NATIONAL ROCK LOBSTER MANAGEMENT GROUP

Review of Rock Lobster Sustainability Measures for 1 April 2016

Final Advice Paper

Prepared by the National Rock Lobster Management Group

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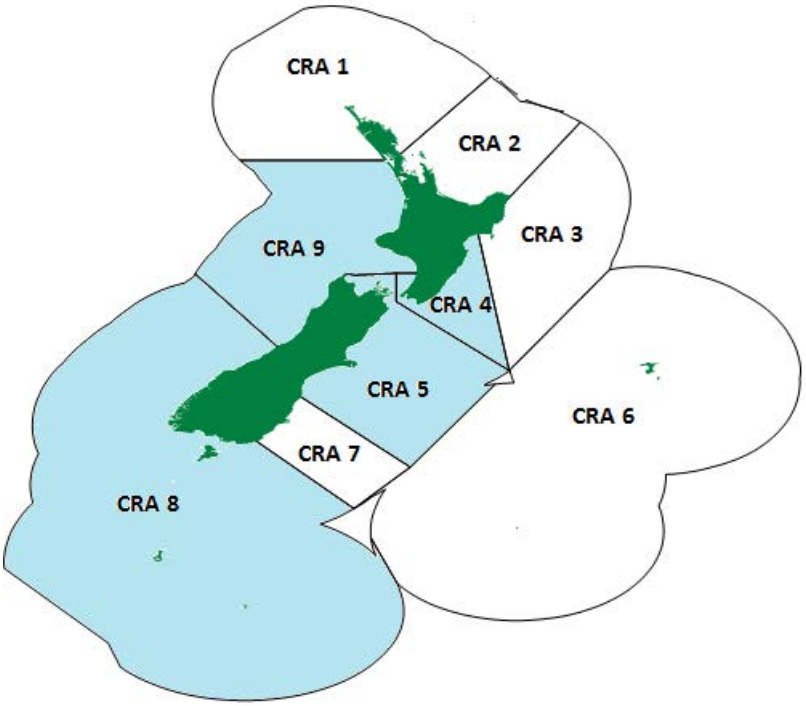


You are being asked to make decisions on sustainability measures for four rock lobster stocks for the fishing year beginning 1 April 2016. The total allowable catch (TAC), allowances and total allowable commercial catch (TACC) proposals presented in this paper for your decision are guided by new stock assessment information and/or the results from the operation of management procedures ("decision rules").

Your decisions relate to:

- Not following the results of the current CRA 4 (Wellington/Hawkes Bay) management procedure and making a greater reduction to the TAC and TACC than proposed by the procedure, with no changes to the non-commercial allowances;
- Replacing the current CRA 5 (Canterbury/Marlborough) management procedure with a new procedure, increasing the TAC and recreational allowance, and making no change to the customary allowance, the allowance for other sources of fishing-related mortality and the TACC;
- Replacing the current CRA 8 (Southern) management procedure with a new procedure and making no change to the TAC, allowances and TACC;
- Not following the results of the current CRA 9 (Westland/Taranaki) management procedure and making no change to the TAC, allowances and TACC.

Table 1.1 provides a summary of the final proposals for each rock lobster stock under review. These proposals were developed by the National Rock Lobster Management Group (NRLMG) after consideration of best available information and tangata whenua and stakeholder views.

Table 1.1: TAC, allowance and TACC final proposals for CRA 4, CRA 5, CRA 8 & CRA 9.

Stock	Option	TAC	Customary	Recreational	Other mortality	TACC
CRA 4	CRA4_01: Use the current CRA 4 management procedure and decrease the TAC by decreasing the TACC by 21 tonnes (4.5 %)	641 t ↓	35 t	85 t	75 t	446 t ↓
	CRA4_02: Decrease the CRA 4 TAC by decreasing the TACC by 47 tonnes (10%)	615 t ↓	35 t	85 t	75 t	420 t ↓
	CRA4_03: Decrease the CRA 4 TAC by decreasing the TACC by 70 tonnes (15%) *(NRLMG preferred option)*	592 t ↓	35 t	85 t	75 t	397 t ↓
	CRA4_04: Retain the current CRA 4 TAC, allowances and TACC	662 t	35 t	85 t	75 t	467 t
CRA 5	CRA5_01: Use the new CRA 5 management procedure and set the following TAC and allowances, while retaining the TACC *(NRLMG preferred option)*	514 t ↑	40 t	87 t ↑	37 t	350 t
	CRA5_02: Use the current CRA 5 management procedure and retain the TAC, allowances and TACC	467 t	40 t	40 t	37 t	350 t
CRA 8	CRA8_01: Use the new CRA 8 management procedure and retain the TAC, allowances and TACC *(NRLMG preferred option)*	1053 t	30 t	33 t	28 t	962 t
	CRA8_02: Use the current CRA 8 management procedure and retain the TAC, allowances and TACC	1053 t	30 t	33 t	28 t	962 t
CRA 9	CRA9_01: Use the current CRA 9 management procedure and decrease the TAC and TACC	101 t ↓	20 t	30 t	5 t	46 t ↓
	CRA9_02: Retain the current CRA 9 TAC, allowances and TACC *(NRLMG preferred option)*	115.8 t	20 t	30 t	5 t	60.8 t

A central consideration when choosing to use a management procedure to guide TAC setting in a fishery, is whether the procedure enables you to set a TAC that complies with section 13 of the Fisheries Act 1996 (the Act). The management procedures discussed in this paper are designed to move stock biomass to, or maintain the biomass of each stock at, a size at or above a level that can produce the maximum sustainable yield (i.e. *Bmsy*) or at a level that is not inconsistent with this objective.

Rock lobster management procedures, in general, are designed to move or maintain stock abundance well above *Bmsy* and an agreed reference level using a comprehensive approach that recognises a range of customary Maori, recreational and commercial benefits.

The NRLMG supports the use of management procedures in all of New Zealand's rock lobster fisheries - unless there are compelling reasons in a particular case not to follow the procedure (as in CRA 4 and CRA 9 this year). Using management procedures to guide TAC setting allows for much more rapid management responses than the conventional approach of periodic stock assessment followed by decision making. Having infrequent stock assessments can cause delays to the implementation of management actions required for stock sustainability.

2 NRLMG recommendations

CRA 4 (Wellington/Hawkes Bay)

The NRLMG recommends that you agree to Option CRA4_03, which is to decrease the TAC/TACC by 70 tonnes and retain the non-commercial allowances. Option CRA4_03 was not formally consulted on; however, it is more conservative than Option CRA4_01 (21 tonne TAC/TACC reduction) and Option CRA4_02 (47 tonne TAC/TACC reduction) that were consulted on.

The 2011 CRA 4 stock assessment results suggested that 2011 stock biomass was well above agreed reference levels. However, CPUE (offset year) has declined by 36% since 2012 and it is uncertain whether 2015 stock biomass is above or below agreed reference levels.

Option CRA4_03 involves a decision not to follow the results of CRA 4 management procedure that has been in use in the fishery since April 2012, but to make a greater reduction than proposed by the procedure. The NRLMG considers that choosing not to follow the procedure is an appropriate course of action because the Group's preferred option is more conservative and that a new stock assessment will be performed later in 2016 and new management procedures will be evaluated to inform CRA 4 catch limit decisions for April 2017.

Late in January 2016, the CRA 4 Rock Lobster Association (CRAMAC 4) Executive Committee undertook a review of CRA 4 landings for the current fishing year, which found a 49 tonne shortfall in landings compared with landings from the same period for the previous season. CRAMAC 4 is concerned that the CRA 4 fishery might be sliding into a period of rapid decline as witnessed in the mid-2000s and believe that corrective action is promptly needed. A 70 tonne TACC reduction under Option CRA4_03 is considered meaningful, in comparison to the other reduction options, because it has the potential to leave some fish in the water for the next season and provide greater certainty that the stock is maintained above the agreed reference levels.

CRAMAC 4 conducted a ballot of all CRA 4 quota share owners during the consultation period. The ballot response was overwhelmingly in favour of a 70 tonne reduction: more than 88% of the CRA 4 quota shares owned supported the 70 tonne reduction, with only 2.2% of quota shares owned opposing it. In accordance with the rules of CRAMAC 4, if greater than 75% of quota shares owned are in support of a TAC/TACC adjustment option, it can then be recommended as the preferred option for your consideration.

The NRLMG considers that the risk of choosing an option that was not consulted on, in this case, to be low. There is a high level of industry support for the 70 tonne reduction. It is also unlikely that non-commercial fishers will oppose the greater reduction because it should leave more fish in the water and provide a greater opportunity for the CRA 4 stock to increase.

No change is proposed to the non-commercial allowances for CRA 4 because it is considered that the allowances adequately allow for customary and recreational fishing interests at this time.

CRA 5 (Canterbury/Marlborough)

The NRLMG recommends that you agree to Option CRA5_01, which is to use the new CRA 5 management procedure and increase the TAC and recreational allowance, and retain the customary allowance, allowance for other sources of fishing-related mortality and the TACC.

Based on the 2015 stock assessment results, there are no sustainability concerns for the CRA 5 fishery: stock biomass in 2015 was well above agreed reference levels. Ongoing application of the new CRA 5 management procedure is expected to maintain the CRA 5 stock above the agreed reference levels with greater than 99% probability.

Best available information suggests the current 40 tonne CRA 5 recreational allowance is being exceeded due to an increase in recreational and amateur charter vessel take. The assumed 2014 recreational catch estimate for the stock assessment model was 82.8 tonnes. The NRLMG considers the proposed new recreational allowance of 87 tonnes will adequately allow for recreational interests at this time. It is also considered crucial that frequent monitoring of recreational rock lobster harvest is undertaken through Ministry for Primary Industries (MPI)-approved survey methodologies in CRA 5 so that effective management of the fishery can be achieved.

During consultation, it was proposed under Option CRA5_01 that the allowance for other sources of fishing-related mortality should be decreased from 37 to 30 tonnes. A 30 tonne allowance was proposed based on advice from MPI that illegal take in the fishery was estimated to be at this level. Under the Act, you are required to allow for all other mortality to a stock caused by fishing when setting any TACC. The NRLMG proposes that the CRA 5 other mortality allowance is retained until an estimate of all other mortality (i.e. handling related mortality), in addition to illegal take, is calculated.

No change is proposed to the customary allowance for CRA 5 because it is considered that the allowance adequately allows for customary fishing interests at this time. In terms of the TACC, the NRLMG notes that the proposal to retain the CRA 5 TACC is based on the CRA 5 industry's preference to ensure the commercial goals of catch stability, security and enhanced economic performance are achieved.

The sustainability measures discussed here for CRA 5 were developed by the NRLMG with a view that supplementary recreational regulatory measures would be consulted upon and implemented later in 2016 to support the ongoing sustainable utilisation of this fishery. These additional measures include the introduction of 'telson clipping' and an accumulation limit of 18 rock lobsters (3 daily bag limits) for recreational fishers. The NRLMG proposes that a separate consultation document will be released on these measures in April/May 2016.

CRA 8 (Southern)

The NRLMG recommends that you agree to Option CRA8_01, which is to use the new CRA 8 management procedure and retain the TAC, allowances and TACC.

Based on the 2015 stock assessment results there are no sustainability concerns for the CRA 8 fishery: stock biomass in 2015 was well above agreed reference levels. The new CRA 8 management procedure is expected to maintain the CRA 8 stock above the agreed reference levels with greater than 99% probability.

During consultation, it was proposed under Option CRA8_01 that the allowance for other sources of fishing-related mortality should be decreased from 28 to 5 tonnes. A 5 tonne allowance was proposed based on advice from MPI that illegal take in the fishery was estimated at 3 tonnes. As discussed under CRA 5 above, you are required to allow for all other mortality to a stock caused by fishing when setting any TACC. The NRLMG proposes that the CRA 8 other mortality allowance is retained at 28 tonnes until an estimate of all other mortality is calculated.

No change is proposed to the customary or recreational allowances for CRA 8 because it is considered that the allowances adequately allow for these interests at this time. The proposal to retain the CRA 8 TACC is based on the CRA 8 industry's preference to ensure that high levels of stock abundance continue so that the commercial goals of catch stability and enhanced economic performance are achieved.

The stock assessments for the CRA 7 (Otago) and CRA 8 rock lobster fisheries are carried out as one assessment because of the periodic movement of CRA 7 rock lobsters into CRA 8. This provided an opportunity re-evaluate the current CRA 7 management procedure's performance. You agreed to use the current CRA 7 procedure until the 2017-18 fishing year. However, because it has been re-evaluated with a new operating model, the NRLMG proposes that you agree to continue using the current CRA 7 procedure for five years from the 2016-17 to 2020-21 April fishing years.

CRA 9 (Westland/Taranaki)

The NRLMG recommends that you agree to Option CRA9_02, which is to retain the current CRA 9 TAC, allowances and TACC.

Option CRA9_02 involves a decision not to follow the CRA 9 management procedure that has been in use in the fishery since April 2014. In 2015 you agreed to retain the current TAC because of concerns expressed by the NRLMG that the management procedure may not be appropriate in the CRA 9 fishery given the small amount of commercial fisheries information available to support its operation.

An audit of CRA 9 CPUE in 2015 concluded that the recent low number of vessels and poor commercial reporting problems had contributed to the instability of CPUE in recent years. The audit also concluded that the decline in CPUE in the last two years was real and that the declining CPUE signal in the last two years was reasonably robust. In hindsight, the NRLMG considers that moving to a management procedure approach for the CRA 9 fishery may not have been the right decision given the shortcomings in the available information to support its operation.

Retaining the current TAC, allowances and TACC for CRA 9 in the short-term is unlikely to pose a sustainability risk to the stock. In 2013, modelling results suggested that 2012 stock biomass was very likely to be above the statutory reference level, *Bmsy,* and despite CPUE (offset year) declining by 40% since 2013, CPUE is still well above the historical average. Also, commercial landings are constrained by the current 60.8 tonne TACC and the size frequency distribution of commercial catches does not suggest a rock lobster stock under high fishing pressure.

The NRLMG supports the exploration of alternative management approaches for the CRA 9 fishery during 2016 to inform future catch limit setting reviews.

3 Purpose

3.1 NEED FOR ACTION

Every year the NRLMG considers the results from stock assessments and the operation of management procedures. These determine whether catch limit changes are required for the upcoming April fishing year to ensure the sustainable use of the rock lobster resource.

A management procedure is a kind of decision rule that is used to guide the setting of catch limits in rock lobster fisheries. Management procedures are informed by annual changes in commercial catch rates ('catch-per-unit-effort' or 'CPUE'). Commercial CPUE is considered a reliable indicator of abundance and is supported by scientific modelling to provide an overall assessment of stock status.

Management procedures are used in all rock lobster fisheries except for CRA 6 and CRA 10. In general, each procedure is designed to move or maintain stock abundance well above agreed reference levels and, in turn this provides for good utilisation benefits for all sectors.

In 2015 a new management procedure was evaluated for the CRA 5 fishery. You agreed to use the current CRA 5 management procedure to guide TAC setting in the CRA 5 fishery until the 2017-18 fishing year. However, the NRLMG agreed to carry out a new stock assessment and management procedure evaluations for the CRA 5 fishery one year earlier than scheduled to ensure that your statutory obligations were being met. The early review was based on feedback from interested stakeholders, declines in commercial CPUE in some parts of the fishery, and new monitoring information that suggested recreational catches had increased and that the recreational allowance was being exceeded.

