canning and export to Europe. Widespread commercial rock lobster fishing has occurred since 1945. Updated estimates of recreational harvest are available from the 2017–18 National Panel Survey. Few of the 7000 New Zealand residents on the panel caught rock lobster, so the estimates are best in areas where most fishing occurred.

22. CRA 1 is fished on the east and west coast of Northland. Since 1999 a large proportion of the commercial catch has come from the Three Kings area, a group of 13 islands about 55 kilometres northwest of Cape Reinga. A new stock assessment for CRA 1 was completed in 2019.

23. CRA 3 supports an unusual fishery, dominated by large numbers of small male rock lobster north of Tūranganui-a-Kiwa / Poverty Bay, while in the south rock lobster are generally larger and females are often caught. There is also a concession to allow commercial fishers to take small male rock lobster in winter months in CRA 3, which is used in the northern area. Anecdotal information suggests that a significant portion of the winter commercial catch is between 52 mm and 54 mm tail width, as permitted under the concession. A new stock assessment for CRA 3 was completed in 2019.

24. CRA 4 was the second largest rock lobster fishery in New Zealand for many years, with miles of rugged rocky coastline and high rock lobster settlement rates. There have been periods of low commercial catch rates and the Total Allowable Commercial Catch (TACC) has been reduced four times and increased four times over the last 10 years.

25. CRA 7 supports relatively small commercial, customary and recreational fisheries. Most of the of rock lobster available in the fishery are young fish that tend to migrate into CRA 8 after a few years. Catch rates tend to fluctuate with strong and weak years of recruitment. A concession is in place that allows commercial fishers to retain males between 52 mm and 54 mm tail width year round. There is no information provided on how much this concession is used or why it is still needed.

26. CRA 8 supports by far the largest commercial rock lobster fishery, with the highest catch rates for commercial and recreational fishers in New Zealand. While there is no doubt the population has been fished down, the remote rugged coastline and cool water supports a productive stock of red rock lobster. Commercial fishers have a concession to take male rock lobster below the minimum legal size that applies to recreational catch. There is no information provided on how much this concession is used or why it is still needed.

Management proposals

27. Fisheries New Zealand and the National Rock Lobster Management Group (NRLMG) have released a Discussion Document proposing changes to the total allowable catch (TAC) for rock lobster in five quota management areas from 1 April 2020. In some areas fishers have changed to the new electronic reporting system which provides more detailed information, but the catch rates (CPUE) that have been used to inform decision rules may not be directly comparable with the previous system. The results of the new stock assessments in CRA 1 and CRA 3 and application of existing management procedures in other areas have been used to develop the proposed management options in Table 1. The alternatives to the status quo includes:
    - A TACC decrease of 16% for CRA 1 (Northland) and 13% for the CRA 3 (Gisborne) fishery with reductions to the other allowances for recreational catch and other mortality in line with the estimates used in last year's stock assessments;
    - TACC increases of 17% for the CRA 4 (Hawke's Bay to Wellington), 31% for CRA 7 (Otago) and 5% for CRA 8 (South Coast/Fiordland) fisheries to provide increased commercial utilisation opportunities.

Table 1: Proposed management options (in tonnes) for CRA 1, CRA 3, CRA 4, CRA 7, and CRA 8 from 1 April 2020.

Stock	Option	TAC	TACC	Allowances		
				Customary Māori	Recreational	Other mortality
CRA 1 Northland	**Option 1.1:** *Status quo*	273.062	131.062	20	50	72
	Option 1.2: Based on the new CRA 1 stock assessment	203 ↓ (26%)	110 ↓ (16%)		32 ↓ (36%)	41 ↓ (43%)
CRA 3 Gisborne	**Option 3.1:** *Status quo*	351.9	222.9	20	20	89
	Option 3.2: Based on the new CRA 3 stock assessment	303 ↓ (14%)	195 ↓ (13%)		13 ↓ (35%)	75 ↓ (16%)
CRA 4 Wellington Hawke's Bay	**Option 4.1:** *Status quo*	513.8	318.8	35	85	75
	Option 4.2: Based on the CRA 4 management procedure	552.4 ↑ (8%)	374.4 ↑ (17%)			
CRA 7 Otago	**Option 7.1:** *Status quo*	117	97	10	5	5
	Option 7.2: Based on the CRA 7 management procedure	146.9 ↑ (26%)	126.9 ↑ (31%)			
CRA 8 Southland	**Option 8.1:** *Status quo*	1220.6	1129.6	30	33	28
	Option 8.2: Based on the CRA 8 management procedure	1282.7 ↑ (5%)	1191.7 ↑ (5%)			

Management Procedures

28. The submitters do not support the use of management procedures designed to maintain commercial catches and maximise yield. The Minister must acknowledge that current management procedures do not adequately take into account efficiency gains made by rock lobster fishers since 1980 or the downward trend in productivity of all rock lobster stocks in New Zealand (Breen 2018)[1]. This decline appears to be particularly problematic in eastern North Island fisheries.

29. The last three stock assessments for CRA 1, CRA 2 and CRA 3 have raised serious concerns about low levels of the vulnerable biomass in each area and in each case the TACC has been fixed for five years rather than being reviewed annually using management procedures. The standardised commercial catch rate (kilos per pot lift) used to inform changes to the TACC includes self-reported estimates of the weight of released fish (apart from CRA 8). Retention rates and reporting behaviour have changed over time yet this was not reflected in the management procedures or previous stock assessments for these stocks. In 2018 efficiency gains were factored into the CRA 2 stock assessment and that provided a turning point, showing that previous estimates of current and future abundance were too optimistic.

30. We are concerned that the management targets used to develop existing management procedures rely on outdated analysis and may be too low in most cases. The management procedure process advantages commercial interests at the expense of the ecosystem, and the social, economic and cultural wellbeing of the majority of New Zealanders. We submit a new approach to timely management reviews is required.

National Rock Lobster Management Group

31. NZUA welcomes the invitation it received with other recreational representative groups to participate in the NRLMG and will be responding to the invitation.

32. We support the submission made by the New Zealand Sport Fishing Council, in June 2019, on the review of the NRLMG and suggest there remains a need to revise the Groups Terms of Reference.

33. We remind MPI and the Minister that crayfish are a taonga, a treasured species, for many New Zealanders not just the few who sit around the NRLMG table and much more transparency is needed.

Remove the concessions

34. The submitters are concerned that the concession that allows commercial fishers to take male rock lobster with a tail width of 52 mm or 53 mm, below the 54 mm recreational minimum legal size, in CRA 3, 7 and 8 is unfair and must be removed.

[1] Breen (2018) Trends in surplus production in New Zealand rock lobster stocks.

ROCK LOBSTER – PROPOSALS

Crayfish 1 (CRA 1) Northland

CRA 1 stock assessment

35. CRA 1 has a range of environments from rugged exposed coastline to the west, to the Three Kings area with upwellings and strong currents, and East Northland with extensive rocky coastline warmer waters and sheltered bays. Since the late 1990s there has been a significant increase in the proportion of catch taken from the reporting areas for the Three Kings area (901) and the west coast (939) where catch rates are higher and less from East Northland (903 and 904) where catch rates are lower. While area is taken into account in the analysis of CRA catch rates, much of the data used in the stock assessment comes from the north western area.

36. The assumption that growth rates and recruitment are the same for the north western area and East Northland is probably wrong, but there has been insufficient data collected from the East Northland commercial fishery to use separate areas in the stock assessment model.

37. There have however been some important changes to the model assumptions, including taking account of increased fishing efficiency over time and having a separate catch rate analysis (CPUE) for the pre-1990 commercial data. The estimate for other sources of mortality was reduced based on a general assessment that it was unrealistically high and a new method of estimating annual recreational harvest between surveys was used. The biomass reference points (Bref and B min) derived from the previous assessments have been dropped.

38. The overall effect of model changes and adding 5 years of available data on the trend in stock abundance in CRA 1 is a change, from a gradually increasing trend in vulnerable biomass over the last 25 years to a flat or declining trend over that period (red line in Figure 1). The base case estimated vulnerable biomass to be 15.5% of unfished biomass while spawning stock (mature female) biomass was at 37%.

New reference points

39. There has been ongoing discussion and work on developing new target reference points for CRA stock management. A modelling approach has been used to select target biomass for rock lobster. While the science working group agreed on the method, the NRLMG did not like the results, which they considered were too conservative. It is very important that work continues on finding an agreed method of setting management targets for rock lobster that will meet stakeholder and environmental standards in line with kaitiakitanga [guardianship] and international best practice. This work must be a priority in 2020.

40. The Rock Lobster Fisheries Assessment Working Group agreed on a method of setting interim targets for CRA 1 and CRA 3, based on the previous management procedure. This proposal was agreed to at the Rock Lobster Plenary meeting in November. The intent was to hold the commercial cate rate (CPUE) at reasonable level. However, the CRA 1 projections were that biomass at the current catch would decline, and to reach the catch rate target in 5 years would require significant cuts to the TACC.

41. The submitters object to the process that followed the Plenary meeting. Stakeholder groups were shut out of the process that followed, which appeared to be a negotiation between Rock Lobster Industry Council and FNZ on how to set a target that would be acceptable to quota holders. The result was a take it or leave it proposal to maintain current vulnerable biomass at 15.5% of unfished level in the short term.

42. **This is yet another example of the current dominance of commercial interests in fisheries management decisions,** even in science working groups and the NRLMG. The science does not always get it right but there is no justification for backroom deals. Good process and transparency must be maintained.

43. To achieve good process and transparency in decision-making **we make the following recommendations:**
    - The rationale and process for that last-minute change to the agreed management targets in CRA 1 and CRA 3 must be thoroughly documented and published.
    - Work needs to continue on independent science based management targets for CRA must be a priority in 2020.
    - The role of Rock Lobster Industry Council in managing and directing the rock lobster science process must be reviewed.
    - The workload and resourcing of the stock assessment team must be reassessed to ensure it is reasonable.
    - There needs to a wider acceptance that many rock lobster stocks are just not as productive as they used to be, and historic TACs cannot be seen as a baseline or management target.

CRA 1 Management

44. Overall the 2019 stock assessment is an improvement on the previous CRA 1 assessments. **There is an urgent need for more commercial logbook data to track recruitment and more tagging data to determine current growth rates. These data must be collected for east coast areas as well as northwest Northland.** There are anecdotal reports of declining CRA stocks and concerns about sustainability from commercial and non-commercial fishers. This fits with the current status of the vulnerable biomass of 498 t for all of CRA 1 (Figure 1)

45. The estimate of recreational catch from the 2017-18 National Panel Survey was 16 tonnes but the confidence interval was large (CV of 46%). It is likely that the recreational catch has been declining over recent years on the east coast of Northland where the main fishing effort is. This fits with the decline in spring/summer commercial catch rates in East Northland over the last six years. In 2013-14 a survey that combined data from over 12,000 boat trips with National Panel Survey data from shore based trips estimated the recreational harvest from CRA 1 at 37.3 t (CV 17%) with an additional 4.4 tonnes taken as recreational catch from commercial fishing vessels. The total of 41.7 t was probably an underestimate as the interview survey did not cover boats returning to swing moorings or boats staying out overnight on survey days.

46. The management proposals are based on a revised interim target that was not presented to the Plenary meeting and only revealed at the final NRLMG meeting of the year. **The projections show that the stock will decline if the current catch levels are retained** (even using the reduced catch estimates for recreational harvest and illegal take).

47. We submit our concerns that the short term objective is to maintain vulnerable biomass at current levels and this will do nothing to rebuild the stock, and it may not halt the current decline in abundance in East Northland.

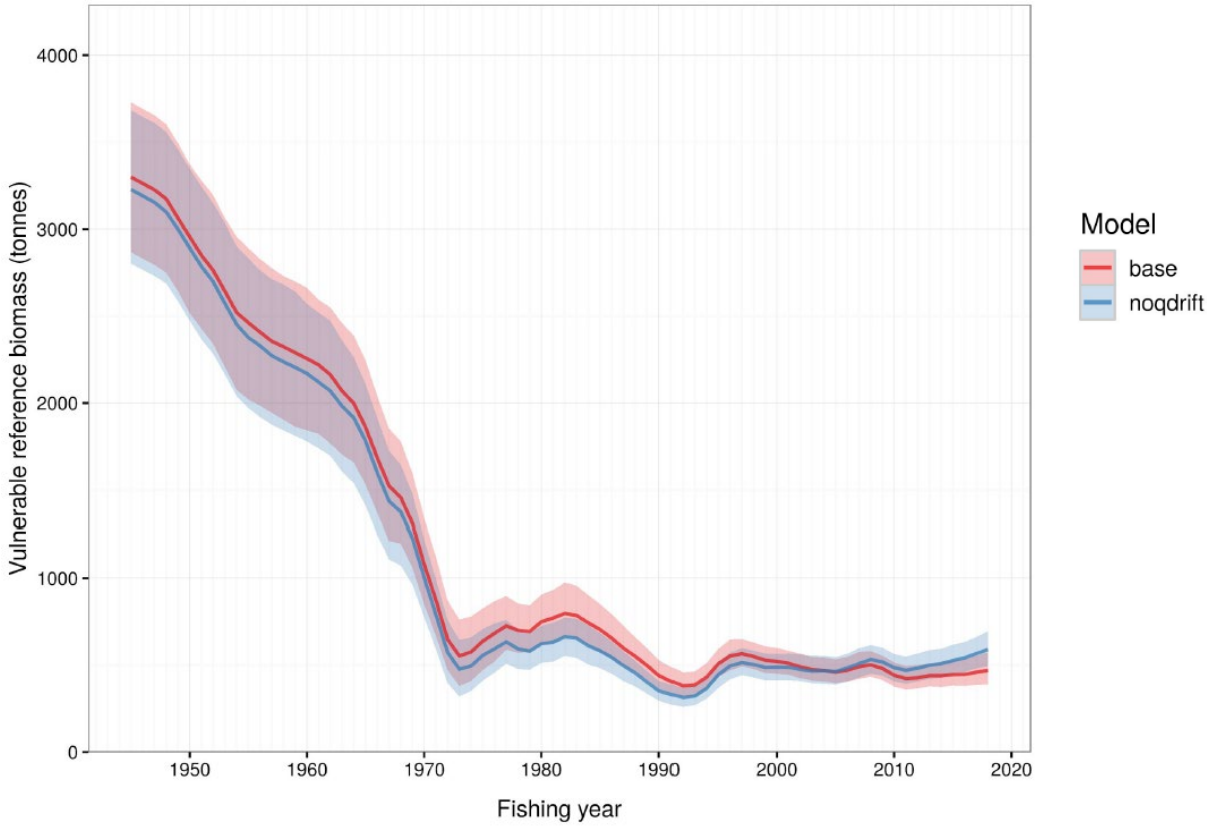


Figure 1. The stock assessment estimates of the legal sized male rock lobsters at the beginning of each fishing year in tonnes. The base case estimates start at 3216 t in 1945 and end at 498 t in 2018, red line. If there is no allowance for steady improvements in fishing gear and technology since 1990 (labelled no Q drift) the end point is 654 t, blue line.