A new management procedure was also evaluated for the CRA 8 fishery in 2015. In 2013 you agreed to use the current CRA 8 management procedure to guide TAC setting in the CRA 8 fishery until the 2018-19 fishing year. The stock assessment and management procedure evaluations for the CRA 8 fishery were brought forward by two years based on a request from

the CRA 8 rock lobster industry to explore greater utilisation opportunities (if considered sustainable).

The stock assessments for the CRA 7 and CRA 8 rock lobster fisheries are carried out as one assessment because of the periodic movement of CRA 7 rock lobsters into CRA 8. This provided an opportunity to update the operating model for the current CRA 7 procedure and re-evaluate its performance. You agreed to use the current CRA 7 procedure until the 2017-18 fishing year. However, because it has been re-evaluated with a new model, the NRLMG proposes that you agree to continue using the current CRA 7 procedure for five years from the 2016-17 to 2020-21 April fishing years. For further information on the specifications of the current CRA 7 procedure refer to Appendix 4.

Based on the use of the proposed new and current management procedures, changes to the *status quo* are proposed for the CRA 4, CRA 5, CRA 8 and CRA 9 rock lobster fisheries. Operation of the CRA 1, CRA 2, CRA 3 and CRA 7 management procedures suggested that no change was needed to the management settings for these fisheries from April 2016[1].

3.2 MANAGEMENT APPROACH

The NRLMG is the primary advisor to you on catch limit, regulatory and other management actions that apply specifically to rock lobster fisheries. The NRLMG is a national-level, multi-stakeholder group comprising representatives of customary, recreational and commercial fishing sectors and MPI.

The NRLMG's management goal is for all rock lobster fisheries:
"*to be managed and maintained at or above the assessed and agreed reference levels, using a comprehensive approach that recognises a range of customary Maori, amateur, commercial and environmental concerns and benefits*"

4 Background information

This section provides relevant background information on the management procedure approach, stock indicators, and the MPI Harvest Strategy Standard.

4.1 MANAGEMENT PROCEDURE APPROACH

4.1.1 History of management procedure use in New Zealand

Management procedures are currently in place for most of New Zealand's rock lobster fisheries. Each stock's management procedure has been used by Ministers to guide statutory TAC setting in rock lobster fisheries for varying periods. The oldest example of management procedures is in CRA 7 and CRA 8, where they have been used to guide TAC setting since 1996, first to rebuild the stocks and then to maintain them above reference levels with high probability.

Management procedures are generally reviewed every five years unless an earlier review is requested and approved by the NRLMG. The review aims to ensure that TAC setting remains

[1] The current CRA 1, CRA 2, CRA 3 and CRA 7 management procedures are not discussed further in this document because there is no proposal to change the management procedure approach, or change the TAC, allowances or TACC for the 2016-17 fishing year.

compliant with the statutory structure set out in the Act. It involves the development of a new stock assessment model and new management procedure evaluations.

Table 4.1 provides an outline of the use of current management procedures and when they are scheduled for review. New CRA 5, CRA 7 and CRA 8 management procedures have been evaluated this year.

Table 4.1: History of current management procedure use and their review schedule

	CRA 1	CRA 2	CRA 3	CRA 4	CRA 5	CRA 7	CRA 8	CRA 9
First year of the current management	2015	2014	2015	2012	2012	2013	2013	2014
Year of scheduled review	2019	2018	2019	2016	2015	2015	2015	2018

4.1.2 Management procedure benefits

The traditional approach used to set catch limits in many of New Zealand's fisheries is to undertake a stock assessment and then to provide recommendations on the TAC, allowances and the TACC. This approach has some disadvantages: stock assessment capacity is limited and under this approach for rock lobster only one or two assessments could be carried out each year. Delays in updating a stock assessment can cause management action to be delayed and catch limits to be set inappropriately for a fishery.

A management procedure has a number of advantages over the traditional stock assessment approach. These include:

a) The establishment of a management regime that can respond to changes in stock abundance in the fishery on an annual basis;
b) An explicit definition of management goals (e.g. maximising yield, maximising stability, minimising risk);
c) Greater certainty of achieving management goals;
d) The involvement of fishery stakeholders in the choice of a management procedure;
e) The ability to address uncertainty in all facets of the assessment and management process;
f) The opportunity to free up resources for other research: management procedures reduce the frequency that stock assessments are required.

4.1.3 Evaluation of management procedures

Management procedures are evaluated with a modified stock assessment model, known as the 'operating model'. Data used in the stock assessment model include: customary, recreational, commercial and illegal catches, length frequencies of the catch from observer and industry logbook data, tag-recapture data (i.e. growth information) and larval settlement levels. The most important inputs to the assessment are commercial CPUE indices, which are considered to be proportional to abundance.

Peer-review of stock assessment models and management procedures occurs at the Rock Lobster Fisheries Assessment Working Group and at the November mid-year Fisheries Assessment Plenary. Each management procedure is also extensively simulation-tested, which includes testing for robustness to uncertainties in model assumptions (e.g. variable levels of recruitment and non-commercial catches) and modelling choices.

4.1.4 Main data input

Standardised commercial CPUE from October to September each year is used as an input to a management procedure to determine the TAC or TACC for the fishing year that begins in the following April. This CPUE series is called 'offset year CPUE'. Use of offset year CPUE ensures that the most up-to-date CPUE information is used in management procedure operations and decision-making.

CPUE is used as the main input because it is considered to be a reliable indicator of relative stock size in rock lobster fisheries. CPUE has been successfully used in several management procedures to rebuild stocks from low to high abundance levels.

4.2 DEFINITION OF STOCK INDICATORS

Four stock indicators are relevant to evaluation of the proposals presented in this paper[2]:

a) The statutory reference level, ***Bmsy***, the stock size that can produce the maximum sustainable yield. Section 13 of the Act requires you to set a TAC that moves the stock to, or maintains the stock at, a size at or above a level that can produce the maximum sustainable yield or at a level that is not inconsistent with this objective.
b) The conceptual proxy, ***Bref***[3]***,*** a reference biomass level. The use of *Bref* is a way of assessing a stock that is not inconsistent with the objective of maintaining a stock at or above, or moving the stock towards, a level that can maintain the maximum sustainable yield. This "not inconsistent" approach is set out in section 13(2A) of the Act where you consider that current biomass or *Bmsy* cannot be estimated reliably using best available information. *Bref* is generally a stock size at or above the stock size associated with a period in the fishery that showed good productivity and was demonstrably safe.
c) The minimum stock size, ***Bmin***, which is the lowest stock size observed in the history of the fishery.
d) Spawning stock biomass, ***SSB***, which is the weight of all mature females in the autumn-winter.

Two new indicators have also been calculated in the last two years: the biomass of all fish, ***Btot***, and the numbers of all fish, ***Ntot***.

There are some differences in the indicators that are reported for each stock in this paper because the Rock Lobster Fisheries Assessment Working Group has continually improved the way indicators are calculated over time. Table 4.2 provides a summary of the key indicators that are available for each stock discussed in this paper.

[2] Stock size is measured in terms of autumn-winter vulnerable biomass for the *Bmsy*, *Bref* and *Bmin* indicators. "Vulnerable biomass" is the biomass that is available to be caught legally: above the minimum legal size and not egg bearing if female.

[3] The Operational Guidelines for the Harvest Strategy Standard describe the *Bref* concept as follows: "Conceptual proxies for BMSY, FMSY and MSY are qualitative surrogates that can be used in the absence of adequate information to directly estimate these reference points themselves. The conceptual interpretation embraces the spirit and intent of section 13 of the Act. It can be used in cases where there is insufficient information to estimate BMSY, FMSY or MSY explicitly, or where such estimates may be unreliable because, for example, there is little or nothing known about the stock recruitment relationship. Conceptual BMSY: In cases where the relationship between CPUE and abundance can be assumed to be more or less proportional, or where some other form of relationship has been derived from data, it may be reasonable to select an appropriate historical period when both CPUE and catches were relatively high and to use this CPUE level as a target. *The best example in current use in New Zealand is that for rock lobster*." [emphasis added].

Table 4.2: Summary of key stock indicators that are available for each stock discussed in this paper.

Indicator	CRA 4	CRA 5	CRA 8	CRA 9
Bmsy	✓	✓	✓	✓
Bref	✓	✓	✓	-
Bmin	✓	✓	✓	✓
SSB	✓	✓	✓	-
Btot	-	✓	✓	-
Ntot	-	✓	✓	-

4.3 THE MPI HARVEST STRATEGY STANDARD

In October 2008, MPI released the Harvest Strategy Standard (HSS) for New Zealand fisheries. The Harvest Strategy Standard specifies performance standards for Quota Management System species and also provides guidance for TAC setting under the Act.

The HSS specifies that management procedures should be designed to ensure that the probability of:

- Achieving the MSY-compatible target or better is at least 50%;
- Breaching the soft limit does not exceed 10%;
- Breaching the hard limit does not exceed 2%.

For rock lobster:

- 'MSY-compatible target' reference points include those that relate to stock biomass (*Bmsy*) and conceptual proxies (*Bref*);
- The soft limit is defined as 20% of the unfished SSB level or 50% *Bref*;
- The hard limit is defined as 10% of the unfished SSB level or 25% *Bref*.

Extensive simulation-testing suggests that all of the management procedures discussed in this document are consistent with the Harvest Strategy Standard.

5 Consultation

Decisions to vary TACs are made under section 13(4) of the Act; therefore, the consultation requirements of section 12(2) apply. Decisions to vary TACCs are made under section 20(2), to which the consultation requirements of section 21(2) apply. These provisions require consultation with such persons or organisations representative of those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Maori, environmental, commercial and recreational interests.

The NRLMG consulted on proposals to review sustainability measures for five rock lobster stocks from 14 January to 11 February 2016. A standard consultation process of posting the consultation document on the MPI website and alerting stakeholders to this through a letter sent to numerous tangata whenua, recreational and commercial contacts.

5.1 SUBMISSIONS RECEIVED

16 submissions on the consultation document were received from the following organisations, groups and individuals:

Allan MacKay
Canterbury Marlborough Rock Lobster Industry Association Inc. (CRAMAC 5)
CRA 4 Rock Lobster Association (CRAMAC 4)
CRA 8 Management Committee Inc. (CRAMAC 8)
CRA 9 Industry Association (CRAMAC 9)
Iwi Collective Partnership
Maungaharuru-Tangitu Trust
Ngai Tahu Seafood
Ngati Whatua Runanga Fishing Co. Ltd.
NZ Rock Lobster Industry Council (NZ RLIC)
NZ Sport Fishing Council (NZSFC)
Pam MacKay
Rob Pooley
Ross Divett
Te Atiawa (Taranaki) Holdings Limited
Te Ohu Kaimoana

Full copies of the submissions are available in Appendix 9. Each submission is discussed further below as relevant to each stock and in the other matters section in Appendix 1.

6 Legal considerations

Your statutory considerations for TAC and TACC setting are discussed below and for each individual stock as relevant in the following sections.

6.1 PURPOSE OF THE ACT (SECTION 8)

The purpose of the Act is to provide for the utilisation of fisheries resources while ensuring sustainability. The options presented in this paper for each rock lobster stock provide for the utilisation of these stocks while ensuring sustainability.

6.2 ENVIRONMENTAL PRINCIPLES (SECTION 9)

Section 9 of the Act requires that you take the following environmental principles into account when exercising or performing functions, duties, or powers in relation to the utilisation of fisheries resources or ensuring sustainability:

a) Associated or dependent species should be maintained above a level that ensures their long-term viability;
b) Biological diversity of the aquatic environment should be maintained;
c) Habitats of particular significance for fisheries management should be protected.

The NRLMG considers that all options presented in this paper satisfy your obligations under section 9 of the Act. Rock lobster is taken by potting and hand-gathering fishing methods which have relatively low level of bycatch. The main method that commercial fishers use to target rock lobster is potting, which is considered to have very little direct effect on the aquatic environment.

6.3 INFORMATION PRINCIPLES (SECTION 10)

Section 10 of the Act requires that you take the following information principles into account:

a) Decisions should be based on the best available information;
b) Decision makers should take into account any uncertainty in the available information;
c) Decision makers should be cautious when information is uncertain, unreliable, or inadequate;
d) The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of the Act.

The NRLMG considers that the best available information has been used as the basis for the recommendations in this paper. All science information on which the management proposals are based, has been peer-reviewed by one of MPI's Fisheries Assessment Working Groups and meets the MPI Research and Science Information Standard for New Zealand Fisheries.

6.4 SUSTAINABILITY MEASURES (SECTION 11)

Under section 11 of the Act, before setting or varying any sustainability measure for any stock, you must:

a) Section 11(1)(a): take into account any effects of fishing on any stock and the aquatic environment. Rock lobster fishing methods (potting and hand gathering) are thought to have very little direct effect on non-target species and the aquatic environment.
b) Section 11(1)(b): take into account any existing controls under the Act that apply to the stock or area concerned. A range of management controls apply to the stocks discussed in this paper including minimum legal sizes, daily bag limits for recreational fishers, method restrictions, and protection of egg-bearing females. No changes are proposed to these existing controls.
c) Section 11(1)(c): take into account the natural variability of the stock. Recruitment to rock lobster stocks is highly variable. This variability was taken into account during development of the management procedures discussed in this paper. Sections 11(2)(a) and (b) require you to have regards to any provisions of any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991 and any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and that you consider relevant. The NRLMG is not aware of any such policy statements, plans or strategies that should be taken into account for the stocks.
e) Section 11(2)(c): have regard to sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 that apply to the coastal marine area and you consider relevant. The CRA 4, CRA 5, CRA 8 and CRA 9 rock lobster fisheries do not intersect with the Hauraki Gulf Marine Park; therefore there are no relevant considerations under that Act.
f) Section 11(2)(d): have regard to any planning document lodged by a customary marine title group under section 91 of the Marine and Coastal Area (Takutai Moana) Act 2011. No planning documents applicable to the fisheries have been lodged.
g) Section 11(2A)(b): take into account any relevant fisheries plan approved under section 11A. No fisheries plans applicable to rock lobster have been approved.
h) Sections 11(2A)(a) and (c): take into account any conservation or fisheries services, or any decision not to require such services. The NRLMG does not consider that existing or proposed services materially affect the proposals for these stocks. No decision has been made not to require a service in this fishery at this time.

6.5 TAC SETTING (SECTION 13)

A central consideration when choosing whether to use a management procedure to guide TAC setting in a fishery is whether the procedure enables you to set a TAC that complies with section 13 of the Act.

Under section 13(2) of the Act you must set a TAC that maintains a stock at or above, restores a stock to or above, or moves the stock towards or above a level that can produce the maximum sustainable yield. However, before a TAC can be set under section 13(2) you must be provided with an estimate of both current biomass and the biomass that can produce the maximum sustainable yield (commonly called *Bmsy*).