48. **We submit that the CRA 1 stock needs to be rebuilt.** The current size of the overall vulnerable biomass at 15.5% of the unfished level is well below where it should be and is close to the lowest biomass ever. Given the much lower commercial catch rates in East Northland it is highly likely the vulnerable biomass in the area is below 10% of the unfished level, very similar to where CRA 2 was two years ago. Low stock abundance is severely limiting access to the fishery for recreational and customary fishers in East Northland.

49. More work is required on real management targets in the coming year, there will also be a review of CRA 1 and CRA 3 management options, plus two new stock assessments. FNZ and NRLMG need to consider the resources available in the stock assessment team and their workload to ensure that there is sufficient time to develop and discuss a range of management options.

50. **The submitters support option 1.2 as there is effectively no other choice at this time.**

Crayfish 3 (CRA 3) East Cape to Mahia

CRA 3 stock assessment

51. CRA 3 is another area with extensive rocky coastline and reef areas suitable for rock lobster. However, the distribution of crayfish is unusual, with an abundance of small males and few females north of Gisborne, and larger crayfish with more females further south, around Mahia Peninsula.

52. In the past CRA 3 was assessed with a one area model. In recent years there have been different trends in stock abundance between the north and the south. In CRA 3 there was enough information to split the assessment into two areas.

53. Other changes to the model assumptions include taking account of increased fishing efficiency over time and having a separate catch rate analysis (CPUE) for the pre-1990 commercial data. The estimate for other sources of mortality was reduced based on a general assessment that it was unrealistically high and a new method of estimating annual recreational harvest between national surveys was used. The biomass reference points (Bref and B min) derived from the previous assessments have been dropped.

54. The overall effect of model changes and adding 5 years of available data on the trend in stock abundance in CRA 3 is to lower estimates of overall biomass. At times there are large numbers of small CRA but this varies in what appears to be a long-term cycle. The peak of the current cycle was in 2013 and stock biomass has been in a gradual decline since then (Figure 2).

55. The base case estimated vulnerable biomass to be around 18% or 19% of unfished biomass while spawning stock (mature female) biomass was at 80%.

56. The very high spawning biomass is a result of the assumption in the stock assessment model that equal numbers of male and female rock lobster settle and grow. Catch sampling shows that few females are ever caught so the model estimates that they are somewhere in CRA 3, but just not vulnerable to fishing. This is one reason why the female biomass as a proportion of unfished spawning stock biomass is not a good measure of stock status in many New Zealand crayfish stocks.

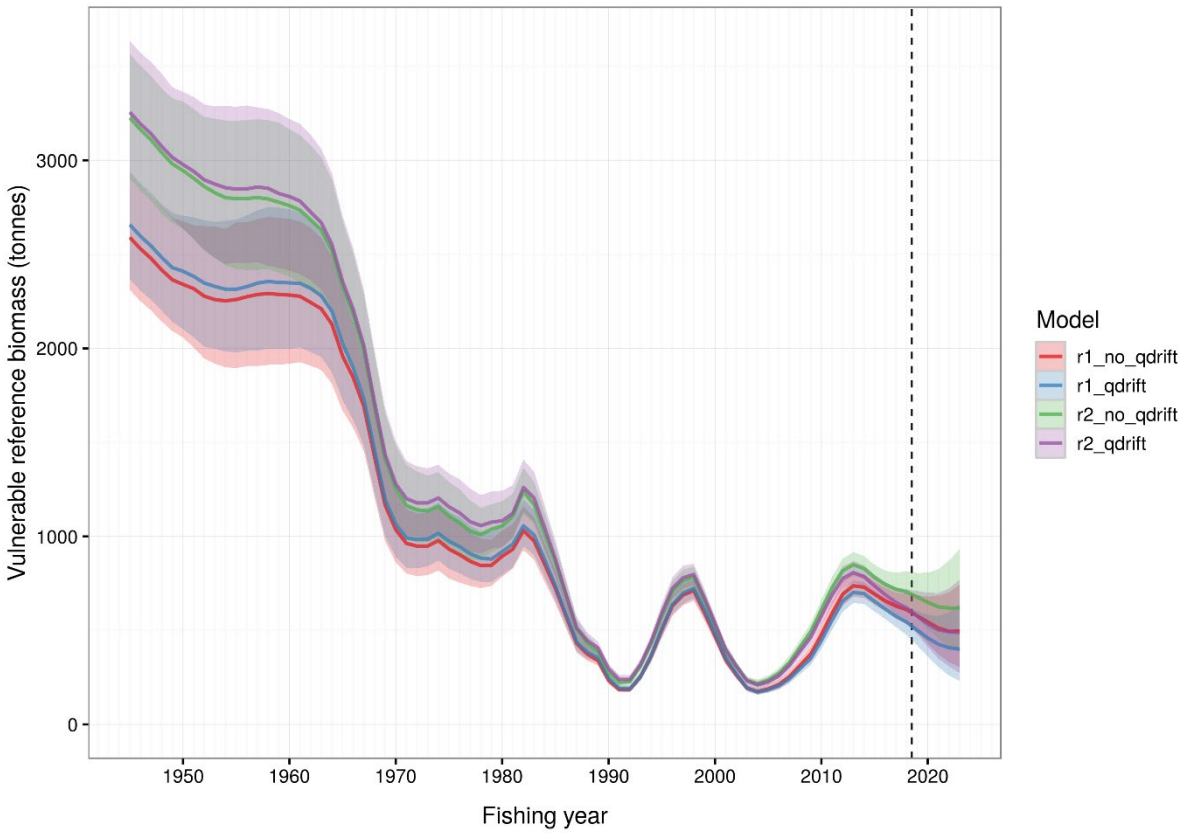


Figure 2: The CRA 3 stock assessment estimates of the legal sized male rock lobsters at the beginning of each fishing year in tonnes. The range of models include with and without an allowance for commercial fishing efficiency gains (Q drift) and two growth rate assumptions (r1 and r2). The dotted vertical line is 2019 with the model projections to 2023 to the right.

New reference points

57. As with CRA 1, there has been ongoing discussion and work on developing new target reference points for CRA stock management. The Rock Lobster Fisheries Assessment Working Group agreed on a method of setting interim targets for CRA 1 and CRA 3, based on the previous management procedure. This proposal was agreed to at the Rock Lobster Plenary meeting in November with the intent of holding the commercial cate rate (CPUE) at a reasonable level.

58. However, the CRA 3 projections were that biomass at the current catch would decline. **In order to reach the catch rate target in 5 years significant cuts to the TACC would be required.**

59. The submitters object to the process that followed the Plenary meeting. Stakeholders groups were shut out of the process that followed, which appeared to be a negotiation between the Rock Lobster Industry Council and FNZ on how to set a target that would be acceptable to quota holders. The result was a take it or leave it proposal to maintain current vulnerable biomass in CRA 3 at 18% or 19% of unfished level in the short term.

60. **This is yet another example of the current dominance of commercial interests in fisheries management decisions,** even in science working groups and the NRLMG. The science does not always get it right but there is no justification for backroom deals. Good process and transparency must be maintained.

61. It is very important that work continues on finding an agreed method of setting management targets for rock lobster that will meet stakeholder and environmental standards in line with kaitiakitanga and international best practice.

62. To achieve good process and transparency in decision-making **we make the following recommendations:**
    - The rationale and process for that last-minute change to the agreed management targets in CRA 1 and CRA 3 must be thoroughly documented and published.
    - Work needs to continue on independent science based management targets for CRA must be a priority in 2020.
    - The role of Rock Lobster Industry Council in managing and directing the rock lobster science process must be reviewed.
    - The workload and resourcing of the stock assessment team must be reassessed to ensure it is reasonable.
    - There needs to a wider acceptance that many CRA stocks are just not as productive as they used to be, and historic TACs cannot be seen as a baseline or management target.

CRA 3 Management

63. Overall the 2019 stock assessment is an improvement on the previous CRA 3 assessments. The same long term cycle seen in previous assessments is apparent with the CRA 3 stock 4 or 5 years into the declining phase (Figure 2). This fits with the current estimate of the vulnerable biomass of 501 t to 575 t for all of CRA 3 depending on which growth assumption is used.

64. The estimate of recreational catch in CRA 3 from the 2017-18 National Panel Survey was 12.2 tonnes with a confidence interval (CV) of 26%. This is slightly higher than the previous National Panel Survey estimate but not statistically different. In addition, about 3 tonnes is reported as recreational catch taken from commercial fishing vessels under Section 111 provisions.

65. **The 35% reduction of the recreational allowance to 13 t proposed in the discussion document does not cover the current estimates of combined take** under the amateur fishing regulations (12.2 t) and Section 111 provisions (3 t).

66. The recreational harvest of CRA along the East Coast and Mahia Peninsula will vary from year to year, depending on weather and swell conditions over the summer period as well as availability of legal size crayfish. **The submitters recommend the Minister retains the existing recreational allowance of 20 t in CRA 3**. If the recreational allowance is reduced as abundance declines then it must also take account of survey results and be increased as the stock is rebuilt.

67. **The submitters strongly support the removal of the concession** for commercial fishers allowing them to harvest male CRA down to 52 mm tail width during winter. This has been an ongoing issue for NZSFC members in the CRA 3 area for many years, particularly in the Gisborne region. The stock assessment shows that there was no change in the productivity of the stock if the concession was removed but it would remove the unfair advantage that the commercial fishers have on top of their obvious advantage in fishing power and ability to shift fishing effort to maintain catch rates.

68. A three-year potting survey was undertaken using standard rock lobster pots, fished inside the Te Tapuwae o Rongokako Marine Reserve and on similar reef structures to the north and south of the reserve. It found a much higher incidence of tail fin necrosis (TFN) for males outside the reserve (17%) than inside the reserve (2%).[2] This incidence is consistent with damage caused by pots and handing. The necrosis blackens and rots the tail reducing commercial value, increases mortality and potentially spreads to other lobsters.

69. The potting survey also provides data on the size distribution of rock lobster caught inside the marine reserve and on adjacent fished areas. The survey was conducted between November 2003 and November 2006, just 4 to 7 years after the reserve was established. 90% of rock lobster caught were male. Even in this short period, there is a remarkable difference in the size of male rock lobster inside the reserve with a broad spread of sizes and mode from 58 to 61 mm. Outside the reserve 84% of males were 48 to 53mm with just 2% were 58 mm or larger. Inside the reserve 60% of rock lobster were 58 mm or larger (Figure 3).

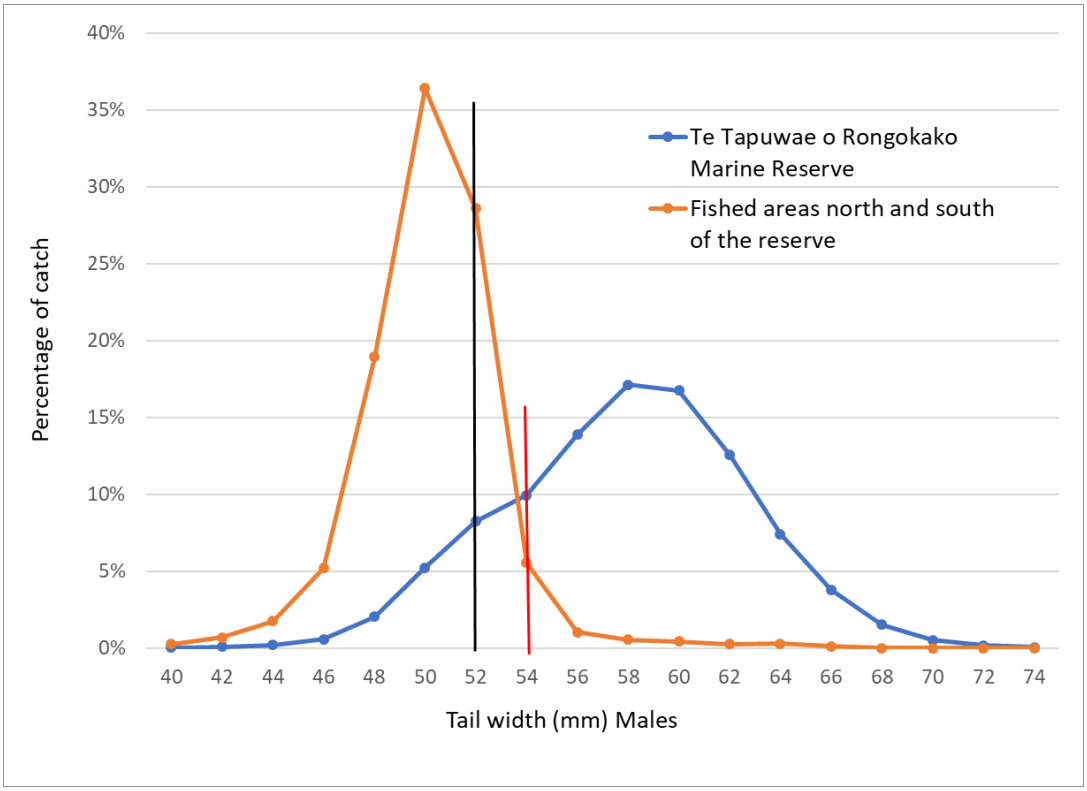


Figure 3: Percentage of male rock lobster by 2 mm tail width bin outside (orange) and within Te Tapuwae o Rongokako Marine Reserve (blue). The winter commercial male tail with size limit of 52 mm is the black vertical line the recreational size limit of 54 mm is the red vertical line.

70. The management proposals are based on a revised interim target that was not presented to the Plenary meeting and only revealed at the final NRLMG meeting of the year. The projections show that **the stock will decline if the current catch levels are maintained** (even using the reduced catch estimates for recreational harvest and illegal take). The short term objective to maintain

[2] Freeman and McDiamond. (2009). Healthier lobsters in a marine reserve: effects of fishing on disease incidence in the spiny lobster, *Jasus edwardsii.*

vulnerable biomass at current levels is a stop gap measure until long-term management targets can be established.