Where current biomass or *Bmsy* estimates are not available, or not reliable, then you are required to apply section 13 (2A) of the Act instead. Section 13 (2A) requires you to set a TAC using the best available information, and that is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, *Bmsy*.

In considering the way and rate in which a stock is moved towards, or above, a level that can produce the maximum sustainable yield (i.e. *Bmsy*) under section 13(2)(b) or (c) or (2A), you must have regard to such social, cultural and economic factors that are considered relevant.

The management procedures discussed in this paper are designed to move stock biomass to, or maintain the biomass of each stock at, a size at or above *Bmsy* or the agreed proxy (i.e. *Bref*) as required under section 13 of the Act.

When setting a TAC under section 13, you must also have regard to:

a) Interdependence of stocks: is where there is a direct trophic (i.e. a stock is likely to be directly affected by the abundance of another stock) or symbiotic relationship between stocks. Rock lobsters are predators of molluscs and other invertebrates and predation upon rock lobsters is known from octopus, blue cod, groper, southern dogfish, rig and seals. Although there is uncertainty, the options proposed are unlikely to have any significant effect on the interdependence of stocks.

a) Biological characteristics and environmental conditions: a variety of environmental factors are thought to influence the productivity of rock lobster populations including water temperature, ocean currents, latitude, shelter availability and food availability. Studies have also shown that lobsters grow at different rates around New Zealand and female lobsters become mature at different sizes. Variability in growth, maturity, available biomass, and recruitment were taken into account during the development of management procedures for the rock lobster stocks discussed in this paper.

6.6 TACC SETTING (SECTIONS 20 AND 21)

When setting a TACC for a stock under section 20 of the Act, section 21 requires you to have regard to the TAC for that stock and allow for Maori customary non-commercial fishing interests, recreational interests, and all other sources of fishing-related mortality to that stock.

The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on best

available information. Allowance options are discussed individually for each rock lobster stock later in this paper.

When allowing for Maori customary non-commercial fishing interests you must take into account any relevant mātaitai reserves within the relevant quota management areas and any area closure or fishing method restriction or prohibition within those areas made under section 186A of the Act. There are several mātaitai reserves and temporary closures that fall within the areas of the rock lobster stocks discussed in this paper. The NRLMG considers that the proposed customary allowances for each stock will adequately provide for the harvest of rock lobster that is likely to be taken from a management area, after taking into account the mātaitai reserves and temporary closures in place.

When allowing for recreational interests, you must take into account any regulations made under section 311 of the Act that prohibit or restrict fishing in any area. There are currently no section 311 regulations applying in the areas of the rock lobster stocks discussed in this paper.

7 Review of the CRA 4 rock lobster fishery

7.1 FINAL CRA 4 PROPOSALS

Table 7.1 below shows the final proposals for CRA 4. The current CRA 4 management procedure and advice from CRAMAC 4 has been used to guide the final TAC setting options. The proposals to decrease the TAC and TACC are expected to ensure the CRA 4 stock is maintained above agreed reference levels.

Table 7.1: Final proposals for CRA 4

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA4_01: Use the current CRA 4 management procedure and decrease the TAC by decreasing the TACC by 21 tonnes (4.5 %)	641 t ↓	35 t	85 t	75 t	446 t ↓
CRA4_02: Decrease the CRA 4 TAC by decreasing the TACC by 47 tonnes (10%)	615 t ↓	35 t	85 t	75 t	420 t ↓
CRA4_03: Decrease the CRA 4 TAC by decreasing the TACC by 70 tonnes (10%) (NRLMG preferred)	592 t ↓	35 t	85 t	75 t	397 t ↓
CRA4_04: Retain the current CRA 4 TAC, allowances and TACC	662 t	35 t	85 t	75 t	467 t

7.2 SUMMARY OF CRA 4 SUBMISSIONS

7.2.1 Support for Option CRA4_01 and 04

No submissions were received on Option CRA4_01 (use the current CRA 4 management procedure and decrease the TAC/TACC by 21 tonnes), or Option CRA4_04 (retain the current settings).

7.2.2 Support for Option CRA4_02

Ngati Whatua and NZSFC support Option CRA4_02 (decrease the TAC/TACC by 47 tonnes). The NZSFC supports the conservative approach taken by CRAMAC 4.

7.2.3 Support for Option CRA4_03

Option CRA4_03 was not consulted on (decrease the TAC/TACC by 70 tonnes). It has been added to the final proposals based on an analysis of submitter feedback. CRAMAC 4, NZ RLIC and Te Ohu support this option and the Iwi Collective Partnership expressed support for this option dependant on the CRAMAC 4 ballot that closed on 11 February 2016.

This new option stemmed from a review of CRA 4 landings that the CRAMAC 4 Executive Committee undertook in January 2016 after the consultation paper was released. The review found a 49 tonne shortfall in landings compared with landings from the same period for the previous season. CRAMAC 4 and NZ RLIC considers that several factors could be relevant to the observed stock decline, including significant habitat damage, loss of fishing grounds and prolonged below-average puerulus settlement levels.

Industry consider that this TACC reduction should be meaningful and have the potential to leave some fish in the water for the next season. CRAMAC 4 is mindful of how rapidly the stock declined in the mid-2000s and considers that corrective action is promptly needed to halt and possibly reverse the observed decline in abundance.

A ballot of CRA 4 quota share owners confirmed that 88% of quota shares owned supported the 70 tonne TACC reduction and only 2.2% opposed it.

7.2.4 Other comments

Maungaharuru-Tangitu suggests that the customary allowance should be retained while the TACC and recreational allowance is reduced because they consider this impacts on their customary allowance. They also suggest that a Cultural Impact Assessment is conducted for their traditional area within Hawke Bay and that an implementation plan of the findings is agreed on. The NRLMG notes this assessment falls within the regional council responsibilities.

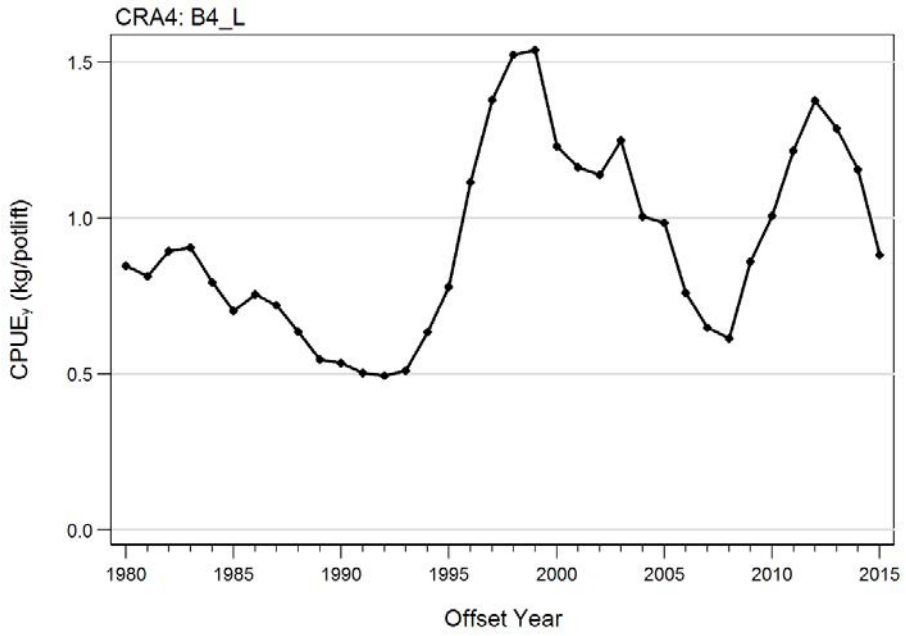
7.3 CRA 4 STOCK STATUS

The 2011 CRA 4 stock assessment results suggested that 2011 stock biomass was 2.3 times *Bmsy* and 1.7 times *Bref*[4]. Spawning stock biomass in 2011 was above 20% of its unfished level with greater than 99% probability (based on the 2011 CRA 4 stock assessment). It is currently unknown whether current CRA 4 stock biomass is above or below agreed reference levels.

Standardised CPUE is considered to be a reliable indicator of relative stock size in CRA 4 and is the abundance indicator used in the CRA 4 management procedure. The history of offset year (i.e. October through September) CRA 4 commercial CPUE is shown in Figure 7.1. CPUE increased from 2008 to 2012, but has since declined.

[4] *Bref* for CRA 4 is the pre-season autumn-winter vulnerable biomass associated with the period 1979-88.

Figure 7.1: The history of CPUE in CRA 4, 1980 – 2015 (offset years) (based on the procedure for preparing data for CPUE standardisation called "B4_L"[5])



7.4 ANALYSIS OF CRA 4 FINAL PROPOSALS

7.4.1 TAC setting

The current CRA 4 TAC is 662 tonnes.

Because there are no reliable estimates of current biomass and *Bmsy*, you must set a TAC for CRA 4 under section 13(2A). Section 13(2A) requires you to set a TAC using the best available information and that is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, Bmsy.

- *Use the CRA 4 management procedure and decrease the CRA 4 TAC by 21 tonnes (Option CRA4_01)*

Under Option CRA4_01 the CRA 4 TAC would be decreased to 641 tonnes. The proposed TAC decrease is specified by the CRA 4 management procedure that a previous Minister agreed to use in 2012 to guide TAC setting in the fishery until the 2017-18 fishing year. Important elements of the current CRA 4 management procedure are set out below and in Appendix 1.

Ongoing application of the CRA 4 management procedure was expected, based on simulation testing, to exceed the requirements of the MPI Harvest Strategy Standard and maintain the stock above *Bref* with greater than 99% probability and above *Bmin* with greater than 99% probability.

The current utilisation benefits of the fishery will decrease under this option. How this reduction is shared amongst the fishery sectors will depend on allocation decisions. Historically, only the TACC has been increased or decreased to give effect to the variations in the TAC.

[5] The "B4_L" procedure for preparing data for CPUE standardisation does not capture fish returned to water like the "F2_LFX" procedure used in other stocks, which better represents the estimation/landing process.

The 21 tonne TAC reduction recommended by the CRA 4 management procedure is not preferred by the NRLMG or submitters. The NRLMG does not consider that it goes far enough to halt and possibly reverse the observed decline in abundance that commercial fishers have experienced in the current season. The NRLMG is supportive of the use of management procedures, but considers there are compelling reasons, discussed below, not to follow the CRA 4 management procedure this year.

The NRLMG notes that this is the last year of operation of the current CRA 4 management procedure. A new stock assessment and management procedure evaluations will be performed later in 2016 to ensure TAC setting for this stock remains compliant with your statutory considerations.

- *Decrease the CRA 4 TAC by 47 tonnes (Option CRA4_02)*

Under Option CRA4_02 the CRA 4 TAC would be decreased to 615 tonnes. This proposed TAC decrease (and consequent 10% TACC decrease) was suggested by CRAMAC 4 in December 2015 as an option to be considered and confirmed by CRA 4 quota share owners during the consultation period. A larger TAC decrease than specified by the CRA 4 management procedure will provide greater certainty that the stock will be maintained above an agreed reference level, *Bref*.

This option will also decrease the current utilisation benefit of the fishery, which has historically only seen the TACC varied.

Two submitters (Ngati Whatua and NZSFC) expressed support for this option. However, during the consultation period CRAMAC 4 undertook a review of landings during the current season and considered that the 47 tonne TAC reduction may not go far enough to arrest any further stock decline. Industry then initiated a more precautionary approach to TAC setting. This is why the NRLMG has recommended a new option for your consideration (Option CRA4_03).

- *Decrease the CRA 4 TAC by 70 tonnes (Option CRA4_03)*

Under Option CRA4_03 the CRA 4 TAC would be decreased to 592 tonnes. This proposed TAC decrease (and consequent 15% TACC decrease) was recommended by CRAMAC 4 and NZ RLIC during consultation as an option for you to consider. Of the TAC decrease options, this option provides greatest certainty that the stock will be maintained above an agreed reference level, *Bref.*

The NRLMG and the submitters of this option consider that the 70 tonne TAC reduction will be meaningful and has the potential to leave more fish in the water for the next season. This option will decrease the current utilisation benefit of the fishery, which has historically only seen the TACC varied. Although this option was not consulted on, the NRLMG considers the risk of choosing this option to be low. There is a high level of support for the 70 tonne reduction by industry (more than 88% of quota shares owned supported it) and it is unlikely that non-commercial fishers or submitters would oppose the greater reduction because it should leave more fish in the water and provide a greater opportunity for the stock to increase.

- *Retain the current CRA 4 TAC (Option CRA4_04)*

Under Option CRA4_03 the CRA 4 TAC would stay at its current level for the 2016-17 fishing year. This option is not supported by the NRLMG or submitters. Maintaining the current TAC could result in a further decline in CRA 4 stock abundance and this could affect the utilisation benefit for all fishing sectors.

7.4.2 Setting of non-commercial allowances

- *Customary Maori allowance*

No change is proposed to the 35 tonne customary Maori allowance for CRA 4.

Information on CRA 4 customary catches is available under the Fisheries (Kaimoana) Regulations 1998 and regulation 50 of the Fisheries (Amateur Fishing) Regulations 2013[6]. In the last five April fishing years, an average of about 9,460 rock lobsters were reported landed each year in CRA 4 under the regulations. Noting the incompleteness and uncertainty in the CRA 4 customary harvest information, it is assumed that current harvest is within the 35 tonne allowance allocated for customary Maori interests at this time.

An estimate of 20 tonnes was used in the last 2011 CRA 4 stock assessment model to represent customary catches (blue line in Figure 7.2 below).

- *Recreational allowance*

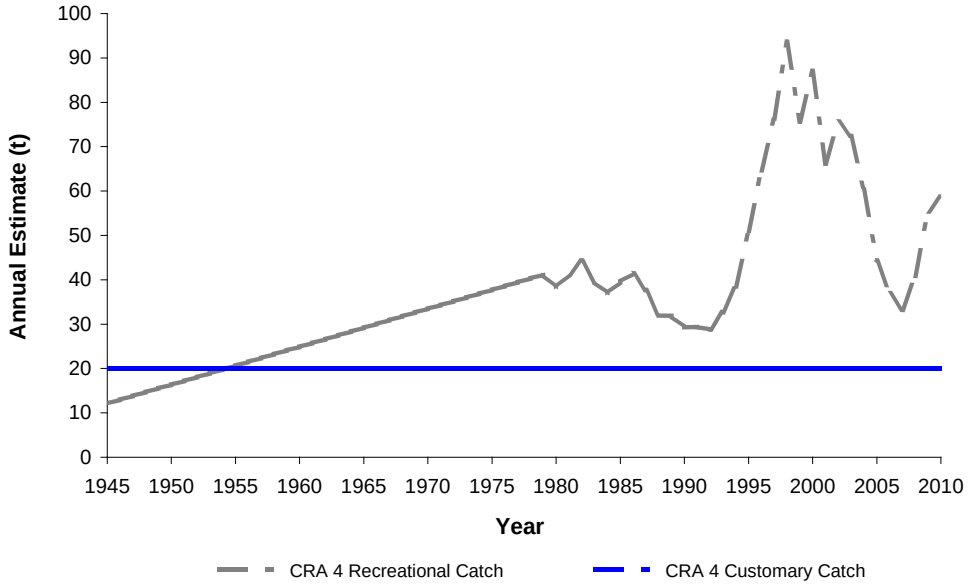
No change is proposed to the 85 tonne recreational allowance for CRA 4.