71. **The submitters support a decrease to the Total Allowable Catch (TAC) to 310 t** by reducing the Total Allowable Commercial Catch (TACC) by 13% to 195 tonnes, retaining the current allowances for Maori customary and recreational fishing interests at 20 t, and reducing the allowance for other sources of mortality by 16% to 75 t.

Crayfish 4 (CRA 4) Hawke Bay to Wellington

72. Previous Fisheries New Zealand advice has stated: "*For CRA 4, the biomass level that can produce the maximum sustainable yield (B_{MSY}) is not known. An MSY-compatible reference level, B_{REF}, is instead used for CRA 4. …. a new CRA 4 management procedure was agreed for use in guiding TAC setting from April 2017. This was to ensure stock biomass was rebuilt towards the agreed reference level in the next five years.*"

73. MPI now propose to increase the Total Allowable Catch (TAC). Within this, MPI propose to increase the Total Allowable Commercial Catch (TACC) by 56 tonnes or 17.4% based on the increase in commercial catch rates over the last two years.

74. The submitters do not consider that the increase in commercial catch rates (CPUE) using the old standardisation procedure is a reliable measure of the increase in CRA 4 stock abundance.

75. As stated in previous submissions, no allowance is made for changes in market demands, fishing operations, increased efficiency, shifts in area fished, changes in discard rates or reporting rates. There is no data collected on many of these factors and no consistent way of taking account of these types of changes in the stock assessment or management procedure.

76. The CRA 1, CRA 2, and CRA 3 CPUE standardisations now include vessel effects to account for some increased fishing efficiency since 1990. There have been significant changes in the CRA 4 fishing fleet since 1990 so the vessel standardisation will likely have resulted in lower current biomass estimates in this area as well. In addition, there have been improvements in the stock assessment assumptions since the last CRA 4 assessment in 2016. The Minister needs to be well informed of the increased uncertainty and risks if the best available information, i.e. CPUE standardisation by vessel, is omitted from the assessment of CRA 4.

77. A CRA 4 stock assessment is proposed for 2020 to provide a comprehensive update on stock status and an approach for future TAC setting.

78. Given the results of the recent CRA 1, CRA 2 and CRA 3 stock assessments **the submitters urge the Minister to delay management changes in CRA 4 until the new assessment and long-term management targets are available.**

79. The National Panel Survey estimate 41 t (CV 23%) of crayfish was harvested by amateur fishers in 2017–18. Fisheries New Zealand propose to retain the current allowance of 85 t until next year when the stock assessment will be complete. **The submitters agree with retaining the current 85 t recreational allowance until the stock assessment is completed.**

80. There seems to be an error in the TAC. The Minister did not reduce this allowance to 58 tonnes in 2019 and this appears to be the value used in the TAC for CRA 4 in Table 1 of the proposal document.

Crayfish 7 (CRA 7) Otago

81. Fisheries New Zealand advise for CRA 7 "*There has been a greater uptake of electronic data reporting in CRA 7 than in other areas; therefore, electronic data makes up a greater proportion of the CPUE series. CRA 7 CPUE values for the 2018/19 offset year (October to September) differed by 25% without and with the inclusion of electronic reporting data*."

82. While it is early days, it appears that the concerns about a step change in commercial catch rates (CPUE) with the introduction of the electronic reporting system are well founded. Again, the submitters do not consider that the increase in commercial catch rates (CPUE) using the old standardisation procedure is a reliable measure of the increase in CRA 7 stock abundance, regardless of which data point is used for 2019. That is because there is no allowance is made for changes in market demands, fishing operations, increased efficiency, shifts in area fished, and changes in discard rates or reporting rates.

83. Another factor in CRA 7 is that older fish migrate out of CRA 7, so the catch rate from the previous year may not be a good predictor of availability and abundance in the coming year.

84. **The submitters recommend the Minister retains the current TAC of 117 t and TACC of 97 tonnes in CRA 7 while the concession remains.**

85. The uncertainty about the CPUE will continue for several years. Raising the TACC to 127 t (up 31%) in 2020 may mean that it remains at that level for 5 years as there will be no credible information to determine the current status of the stock. The catch history over the last 20 years shows that annual commercial catches over 120 t in CRA 7 cannot be sustained for long.

Crayfish 8 (CRA 8) South Coast/Fiordland

86. Fisheries New Zealand advise for CRA 8 "*CPUE has increased steadily since 2015, to the highest CPUE in the observed history in 2019 (a CPUE of 4.83 kg/potlift)*."

87. Fisheries New Zealand propose an increase to the Total Allowable Catch (TAC) by increasing the Total Allowable Commercial Catch (TACC) by 62 tonnes, which is a 5.5% increase.

88. CRA 8 is a productive rock lobster fishery with by far the highest commercial catch rates in New Zealand. This is a remarkable turnaround for this fishery considering the catch rates were well below 1 kg per pot lift from 1990 to 2001. Operation of the management procedure increased the TACC by 5.5% t in 2018 and again in 2019. The proposal is for a 4th increase in consecutive years in CRA 8.

89. While the current rebuild is encouraging, CRA 8 used to be a very large stock and a large fishery. The stock assessment in 2015 estimated the start of year vulnerable biomass was still at a relatively low level, 13% of the unfished level. Presumably this includes concession sized rock lobster with tail width of 52 mm and 53 mm.

90. Historically, a concession was introduced to allow commercial fishers to harvest male rock lobster below the national minimum legal size when fishing was hard, and a high proportion of catch was small.

91. **The submitters recommend the Minister revoke all concessions in the rock lobster fisheries, including CRA 8,** as the original purpose of the concession is no longer valid.

92. The submitters recommend the Minister examine the level of concession fish before approving any TAC and TACC increase in CRA 8.

93. The National Panel Survey estimated the recreational harvest in CRA 8 to be about 16 t (CV 36%), well below the current allowance of 33 t. It is concerning to hear of proposals from some groups to severely limit individual catch by recreational fishers on charter boats in Fiordland. If recreational catch is roughly proportional to abundance (as assumed elsewhere) then the allowance for recreational harvest could also be increased if the TAC is to increase.

94. If the Minister decides to increase the TACC again this year then he must also consider an increase in the allowance for other fishing related mortality. A lot of CRA are returned to the sea in CRA 8 based on market preference and price. The TACC will have increased 24% from 962 tonnes over the last 4 years and the 28 tonne allowance for other mortality has not changed.

95. **The submitters recommend the Minister increase the allowance for fishing related mortality to 35 tonnes if the TACC and TAC is increased again this year**.

Acknowledgement

96. The Submitters are grateful for the assistance from The NZ Sport Fishing Council (NZSFC) with the preparation of this submission.

3 February 2020

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

Ngāti Kahungunu Iwi
INCORPORATED

Submission: Review of sustainability Measures for Rock Lobster in Gisborne (CRA3), Hawke's Bay / Wellington (CRA4).
From: Ngāti Kahungunu Iwi Incorporated

Tēnā koutou

1. **Ngāti Kahungunu Iwi Incorporated** (NKII) is a mandated iwi organisation. Ngāti Kahungunu has the third largest iwi population (62,000[1]) and the second largest tribal rohe and coastline, from Paritū and extending inland across the Wharerata ranges in the north to Turakirae in South Wairarapa.
2. Ngāti Kahungunu maintains an independent position to protect and advocate the interests, rights, values, beliefs and practices of Ngāti Kahungunu whānau, hapū and iwi. This includes a responsibility and obligation as kaitiaki to care and protect the taiao for future generations.
3. Ngāti Kahungunu Iwi Incorporated has received fisheries settlement assets as a result of the Treaty of Waitangi Fisheries Settlement of 1992, the Maori Commercial Aquaculture Settlement Act 2004 and the implementation of the Maori Fisheries Act 2004. These settlements provide a significant opportunity for our economic development aspirations which we continue to balance against our obligations as kaitiaki.
4. Ngā hapū o Ngāti Kahungunu have maintained customary use of marine resources out to and beyond the EEZ 12 nautical mile limit. Customary use and hapū authority has been acknowledged and gazetted along the majority of our coastline via the 1998 Fisheries (Kaimoana Customary Fishing) Regulations.
5. Ngāti Kahungunu hold significant commercial interests in the crayfish industry through the Ngāti Kahungunu Asset Holding Company and its shareholdings in Fiordland Lobster Company.

CRA3

6. Ngāti Kahungunu supports option 2 for a decrease in the TAC and TACC for CRA3 in accordance with a precautionary approach to the management of the stock given the lack of an agreed biomass reference level, and projections of a decline in the abundance of vulnerable individuals over the next 5 years.
7. Anecdotal feedback suggests that the allowances for 'other mortality' and 'customary' are under-represented in table 5 of the recent consultation document and that potentially they could be reconsidered and TAC amended accordingly.

CRA4

8. Ngāti Kahungunu supports option 1 maintain status quo in the TAC and TACC for CRA4.

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

9. Ngāti Kahungunu looks forward to reviewing estimated biomass levels for the vulnerable and spawning stocks generated for the proposed 2020 CRA4 stock assessment. In the interim a precautionary approach is warranted given below average recruitment and decreasing long-term trends at both CRA4 pueruli monitoring sites. Moreover, NZ has experienced three consecutive summers of record high sea surface temperatures (2016/17, 2018/19, 2019/20), with climate change models projecting a continued warming trend. The biological effects of these changes are uncertain and it is suggested that the level of uncertainty has not been adequately applied to biological parameters, e.g. recruitment, for scenario modelling on which the TACC plateau's have been set.

10. Ngāti Kahungunu has also been cautious of the impacts of seismic survey activity along the Hawke's Bay and Wairarapa coastlines since 2016, and the negative effects this activity may have had on the resilience and future recruitment of the crayfish stocks.

11. The iwi is also mindful of ensuring that the over-all effectiveness of commercial reductions in quota and voluntary industry management procedures are not unnecessarily undone prematurely For these reasons Ngāti Kahungunu recommend a precautionary approach to managing CRA4 stocks.

12. Ngāti Kahungunu believes that our position is 'in the best interest for the long-term sustainable utilization for the stock'.

13. Ngāti Kahungunu Iwi Incorporated are supportive of other Ngāti Kahungunu iwi, Taiwhenua and hapū organisations submitting on this matter. Please ensure that all queries and further communication is sent to Ngaio Tiuka, Pouarataki: Director of Environment and Natural Resources, ngaio@kahungunu.iwi.nz

Nāku noa,

Ngaio Tiuka
Director of Environment and Natural Resources
Ngāti Kahungunu Iwi Incorporated
PO Box 2406
Hastings

Submission Form

Review of sustainability measures for 1 April 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 5 February 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: Hilton James Leith	
Organisation (if applicable):	Oceans Family Trust
Email:	[redacted]
Fishstock this submission refers to:	CRA1, SCA1
Your preferred option as detailed in the discussion paper (write “other” if you do not agree with any of the options presented):	Opton 3 for CRA1, Option 1 for SCA!

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:

I support Option 3 for CRA1.

Option 3 is the shelving of 16% of the CRA1 TACC.

I am agreeing to this, not because I see the need for a reduction in most of CRA1, but because of the elephant in the room. That is, the unsustainable pressure now coming from recreational fishers from North Cape right down the east coast through CRA2 to East Cape.

This is the result of the exponential growth in the wealth of the NZ middle class who now can afford an expensive launch or run about. CRA1 came into the quota system in 1990. In those days I felt like I needed my passport to go to an east coast offshore island. Not now! Sometimes you have difficulty finding somewhere uncrowded to anchor up.

The reductions already made by the Minister in CRA2, along with any reductions that occur in CRA1, will be wasted unless there is serious consideration given to amateur catch. I have talked to many divers in the North who would now applaud draconian measures being introduced to preserve the remaining stocks of Rock Lobster.

For this reason, I further ask for the recreational catch for Rock Lobster be reduced from 6 lobsters per person per day down to 1 Lobster per person per day. This to apply from North Cape to East Cape.

An important component of overfishing aggregation limits. They have slipped through the system for far too long. No concerned recreational fisherman needs to fill up their freezer any longer. They catch what they can eat and leave the rest in the ocean.

I further request that any aggregation limits be removed. No recreational fisher can have on themselves, or in their fridge or freezer any Rock Lobster, Paua, shell fish or wetfish in excess of the daily limit. Imagine how easy the Fishery Officer's job would be?

I support of Option 1 for the SCA1 TACC.

I am a shareholder in the Northland Scallop Enhancement Company (NSEC) but I make this submission in my own right.

Currently the Northland Scallop Enhancement Company (NSEC) oversees the commercial harvest of scallops in Northland. NSEC have instigated various measures to limit the impacts of dredging on the environment and best preserve the juvenile stocks to ensure an adequate breeding biomass.

For example, if more than 50% by number of a tow is undersized scallops, then the fishing vessels move on from that bed. This is to minimize fishing related mortality on juvenile stocks. Also, if the meat weight drops below 10% of the green weight, then fishing ceases. This ensures the least

number of scallops taken, for the greatest recovery. Also, we have agreed that no dredging activity takes place in the New Year, so that we do not disturb the settlement of spawning scallops in January. Usually the last spawning event of the season. So, commercial scallop dredging ceases at Xmas. Recreational fishing for scallops continues until the end of March, so it would be wise to cease all scallop fishing (Recreational, traditional and commercial) at the New Year.

Reports on scallop fishing from all over the world consistently report on highly volatile stocks. It is not an easy fishery to manage with a TACC. That is why NSEC have brought in these external management regimes.

Reducing the SCA1 TACC to 10 tonnes will have no effect on the current commercial fishing activity. The commercial take has been constrained below 10 tonnes for most of the previous 10 years with a TACC of 40 tonnes, and many seasons have seen as few as 4 commercial vessels operating.

However, a reduction to 10T TACC will have a detrimental effect on the fishery by not allowing NSEC to be an economic entity in the better seasons. SCA1 fishers, processors and quota owners have agreed to pay a $1/kg plus GST levy to operate NSEC. With declining catches this has been increased to $2/kg in the 2019 fishing year to prevent NSEC from becoming insolvent. $2/kg is not economically sustainable for fishers but currently NSEC have had no choice but to endorse the levy. Even with the $2/kg levy, there are not enough funds for NSEC to carry out surveys or invest in research. Our records are available to be scrutinized if the Minister wishes to investigate.

NSEC needs a TACC of 40 tonnes to operate effectively, have regular surveys, invest in research and pay for the normal costs of running a management company. The levy needs to be brought back to $1/kg and if 40T TACC is caught, that achieves $40,000 per annum to operate NSEC. That is sustainable.

Now I know the obvious question you will be asking. Why should the TACC be left at 40T just for NSEC to operate viably? The reason I give is that to reduce it to 10T, as I have previously stated, has no effect on the commercial harvest, but it does undermine the ability of the management company to fund itself in the good seasons.

An important consideration is the state of the recreational scallop fishery at Whangaroa and the Bay of Islands. As recorded in the Sustainability Review these scallop fisheries are in dire straits. In the case of Whangaroa I would put it down to runoff and silt blanketing the harbour bottom. At the Bay of Islands, the beds have been decimated by recreational fishing. However, down the coast at Whangarei Harbour the recreational scallop fishery has survived phenomenal recreational pressure, and, although not sustainable long term, it has coped remarkably well over the past decade. No recording of recreational scallop catch in the Whangarei harbour is undertaken, but over the 6-month season thousands of boats and tens of thousands of divers would take their limit of 20 scallops per day.

What doesn’t make sense is that the Bream Bay commercial scallop fishery is tied to the Whangarei Harbour recreational fishery by the same body of water. Why is the Whangarei harbour so prolific at the same time as Bream Bay is struggling? It seems to come back to food. The Harbour has access to nutrients that are too diluted by the time they reach Bream Bay.

Three seasons ago SCA1 fishers discovered huge beds of scallops running from Bream Bay past Mangawhai down to Pakiri. They pulled them up by the dredge full. I still have a short video clip one of the fishers sent me. Fishermen were estimating there were hundreds of tonnes green weight of scallops. The only problem was that 90% of these scallops were 2-5mm undersize. Our rules of NSEC preclude fishing in such beds because more than 50% were undersize. So, we left the scallops with an air of excitement about the following season. Next season we would easily catch our 40 tonnes. In fact, there seemed enough scallops to easily catch the TACC for the next 10 years. So, we would be able to fund NSEC and recommence our annual surveys. We all knew how easily scallops could grow 2-5mm in a year……BUT we were wrong! The boats headed out the following year to find the scallops had not grown! They were still undersize, and the beds seemed smaller!

This year has been similar. For some reason the scallops in Bream Bay are not growing. And yet, right alongside, recreational fishermen are having yet another boom year inside the Whangarei harbour!!

So, there are commercial quantities of undersize scallops out there in Bream Bay and Mangawhai. They have not been overfished by commercial fishers, but they have not grown to legal size either. At some stage the remaining scallops will access a food source to reach legal size and when that happens, commercial fishers will be able to access a sustainable 40 tonnes.

The Crown introduced SCA1 into the Quota Management System with a TACC of 188 tonnes. Since then it has been cut to 106, 60 and then 40 tonnes. These reductions have done nothing to constrain commercial harvesting. The reductions have rather followed the downward spiral of the biomass. When the next set of bumper seasons occurs, then the catch at 40 tonnes is constrained enough to ensure sustainability and an adequate breeding biomass.

Ideally, 20 tonnes are caught at Bream Bay and 20 tonnes at Houhora.

I SUPPORT OPTION ONE WITH THE SCA1 TACC REMAINING AT 40 TONNES. I FURTHER REQUEST THE CLOSING OF ALL SCALLOP HARVESTING IN NORTHLAND FROM NEW YEAR FOR RECREATIONAL AND COMMERCIAL. THIS WOULD EXTEND THE CLOSED SEASON FROM 1ST JANUARY TO 14TH JULY FOR COMMERCIAL, AND 1ST JANUARY TO 1ST SEPTEMBER FOR RECREATIONAL.

Please continue on a separate sheet if required.

10 February 2020

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

By Email: FMSubmissions@mpi.govt.nz

REVIEW OF ROCK LOBSTER SUSTAINABILITY MEASURES FOR 1 APRIL 2020/2021

SUBMISSION ON BEHALF OF OTAGO ROCK LOBSTER INDUSTRY ASSOCIATION INC

Background

This submission is made by Otago Rock Lobster Industry Association Incorporated ("ORLIA"). ORLIA is a fully constituted and incorporated society which is recognised as the commercial stakeholder organisation representing the interests of commercial rock lobster industry on the Otago Coast, the CRA7 fishery.

This submission focuses on the proposed sustainability measures for CRA7. The Consultation Document presents two management options for CRA7:

- Option 7.1 proposes the status quo for the Total Allowable Commercial Catch ("TACC"), accordingly the Total Allowable Commercial Catch ("TAC") would be unchanged; or

- Option 7.2 proposes to increase the TACC to 126.9 tonnes. This represents an increase of 31%. The allowances for recreational catch and other mortality will remain the same. The TAC will be increased to 146.9 tonnes.

Executive Summary

ORLIA supports the use of management procedures ("MP") within rock lobster fisheries to guide TAC/TACC setting and the use of electronic reporting ("EDW") as a tool to improve the quality of fisheries management in New Zealand, giving clear and certain views of what is actually happening at sea in real time.

Accordingly, ORLIA supports Option 7.2:

- CRA7 is a highly migratory fishery so it is crucial and equitable that fishers can access high abundance when it is available.

- Option 7.2 reflects the very high catch rates and other indicators of abundance CRA7 is currently experiencing.

- ORLIA understands there is a risk that Option 7.2 may set the TACC too high for the CRA7 fishery to sustain until a new TACC can be set from 1 April 2022. However ORLIA views that the likelihood of such risk occurring is low given the current high abundance.

- In the interim, ORLIA will use its best endeavours to assist the Rock Lobster Fisheries Assessment Working Group in developing alternative ways to assess stock levels. ORLIA would volunteer to take sustainability measures if such assessments showed they were necessary.

Submissions

1. CRA7 is a highly migratory fishery so it is crucial and equitable that fishers can access high abundance when it is available. The CRA7 fishery is unique among New Zealand lobster fisheries as it has a predominantly recruitment habitat and has a history of fluctuation due to unpredictable migrations of lobster south to the CRA8 fishery. MP have been used in preference to traditional stock assessment methods for CRA7 since 1997 and various iterations and their annual results have been accepted by successive Ministers of Fisheries since then. They are intended to enable a management regime which can respond to changes in stock abundance in the fishery on an annual basis. Plus, they involve fishery stakeholders in the choice of a MP.

2. Standardised CPUE is considered to be a reliable indicator of relative stock size in CRA7, and is the abundance indicator used in the CRA7 MP. It is considered to be proportional to abundance (ie, the higher the CPUE, the more abundance in the fishery). However it is commonly accepted that it is impossible for it to be 100% reflective of what is happening at sea because it is designed to show trends.

3. The data used to determine CPUE is submitted by fishers regarding their catch, effort and landings. It is processed to remove errors, then "standardised" to remove the effects of variances in vessels, seasons and areas. Vessels with a discrepancy of greater than +/- 20% between estimated landed catch and confirmed LFR catch for the year are not used. In a small fishery like CRA7 this can have material effects on calculations, with the result not necessarily being an accurate reflection of abundance fishers are experiencing on the water. In recent years, observations from CRA7 industry participants have been that the standardised CPUE has declined leading the MP to produce TAC/TACC settings which are inconsistent with the stock abundance they see at sea.

4. Explanations for the perceived mismatch between the TACC and actual abundance have been discussed, including too many human errors in reporting or too much standardisation. For example, CPUE estimates are biased if not all fish stock are reported. Recently, whether all legal discard fish ("Code X") were being correctly reported by CRA7 fishers was queried. ORLIA is not certain how this may have affected the results of the MP but under EDW, operators are now totally committed to reporting Code X. Due to such uncertainty, plus the highly migratory nature of CRA7 fishery, CRA7 fishers are very positive about EDW because it is enabling a clearer, more certain picture of what is actually happening at sea in real time.

5. Reservations have been expressed in the Consultation Document about using EDW - that it is currently unknown how the advent of EDW will affect commercial CPUE and when future MP that are dependent on this data series can be run. ORLIA understands it will not be possible to use the MP for 1 April 2021 and therefore there is no existing mechanism that could be used to adjust the TACC set under Option 7.2. In 2021 a full stock assessment will be undertaken for CRA7, and that can be used to reset, if necessary, the TAC/TACC for 1 April 2022. There is a risk that by proceeding with Option 7.2 the TACC may be set too high for the CRA7 fishery to sustain until then. However, this risk will be ameliorated by the development of alternative assessment approaches for decisions on TAC changes beyond April 2020 which ORLIA understands the Rock Lobster Fisheries Assessment Working Group is currently working on. ORLIA will use its best endeavours to assist the Group in this regard and would volunteer to take sustainability measures if the results showed they were needed.

6. In any event, ORLIA views that the likelihood of such risk occurring is low given the current high levels of stock. As noted in the Consultation Document, CRA7's CPUE has increased substantially from 2012, indicating CRA7 abundance has increased. ORLIA's view is that the EDW results match the abundance CRA7 operators have been observing on the grounds for several years. In addition, and independently of EDW, ORLIA understands that the preliminary results of catch sampling done in Spring 2019 indicate high stock levels. Further, the good settlements of puerulus from the last four to five years are suggestive of high abundance in the fishery. Also, recreational divers have reported to CRA7 fishers that there very high numbers. While CRA7 is a fishery that fluctuates, it has sustained a period of high TACC over consecutive years before. For example, it was at 120 tonnes from 2006 - 2009 and 138 tonnes from 1993 - 1999. Since 2013-2014, CPUE data has been consistently above 2 kg/potlift.

7. Abundance in CRA7 has occurred through careful management of stock. ORLIA has supported the inclusion of a high minimum threshold in its MP (10% compared to 5% in many other fisheries). ORLIA designed the MP to suit the CRA7 fishery based on the historical performance of the migratory pattern that has been recorded and understood for many years. It is a reactionary MP by the slope design of the rule and

should be used in that way (as per Figure 16 below). While the slope of the MP was designed to be driven by CELR data (which appears to produce more conservative results than EDW), Option 7.2 (a combination of CELR and EDW) still sits on the slope.

8. A significant number of CRA7's quota share owners are active fishing operators, are related to fishers or are recent past fishers. They know the CRA7 waters and are aware of the potential risk that having a high TACC which cannot be fully fished can bring (ie. a sharp drop in the future). Supporting Option 7.2 is not a decision they take lightly. If EDW is excluded, then the TACC proposed under Option 7.1 in the Consultation Document will fall well under the projected MP (see where '2019' sits in Figure 16). However if Option 7.2 is used, the TACC will sit on the projected MP, albeit in the upper parameter (see where '2019' sits in Figure 17 below). The upper parameter acknowledges that if abundance, as indicated by CPUE, is at such a level the TACC can increase to take advantage of this heightened abundance without any risk to the stock.

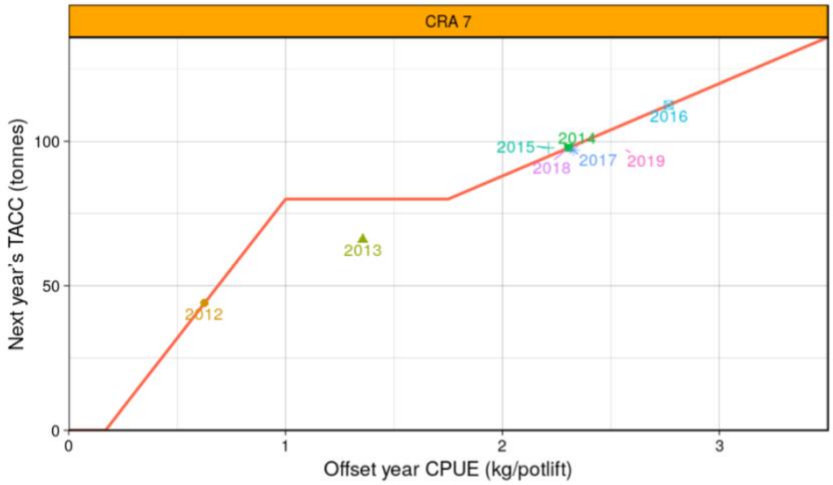


Figure 16: History of the CRA 7 management procedure. The coloured symbols show the 2012 to 2019 CPUE and the resulting TACCs [without electronic reporting data in 2019].

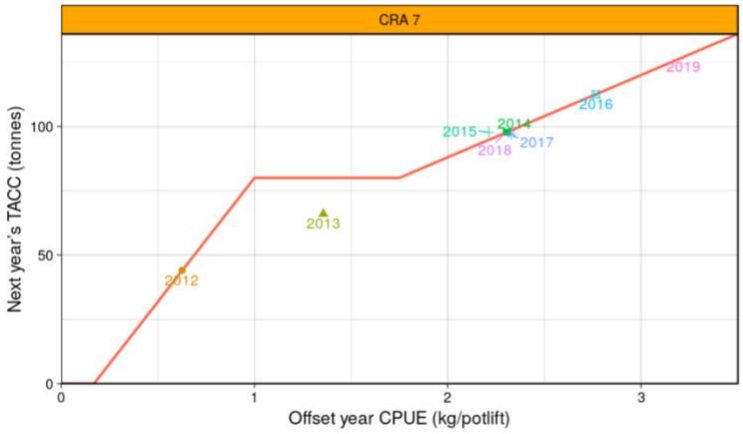


Figure 17: History of the CRA 7 management procedure. The coloured symbols show the 2012 to 2019 CPUE and the resulting TACCs [with electronic reporting data in 2019].

9. A maximum change threshold of 50% was incorporated into the MP to avoid excessive fluctuations from the variable CRA7 fishery – but at times it has had the effect to cap TACC. For example, in November 2013 the off-set year CPUE had more than doubled to 1.356 kg/potlift, which suggested a TACC of 80 tonnes. However, the increase was greater than the maximum allowed increase of 50%, so the TACC could only be increased by 50% to 66 tonnes. This was despite standardised CPUE data for 2012-2013 of 0.68 kg/potlift increasing to 2.05kg/potlift in 2013-2014. It is ORLIA's submission that the Option 7.2 is corrective, finally bringing the TACC up to match what is happening on the grounds. It is possible that given the increases in CPUE, had ORLIA been given the opportunity to review its MP in 2020 as anticipated, it would have decreased its maximum change threshold and/or the minimum change threshold. However, due to the advent of EDW, ORLIA understands an MP cannot be run in 2020, let alone reviewed.