In the 2011 CRA 4 stock assessment, recreational catch estimates from 1994 and 1996 recreational harvest surveys were used to construct a recreational catch trajectory (Figure 7.2). The model assumed that recreational catch was proportional to the spring-summer commercial CPUE for CRA 4. The resulting recreational catch trajectory showed a strong increasing trend up to the end of 1990s, followed by a steep drop to 2007-08, then a recovery by 2010-11. The largest annual catch since 1979-80 was estimated at 69 tonnes in 1998-99 and catch averaged 43 tonnes per year since 1979-80.

The model assumptions of recreational catch suggest the 85 tonne recreational allowance adequately allows for likely levels of recreational harvest from the CRA 4 fishery at this time.

[6] Previously regulation 27A of the Fisheries (Amateur Fishing) Regulations 1986.

Figure 7.2: Recreational (grey line) catch trajectory (kg) for the 2011 stock assessment of CRA 4 made proportional to spring-summer CPUE. The blue line is the customary catch trajectory used in the 2011 assessment. Section 111 catches which were taken by commercial fishers for non-commercial purposes were added to the 2011 recreational catch trajectory (i.e. a maximum of 4.8 tonnes).



- *Other mortality allowance*

No change is proposed to the 75 tonne CRA 4 allowance for other sources of fishing-related mortality.

There is no reliable information on current levels of illegal catch. The Rock Lobster Fisheries Assessment Working Group used available MPI estimates from 1990 to 2004 in the 2011 stock assessment model to estimate illegal catches. For the 2010-11 fishing year the illegal catch estimate assumed for the model was 40 tonnes. It is assumed that estimated levels of illegal catch are within the other mortality allowance.

7.4.3 TACC

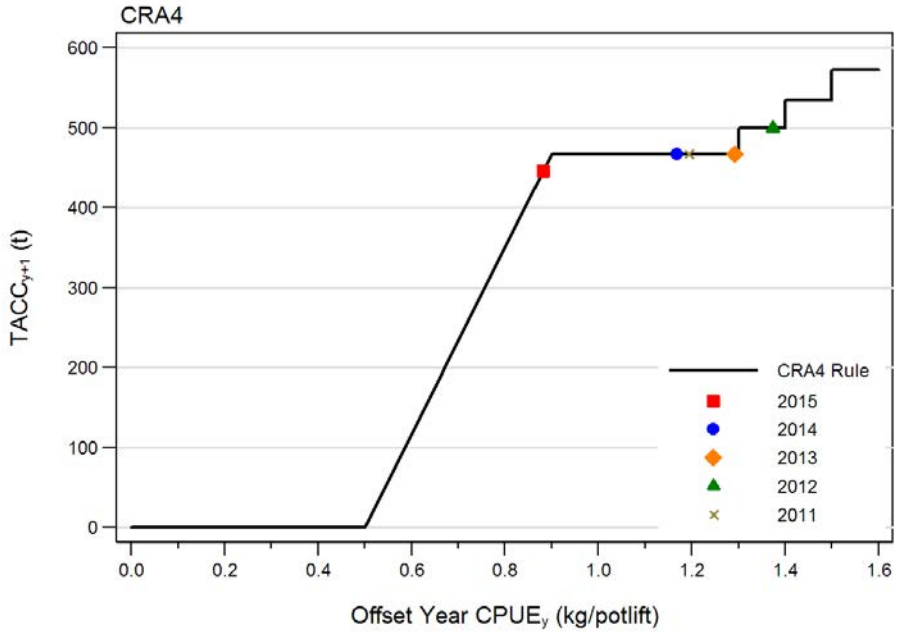
The current CRA 4 TACC is 467 tonnes.

- *Option CRA4_01 – Decrease the CRA 4 TACC by 21 tonnes (as guided by the CRA 4 management procedure)*

Under Option CRA4_01 the CRA 4 TACC would be decreased to 446 tonnes from April 2016, as guided by the use of the CRA 4 management procedure. The proposed 21 tonne TACC decrease has the potential to result in a loss of revenue for the industry of approximately $1.51 million (based on 2015 average port price information).

A graphical representation of the CRA 4 management procedure is provided in Figure 7.3. The graph shows the proposed TACC for the next year as a function of offset-year CPUE in the current year. The 2015 standardised offset year CPUE was 0.882 kg/potlift and when the rule was operated with this CPUE it resulted in a TACC of 446 tonnes (shown by the red square on the graph).

Figure 7.3: The CRA 4 management procedure, showing the TACCs resulting from the rule operations performed in 2011 through 2015 for the 2012-13 through 2016-17 fishing years (shown as coloured shapes).



- *Option CRA4_02 – Decrease the CRA 4 TACC by 47 tonnes*

Under Option CRA4_02 the CRA 4 TACC would be decreased to 420 tonnes from April 2016. The proposed 47 tonne TACC decrease has the potential to result in a loss of revenue for the industry of approximately $3.38 million (based on 2015 average port price information).

The NRLMG and industry consider that this option may not go far enough to arrest the observed decline in CRA 4 stock abundance.

- *Option CRA4_03 – Decrease the CRA 4 TACC by 70 tonnes*

Under Option CRA4_03 the CRA 4 TACC would be decreased to 397 tonnes from April 2016. The proposed 70 tonne TACC decrease has the potential to result in a loss of revenue for the industry of approximately $5.04 million (based on 2015 average port price information).

This option is supported by the NRLMG and industry and is considered to be the best option to ensure the stock is maintained above the agreed reference level.

- *Option CRA4_04 – Retain the current CRA 4 TACC*

Under Option CRA4_04 the CRA 4 TACC would stay at its current level. This option would maintain the current utilisation benefits of the commercial fishery. However, this option is not supported because maintaining the current TACC could result in stock abundance declining further and consequently could affect utilisation benefits for all fishing sectors.

8 Review of the CRA 5 rock lobster fishery

8.1 FINAL CRA 5 PROPOSALS

Table 8.1 below shows the final proposals for CRA 5. The proposed new and current CRA 5 management procedures have been used to guide TAC setting options. These procedures are designed to maintain the CRA 5 stock above agreed reference levels.

Table 8.1: Final proposals for CRA 5

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA5_01: Use the new CRA 5 management procedure and set the following TAC and allowances, while retaining the TACC (NRLMG preferred)	514 t ↑	40 t	87 t ↑	37 t	350 t
CRA5_02: Use the current CRA 5 management procedure and retain the TAC, allowances and TACC	467 t	40 t	40 t	37 t	350 t

8.2 SUMMARY OF CRA 5 SUBMISSIONS

8.2.1 Support for Option CRA5_01

CRAMAC 5, Ngati Whatua, NZ RLIC and Te Ohu supported Option CRA5_01 as consulted on, which was to use the new CRA 5 management procedure, increase the TAC and recreational allowance, decrease the allowance for other sources of fishing-related mortality to 30 tonnes and make no change to the customary allowance and TACC.

The NRLMG has modified Option CRA5_01 following consultation and now propose that the 37 tonne other mortality allowance is retained for the time being. The initial proposal for a 30 tonne other mortality allowance reflected assumptions of illegal catch only and did not include other sources of mortality (i.e. handling-related mortality). The NLRMG propose that this allowance is retained while an estimate of all other mortality is calculated.

8.2.2 Support for Option CRA5_02

No submissions were received on Option CRA5_02 (use the current CRA 5 management procedure and retain the current TAC, allowances and TACC).

8.2.3 Other comments

Mr Pooley expressed a number of views on CRA 5 in relation to fine-scale management of the fishery and concerns with CPUE that is calculated from various pot dimensions (i.e. there is no standard pot like in Australia).

Mr Divett believes the tonnage for recreational take of rock lobster is closer to 160 tonnes in the CRA 5 fishery.

Ngai Tahu Seafood expressed concerns about the accuracy of the proposed recreational allowance of 87 tonnes. They are concerned about the future sustainability of the CRA 5 fishery if MPI continues to 'assume' recreational removal and does not develop methods of collecting genuine recreational removal data. Ngai Tahu also supports investigating fine-scale management of the fishery at the statistical area level.

CRAMAC 5 and NZ RLIC both comment that a recreational harvest monitoring programme needs to be established for CRA 5. Te Ohu support the higher recreational allowance, but consider that tighter catch and accumulation controls on recreational fishers are needed to mitigate the risk of risk of catches continuing to increase. In addition, Te Ohu suggest that a shared allocation policy should be developed for CRA 5 so that the NRLMG can be proactive in its approach to dealing with future TAC adjustments.

NZSFC support the TACC and customary allowance proposals, except they suggest that the recreational allowance be set at 80 tonnes and the other mortality allowance of 37 tonnes be retained. The NZSFC also express concerns about the new management procedure locking in the current TACC for the foreseeable future, object to CPUE being based on the procedure for preparing data for CPUE standardisation called "F2_LFX" and assert that the 2015 stock assessment based on this index is implausible.

The technical assertions made by the NZSFC about the rock lobster assessment approach are generally incorrect and are difficult for the NRLMG to address in detail in this paper. The NRLMG continues to encourage NZSFC representatives to attend Rock Lobster Fisheries Assessment Working Group meetings so that they can be involved in discussions and can gain a greater understanding of the research and assessment process.

Some of these other comments are discussed below and in Appendix 1.

8.3 CRA 5 STOCK STATUS

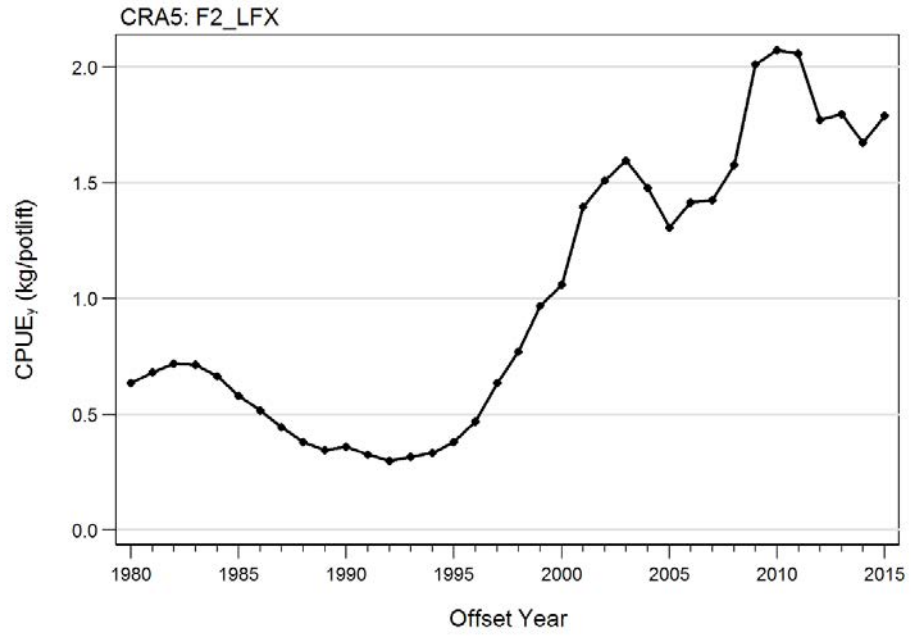
A new stock assessment was carried out for the CRA 5 fishery in 2015 (the previous was in 2010)[7]. The 2015 assessment results suggest there are no sustainability concerns for the CRA 5 fishery as stock biomass in 2015 was well above reference levels. The ratios of 2015 stock biomass to these reference levels were: 2.9 to 4.1 times *Bmsy*, 1.8 to 2.4 times *Bref*[8] and 4.4 to 4.7 times *Bmin*. Spawning stock biomass in 2014 was 78 to 97% of the unfished level. Total biomass in 2014 was about 67% of the unfished level and the total number of rock lobsters was about 70 to 83% of the unfished level. With 2014 catch levels and recent recruitments, stock biomass is projected to decline in the next four years by 8 to 10%, but would remain well above the reference levels (*Bmsy* and *Bref*).

Standardised CPUE is considered to be a reliable indicator of relative stock size in CRA 5 and is the abundance indicator used in the proposed new CRA 5 management procedure. The history of offset year (i.e. October through September) CRA 5 commercial CPUE is shown in Figure 8.1. CPUE increased steadily from 2005 to 2010 and then generally declined up until a slight increase observed in 2015.

[7] Two alternative CRA 5 stock assessment base cases were considered in 2015. The proposed new CRA 5 management procedure was evaluated under both alternative base cases concurrently.

[8] *Bref* for CRA 5 is the pre-season autumn-winter vulnerable biomass associated with the period 1979-88.

Figure 8.1: The history of CPUE in CRA 5, 1980 – 2015 (offset years) (based on the procedure for preparing data for CPUE standardisation called "F2_LFX"[9])



The NRLMG supports the use of the "F2_LFX" procedure for calculating CPUE for use in the new CRA 5 management procedure because it is thought to be a better index of abundance of the stock and it addresses other problems. The CPUE series based on the "F2_LFX" procedure for CRA 5 differs from the previously used "B4_L"procedure. The difference between the two CPUE series is due to using "F" (recreational landings from a commercial vessel) and "X" (high-graded lobsters) destination codes as well as "L" (commercial landings to a licensed fish receiver).

In response to submitter suggestions that rock lobster stocks should be managed at a finer-scale, the NRLMG is focused on ensuring sustainability of a stock at the level of quota management area because this is required under the Act. There are many reasons why the availability of rock lobsters can fluctuate in sub-areas for reasons not related solely to fishing. Rock lobster abundance can vary with changes in environmental factors, including habitat quality, food availability and water temperature. The rock lobster industry monitors more localised abundance and, where needed, implements catch spreading arrangements within a quota management area to help ensure the ongoing sustainability of the overall fishery.

8.4 ANALYSIS OF CRA 5 FINAL PROPOSALS

8.4.1 Use of a new management procedure

It is proposed that a new management procedure is used to guide TAC setting in the CRA 5 fishery for five years from the 2016-17 to 2020-21 fishing years. The NRLMG proposes that this new management procedure (Option CRA5_01) replace the current CRA 5 management procedure (Option CRA5_02) that has been in use in the fishery since 2012.

[9] The "F2_LFX" procedure for preparing data for CPUE standardisation is designed to better represent the estimation/landing process than a previous procedure and adjusts for change in data reporting practices.

The development of the new CRA 5 management procedure was guided by feedback received from a multi-sector meeting in Blenheim in August 2015 where future aspirations for the fishery were discussed. Common goals that were identified at the meeting included:

- Maintaining good levels of abundance for all sectors (with "good" being taken to mean current (2014/15) levels of abundance, which is a stock size well above *Bmsy*);
- Ensuring sustainability and availability of rock lobsters for all sectors.

Use of the new CRA 5 management procedure should not pose a risk to stock sustainability. Ongoing application of the new CRA 5 management procedure is expected to exceed the requirements of the MPI Harvest Strategy Standard and maintain the stock above *Bmsy* with greater than 99% probability and *Bmin* with greater than 99% probability. For further information on the specifications of the new CRA 5 procedure refer to Appendix 2.