10. It is recognised within the CRA7 industry that the best economic result is not necessarily achieved through maximum exploitation of the vulnerable biomass. The ability to target fishing effort at certain times of the year and certain grades when market prices are at the their most favourable is a much more desirable outcome. For instance, now the CRA7 has a year-long season, fishers are high-grading more. That more high-grading is occurring indicates there is more stock in the fishery. For example, in 2017-2018 fishing year there were a total of 103.3 potlifts recorded (000's), when multiplied by the standardised CPUE of 2.10 kg/potlift for that year, 216.93 tonnes were caught. 112.52 tonnes was the TACC for that year, so nearly the same amount of lobster were thrown back as taken (the difference being 104.41 tonnes). In the 2018-2019 fishing year, there were a total of 86.0 potlifts recorded (000's), when multiplied by the standardised CPUE of 2.96 kg/potlift for that year, 254.56 tonnes were caught. 97.00 tonnes was the TACC for that year, so more lobster

were thrown back than were allowed to be taken under the TACC (the difference being 157.56 tonnes).

11. As noted in the Consultation Document, the proposed TACC increase has the potential to result in an increase of annual revenue to the catching sector alone of approximately $5.33 million. Export earnings could be higher again. A large portion of these increased earnings will be spent within the southern regional economies. This aligns with the government's aim of encouraging regional economic development. It will enable existing vessels to become more financially efficient and profitable. If the TACC stays at its current level (Option 7.1) it will constrain utilisation in the CRA7 fishery and result in a loss of additional revenue compared to increasing the TACC (Option 7.2).

Conclusion

Given the abundance discussed above, ORLIA submits it would be inequitable for the status quo (ie Option 7.1) to become the TACC for not only the 2020 fishing year, but also the 2021 fishing year. ORLIA supports Option 7.2 because it will empower CRA7 industry participants to access the increased abundance to which they are entitled through their responsible management of the stock. There may be a risk that by proceeding with Option 7.2 the TACC is set too high for the CRA7 fishery to sustain until the next MP can be run. However, as discussed above, ORLIA views that the likelihood of such risk occurring is low. This risk will be ameliorated by the development of alternative assessment approaches for decisions on TAC changes beyond April 2020 which ORLIA looks forward to the Rock Lobster Fisheries Assessment Working Group producing. CRA7 is a highly migratory fishery so it is crucial and equitable that fishers can access high abundance when it is available.

Yours faithfully,

Kate Hesson,
Executive Officer
Otago Rock Lobster Industry Association Inc
Dunedin
[redacted]

Submission Form

Review of sustainability measures for 1 April 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 5 February 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: Taryn Shirkey (Patuharakeke)	
Organisation (if applicable):	Patuharakeke Te Iwi Trust Board (PTB)
Email:	[redacted]
Fishstock this submission refers to:	CRA1
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	Option 1.2

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]

The Patuharakeke Mana Moana Roopu, as Kaitiaki gazetted in May 2009 under the Kaimoana Fisheries Regulations 1998, hereby make this submission on behalf of the Patuharakeke Te Iwi Trust Board and the hapū of Patuharakeke.

We strongly support the proposal to significantly reduce the Total Allowable Catch (TAC) and Total Allowable Commercial Catch (TACC) for Northland Rock Lobster (CRA1). Rock lobster is a widely popular kaimoana species targeted heavily in Northland, extending into Patuharakeke Rohe moana. We support action to update and review these TAC and TACC to accurately reflect the sustainable capacity of this CRA1 fishery. As stated in the discussion report, Rock lobster populations have can heavily fluctuate due to environmental sensitivities. Therefore, lowering these catch limits is a suitable decision to temporarily address sustainability risks of the fishery.

This fishery is under immense pressure within Whangārei Harbour and the wider Te Akau, Bream Bay areas. While we support this proposal, we believe further discussion and action should be taken to action appropriate measures (compulsory recreational/customary catch reports) to achieve tighter sustainable regulation and support for this fishery.

As our community utilise the recreational catch to feed their whānau, we offer this approach to continue the vitality of this fishery to allow the majority of our people to continue to put kaimoana on the table. As always, but even more so in these difficult economic times, whanau are dependent on kaimoana to supplement their low incomes and provide their tamariki and our elders with healthy kai. This also has inherent impacts on our mana as we are unable to manaaki our guests by providing them the seafood we were once renowned for in our area.

Kaitiakitanga is an environmental responsibility passed down from our tupuna (ancestors) to honour and sustain our taonga tuku iho for our mokopuna. As kaitiaki we are resolute in our desire to conserve kaimoana for the future, and we have continually demonstrated this by the careful management (including rāhui over pipi beds) of our rohe moana. Kōura are a historically valued taonga species and concern arises when current fisheries models have not successfully protected our mahinga kai and taonga species in the past. Consequently, we propose to see the inclusion of tangata whenua led/mana moana frameworks to allow local scale control and guardianship of this taonga in the near future.

Nāku noa, nā
Taryn Shirkey

[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 April 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 5 February 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:	Geoff and Paula Price
Organisation (if applicable):	
Email:	[redacted]
Fishstock this submission refers to:	CRA4
Your preferred option as detailed in the discussion paper (write "other" if you do not agree with any of the options presented):	Option 4.2 as based on CRA 4 management procedure

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

Details supporting your views

We are commercial Rock Lobster fishers who fish in CRA4 off the Wairarapa coast.

It is our position that the 17% increase in TACC generated by the CRA4 management procedure [rule] should be approved and allocated. This is based on our own personal evidence of the abundance of both legal and sub legal crays observed last season and an even bigger increase so far for the current season.

As this is the last year of operation for the management procedure, [because of the introduction of electronic reporting] we think it is important to take the increase as there is no guaranteed method to take advantage of the increase in abundance of crays in CRA4 for the next 2 – 4 years.

In the past, the management procedure science has worked to both increase and decrease the TACC to preserve the biomass and we see no reason to deviate from the rule in the management procedure's final year of operation.

As we are also quota share owners, if we are not allocated an increase it will have a detrimental effect on our fishing business and our own personal asset base.

TAIRAWHITI ROCK LOBSTER INDUSTRY ASSOCIATION INC. (TRLIA)

Private Bag 24-901
Wellington, 6142

REVIEW OF ROCK LOBSTER SUSTAINABILITY MEASURES FOR 01 APRIL 2020

SUBMISSION ON BEHALF OF TRLIA CRA 3

This submission is made by the Tairawhiti Rock Lobster Industry Association Inc (TRLIA). The organisation is a fully constituted and incorporated society that is recognised as the commercial stakeholder organisation representing the interests of the commercial rock lobster industry in the Poverty Bay region, extending from East Cape in the north down to the Wairoa River, south of Mahia Peninsula.

This submission focuses on the proposed sustainability measures for CRA 3.

The consultation document presents two management options for CRA3.

- Option 3.1, proposes the status quo for the Total Allowable Commercial Catch (TACC), accordingly the TAC would be unchanged;
- Option 3.2 (based on the latest CRA 3 stock assessment), proposes to reduce the TACC to 195 tonnes. This represents a decrease of 27.9 tonnes or 13%. The allowances for recreational catch and other mortality will be reduced to 13 tonnes and 75 tonnes respectively. The TAC will be decreased to 303 tonnes.

TRLIA are supportive of the stock assessment science process and of the Rock Lobster Stock Assessment Working Group that advises on the quality and therefore the suitability of the science results to be used to inform effective management decisions in the CRA 3 fishery. It therefore follows that TRLIA support Option 3.2 which results in a 27.9 tonne decrease in the TACC.

However, TRLIA are very aware that any intended management outcome can only be achieved if catch across all sectors is managed to the allowances proposed in Option 3.2.

TRLIA are fully committed to maintaining a healthy, sustainable CRA 3 fishery for the benefit of all sectors and therefore there is a high level of frustration over the lack of commitment from Fisheries New Zealand to implement and enforce better estimation and management of recreational catch. Allowances for recreational catch should change in the same direction and at the same time as the TACC, with all changes based on good stock assessment science. There is currently a high degree of uncertainty in the level of recreational catch, this not only creates uncertainty in the stock assessment model outputs but, until this uncertainty is adequately

reduced this catch cannot be effectively managed to the allowance proposed in Option 3.2. TRLIA strongly emphasise the need for FNZ to take steps to address this issue.

The current estimate of illegal take in CRA 3 is also highly uncertain. Option 3.2 proposes an allowance for "Other Mortality" of 75 tonnes. The lack of supporting evidence for this figure, suggesting moderate to high levels of illegal fishing in CRA 3, are of serious concern to industry and should be to all legitimate extractive users. TRLIA support MPI/FNZ taking steps to address the uncertainty in this figure and to reduce any level of illegal take.

A 27.9 tonne reduction in the TACC in CRA 3 will result in an estimated $2.4 million loss in annual revenue for the commercial rock lobster fishery alone. This loss to the commercial fishery will also have financial repercussions to a good number of other businesses that rely on the commercial fishery for income. These repercussions can be especially harsh on New Zealand's many smaller coastal town communities.

Even in the face of the harsh financial pressure, a cut in the TACC would impose on many within the CRA 3 commercial fishing sector, TRLIA remain fully committed to maintaining a healthy, sustainable fishery, and indeed, at their own expense, the commercial fishers take responsibility for collecting much of the data that supports the stock assessment science. This includes a voluntary log book programme which collects data across the fishery all year round, as well as a catch sampling and tag recapture research programme. The commitment to this work will be maintained.

It is recognised in the "Review of Rock Lobster Sustainability Measures for 2020/21" document that it is currently unknown how the advent of electronic catch and effort reporting will affect commercial CPUE and the subsequent future management procedures that are dependent on this data series. To that end no new management procedures have been developed for CRA 3 following the 2019 stock assessment. The Sustainability Review document also noted, "…The Rock Lobster Fisheries Assessment Working Group is currently considering alternative assessment approaches to use as the basis for advice to the Minister and decisions on TAC changes beyond April 2020…" as well as stating the CRA 3 TAC will be reviewed again from 1 April 2021. TRLIA are relying on the integrity of Fisheries NZ and the Minister, to ensure a review of the CRA 3 TAC is undertaken from 1 April 2021.

The Sustainability Review document also notes that the Minister has requested that the NRLMG look at different CRA 3 tail differential minimum legal size options as part of the CRA 3 stock assessment and that the NRLMG will be providing the Minister with advice on this matter in late February 2020. TRLIA do not support this review.

TRLIA want to strongly emphasise the effectiveness and importance, over a good number of years, of the 52mm tail differential as a fishery management tool in areas 909 & 910 in CRA 3. The use of this management tool, requires that commercial fishers voluntarily choose not to fish from 1 September to 15 January each year. This means commercial fishers are carefully managing sustainability of the fishery as they are fishing when lobster are strong and healthy.

This management tool also helps reduce poaching in the fishery. With no commercial pots in the water for four and half months, the opportunity for poachers to adversely impact on the

sustainability of the fishery is significantly mitigated. This management tool also helps mitigate spatial conflict in the fishery by moving commercial fishing effort away from spring and summer and into winter and allowing recreational and customary fishers, exclusive access to the fishery during the months (spring/summer) when they are most active.

Claims have been made of localized depletion around the Gisborne area as a result of the 52mm tail differential. However, these claims have been based solely on anecdotal information and are not supported by any scientific facts. Sampling undertaken, between Gisborne Port and Makarori Beach in November 2014 (by an independent research provider, Lat 37), showed a catch per unit of effort (CPUE, kg/potlift) of about 1.6 to 1.8kg/pot (the commercial CPUE for area 910 over the following summer was 2.0 kg/pot), showing there was adequate opportunity for recreational fishers to catch legal sized lobster. This sampling regime, has continued for the past six years.

In summary, TRLIA support Option 3.2 but stress the need for FNZ to take action in regard to implementing and enforcing better estimation of recreational catch so this catch can be managed to the proposed recreational allowance. TRLIA also support MPI in taking steps to address the uncertainty in estimates of illegal take in CRA 3 and to reduce any level of illegal take. TRLIA note the financial stress that a TACC reduction of 27.9 tonnes with impose on their members but they remain committed to effective sustainable management of the fishery and remain committed to their data collection/research programmes. TRLIA do not support a review of the 52mm tail differential.

Te Ohu Kaimoana's response to Fisheries New Zealand's review of sustainability measures for 1 April 2020

Te Ohu Kaimoana

Contents

This is our response to this year's 1 April 2020 sustainability review

1. This paper contains our response to Fisheries New Zealand's proposals on the review of sustainability measures for the 2020/21 April fishing year. Fisheries New Zealand released its Initial Position Paper on 13 December 2019. Responses are due on 5 February 2020.

2. Our response is structured as follows:
    - First, we set out who we are and the reasons for our interest in the Initial Position Paper.
    - Second, we describe *Te Hā o Tangaroa kia ora ai tāua* as the foundation of our fisheries management principles.
    - Third, we identify how fisheries management should be consistent with the Māori Fisheries Deed of Settlement[1].
    - Fourth, based on the above, we set out our preferred approach to managing the fish stocks under review.

3. We do not intend our response to conflict with or override any response provided independently by Iwi, through their Mandated Iwi Organisations (MIOs) and/or Asset Holding Companies (AHCs).

We are Te Ohu Kaimoana

4. Te Ohu Kai Moana Trustee Ltd (Te Ohu Kaimoana) was established to protect and enhance the Deed of Settlement. Our purpose, set out in section 32 of the Māori Fisheries Act 2004, is to "advance the interests of Iwi, individually and collectively, primarily in the development of fisheries, fishing and fisheries-related activities, in order to:

    - ultimately benefit the members of Iwi and Māori generally
    - further the agreements made in the Deed of Settlement
    - assist the Crown to discharge its obligations under the Māori Fisheries Deed of Settlement and Te Tiriti o Waitangi
    - contribute to the achievement of an enduring settlement of the claims and grievances referred to in the Deed of Settlement.

[1] Māori Fisheries Deed of Settlement 1992. The Deed is given effect to by the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, and the Māori Fisheries Act 2004.

5. It is critically important that the Crown, in its review of sustainability measures, is cognisant of and recognises the Deed of Settlement, as given effect by the Maori Fisheries Act 2004. The Deed of Settlement and the Maori Fisheries Act are expressions of the Crown's legal obligation to uphold the Treaty of Waitangi. We note that the obligations under Te Tiriti o Waitangi apply to the Crown generally, whether or not there is an explicit reference to the Treaty in the governing statute, in this case the Fisheries Act 1996. Of particular note are the comments in the *Barton-Prescott* case, that "since the Treaty of Waitangi was designed to have general application, that general application must colour all matters to which it has relevance, whether public or private and…whether or not there is a reference to the treaty in the statute" (*Barton-Prescott v Director-General of Social Welfare* [1997] 3 NZLR 179, 184).

6. We work on behalf of 58 mandated Iwi organisations (MIOs)[2], who represent Iwi throughout Aotearoa. Asset holding companies (AHCs) hold Māori Fisheries Settlement Assets[3] on behalf of their MIOs. The assets include individual transferable quota (ITQ) and shares in Aotearoa Fisheries Limited which, in turn, owns 50% of the Sealord Group.

7. In consulting a draft National Inshore Finfish Fisheries Plan, we note that Fisheries New Zealand states that "Te Ohu Kaimoana is the representative of Iwi commercial interests and may represent Iwi for other purposes." This view considerably undervalues the role that Te Ohu Kaimoana has under the Maori Fisheries Act 2004.

8. In addition to our statutory mandate, MIOs have approved our Māori Fisheries Strategy and three-year strategic plan, which has as its goal "that MIOs collectively lead the development of Aotearoa's marine and environmental policy affecting fisheries management through Te Ohu Kaimoana as their mandated agent". We play a key role in assisting MIOs to achieve that goal.

9. MIOs expect us to protect and enhance the Māori Fisheries Settlement by providing them with policy advice on fisheries-related issues. Iwi have identified advice engaged in the six-monthly review of sustainability measures as critically important to their long-term relationship with Tangaroa.

[2] MIO as referred to in The Maori Fisheries Act 2004: in relation to an Iwi, means an organisation recognised by Te Ohu Kai Moana Trustee Limited under section 13(1) as the representative organisation of that Iwi under this Act, and a reference to a mandated Iwi organisation includes a reference to a recognised Iwi organisation to the extent provided for by section 27

[3] Māori Fisheries Settlement Assets consistent with the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 and the Māori Fisheries Act 2004

Te Hā o Tangaroa kia ora ai tāua is the foundation of our fisheries management principles

The significance of Tangaroa to Te Ao Māori

10. Before colonisation by the Crown, Māori enjoyed full exclusive, undisturbed possession and tino rangatiratanga of their fisheries. The relationship Māori have with Tangaroa is intrinsic, and the ability to benefit from that relationship was and continues to be underpinned by whakapapa. Tangaroa is the son of Papatūānuku, the earth mother, and Ranginui, the sky father. When Papatūānuku and Ranginui were separated, Tangaroa went to live in the world that was created and has existed as a tipuna to Māori ever since[4].

11. Te Tiriti o Waitangi guaranteed Māori tino rangatiratanga over their taonga, including fisheries. Tino rangatiratanga is about Māori acting with authority and independence over their own affairs and is practiced through living according to tikanga and mātauranga Māori, and striving wherever possible to ensure that the homes, land, and resources (including fisheries) guaranteed to Māori under Te Tiriti o Waitangi are protected for the use and enjoyment of future generations. This view endures today and *Te Hā o Tangaroa kia ora ai tāua* is an expression of this.

We base our advice on 'Te Hā o Tangaroa kia ora ai tāua'

12. *Te Hā o Tangaroa kia ora ai tāua* (the breath of Tangaroa sustains us) is an expression of a Māori World View. It contains the principles we use to analyse modern fisheries policy, and other policies that may affect the rights of Iwi under the Māori Fisheries Settlement.

13. In essence, *Te Hā o Tangaroa kia ora ai tāua* highlights the importance of an interdependent relationship with Tangaroa, including his breath, rhythm and bounty, and the way those aspects work together to sustain both Tangaroa and humanity in an enduring way.

14. Protection of the reciprocal relationship with Tangaroa is an inherent part of the Māori Fisheries Settlement agreed by Māori and the Crown in 1992. The Māori Fisheries Settlement is an important and relevant part of modern fisheries management for Aotearoa.

[4] Waitangi Tribunal. "Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity." Te taumata tuatahi (2011).

Fisheries management should be consistent with the Deed of Settlement

15. The Fisheries Act 1996 obliges those performing functions under it to act consistently with the Treaty of Waitangi (Fisheries Claims) Settlement Act, which partially delivers on a full and final settlement of Māori claims to fisheries[5]. An equally important legislative provision to be consistent with is the provisions of the Māori Fisheries Act 2004 which replaced key components of the 1992 Act and sets out the Settlement entities (including Te Ohu Kaimoana). This means whenever a Minister decides to implement a sustainability measure or to provide for utilisation, they must ensure their decision is consistent with, and does not undermine, the Māori Fisheries Settlement. Our assessment of the stocks being reviewed identifies the following key policy matters:
    - a constructive relationship with Fisheries New Zealand
    - allocating the TAC appropriately
    - options for reducing catch
    - determining target stock levels and rebuild rates
    - application of Deemed Values.

We seek a constructive working relationship with Fisheries New Zealand

16. Section 12 of the Fisheries Act 1996 requires the Minister to provide for the input and participation of tangata whenua, and Fisheries New Zealand seeks to meet that obligation on behalf of the Minister through the regional fisheries forums it supports. However, as noted the Fisheries Settlement obligations were subsequently re-expressed in the Maori Fisheries Act 2004. This Act sets out the agreed structure and process for the ongoing treaty relationship between Iwi and the crown over fisheries matters. Our view is that Fisheries New Zealand needs to invest further in the relationship with Te Ohu Kaimoana as the mandated agent of Iwi.

Changes to the TAC should not undermine the Māori Fisheries Settlement

17. When settling their fisheries claims, Māori expected the value and integrity of the Settlement to be retained. After all, the Settlement is full and final. Any action the Crown takes should not undermine the value of Māori Fisheries Settlement assets or customary non-commercial needs. Consequently, the Minister must ensure the integrity of Māori fishing rights is maintained when adjusting the TAC. This means two things:

    a) Priority should be given to the customary allowance for stocks that Iwi and hapū require to meet their customary non-commercial needs.

[5] Specifically, section 5 (b) of the Fisheries Act 1996 obliges "all persons exercising or performing functions, duties, or powers conferred or imposed by or under it" to "act in a manner consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (TOW(FC)SA)".

b) The proportion of the TACC that makes up the TAC should not be reduced (but can be increased) by reallocations to the recreational sector. Any reallocation to the recreational sector has the effect of reducing the overall value of Māori Fisheries Settlement quota.

18. We cannot support increases in the recreational allowance at the expense of the TACC. Such re-allocation affects the rights of settlement quota holders and reduces the incentives on the commercial sector to take responsibility and invest in good management.

The Fisheries Act enables a flexible approach to managing catch

19. The Initial Position Paper assumes changes in TACs and TACCs are the best way to respond to stock assessments that show a stock has declined. This approach is very limited as the Fisheries Act 1996 enables a variety of approaches to ensure sustainability[6]. The Minister should only consider setting or varying a TACC where it is the most appropriate option.

20. In our view, the Fisheries Act enables the Minister to consider the way a fishery is managed before deciding whether a formal sustainability measure should be proposed. The Fisheries Act provides for more responsive fisheries management than can be achieved through a blunt TAC/TACC reduction, by recognising the potential for Iwi and/or industry-led actions to better address sustainability concerns. This is reflected in the opportunity to "take into account" such actions under section 11(1) of the Fisheries Act before deciding whether to propose a sustainability measure. Even in situations where the Minister proposes to set a sustainability measure, Iwi and/or industry can promote an alternative approach in response to consultation under section 12 of the Fisheries Act.

21. Before proposing to set or vary a sustainability measure for one or more stocks, the Minister must take into account a range of matters, including the effects of fishing on the aquatic environment[7]. The former Ministry of Fisheries developed and consulted on a series of policy definitions on the "Front End" of the Fisheries Act 1996. It confirmed that section 11(1)(a) of the Fisheries Act provides for "existing or proposed measures that currently, or potentially, manage any adverse effects of fishing to be taken into account before the need for a sustainability measure to be determined".

ACE shelving is an appropriate option

22. Shelving ACE is a viable way of reducing the commercial catch. The Minister is obliged to take such shelving arrangements into account in accordance with section 11(1)(a) of the Fisheries Act. If the Minister is satisfied that the arrangements will adequately mitigate a risk to sustainability, there is no legislative obligation to choose from the list of statutory sustainability measures set out is in section 11(3) of the Fisheries Act. In such cases, the Minister would not be directed to either section 13 or section 14.

[6] Note that section 11(3) of the Fisheries Act 1996 sets out a range of options that are available to the Minister to ensure sustainability.

[7] See section 11(1) of the Fisheries Act 1996

There isn't a "one fits all" approach to setting target stock levels and rebuild rates

23. If the Minister decides to set or vary a catch limit[8], he or she must consider those matters relevant to a stock managed under the QMS[9]. Under section13 of the Fisheries Act, a stock should have a TAC that maintains the stock at or above a level that can produce the maximum sustainable yield (often summarised as B_{MSY}), having regard to the interdependence of stocks. The Fisheries Act enables discretion over the way and rate the stock rebuilds or is fished down to the level of B_{MSY}. Importantly, as noted above, the Fisheries Act[10] provides a range of tools - in addition to TACs to assist with any necessary rebuild process.

24. In considering the obligations set out in section 13, Fisheries New Zealand defers to a 'Harvest Strategy Standard for New Zealand Fisheries' (HSS), produced by the Ministry of Fisheries in 2008. The HSS is described as "a policy statement of best practice regulation to the setting of fishery and stock targets and limits for fish stocks in Aotearoa's QMS." It was intended to form a core input to the Ministry's advice to the Minister of Fisheries on the management of fisheries, particularly the setting of TACs under sections 13 and 14. However, the HSS document is now 12 years old. It is difficult to sustain an argument that a non-statutory document of that age could be viewed as promoting best practice regulation.

Default targets and timeframes do not mirror the full purpose of the Fisheries Act

25. The purpose of the Fisheries Act 1996 includes an obligation to provide for utilisation, with a focus on enabling people to provide for their own social, cultural and economic wellbeing within limits that ensure sustainability. The HSS sets out default management targets for stocks as well as both "soft" and "hard' Limits. Where the best available information suggests a stock has fallen below the soft limit of 20% B_0, the HSS triggers a rebuild plan. Employing default target levels and timeframes for fisheries management has real potential to undermine the purpose of the Fisheries Act.

26. Target reference points that correspond to levels of biomass and fishing pressure that are considered to provide for 'optimal' harvests, implicitly internalise economic considerations and/or the ecological requirements for each stock. Hence the target reference points promoted by Fisheries New Zealand avoid explicit consideration of utilisation objectives despite explicit provision for them in the Fisheries Act – and the necessary actions to achieve them. In this way, the targets suggested by the HSS have the effect of prescribing rather than enabling management of fisheries beyond the levels required to ensure sustainability.

[8] See section 11(4) of the Fisheries Act 1996

[9] Sections 13 and 14 of the Fisheries Act 1996 set out the considerations that apply to a stock managed under the QMS

[10] See section 11 (3) of the Fisheries Act 1996

27. There is considerable discrepancy between the requirements of the Fisheries Act and the implementation of the HSS guidelines. To be consistent with the Fisheries Act, stock rebuild plans should:

    - be based on the best available information
    - consider all tools available to the Minister
    - account for relevant social, economic, cultural factors
    - have regard to the interdependence of stocks
    - ensure the stock is tracking to level that can produce the maximum sustainable yield.

    These considerations cannot be delivered through a prescriptive rule-based approach.

28. The HSS has the potential to have significant adverse social and economic impacts if applied without careful consideration of the specific circumstances of the fishery and the range of existing mechanisms to promote recovery. As we have already pointed out, it is hard to accept that only one tool for stock recovery in the form of a reduction to the TAC is best management practice. This "set and forget" approach disregards the range of tools available to rebuild the stock at an optimal rate.

29. The unique biological and environmental conditions facing each stock, as well as socio-economic implications, are all important matters to consider when contemplating management targets. The provisions of the Fisheries Act (rather than the HSS) should be the first point of reference when contemplating management decisions and rebuild strategies to reach those targets.

Collective action will better achieve the purpose of the Fisheries Act

30. Fisheries New Zealand should do more to encourage collective action. Where quota owners are incentivised to act collectively, the evidence suggests they will adopt strategies to promote the management of stocks at levels above the requirements of section 13. Collective action is particularly necessary in shared fisheries, where there are many examples of the recreational sector being rewarded (through an increased allowance) for fishing beyond the allowance made by the Minister when the TAC was first set. As noted, this practice also offends Māori Fisheries Settlement (we refer to our evaluation of the role of s 5b of the Fisheries Act).

31. Te Ohu Kaimoana commissioned an international review of the effectiveness of fisheries management systems in achieving conservation objectives. This study concluded that top-down approaches (of which the HSS guidelines are an example) are inconsistent with modern incentive-based systems. In contrast, the most effective fishery/ecological management systems are bottom up. Aotearoa is ideally placed to benefit from these findings and become a world leader in marine conservation[11].

[11] See Libecap, G, Arbuckle, M, and Lindley, C. (In prep). An analysis of the impact on Māori Property Rights in Fisheries of Marine Protected Areas and Fishing Outside the Quota Management System. A seminar discussing the findings of the study can be viewed here.

Deemed Values aim to encourage reporting and discourage harvesting without ACE

32. Commercial fishers who do not balance catch with ACE must make deemed value payments. These payments play an important role in making the QMS work effectively. They are intended to:

    - encourage accurate catch reporting
    - discourage fishers from harvesting stocks without ACE.

33. The Minister sets "interim" and "annual" deemed values for each stock[12]. In doing so, the Minister must take into account the incentive needed for every commercial fisher to have enough ACE to cover their catch for each fishing year. Amongst other things, the Minister should have regard to the market value of the stock and the relevant ACE value.

34. We do not consider that the Deemed Value guidelines[13], used by Fisheries New Zealand, are aligned with the purpose of the Fisheries Act. Fisheries New Zealand's approach to deemed values is to ensure commercial catch does not exceed the TACC. This approach has the potential to increase incentives for fishers to discard catch. In our view, deemed values are not intended to only ensure commercial catch does not exceed the TACC. Rather, a key purpose is to encourage transparency across the fisheries management system so that catch is reported, and the information forms an important input to the monitoring of harvesting. Ultimately, the relationship between the TACC and catch reporting is a dynamic one.

Balance incentives to fish with ACE and accurate reporting of catch

35. It is important to avoid any disincentive to record catch. There is a balance to be struck between incentives to harvest with ACE (within the TACC) and accurate reporting of catch.