Simulation-testing of the new CRA 5 management procedure suggests it will continue to provide for utilisation benefits for all sectors in CRA 5. Stock biomass is expected to be maintained well above the agreed reference levels (i.e. *Bmsy* and *Bref*) (Table 8.2).

Table 8.2: Summary of indicator results from base case evaluations for the new CRA 5 management procedure (Option CRA5_01).

Stock Indicators[10]	*Results*
The proportion of years in which biomass was less than:	
- Bmsy	0 to 0.03 %
- Bref	0 %
- Bmin	0 %
Catch Indicators	
Minimum commercial catch	350 t
Average commercial catch	350 t
Minimum recreational catch	59 to 60 t
Average recreational catch	63 to 65 t
Average commercial CPUE	1.4 to 1.5 kg/potlift
Stability – probability of a change in the TACC	12 to 18 %

The main difference between the new and current CRA 5 management procedures is in the length of the "plateau". Under the new procedure the TACC is 350 tonnes between CPUE values of 1.2 and 2.2 kg/potlift, whereas under the current procedure the TACC is 350 tonnes between CPUEs of 1.4 and 2.0 kg/potlift. Effectively the new procedure proposes a TACC decrease at a lower CPUE than the current procedure and proposes a TACC increase at a higher CPUE. The new management procedure also has a minimum change threshold for the TACC of 5%.

8.4.2 TAC setting

The current CRA 5 TAC is 467 tonnes.

[10] An explanation of the stock indicators is provided in section 4.2.

Best available information (from the 2015 stock assessment) suggests the CRA 5 stock is above *Bmsy*. Accordingly you may set the CRA 5 TAC to maintain the stock at or above *Bmsy* (section 13(2)(a)).

- *Use the new CRA 5 management procedure and increase the CRA 5 TAC (Option CRA5_01)*

Under Option CRA5_01 the CRA 5 TAC would be increased to 514 tonnes. This TAC is guided by the use of the new CRA 5 management procedure, which enables you to set a TAC that maintains the stock above agreed reference levels. Operation of the new procedure, is expected, based on simulation-testing, to maintain the stock above *Bref* with greater than 99% probability and above *Bmin* with greater than 99% probability.

This option should not change the current utilisation benefit of the fishery because it is proposed that the recreational allowance is updated to reflect current estimates of removals. This change to the recreational allowance results in the proposed TAC increase.

- *Use the current CRA 5 management procedure and retain the CRA 5 TAC (Option CRA5_02)*

Under Option CRA5_02 the CRA 5 TAC would stay at its current level. This TAC is guided by the use of the current CRA 5 management procedure that a previous Minister agreed to use until the 2017-18 fishing year. Important elements of the current CRA 5 management procedure are set out below and in Appendix 3.

Ongoing application of the current CRA 5 management procedure (and operation of the proposed new procedure), is expected, based on simulation-testing, to exceed the requirements of the MPI Harvest Strategy Standard and maintain the stock above *Bref* with greater than 99% probability and above *Bmin* with greater than 99% probability.

The current management procedure is safe to use; however, the NRLMG does not support its use for the April 2016 fishing year. The NRLMG prefers to base future management of the CRA 5 fishery on the proposed new CRA 5 management procedure because it reflects the best available information, including updated estimates of sector catches (Option CRA5_01).

8.4.3 Setting of non-commercial allowances

- *Customary Maori allowance*

No change is proposed to the 40 tonne customary Maori allowance for CRA 5 under Options CRA5_01 and 02.

Little is known about customary Maori catch in CRA 5, apart from the small amount of catches reported under the Fisheries (South Island Customary Fishing) Regulations 1999 and regulation 50 of the Fisheries (Amateur Fishing) Regulations 2013[11]. In the last five April fishing years, an average of about 4,300 rock lobsters were reported as landed each year in CRA 5 under the regulations. Noting the incompleteness and uncertainty in the CRA 5 customary harvest information, it is assumed that current harvest is within the 40 tonne allowance allocated for customary Maori interests at this time.

An estimate of 10 tonnes was used in the 2015 stock assessment model to represent CRA 5 customary catches (red line in Figure 8.2 below).

[11] Previously regulation 27A of the Fisheries (Amateur Fishing) Regulations 1986.

- *Recreational allowance*

It is proposed that the 40 tonne recreational allowance for CRA 5 is increased to 87 tonnes under Option CRA5_01 to reflect best available information that suggests recreational harvest has increased.

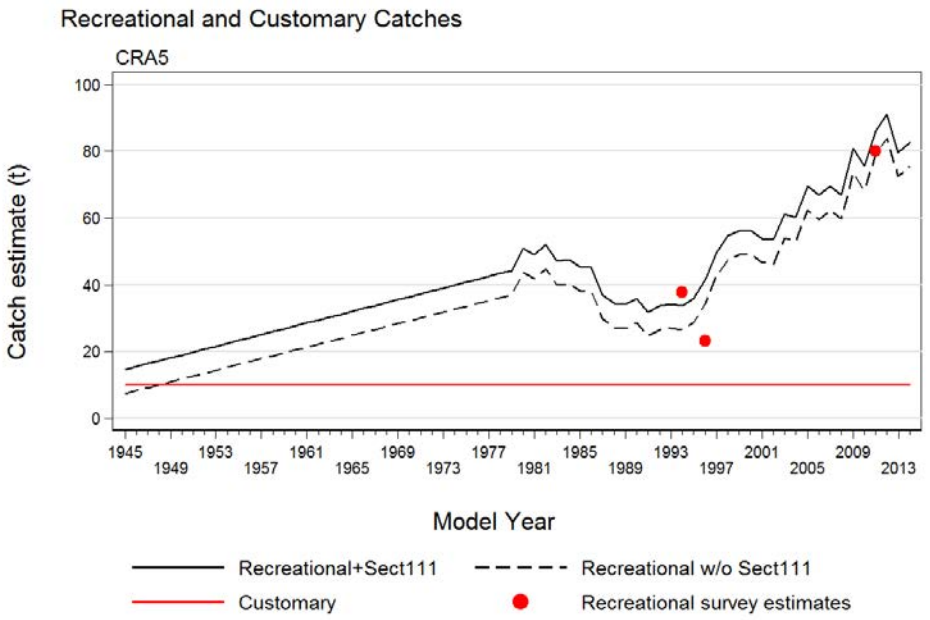
In the 2015 CRA 5 stock assessment, recreational catch estimates from 1994 and 1996 recreational harvest surveys, and an 80 tonne estimate that was specified by MPI for the 2011-12 fishing year, were used to construct a recreational catch trajectory (Figure 8.2).

The 80 tonne recreational harvest estimate that MPI recommended be used in modelling for the 2011-12 fishing year took into account:

- The 43.47 tonne 2011–12 National Panel Survey CRA 5 recreational harvest estimate was acknowledged, but assumed to be an underestimate to an unknown degree;
- The latest Kaikoura and Motunau boat ramp survey in 2012–13, which estimated that 54.56 tonnes of rock lobster were harvested by recreational fishers and charter operators in these areas;
- Anecdotal reports from recreational fishers and MPI compliance that recreational rock lobster harvest is perceived to be high at times (particularly in Kaikoura).

The model assumed that the recreational catch estimates were proportional to spring-summer commercial CPUE for statistical area 917 (Kaikoura). The ratio between recreational catch and CPUE was not modelled as a linear relationship (1 to 1) because this was not considered credible by the Rock Lobster Fisheries Assessment Working Group; a power function was used instead. The resulting recreational catch trajectory showed a strong increasing trend from the early 1990s (Figure 8.2).

Figure 8.2: Recreational catch trajectories (kg) for the 2015 stock assessment of CRA 5. Trajectories with (solid black line) and without (dashed black line) the additional Section 111 catches which were taken by commercial fishers for non-commercial purposes are shown (i.e. a maximum of 7.22 tonnes of section 111 catches). Customary catch used in the CRA 5 stock assessment is shown as the solid red line (a constant 10 tonnes).



The recreational information described above suggests recreational catches are exceeding the 40 tonne allowance for CRA 5 recreational interests. The 2014 recreational catch estimate (from Figure 8.2) was 82.8 tonnes including 7.2 tonnes of recreational catch taken by commercial fishers under s111 of the Act.

It is considered that an 87 tonne recreational allowance for CRA 5 will adequately allow for recreational interests at this time.

Given that there are currently no sustainability concerns for the CRA 5 fishery, the NRLMG are not proposing to vary other recreational management measures (i.e. the individual daily bag limit) to constrain recreational harvest to the current allowance. No change is proposed to the recreational allowance under Option CRA5_02, but this option is not supported by the NRLMG.

Feedback from the Te Waka a Māui me Öna Toka Forum (the MPI iwi forum that covers the South Island) is that tangata whenua do not support increasing the recreational allowance. Instead the Forum considers better information on recreational catch should be obtained and steps are taken to constrain recreational catch before increasing the allowance.

The NRLMG acknowledges that there is uncertainty in the level, trend and future trend in CRA 5 recreational catches. It is proposed that frequent monitoring of recreational rock lobster harvest, through MPI-approved survey methodologies and reported amateur charter vessel information, is carried out to determine trends in recreational harvest from the CRA 5 fishery. This information will be used to inform whether any additional management controls will be needed in the future. Several amateur harvest surveys are proposed for parts of the CRA 5 fishery, including a recreational onsite survey that is currently underway for the Marlborough Sounds and Tasman and Golden Bays[12].

- *Other mortality allowance*

No change is proposed to the 37 tonne allowance for other sources of fishing-related mortality for CRA 5 under Options CRA5_01 and 02.

During consultation, it was proposed that the other mortality allowance be reduced to 30 tonnes under Option CRA5_01. This proposal was based on MPI advice that a 30 tonne illegal catch estimate be used in the CRA 5 stock assessment to represent catches in 2014.

The Rock Lobster Fisheries Assessment Working Group used available MPI estimates from 1990 to 2003 in the stock assessment to estimate illegal catches. The missing years from 2004 to 2013 were filled in by scaling the illegal catch down from the 52 tonnes estimated for 2003 to 30 tonnes in 2014.

Given that you are required to allow for all other mortality to a stock caused by fishing, the NRLMG proposes that the current 37 tonne CRA 5 other mortality allowance is retained until an estimate of all mortality is calculated (i.e. to include handling mortality caused by the return of rock lobsters to the water and predation by octopus and other predators in pots). Although these mortalities cannot be quantified easily, each rock lobster stock assessment assumes that handling related mortality is 10% of returned undersized and berried female rock lobsters.

[12] http://business.scoop.co.nz/2015/09/24/niwa-counting-fish-in-marlborough-sounds/

8.4.4 TACC

The current CRA 5 TACC is 350 tonnes.

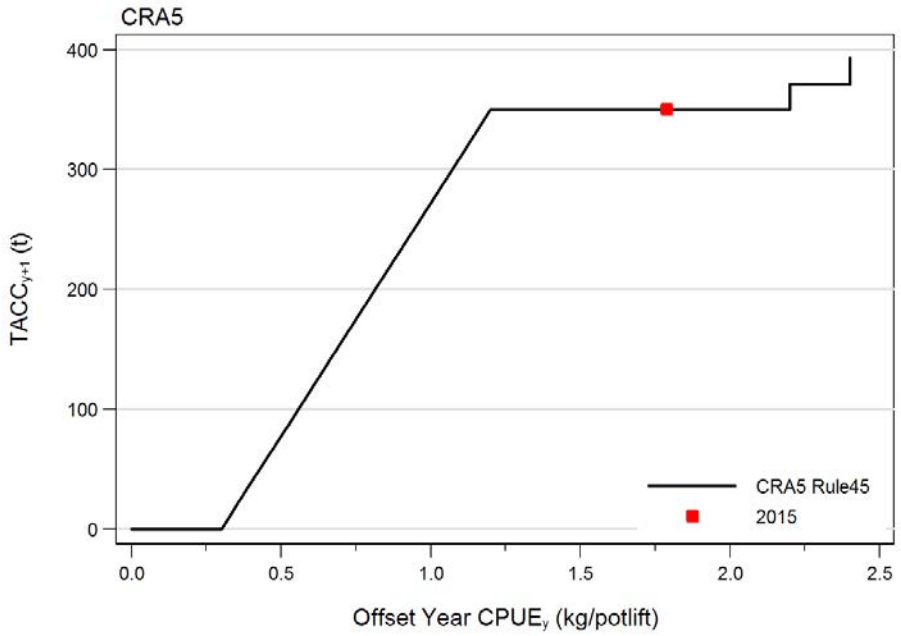
Under Options CRA5_01 and 02 the CRA 5 TACC would stay at its current level.

- *Option CRA5_01 – Retain the current CRA 5 TACC (as guided by the new CRA 5 management procedure)*

Under Option CRA5_01 the proposed retention of the current CRA 5 TACC is guided by the use of the new CRA 5 management procedure. This option would maintain the current utilisation benefits of the commercial fishery. CRAMAC 5 supports this option because it is more likely to ensure their goals of catch stability, security and enhanced economic performance are achieved.

A graphical representation of the new procedure is provided in Figure 8.3. The graph shows the proposed TACC for the next year as a function of offset-year CPUE in the current year. The 2015 standardised offset year CPUE was 1.789 kg/potlift[13] and when the rule was operated with this CPUE it resulted in a TACC of 350 tonnes (shown by the red square on the graph).

Figure 8.3: The new CRA 5 management procedure, showing the TACC for the 2016-17 fishing year resulting from the rule operation performed in 2015. CPUE used as input to this rule is calculated with the F2-LFX procedure.



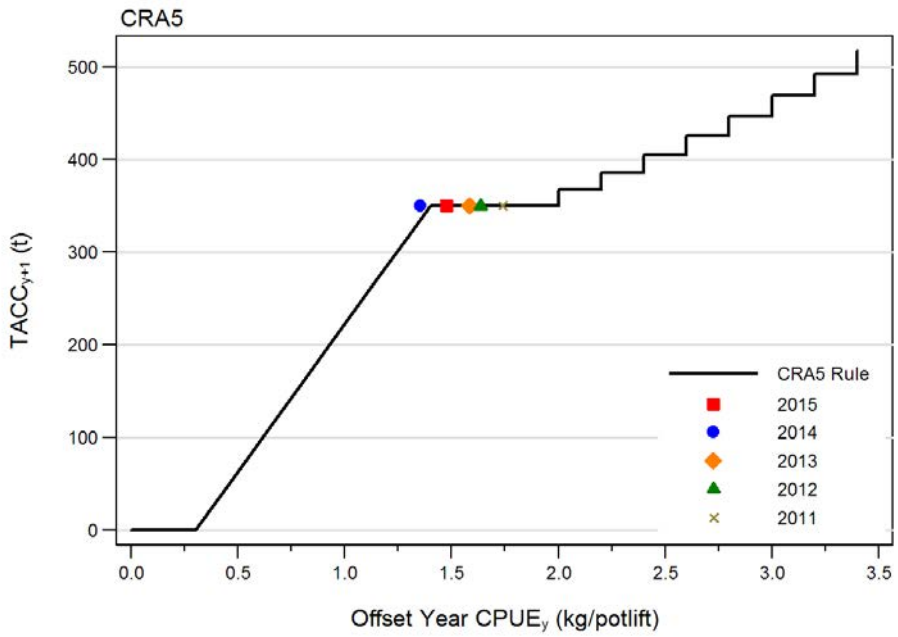
- *Option CRA5_02 – Retain the current CRA 5 TACC (as guided by the current CRA 5 management procedure)*

Under Option CRA5_02 the proposed retention of the current CRA 5 TACC is guided by the use of the current CRA 5 management procedure. This option would maintain the current utilisation benefits of the commercial fishery. However, the NRLMG prefers for TACC setting to be guided by the new CRA 5 management procedure (Option CRA5_01).