36. The deemed value for a particular stock can be set at or scaled up to a level that removes any profit after harvesting costs are deducted. These conditions create an incentive for fishers to cover their catch with ACE. If they are unable to do so, having the deemed value set correctly means that there is no disincentive to report the catch and land it. This approach is consistent with the Fisheries Act and the Māori Fisheries Settlement and has the real potential to increase the quality of information available to support decision-making if it is administered that way.

[12] See section 75 of the Fisheries Act 1996.

[13] "Deemed Value Guidelines" were released in 2012. Application of the guidelines has resulted in deemed values being set at, or ramped to, levels that are higher than the market value of a stock in some instances. Under this situation the incentive to land and report catch is removed.

37. Discouraging catch in excess of ACE holdings is achieved by ensuring the deemed value is set above the ACE price. The requirement to ensure that the deemed value system does not encourage the discarding of fish at sea is achieved by ensuring the deemed value rate does not exceed the market value of the stock. This implies that deemed values should always be set with the range set by the market value of fish and the value of ACE for that stock.

38. Accurate reporting is vital if we are to understand whether TACCs have been set appropriately. If TACCs are set incorrectly, varying levels of deemed value payments can show there is a need to review the TACC. TACCs themselves are not always set right and need to be regularly reviewed, based on the best available information. This was the basis for the introduction of deemed values.

39. The Minister established a working group to provide advice on the appropriate use of deemed values. The working group concluded that deemed values are primarily a utilisation tool and should not be set higher than the market value of fish unless necessary to ensure sustainability. The recommendations of the working group have been accepted by the Minister and we understand that step one (aligning the interim deemed values to 90% of the annual deemed value) is to be achieved as a first step.

Payment of deemed values can indicate there is a fisheries management issue to be addressed

40. Deemed values can be used as a tool to identify problems that need to be addressed in a fishery. They should not be set arbitrarily. There are many potential causes for catches being greater than the TACC which generate different responses, for example:

    - The TACC is too low – optimum response is to increase the TACC
    - Deliberate over catch by one or two parties – respond by setting an overfishing threshold
    - The deemed value is too low – respond by increasing the deemed value
    - A recruitment pulse with a temporary increase in biomass – to remove the incentive to fish what is balanced with ACE

41. We acknowledge that the information available to set deemed values appropriately is imperfect. The key inputs of market value of fish and ACE price are all confounded by the way that quota owners are structured. Hence the setting of deemed values becomes a pragmatic exercise. It needs to find the balance between incentivising catching with the available ACE and accurately reporting all catch, irrespective of what can be balanced with ACE.

Our preferred approach to managing the fish stocks under review

Overview of Spiny (red) rock lobster (Rock Lobster) stocks

42. Considering the outbreak of the Coronavirus, we acknowledge the difficulties being faced by all parties involved in the fishing industry. There is much work that needs to be done to find acceptable resolutions to the challenges the Coronavirus has brought to light. We look forward to working with officials and the New Zealand Rock Lobster Industry Council to develop options for mitigating the impact on the rock lobster fishery.

43. Nevertheless, Fisheries New Zealand are consulting on five rock lobster stocks in the 2020/21 April Sustainability Round. Fisheries New Zealand and the National Rock Lobster Management Group (NRLMG) developed options for consultation following a full stock assessment for CRA1 and CRA3, and the application of "management procedures" for CRA4, CRA7 and CRA8. No new management procedures have been developed for CRA1 and CRA3 following this year's stock assessment. Management procedures guide catch limit proposals for the upcoming April fishing year.

44. There will not be enough data to run a new management procedure due to the transition from paper to electronically reported data (from CELR to EDW reporting) at the end of a current management procedure. It will take around four to five years to be able to generate a time series of catch per unit effort (CPUE) data from electronic reporting to run a new management procedure confidently. The consultation document noted that the Rock Lobster Fisheries Assessment Working Group are considering alternative assessment approaches to use as the basis for advice to the Minister on TAC changes beyond April 2020.

45. We note the concerns of Iwi raised in this April Sustainability Rounds regarding the effects of climate change on Māori rights in fisheries. Māori rights in fisheries can be viewed as a share of the productive potential of all aquatic life in Aotearoa's waters. These rights do not just involve a right to harvest. They also include using aquatic resources in a way that provides for their social, cultural and economic wellbeing. Iwi have directed us to lead development of national and regional fisheries policy based on Māori values and principles in light of their rights. We are working on how we can best assist Iwi to achieve these objectives in the context of climate change.

Rock Lobster (CRA1)

Our view:

46. We support a decrease to the TAC, and allowances for recreational fishing and other sources of mortality.

47. We support a third option requiring the shelving of 21 tonnes of ACE as a means of reducing the commercial catch (as set out in Table 2).

Proposed options

Table 1: Proposed management settings in tonnes for CRA1 from 1 April 2020, with the percentage change relative to the status quo in brackets.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	Other mortality
Option 1.1: *Status quo*	273.062	131.062	20	50	72
Option 1.2: Based on the new CRA 1 stock assessment	203 ↓ (26%)	110 ↓ (16%)		32 ↓ (36%)	41 ↓ (43%)

Table 2: Option 3 for CRA1 involving voluntary shelving with the percentage change relative to the status quo in brackets.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	Other mortality
Option 3	224.062 ↓ (18%)	131.062*	20	32 ↓ (36%)	41↓ (43%)

* 21 tonnes of ACE will be shelved by industry, therefore 110 tonnes of the TACC will be available to be caught.

Our approach:

48. We support an approach that reverses the projected decline in biomass. At present, there is no agreed reference point for CRA1 (a suggested percentage at which the vulnerable biomass should be managed to). Until a robust reference point for this stock can be identified, Te Ohu Kaimoana is supportive of a management approach that halts the projected decline in biomass. At the current catch, the vulnerable biomass of CRA1 is projected to decrease, therefore a reduction in extractions is necessary.

49. We note that there is uncertainty as to whether packhorse rock lobsters are displacing the spiny red rock lobsters. We are supportive of a stock assessment for packhorse rock lobsters and sequential management recommendations that will be pursued this year.

ACE shelving is an appropriate option

50. Option 3 involves shelving 21 tonnes of ACE for the 2020/21 fishing year and likely for several years into the future. Shelving of ACE is a legitimate way of reducing the commercial catch for CRA1[14] and will allow for adaptive management of this fishery. This is of high importance given the implications on the loss of the ability to run management procedures following the change from paper to electronic data reporting. This action highlights fisher's commitment to actively maintain a healthy and sustainable fishery at their own expense.

51. We note that some Iwi do not think option 3 provides enough of a reduction for to ensure future sustainability of the CRA1 fishery. These Iwi would like to see a larger volume of ACE shelved for a set number of years. Shelving of ACE was their preferred mechanism to achieve catch reductions.

The proposed change to recreational catch is superficial

52. The current proposed changes to the recreational allowance in option 3 is an administrative exercise to reflect the best estimate of recreational catch. To make a meaningful contribution to the fishery, recreational extractions need to be managed through reductions to bag limits and active monitoring of the catch.

Increased compliance required to address uncertainty in the estimated figure for other sources of mortality and to reduce any level of illegal take

53. The current proposed changes to the other sources of mortality allowance in option 3 is an administrative exercise to reflect a more accurate indication of other sources of mortality. The proposed allowance of 41 tonnes suggests high levels of illegal take which is concerning to all parties in this fishery.

[14] For Te Ohu Kaimoana's approach on Shelving of ACE please refer to paragraph 22.

Rock Lobster (CRA3)

Our view:

54. We support option 2 to decrease the TAC, TACC, recreational and other sources of mortality allowances.

Proposed options

Table 3: Proposed management settings in tonnes for CRA3 from 1 April 2020, with the percentage change relative to the status quo in brackets.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	Other mortality
Option 3.1: *Status quo*	351.9	222.9	20	20	89
Option 3.2: Based on the new CRA 3 stock assessment	303 ↓ (14%)	195 ↓ (13%)		13 ↓ (35%)	75 ↓ (16%)

Our approach:

55. We support an approach that reverses the projected decline in biomass. At present, there is no agreed reference point for the CRA3 fishery (a suggested percentage at which the vulnerable biomass should be managed to). Until a robust reference point for this stock can be identified, Te Ohu Kaimoana is supportive of a management approach that halts the projected decline in biomass. At the current catch the vulnerable biomass of CRA3 is projected to decrease, therefore a reduction in extractions is necessary.

The proposed change to recreational catch is superficial

56. The current proposed changes to the recreational allowance in option 2 is an administrative exercise to reflect the best estimate of recreational catch. To make a meaningful contribution to the fishery, recreational extractions need to be managed through reductions to bag limits and active monitoring of the catch.

Increased compliance activity required to address uncertainty in the estimated figure for other sources of mortality and reduce any level of illegal take

57. The current proposed changes to the other sources of mortality allowance in option 2 is an administrative exercise to reflect a more accurate indication of other sources of mortality. The proposed allowance of 75 tonnes suggests seriously high levels of illegal take and which is concerning to all parties in this fishery.

Rock Lobster (CRA4)

Our view:

58. We support the status quo for the CRA4 fishery.

Proposed options

Table 4: Proposed management settings in tonnes for CRA4 from 1 April 2020, with the percentage change relative to the status quo in brackets.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	Other mortality
Option 4.1: *Status quo*	513.8	318.8	35	85	75
Option 4.2: Based on the CRA 4 management procedure	552.4 ↑ (8%)	374.4 ↑ (17%)			

Our approach:

59. The CPUE data from CRA4 fishery suggests that an increase is not appropriate. Off-set year CPUE has been consistent for the last two fishing years, 0.9012 kg per pot lift in 2018 and 0.8961 kg per pot lift in 2019. The offset CPUE data triggered the management procedure to output a proposed 17% increase to the TACC for the 2020/21 fishing year. The management procedure also triggered a proposed TAC and TACC increase in 2019/20 fishing year which was not applied. The Minister provided the rationale of retaining the current TAC and TACC as being the best decision for the interest in the long-term sustainability of CRA4. This decision was preferred by some Iwi who raised concerns over the impact that climate change is having on this fishery.

60. Given the similarity in CPUE between the two fishing years (2018/19 and 2019/20) with the same TACC, our view is that the best course of action would be status quo for the CRA4 fishery. CRA4 is scheduled for a stock assessment this year. The information from this should provide better information on which to consider the future management of CRA4.

CRA4 is a volatile fishery

61. The TACC has had many adjustments over the past eight fishing years (Figure 1). The unstable nature of the TACC does not lend itself to long term future thinking, given the uncertainty with each fishing year and each TACC adjustment. We support retaining the current TACC and close monitoring of the fishery. A review of CRA4 management settings in 2021 April Sustainability Rounds is likely given there will be a new stock assessment.

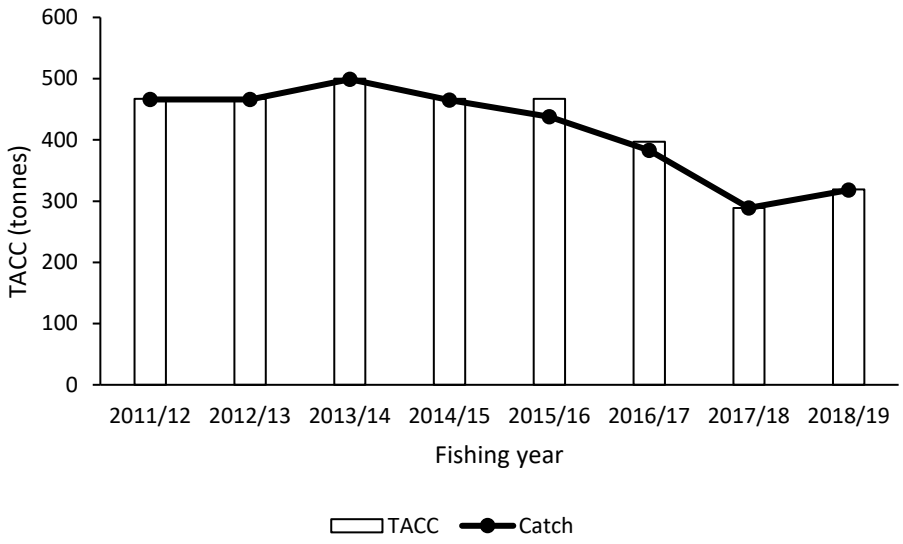


Figure 1. The TACC and catch for the CRA4 fishery across 8 fishing years.

Data on TACC and catch sourced from "New Zealand commercial fisheries: The atlas of area codes and TACCs 2019/2020", published by Clement and Associated Limited.

Rock Lobster (CRA7)

Our view:

62. We support option 2, an increase in the TAC and TACC.

Proposed options

Table 5: Proposed management settings in tonnes for CRA7 from 1 April 2020, with the percentage change relative to the status quo in brackets.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	Other mortality
Option 7.1: *Status quo*	117	97	10	5	5
Option 7.2: Based on the CRA 7 management procedure	146.9 ↑ (26%)	126.9 ↑ (31%)			

Our approach:

63. The CRA7 management procedure suggests a TAC and TACC increase for the 2020/21 fishing year. We note that Ngāi Tahu supports the use and outcome of management procedures in their rohe moana. The CPUE in CRA7 has increased from 2.595 kg per pot lift in 2018 to 3.217 kg per pot lift in 2019. Overall, the CRA7 fishery CPUE has performed well over the past five years.

64. The last stock assessment for CRA7 was undertaken in 2015. The best available information for CRA7 suggests that the vulnerable biomass is likely to be at or above the agreed reference point.

Rock Lobster (CRA8)

Our view

65. We support option 2, an increase in the TAC and TACC.

Proposed options

Table 6: Proposed management settings in tonnes for CRA8 from 1 April 2020, with the percentage change relative to the status quo in brackets.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	Other mortality
Option 8.1: *Status quo*	1220.6	1129.6	30	33	28
Option 8.2: Based on the CRA 8 management procedure	1282.7 ↑ (5%)	1191.7 ↑ (5%)			

Our approach

66. The CRA8 management procedure suggests a TAC and TACC increase for the 2020/21 fishing year. We note that Ngāi Tahu supports the use and outcome of management procedures in their rohe moana. The catch per unit effort (CPUE) CRA8 has increased form 4.2481 kg per pot lift in 2018 to 4.8743 kg per pot lift in 2019. Overall, the CRA8 fishery CPUE has increased each year for the past five years.

67. The last stock assessment for CRA8 was undertaken in 2015. The best available information for CRA8 suggests that the vulnerable biomass is highly likely to be at or above the agreed reference point.