[13] This CPUE is based on the "F2_LFX" procedure for preparing data for CPUE standardisation.

A graphical representation of the current procedure is provided in Figure 8.4. When the rule was operated with the 2015 standardised offset year CPUE of 1.478 kg/potlift[14] it resulted in no change to the current TACC (shown by the square in the graph).

Figure 8.4: The current CRA 5 management procedure, showing the TACCs resulting from the rule operations performed in 2011 through 2015 for the 2012-13 through 2016-17 fishing years (shown as coloured shapes). CPUE used as input to this rule is calculated with the B4-L procedure.



8.5 ADDITIONAL MEASURES FOR CRA 5

The NRLMG proposes that additional measures be considered for implementation in 2016 to support the ongoing sustainable utilisation of the CRA 5 fishery.

It is proposed that the measures that currently apply to recreational rock lobster fishing in the Te Korowai o Te Tai o Marokura – Kaikoura Marine Management Area be extended to the rest of the CRA 5 rock lobster fishery. This includes the:

- Introduction of 'telson clipping' – a requirement for a recreational fisher to cut one-third of the central/middle telson off the tail fan of a rock lobster on taking; and
- An accumulation limit of 18 rock lobsters (3 daily bag limits), along with bag and labelling conditions for a single day's catch.

Telson clipping and an accumulation limit are likely to discourage illegal black market sales and restrict the ability to store large quantities of rock lobster for illegal purposes. These measures have been successfully implemented in the Kaikoura Marine Area.

The NRLMG would like to see these recreational measures come into force later in 2016, after required government processes for regulatory change can be accommodated. Community and formal consultation on the proposals is hoped to occur with tangata whenua and fishery stakeholders by May 2016.

[14] This CPUE is based on the "B4_L" procedure for preparing data for CPUE standardisation does not capture fish returned to water like the "F2_LFX" procedure.

Preliminary feedback received on these additional regulatory measures for CRA 5 included the following. CRAMAC 5, Ngai Tahu Seafood and NZ RLIC support the telson clipping and accumulation proposals, while Te Ohu expressed support for telson clipping only. Feedback from the Te Waka a Māui me Öna Toka Forum (the MPI iwi forum that covers the South Island) also suggests there is tangata whenua support for the telson clipping and accumulation limit proposals in the CRA 5 fishery. The NZSFC does not support telson clipping because they consider it will create a compliance problem for genuine recreational fishers and fisheries officers while having little effect on large scale poachers. Mr Divett does not support telson clipping or accumulation limits. Mr Pooley instead supports no accumulated catch and a reduction to the daily bag limit (i.e. catch should be constrained to one daily bag limit of 2).

The NRLMG proposes to work through some of the concerns expressed by recreational submitters on these regulatory proposals before formal consultation.

9 Review of the CRA 8 rock lobster fishery

9.1 FINAL CRA 8 OPTIONS

Table 9.1 below shows the final proposals for CRA 8. The proposed new and current CRA 8 management procedures have been used to guide TAC setting options. These procedures are designed to maintain the CRA 8 stock above agreed reference levels.

Table 9.1: Final proposals for CRA 8

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA8_01: Use the new CRA 8 management procedure and retain the TAC, allowances and TACC (NRLMG preferred)	1053 t	30 t	33 t	28 t	962 t
CRA8_02: Use the current CRA 8 management procedure and retain the TAC, allowances and TACC	1053 t	30 t	33 t	28 t	962 t

9.2 SUMMARY OF CRA 8 SUBMISSIONS

9.2.1 Support for Option CRA8_01

CRAMAC 8, Ngati Whatua, NZ RLIC and Te Ohu supported Option CRA8_01 as consulted on, which was to use the new CRA 8 management procedure, decrease the TAC and the allowance for other sources of fishing-related mortality to 5 tonnes and to make no change to the customary or recreational allowance and the TACC.

The NRLMG have modified Option CRA8_01 following consultation and now propose that the 28 tonne other mortality allowance is retained for the time being. The initial proposal for a 5 tonne other mortality allowance reflected assumptions of illegal catch only and did not include other sources of mortality (i.e. handling-related mortality). The NLRMG propose that this allowance be retained until an estimate of all other mortality is calculated.

9.2.2 Support for Option CRA8_02

No submissions were received on Option CRA8_02 (use the current CRA 8 management procedure and retain the current TAC, allowances and TACC).

9.2.3 Other comments

NZSFC support the TACC and allowance proposals, except they suggest that the other mortality allowance is increased to 40 tonnes, and they do not consider that the NRLMG should specify that the other mortality allowance cover illegal take only. The NZSFC also express concerns about CPUE being based on the procedure for preparing data for CPUE standardisation called "F2_LF" or "$CPUE". The NRLMG continues to encourage NZSFC representatives to attend Rock Lobster Fisheries Assessment Working Group meetings so that they can gain a greater understanding of the research and assessment process.

Some of these other comments are discussed below and in Appendix 1.

9.3 CRA 8 STOCK STATUS

A new stock assessment was carried out for the CRA 8 fishery in 2015 (the previous was in 2012). The 2015 assessment results suggest there are no sustainability concerns for the CRA 8 fishery. Stock biomass in 2015 was 1.8 times *Bmsy*, 1.4 times *Bref*[15] and 4.1 times *Bmin*. Spawning stock biomass in 2014 was 44% of the unfished level. Total biomass in 2014 was about 27% of the unfished level and the total numbers of rock lobster are 42 % of the unfished level.

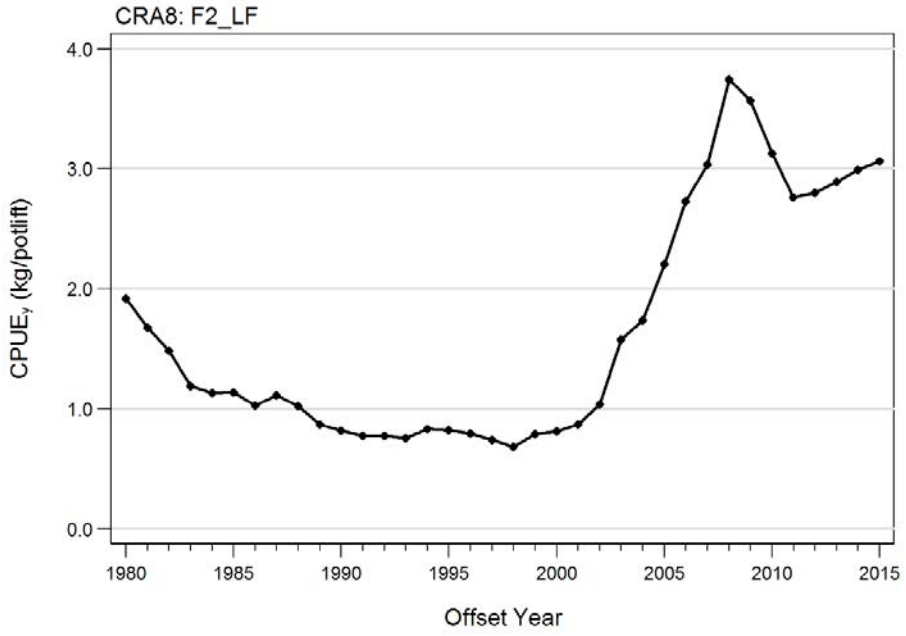
With 2014 catch levels and recent recruitments, stock biomass is projected to remain near its current level.

Standardised CPUE is considered to be a reliable indicator of relative stock size in CRA 8 and is the abundance indicator used in the proposed new CRA 8 management procedure. A new procedure for preparing data for CPUE standardisation, which is unique to CRA 8, is used in the proposed new procedure. This CPUE relates only to the fish that were landed and does not consider fish returned to the water as does the "F2_LFX" procedure. The CRAMAC 8 considers it unrealistic to drive a management procedure with CPUE based on all rock lobsters brought on board when only a part of the catch is retained. Retention of large fish is low in CRA 8 and it is estimated that about 40% by weight of legal rock lobsters caught are returned to the water. This new CPUE is called "money-fish CPUE", "$CPUE", or "F2_LF".

The history of offset year (i.e. October through September) CRA 8 commercial $CPUE is shown in Figure 9.1. $CPUE increased steadily from 1998 to 2008, declined slightly before increasing again from 2011.

[15] *Bref* for CRA 8 is the pre-season autumn-winter vulnerable biomass associated with the period 1979-81.

Figure 9.1: The history of $CPUE in CRA 8, 1980 – 2015 (offset years) (based on the procedure for preparing data for CPUE standardisation called "F2_LF" or "$CPUE").



9.4 ANALYSIS OF CRA 8 FINAL PROPOSALS

9.4.1 Use of a new management procedure

It is proposed that a new management procedure be used to guide TAC setting in the CRA 8 fishery for five years from the 2016-17 to 2020-21 fishing years.

The NRLMG proposes that a new management procedure (Option CRA8_01) replace the current CRA 8 management procedure (Option CRA8_02), which has been in use in the fishery since 2013.

Use of the new CRA 8 management procedure should not pose a risk to stock sustainability. Ongoing application of the new CRA 8 management procedure is expected to exceed the requirements of the MPI Harvest Strategy Standard and maintain the stock above *Bmsy* with greater than 99% probability and *Bmin* with greater than 99% probability. For further information on the specifications of the new CRA 8 management procedure refer to Appendix 5.

Simulation-testing of the new CRA 8 management procedure suggests it will continue to provide for utilisation benefits for all sectors in CRA 8. Stock biomass is expected to be maintained well above the agreed reference levels (i.e. *Bmsy* and *Bref*) (Table 9.2).

Table 9.2: Summary of indicator results from base case evaluations for the new CRA 8 management procedure (Option CRA8_01).

Stock Indicators[16]	*Results*
The proportion of years in which biomass was less than:	
- Bmsy	0 %
- Bref	0.5 %
- Bmin	0 %
Catch Indicators	
Minimum commercial catch	962 t
Average commercial catch	1025 t
Minimum recreational catch	36 t
Average recreational catch	36 t
Average commercial "money-fish CPUE"	3.5 kg/potlift
Stability – probability of a change in the TACC	46 %

The main difference between the new and current CRA 8 management procedures is in the CPUE that is used in the rule to determine the TACC. For the new management procedure, CPUE is calculated using the new "F2_LF" procedure, which gives "$CPUE". The current procedure is based on CPUE from the "F2_LFX" procedure.

9.4.2 TAC setting

The current CRA 8 TAC is 1053 tonnes.

Best available information (from the 2015 stock assessment) suggests the CRA 8 stock is above *Bmsy*. Accordingly you may set the CRA 8 TAC to maintain the stock at or above *Bmsy* (section 13(2)(a)).

- *Use the new CRA 8 management procedure and retain the CRA 8 TAC (Option CRA8_01)*

Under Option CRA8_01 the CRA 8 TAC would be retained at 1053 tonnes. This TAC is guided by the use of the new CRA 8 management procedure, which enables you to set a TAC that maintains the stock above agreed reference levels.

This option will not change the current utilisation benefit of the fishery.

- *Use the current CRA 8 management procedure and retain the CRA 8 TAC (Option CRA8_02)*

Under Option CRA8_02 the CRA 8 TAC would stay at its current level. This TAC is guided by the use of the current CRA 8 management procedure that you agreed to use until the 2018-19 fishing year. Important elements of the current CRA 8 management procedure are set out below and in Appendix 6.

Ongoing application of the current CRA 8 management procedure (and operation of the proposed new procedure), is expected, based on simulation testing, to exceed the requirements of the MPI Harvest Strategy Standard and maintain the stock above *Bmsy*, *Bref* and *Bmin* with greater than 99% probability.

[16] An explanation of the stock indicators is provided in section 4.2.

The current management procedure is safe to use; however, the NRLMG does not support its use for the April 2016 fishing year. The NRLMG prefers to base future management of the CRA 8 fishery on the proposed new CRA 8 management procedure because it reflects the best available information (Option CRA8_01).

9.4.3 Setting of non-commercial allowances

- *Customary Maori allowance*

No change is proposed to the 30 tonne customary Maori allowance for CRA 8 under Options CRA8_01 and 02.

Information on customary Maori catch in CRA 8 is available from reports made under the Fisheries (South Island Customary Fishing) Regulations 1999. In the last five April fishing years, an average of about 11,000 rock lobsters were reported landed each year in CRA 8 under the regulations. Noting some incompleteness in the CRA 8 customary harvest information, it is assumed current harvest is within the 30 tonne allowance allocated for customary Maori interests at this time.

An estimate of 10 tonnes was used in the 2015 stock assessment model to represent CRA 8 customary catches in 2014 (red line in Figure 9.2 below).

- *Recreational allowance*

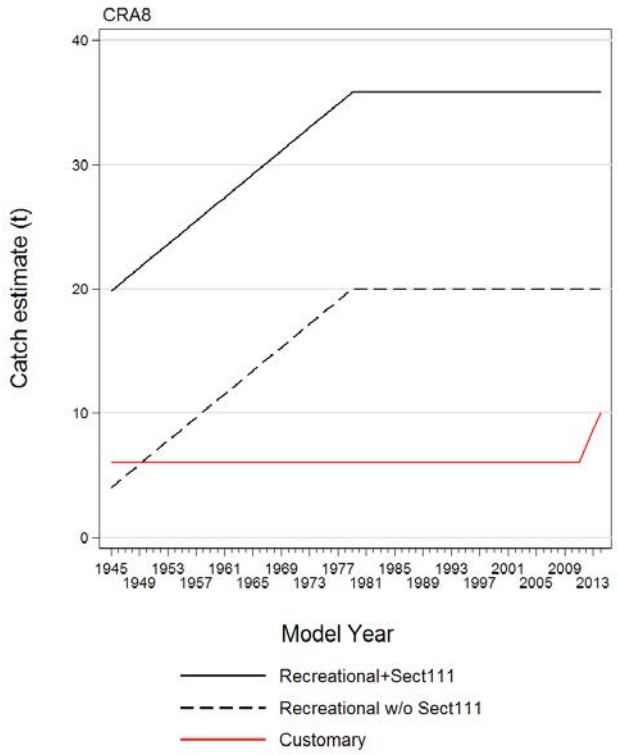
No change is proposed to the 33 tonne recreational allowance for CRA 8 under Options CRA8_01 and 02.

Little is known about recreational catch in CRA 8. Information from the 2011-12 National Panel Survey estimated that 6.9 tonnes of rock lobster were harvested by recreational fishers (including from amateur charter vessels). Given the low number of fishers and events covered in the survey and the high variance, it is assumed that 6.9 tonnes is an underestimate of recreational harvest.

In the 2015 CRA 8 stock assessment, a recreational catch trajectory was constructed as follows: beginning at 1 tonne in 1945 recreational catch was ramped to 5 tonnes in 1979 and then from 1979 to 2014 recreational catch was assumed to be a constant 20 tonnes (Figure 9.2).

Taking into account the uncertainty in the information on CRA 8 recreational harvest, it is assumed that the 33 tonne recreational allowance adequately allows for likely levels of recreational harvest from the CRA 8 fishery at this time.

Figure 9.2: Recreational catch trajectories (kg) for the 2015 stock assessment of CRA 8. Trajectories with (solid black line) and without (dashed black line) the additional Section 111 catches that were taken by commercial fishers for non-commercial purposes are shown (i.e. a maximum of 15.8 tonnes of section 111 catches). Customary catch used in the CRA 8 stock assessment is shown as the solid red line (a constant 6 tonnes from 1945 to 2012 and then increased proportionally to 10 tonnes in 2014).



- *Other mortality allowance*

No change is proposed to the 28 tonne allowance for other sources of fishing-related mortality under Options CRA8_01 and 02.

During consultation, it was proposed that the other mortality allowance be reduced to 5 tonnes under Option CRA8_01. This proposal was based on MPI advice that a 3 tonne illegal catch estimate be used in the CRA 8 stock assessment to represent catches in 2014.

The Rock Lobster Fisheries Assessment Working Group used available MPI estimates from 1990 to 2002 in the stock assessment to estimate illegal catches. An estimate of 3 tonnes was used from 2011 to 2014, with the missing years from 2003 to 2010 filled in by scaling the illegal catch down from the 18 tonnes estimated for 2002.

Given that you are required to allow for all other mortality to a stock caused by fishing, the NRLMG proposes that the current 28 tonne CRA 8 other mortality allowance is retained until an estimate of all mortality is calculated (i.e. to include handling mortality caused by the return of rock lobsters to the water and predation by octopus and other predators in pots). Although these mortalities cannot be quantified easily, each rock lobster stock assessment assumes that handling related mortality is 10% of returned undersized and berried female rock lobsters.

9.4.4 TACC

The current CRA 8 TACC is 962 tonnes.

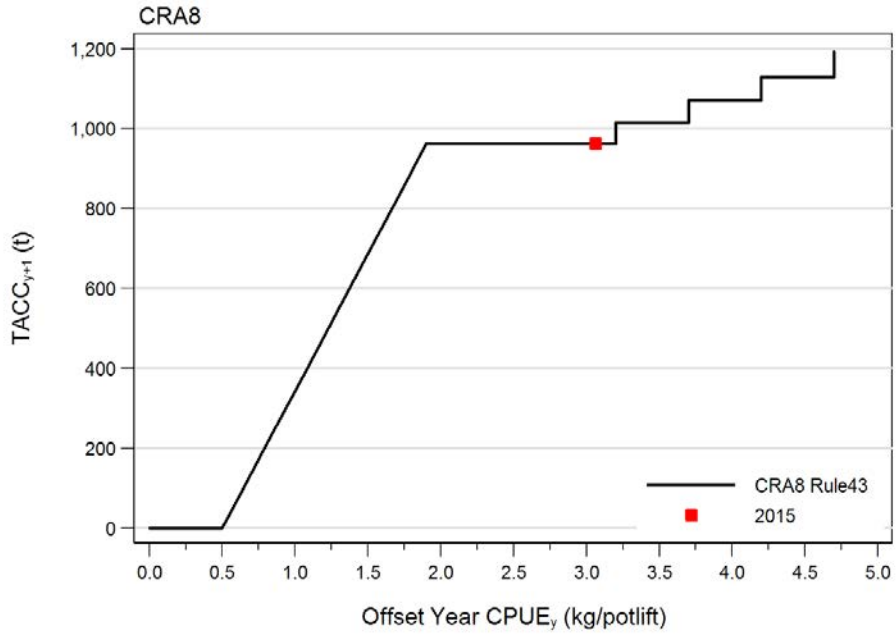
Under Options CRA8_01 and 02 the CRA 8 TACC would stay at its current level.

- *Option CRA8_01 – Retain the current CRA 8 TACC (as guided by the new CRA 8 management procedure)*

Under Option CRA8_01 the proposed retention of the current CRA 8 TACC is guided by the use of the new CRA 8 management procedure. This option would maintain the current utilisation benefits of the commercial fishery. It is recognised within the CRA 8 industry that the best economic result is not necessarily achieved through maximum exploitation of the vulnerable biomass. The CRA 8 industry has a desire to achieve a maximum economic yield (MEY) strategy and in the absence of a true MEY model it is considered that the proposed new management procedure is a proxy given the predicted low exploitation rates and constantly high CPUE. This desire to achieve an MEY strategy is supported by NZ RLIC.

A graphical representation of the new procedure is provided in Figure 9.3. The graph shows the proposed TACC for the next year as a function of offset-year CPUE in the current year. The 2015 standardised offset year $CPUE was 3.062 kg/potlift and when the rule was operated with this CPUE it resulted in a TACC of 962 tonnes (shown by the red square on the graph).

Figure 9.3: The new CRA 8 management procedure, showing the TACC for the 2016-17 fishing year resulting from the rule operation performed in 2015. The input CPUE for this rule is calculated with the F2-LF procedure ($CPUE).

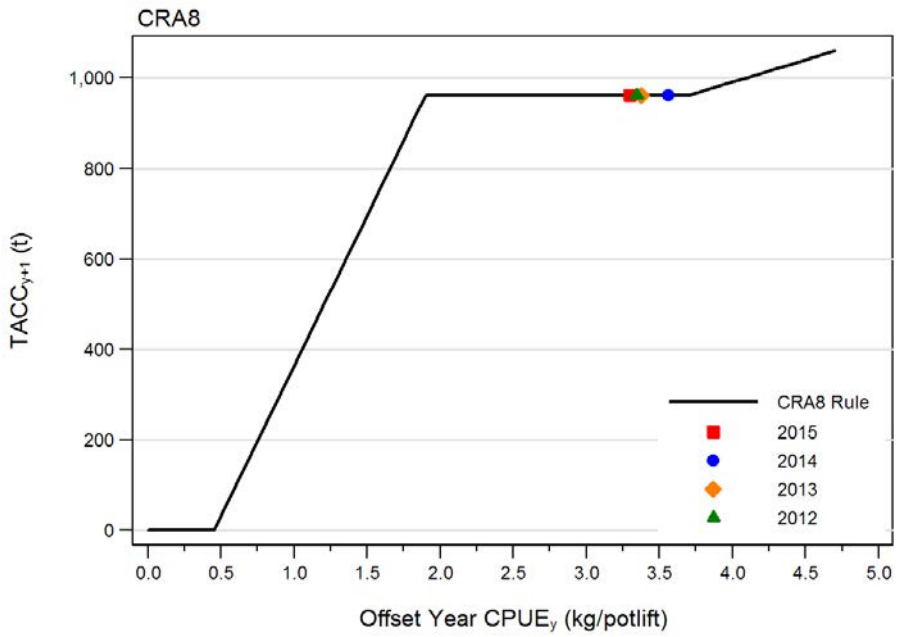


- *Option CRA8_02 – Retain the current CRA 8 TACC (as guided by the current CRA 8 management procedure)*

Under Option CRA8_02 the proposed retention of the current CRA 8 TACC is guided by the use of the current CRA 8 management procedure. This option would maintain the current utilisation benefits of the commercial fishery. However, the NRLMG prefers for TACC setting to be guided by the new CRA 8 management procedure (Option CRA8_01).

A graphical representation of the current procedure is provided in Figure 9.4. When the rule was operated with the 2015 standardised offset year CPUE of 3.297 kg/potlift[17] it resulted in no change to the current TACC (shown by the square in the graph).

Figure 9.4: The current CRA 8 management procedure, showing the TACCs resulting from the rule operations performed in 2012 through 2015 for the 2013-14 through 2016-17 fishing years (shown as coloured shapes). The input CPUE for this rule is calculated with the F2-LFX procedure.



10 Review of the CRA 9 rock lobster fishery

10.1 FINAL CRA 9 PROPOSALS

Table 10.1 provides a summary of the options proposed for CRA 9. The current CRA 9 management procedure is used to guide TAC setting options, which is expected to ensure the stock is maintained above the agreed reference level.

Table 10.1: Final proposals for CRA 9

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA9_01: Use the current CRA 9 management procedure and decrease the TAC and TACC	101 t ↓	20 t	30 t	5 t	46 t ↓
CRA9_02: Retain the current CRA 9 TAC, allowances and TACC (NRLMG preferred)	115.8 t	20 t	30 t	5 t	60.8 t

10.2 SUMMARY OF CRA 9 SUBMISSIONS

10.2.1 Support for Option CRA9_01

CRAMAC 9 and NZ RLIC feel they have little option but to endorse Option CRA9_01 (use the current CRA 9 management procedure and decrease the TAC and TACC) because they made a

[17] This CPUE is based on the "F2_LFX" procedure for preparing data for CPUE standardisation, which captures fish returned to water.

commitment to use the CRA 9 management procedure to guide TAC setting; and because CRA 9 CPUE has declined, in which case a TAC reduction seems appropriate. However, CRAMAC 9 and NZ RLIC also point out that a management procedure is to inform and guide TAC decisions and the results of operating a procedure need not be binding when there are compelling reasons not to follow a procedure. These submitters genuinely feel that the CRA 9 management procedure is less reliable than others currently operating in other fisheries because the particular characteristics of the fishery (large management area, small commercial fleet, scattered fishing grounds) make it difficult to bring sufficient catch and effort data to the CPUE standardisation process.

Both CRAMAC 9 and NZ RLIC struggle to see any other evidence of a stock decline in CRA 9 other than in the CPUE result. Commercial landings are significantly constrained by the current 60.8 tonne TACC, the size frequency distribution of commercial catches is at odds with a lobster stock under any pressure and the usual 'litmus' test of stock abundance – recreational fishing satisfaction – is still extremely positive.

CRAMAC 9 and NZ RLIC also consider that if a decline in abundance was of concern, then steps should be taken to ensure that catch reductions were shared by all sectors to ensure that a TACC reduction does not become a reallocation of catch to other users and thus defeat the purpose of a TAC reduction.

NZSFC supports the TACC and allowance settings as per Option CRA9_01. They are concerned that commercial CPUE is not a good measure of abundance in this fishery and there is a risk to stock sustainability of the management approach.

10.2.2 Support for Option CRA9_02

Iwi Collective Partnership, Allan MacKay, Pam MacKay, Ngati Whatua, Te Atiawa and Te Ohu support Option CRA9_02, which is to retain the current settings.

Iwi Collective Partnership, Ngati Whatua, Te Atiawa, NZ RLIC and Te Ohu support a small scientific project to develop an alternative management strategy for CRA 9. Iwi Collective Partnership considers that the CPUE issues are a reflection of the model as opposed to sustainability issues. Te Atiawa and Te Ohu both consider there is unlikely to be a risk posed to the sustainability of the fishery in the short-term if the CRA 9 TAC is retained for one year. They also consider that there is little to be gained from reducing the TAC C as it could result in less data on which to base sustainability decisions.

10.2.3 Other comments

Allan MacKay and Pam MacKay suggest that if information does not support the sustainability of a 60 tonne TACC (Option CRA9_02), the TACC should be decreased to 53.5 tonnes for the 2016/17 fishing season.

10.3 CRA 9 STOCK STATUS

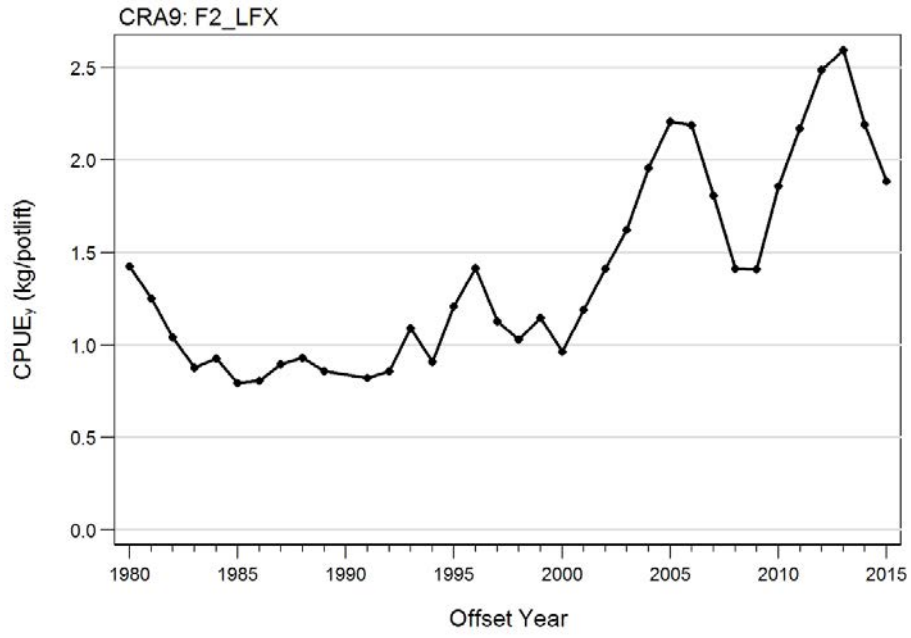
2013 CRA 9 surplus-production modelling results suggested that 2012 stock biomass was 1.5 times *Bmsy*. The model also estimated that 2012 fishing intensity was low (12%) in 2012. CPUE (offset year) has declined by 40% since 2013, but CPUE is still well above the historical average.

Standardised CPUE is considered to be a reliable indicator of relative stock size in most rock lobster fisheries. In CRA 9 there are now only a few vessels catching rock lobsters in some areas of a very large Quota Management Area. Standardised CPUE in recent years for CRA 9 has been less stable than it was in earlier years when there were more vessels.

A recent audit of the CRA 9 CPUE concluded that the recent low number of vessels and poor reporting problems have contributed to the instability of CPUE in recent years. There are only six vessels reporting more than 1 tonne per year in the CRA 9 fleet, split between North and South Island fishing grounds; and each vessel fishes only a small portion of the management area over a relatively short period of time in each year. The audit did confirm that the F2-LFX procedure for calculating CPUE was appropriate and that standardisation model options did not affect the CPUE results. It concluded that *the decline in offset year CPUE in the last two years is real* and that *the declining CPUE signal in the last two years is reasonably robust*. Most submitters (except NZSFC) struggle to find any other evidence to suggest that stock abundance is CRA 9 has declined.

The history of offset year (i.e. October through September) CRA 9 commercial CPUE is shown in Figure 10.1. CRA 9 CPUE increased strongly from 2009 with decreases observed in 2014 and 2015.

Figure 10.1: The history of CPUE in CRA 9, 1980 – 2015 (offset years) (based on the procedure for preparing data for CPUE standardisation called "F2_LFX"[18])



10.3.1 TAC setting

The current CRA 9 TAC is 115.8 tonnes.

Because there are no reliable estimates of current biomass and *Bmsy*, you must set a TAC for CRA 9 under section 13(2A). Section 13(2A) requires you to set a TAC using the best available

[18] The "F2_LFX" procedure for preparing data for CPUE standardisation is designed to better represent the estimation/landing process than a previous procedure and adjusts for change in data reporting practices.

information and that is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, *Bmsy*.