Scallops (SCA1)

Our view

68. We support option 2, a decrease in the TAC, TACC and the allowance for other sources of mortality.

Proposed options

Table 7: Proposed management settings in tonnes for SCA1 from 1 April 2020, with the percentage change relative to the status quo in brackets.

Stock	Option	Total Allowable Catch (tonnes)	Total Allowable Commercial Catch (tonnes)	Allowances		
				Customary Māori (tonnes)	Recreational (tonnes)	All other mortality to the stock caused by fishing (tonnes)
SCA 1	Option 1 *(Status quo)*	75	40	7.5	7.5	20
	Option 2	30 ↓ (60%)	10 ↓ (75%)	7.5	7.5	5 ↓ (75%)

Our approach

69. A decrease to SCA1 catch is necessary as there is a sustainability risk to this fishery. Anecdotal information indicates there has been a decline of biomass in SCA1. It is noted in the consultation document that the Far and Mid-North Iwi have raised their concerns for a number of years over the status of this stock.

Improving knowledge of the SCA1 fishery in partnership with Iwi should be made a priority

70. The best available information for this fishery is now outdated, with the last comprehensive fisheries independent biomass survey being undertaken in 2007. It is important that this knowledge gap is filled to ensure this fishery is being managed appropriately. Fisheries New Zealand stated in their consultation document that they will continue to monitor and review SCA1 in the short and medium term. This needs to be done in partnership with Iwi.

71. We note that the measures proposed apply to the commercial stock only and question whether additional steps should be taken to manage recreational extractions.

Southern Blue Whiting (SBW6B)

Our view

72. Our preference of the two options is a decrease in the TAC/TACC for SBW6B of 10%. However, best fisheries management will come from increased industry engagement with the fishery.

Proposed options

Table 8: Proposed management settings in tonnes for SCA1 from 1 April 2020, with the percentage change relative to the status quo in brackets.

Stock	Option	Total Allowable Catch (tonnes)	Total Allowable Commercial Catch (tonnes)	Allowances		
				Customary Māori (tonnes)	Recreational (tonnes)	All other mortality to the stock caused by fishing (tonnes)
	Current Setting	**3,209**	**3,145**	**0**	**0**	**64**
SBW 6B	Option 1	2,888 ↓ (10%)	2,830 ↓ (10%)	0	0	58 ↓
	Option 2	2,567 ↓ (20%)	2,516 ↓ (20%)	0	0	51 ↓

Our approach

73. SBW6B is a variable fishery, the level of recruitment to this fishery fluctuates. Changes in level of catch against the TAC/TACC in part reflects this variability and hence there is no compelling reason to suggest that an adjustment of the settings will make a difference. Information used to inform catch limits is obtained through regular acoustic surveys – carried out by one of the operators who fishes in the area – and catch sampling by observers on fishing vessels. Observer sampling helps understand the status of a stock by looking at the composition of the catch and assessing the strength of the different year classes within it.

74. SBW6B is targeted during spawning, which usually occurs from mid-August to September. Fish form large aggregations which are targeted with mid water trawl gear. Acoustic surveys are also carried when these large aggregations occur.

75. Low catch rates in SBW6B are likely to be influenced by timing and economics**.** Despite a TACC of 3145 tonnes, only around 788 tonnes has been caught this season. The timing of spawning in SWB6B (which is on the Eastern corner of the EEZ) overlaps with the hoki fishery on the West Coast. For this reason, few operators have fished the area in recent years. Instead some have been content to fish in SBW6B because it is closer to the West Coast and spawns slightly later.

76. The level of current biomass is uncertain as annual acoustic surveys have not been completed in 2018 and 2019 for practical reasons. Acoustic surveys focus on spawning aggregations. We understand the timing of the surveys attempted has not coincided with the spawning aggregations being present.

77. There are signs that recruitment has been poor in this fishery in recent years. Catch sampling by observers provides some information but it is not clear whether sampling was adequate, given a limited number of tows. Hence the information gathered by observers may not be representative of the fishery as a whole.

Collective action by quota owners will better achieve the purpose of the Act than TAC/TACC adjustments

78. Fisheries New Zealand is aware of our view on their harvest strategy standard and the benefits of collective action[15]. Default targets and timeframes do not mirror the full purpose of the Fisheries Act, which enables a variety of tools to address a substantiality issue—not just adjustments to the TAC/TACC. The level of catch in comparison to the TACC is not, it itself, an indicator of stock abundance.

79. Ideally, quota owners would take more responsibility for managing this fishery collectively. However, as there is no proposal for collective action on the table, the default seems to be management through the TAC/TACC settings.

[15] For Te Ohu Kaimoana's approach on harvest strategy standard please refer to paragraph 23-31.

80. Our understanding is that the circumstances of the fishery mean that industry would support a TAC/TACC decrease of 10%. Such action would have the appearance of doing something while still being economic for the main operator to undertake a voyage this coming fishing year. This will mean the industry will be able to continue to gather further information through catch sampling by observers and carry out another acoustic survey. This operator carries out an acoustic survey each year at no cost to the other quota holders (we understand it would cost quota owners several million dollars for the Tangaroa to carry out a similar survey). Depending on the level of information gathered, the situation could be reviewed again for the April 2021 fishing year.

Review of sustainability measures for selected stocks with a zero tonne TACC

Our view

81. We support assessing the management settings for selected stocks with a zero TACC. However, we do not support the options proposed for selected stocks. Rather, we support reducing the deemed values for selected stocks to $0.00 in order to more accurately assess the commercial catch before varying the TAC.

Proposed options

Table 9: Proposed management settings in tonnes for selected stocks with a zero TACC from 1 October 2020.

Stock	Option	Total Allowable Catch (tonnes)	Total Allowable Commercial Catch (tonnes)	Allowances		
				Customary Māori (tonnes)	Recreational (tonnes)	All other mortality to the stock caused by fishing (tonnes)
RBY 5	Current setting	0	0	0	0	n/a
	Option 1	2 ↑	2 ↑	0	0	0
RBY 6	Current setting	0	0	0	0	n/a
	Option 1	1 ↑	1 ↑	0	0	0
TRU 6	Current setting	0	0	0	0	n/a
	Option 1	1 ↑	1 ↑	0	0	0
TRU 9	Current setting	0	0	0	0	n/a
	Option 1	4 ↑	2 ↑	1 ↑	1 ↑	0
WWA9	Current setting	0	0	0	0	n/a
	Option 1	1 ↑	1 ↑	0	0	0
YEM 5	Current setting	2	0	1	1	n/a
	Option 1	3 ↑ (50%)	1	1	1	0

Our approach

82. We acknowledge the initiative taken to review the stocks with a zero tonne TACC. We support in principle setting a TACC above zero for stocks in circumstances where catch is reported by fishers. Setting a positive TACC allows for fishers to balance their catch with ACE rather than immediately incur deemed values which are paid to the Crown. However, a more robust assessment on the commercial catch on each stock should be conducted prior to setting a TACC.

83. We assume that the basis for introducing these stocks into the Quota Management System and setting a TACC of zero related to the desire to allocate proportional rights in the TACC and allow each fishery to be proved up. This approach has merit where there is flexibility in the way TACCs are altered in response to information collected from the fishery. Since this time, Fisheries New Zealand have adopted a more prescriptive approach to advising the Minister on TAC/TACC setting considerations, including using a Harvest Strategy Standard.

Setting TACC in current environment will trigger cost recovery levies for Iwi where stocks may not be economically viable

84. Our assessment is that there will be financial implications for Iwi in setting TACCs above zero for these stocks. Cost recovery levies will be payable and there may be a net cost for Iwi holding quota in these fisheries. Further, there is little indication that fishery-dependent information will be able to used to prove up the TAC/TACC in these fisheries in the way that it was envisaged at the time they were introduced into the Quota Management System.

85. We are not confident that the proposed options (as they stand) for the selected stocks will warrant the levies Iwi will be required to pay for the selected stocks, given the low port prices in 2018/19 and the low quantities of commercial catch as noted Table 10. Imposing costs that are above levels of return is inconsistent with the Deed of Settlement.

Commercial catch data to date not sufficient to inform the setting of a TAC for the selected stocks

86. There has been minimal commercial catch reported in the selected stocks since 1998, as stated in the Fisheries New Zealand Initial Position Paper and the 2018/19 fishing year (see Table 10). This could be the result of inaccurate reporting because fishers are unable to balance catch against ACE. We support further assessment of the commercial catch by adjusting the management settings to incentivise accurate reporting.

Table 10: Recorded commercial catch, deemed values and port price for selected stocks with a zero TACC in the 2018/2019 fishing year

	Commercial catch* (kg)	Deemed values* (per kg)	Port price* (per kg)

RBY5	158	$ 0.28	$ 0.07
RBY6	1	$ 0.28	$ 1.54
TRU6	2	$ 1.50	$ 2.07
TRU9	57	$ 1.50	$ 2.56
WWA9	19	$ 0.54	$ 1.50
YEM5	160	$ 0.33	$ 3.62

*Data on catch and port price are sourced from FishServe. Data on deemed values is sourced from the "New Zealand Commercial fisheries: The Atlas of Area Codes and TACCs 2019/2020"

Deemed values are a diagnostic tool that could help to inform the setting of a TAC for the selected stocks

87. There is an opportunity to test an alternative approach given the selected stocks are consistently reported to be caught at a sustainable level. We advise adjusting the deemed values for the selected stocks to $0.00. This will remove any impediment to reporting catch and instead provide the means for an accurate assessment of the commercial catch and encourage greater accuracy in reporting by fishers. The catch data collected will then provide a stronger foundation for setting a TAC and TACC for the selected stocks.

Review of Deemed Value Rates for Selected Stocks

Our view: Te Ohu Kaimoana supports the recommendations made by the 2019 Deemed Values Working Group

88. We support Fisheries New Zealand's proposal to implement one of the recommendations from the Deemed Value Working Group. The rationale for setting the interim deemed value rate at 90% of the annual deemed value rate is to incentivise fishers to balance their catch with ACE. If the interim deemed value rate is set much lower than the annual rate it may increase the incentive to delay balancing, leading to a 'race for ACE' at the end of the fishing year. This would increase the risk that fishers will be unable to balance their catch with ACE. In addition, setting lower interim rates than annual rates creates a risk that fishers may not be able to cover the cost of annual rates by the end of the fishing year.

Proposed options

89. Fisheries New Zealand is proposing to increase the interim value of 454 stocks to 90% of the annual rate[16]. Changing the interim deemed values was one of seven recommendations made by the Deemed Values Working convened in 2019. This recommendation is also present in the Deemed Values Guidelines 2012. Until now a 90% interim deemed value rate has only been applied to stocks which received a TAC review from 2012 onwards.

[16] See Appendix 1 for list of stocks being reviewed.

90. However, we consider that this is but a first step in implementing the recommendations and that there is no indication that annual deemed value rates are set appropriately. We expect the other recommendations made by the Working Group to be implemented.

Appendix 1- Selected stocks for deemed values review

Frilled venus shell (BYA1-9)

Spiny (red) rock lobster (CRA10)

Ringed dosinia (DAN1-9)

Silky dosinia (DSU1-9)

Horse mussel (HOR1-10)

Trough shell (MDI1-9)

Large trough shell (MMI1-9)

Deepwater tuatua (PDO1-9)

Triangle shell (SAE1-9)

Scallop (SCA1-9, SCA CS)

Sea cucumber (SCC1-10)

Anchovy (ANC1-8, ANC10)

Barracouta (BAR1, BAR4, BAR5, BAR7, BAR10)

Blue cod (BCO1, BCO2, BCO4, BCO5, BCO7, BCO8, BCO10)

Bigeye tuna (BIG1)

Bluenose (BNS10)

Butterfish (BUT1-7, BUT10)

Blue shark (BWS1)

Black cardinal fish (CDL1-10)

Cockle (COC1-5, COC7-9)

Elephant fish (ELE10)

Blue (English) mackerel (EMA1-3, EMA7, EMA10)

Flatfish (FLA2, FLA3, FLA7, FLA10)

Frostfish (FRO13, FRO5-7, FRO10)

Garfish (GAR1-4, GAR7, GAR8, GAR10)

Green-lipped mussels (GLM1-3, GLM7A & 7B, GLM8, GLM10)

Grey mullet (GMU2, GMU3, GMU7, GMU10)

Knobbed whelk (KWH1-9)

Lookdown dory (LDO3, LDO10)

Leatherjacket (LEA10)

Long-finned freshwater eel (LFE20-23)

Ling (LIN1-6, LIN10)

Mako shark (MAK1)

Moonfish (MOO1)

Oreo (OEO1, OEO3A, OEO6, OEO19)

Orange roughy (1-3, ORH7A & 7B, ORH10)

Dredge oysters (OYO1-5, OYO7-9)

Paddle crab (PAD1-10)

Parore (PAR1, PAR2, PAR9, PAR10)

Paua (PAU1-7, PAU10)

Pilchard (PIL1-4, PIL7, PIL8, PIL10)

Porbeagle shark (POS1)

Pipi (PPI1-5, PPI7-9)

Prawn killer (PRK1-10)

Deepwater clam (geoduck) (PZL1-9)

Jack mackerel (JMA1, JMA10)

Kahawai (KAH1-4, KAH10)

Bladder kelp (KBB4G, KBB5G)

Kingfish (KIN10)

Knobbed whelk (KWH1-9)

Lookdown dory (LDO3, LDO10)

Stargazer (STA10)

Southern bluefin tuna (STN1)

Kina (SUR1-10)

Pale ghost shark (GSP1, GSP5, GSP7)

Gurnard (GUR1, GUR2, GUR8, GUR10)

Hake (HAK1, HAK4, HAK7, HAK10)

Hoki (HOK1, HOK10)

Hapuku & Bass (HPU1-8, HPU10)

John dory (JDO2, JDO3, JDO10)

Jack mackerel (JMA1, JMA10)

Kahawai (KAH1-4, KAH10)

Bladder kelp (KBB4G, KBB5G)

Kingfish (KIN10)

Silver warehou (SWA1, SWA10)

Swordfish (SWO1)

Tarakihi (TAR5, TAR10)

Pacific bluefin tuna (TOR1)

Trevally (TR3, TRE7, TRE10)

Tuatua (TUA1-5, TUA7-9)

Blue warehou (WAR1-3, WAR7, WAR8, WAR10)

White warehou (WWA1-5, WWA7-10)

Yellow-eyed mullet (YEM1-10)

Yellowfin tuna (YFN1)