- *Use the CRA 9 management procedure and decrease the CRA 9 TAC (Option CRA9_01)*

Under Option CRA9_01 the CRA 9 TAC would be decreased to 101 tonnes. The proposed TAC decrease is specified by the CRA 9 management procedure that you agreed to use in 2014 to guide TAC setting in the fishery until the 2018-19 fishing year. Important elements of the CRA 9 management procedure are set out below and in Appendix 7.

Ongoing application of the CRA 9 management procedure was expected to exceed the requirements of the MPI Harvest Strategy Standard and maintain the stock above *Bmsy* with greater than 93% probability and *Bmin* with greater than 99% probability.

Option CRA9_01 will decrease the current utilisation benefit of the fishery. How this reduction is shared amongst the fishery sectors will depend on allocation decisions. Historically, only the TACC has been varied.

Given the shortcomings in the available information to support the operation of the current CRA 9 management procedure, the NRLMG no longer considers it to be a viable option for managing this fishery. In hindsight, the NRLMG considers that moving to a management procedure approach for the CRA 9 fishery was a mistake.

- *Retain the current CRA 9 TAC (Option CRA9_02)*

Under Option CRA9_02 the CRA 9 TAC would stay at its current level for the 2016-17 fishing year.

Retaining the current TAC for one year is unlikely to pose a risk to stock sustainability in the short term. A decision not to follow the results of the CRA 9 management procedure in 2015 effectively revokes the CRA 9 management procedure from future use. In this case, a small scientific project would be required in 2016 to re-investigate productivity in CRA 9 from fishing patterns and area-specific length frequencies. The results of this project could be used to recommend an alternative management strategy for CRA 9 from the 2017-18 fishing year onwards.

10.3.2 Setting of non-commercial allowances

- *Customary Maori allowance*

No change is proposed to the 20 tonne customary Maori allowance for CRA 9.

Little is known about customary Maori catch in CRA 9, apart from the small amount of catch reported under the Fisheries (Kaimoana Customary Fishing) Regulations 1998, the Fisheries (South Island Customary Fishing) Regulations 1999 and regulation 50 of the Fisheries (Amateur Fishing) Regulations 2013[19]. Despite this uncertainty, it is assumed that current CRA 9 customary Maori catch is within the allowance allocated at this time. An estimate of 1 tonne was used in the 2013 CRA 9 surplus production model to represent customary catch.

[19] Previously regulation 27A of the Fisheries (Amateur Fishing) Regulations 1986.

- *Recreational allowance*

No change is proposed to the 30 tonne recreational allowance for CRA 9.

In the 2013 CRA 9 surplus production model it was assumed that CRA 9 recreational catch was 31 tonnes in 2012. This catch estimate was based on the 2011-12 National Panel Survey estimate and the assumption that recreational catch is proportional to spring summer commercial CPUE in CRA 9. Based on average recreational catch assumptions used in the 2013 assessment (27.9 tonnes over 50 years), it is considered that the current CRA 9 recreational allowance adequately allows for recreational interests.

- *Other mortality allowance*

No change is proposed to the 5 tonne CRA 9 allowance for other sources of fishing-related mortality (i.e. illegal catch only).

There is no reliable information on current levels of other sources of fishing-related mortality. The Rock Lobster Fisheries Assessment Working Group used available MPI estimates for illegal catches from 1989 and a constant illegal catch of 1 tonne per year from 2001 to determine an appropriate estimate of other mortality in the 2013 assessment. It is assumed that the current allowance adequately allows for likely levels of illegal take, but potentially not all other sources of mortality. The NRLMG proposes that the current 5 tonne CRA 9 other mortality allowance be retained until an estimate of all mortality is calculated.

10.3.3 TACC

The current CRA 9 TACC is 60.8 tonnes.

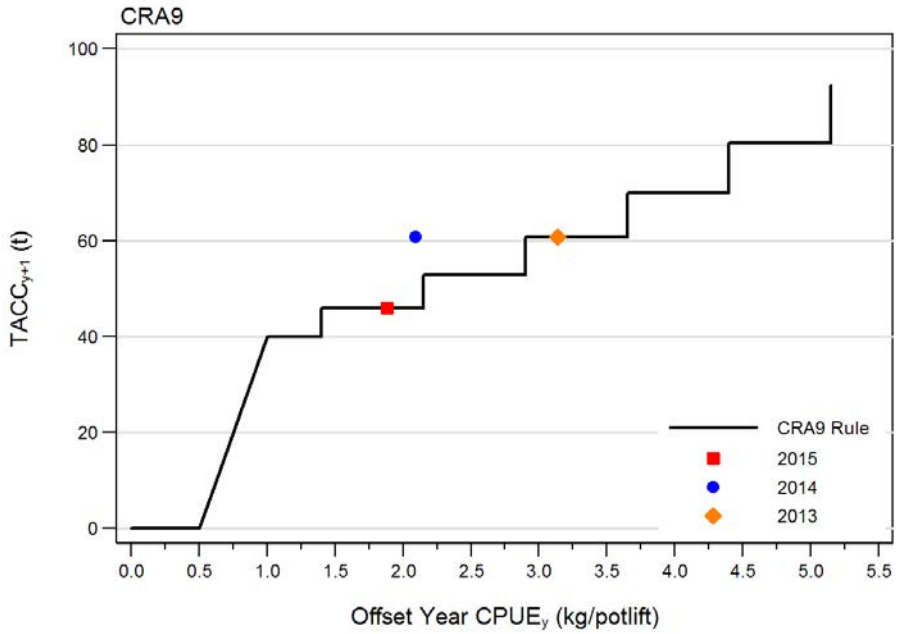
- *Option CRA9_01 – Decrease the CRA 9 TACC by 14.8 tonnes (as guided by the CRA 9 management procedure)*

Under Option CRA9_01 the CRA 9 TACC would be decreased to 46 tonnes from April 2016, as guided by the CRA 9 management procedure. The proposed 14.8 tonne TACC decrease has the potential to result in a loss of revenue for the industry of approximately $1.07 million (based on 2015 average port price information).

A graphical representation of the CRA 9 management procedure is provided in Figure 10.2. The graph shows the proposed TACC for the next year as a function of offset-year CPUE in the current year. The 2014 standardised offset year CPUE was 1.885 kg/potlift[20] and when the rule was operated with this CPUE it resulted in a TACC of 46 tonnes (shown by the red square on the graph).

[20] This CPUE is based on the "F2_LFX" procedure for preparing data for CPUE standardisation.

Figure 10.2: The CRA 9 management procedure, showing the TACCs resulting from the rule operations performed in 2013 through 2015 for the 2014-15 through 2016-17 fishing years (shown as coloured shapes). The input CPUE for this rule is calculated with the F2-LFX procedure.



- *Option CRA9_02 – Retain the current CRA 9 TACC*

Under Option CRA9_02 the CRA 9 TACC would stay at its current level and the current CRA 9 management procedure would be considered revoked. This option would maintain the current utilisation benefit of the commercial fishery in the short-term, but might increase risk to stock sustainability in the medium and long terms. If this option is chosen, a small scientific project should be established in 2016 to develop an alternative management strategy for CRA 9 and determine what the appropriate TAC should be in the future.

Appendix 1: Other matters

In addition to commenting on the proposed sustainability measures for the four rock lobster stocks discussed in this paper, some submitters commented on or proposed other management matters. Some of these matters are discussed briefly below.

A1.1 FISHERIES ASSESSMENT AND MANAGEMENT APPROACH

The NZSFC continue to make a number of technical assertions about the rock lobster fisheries assessment approach in their submissions that are generally incorrect. The NRLMG is highly disappointed that the NZSFC continue to express misinformation in their submissions. It is very difficult for the NRLMG to address every point in this paper in a clear and concise way so that a greater understanding of the research and assessment process is gained. Many of the points raised are best considered at the Rock Lobster Fisheries Assessment Working Group table where technical details of rock lobster assessment are regularly debated.

Over the years, the NRLMG has invited representatives from the NZSFC to be involved in the stock assessment processes and have taken reasonable steps to involve them in rock lobster management. The NRLMG is disappointed that the NZSFC has not taken up the opportunities to be more involved in stock assessment processes, but will continue to encourage them to participate.

The NRLMG has every confidence in the stock assessment and management approach for rock lobster. The NRLMG does not consider that a full review of rock lobster management is required because research information and experience is showing that the current approach is working to rebuild and maintain healthy rock lobster abundance levels. The rock lobster assessment approach is highly sophisticated and is regularly peer-reviewed by independent scientists to ensure that rock lobster continues to be the best managed species in New Zealand.

A1.4 CONSULTATION LENGTH AND TIMING

Several submitters expressed concerns about the length of the consultation period and the time provided to gather views from their constituents. This year the consultation period ran from 14 January to 11 February 2016. The majority of the NRLMG sector members supported a longer consultation period that commenced prior to Christmas. However, MPI considers that consultation should not be open over the Christmas period due to criticism received for consulting on important issues when most people are on holiday and people are unable to devote quality time to review and consider feedback on any proposals.

The NRLMG discussed this issue with you after the consultation in early 2015, but no progress has been made in resolving this matter. The NRLMG will continue to examine consultation options for future sustainability rounds. It is important to the NRLMG that the public is given adequate opportunities to input and participate in the management of rock lobster.

A1.5 UNCERTAINTY IN NON-COMMERCIAL REMOVALS

Accurate information about non-commercial removals is necessary for fisheries management decisions. Information on the level of commercial removals is good for rock lobster, while there is considerable uncertainty associated with the levels of customary, recreational and illegal removals – and “other sources” of mortality.

The lack of accurate information on non-commercial and illegal catch contributes to uncertainty of stock assessments, detracts from the effectiveness of agreed harvest strategies, and undermines the incentives created by the quota management system.

There is a risk that non-commercial removals increasing without control, could undermine rebuild strategies and have negative effects on commercial ownership and utilisation rights and opportunities.

Information on the level of recreational harvest of rock lobsters has started to improve in recent years through specific onsite surveys and the 2011-12 National Panel Survey. Customary harvest information is complete in some localised areas through the adoption of the Fisheries (Kaimoana Customary Fishing) Regulations 1998 and the Fisheries (South Island Customary Fishing) Regulations 1999. However, for many areas there is still no mandatory requirement for customary authorisers to report summary harvest levels.

The level of illegal estimates is of most concern to the NRLMG because they make up a substantial portion of the TAC (299 tonnes nationally). Many of the illegal take estimates for rock lobster have not been updated since the early 2000s – and even at that time they were not robust. Consequently, the current levels of illegal take and associated historical pattern are highly uncertain and the NRLMG and RLFAWG have little confidence in the estimates.

The NRLMG strongly urges MPI to explore new and robust methods of calculating illegal take for each rock lobster stock. The NRLMG is available to input into the development of any new methodology.

During 2016, the NRLMG also intends to consider how the allowance for other sources of fishing-related mortality is set for each rock lobster stock. At this time, the other mortality allowance is set to reflect assumptions of illegal catch only for most stocks and does not include other sources such as handling mortality caused by the return of rock lobsters to the water and predation by octopus and other predators in pots. Each rock lobster stock assessment assumes that handling related mortality is 10% of returned undersized and berried female rock lobsters.

Appendix 2: Current CRA 4 management procedure specifications

In March 2012 a previous Minister agreed to use the *Rule 28a* CRA 4 management procedure from the 2012-13 fishing year until the 2017-18 fishing year.

Some important elements of the CRA 4 management procedure are:

a) The output variable is TACC (tonnes);
b) Offset-year standardised CPUE is used as an input to the rule to determine the TACC for the fishing year that begins in the following April;
c) CPUE is calculated using the 2003 *B4_L* procedure. This procedure sums all landings (to a licensed fisher receiver) and effort for a vessel within a calendar month and allocates the landings to statistical areas based on the reported area distribution of the estimated catches;
d) The management procedure is to be operated every year (no "latent year"), based on offset-year CPUE;
e) It has no thresholds for minimum and maximum change, except a maximum 25% increase limit below the first plateau.

The CRA 4 management procedure is based on a generalised plateau step rule, illustrated in Figure 7.3 above. Below a CPUE of 0.5 kg/potlift, the TACC is zero; between a CPUE of 0.5 and 0.9 kg/potlift, the TACC increases linearly with CPUE to a plateau of 467 tonnes, which extends to a CPUE of 1.3 kg/potlift. As CPUE increases above 1.3 kg/potlift, the TACC increases in steps with a width of 0.1 kg/potlift and a height of 7% of the preceding TACC.

Table A provides an outline of the history of the current CRA 5 management procedure.

Table A: History of the CRA 4 management procedure. 'Rule result' is the result of the management procedure after operation of all its components including thresholds; '-' is to be determined by you.

Year of analysis	Applied to Fishing Year	Offset-year 'B4-L'CPUE at time of analysis (kg/potlift)	Rule result: TACC (t)	TAC (t) set by the Minister	TACC (t) set by the Minister
2011	2012–13	1.194	466.9	661.9	466.9
2012	2013–14	1.374	499.69	694.7	499.7
2013	2014–15	1.293	467	662	467
2014	2015–16	1.168	467	662	467
2015	2015–16 (Option CRA4_01)	0.882	446.22	-	-

Appendix 3: New CRA 5 management procedure specifications

In 2015 a new stock assessment was carried out for CRA 5. This assessment model was used as the operating model for evaluating new CRA 5 management procedures.

The NRLMG considered numerous CRA 5 management procedure options late in 2015 and have put forward one of these 'final' rules, called *Rule 45*, for consideration.

Some important elements of the proposed new CRA 5 management procedure are:

a) The output variable is TACC (tonnes);
b) Offset-year standardised CPUE is used as an input to the rule to determine the TACC for the fishing year that begins in the following April;
c) CPUE is calculated using the 2012 *F2_LFX* procedure which uses:
    - landings to a licensed fisher receiver, along with recreational landings from a commercial vessel and the amount of rock lobsters returned to the water in accordance with Schedule 6 of the Act (i.e. highgraded rock lobsters),
    - estimates, by vessel, of the ratio of annual landed catch divided by annual estimated catch to correct every landing record in a quota management area for the vessel;
d) The management procedure is to be operated every year (no "latent year"), based on offset-year CPUE;
e) The minimum change threshold for the TACC is 5%. There is no maximum change threshold for the TACC.

The proposed new CRA 5 management procedure is based on a generalised plateau step rule, illustrated in Figure 8.3 above. Between CPUEs of zero and 0.3 kg/potlift the TACC is zero, the TACC then increases linearly with CPUE to 350 tonnes at a CPUE of 1.2 kg/potlift. The TACC remains at 350 tonnes until CPUE reaches 2.2 kg/potlift and then increases by 5.5% in CPUE steps of 0.2 kg/potlift.

Table B provides the results of the operation of the proposed new CRA 5 management procedure for the 2016-17 fishing year.

Table B: Results of the proposed new CRA 5 management procedure for the 2016-17 fishing year, after operation of all its components including thresholds.

Proposed CRA 5 rule	Offset-year 'F2-LFX' CPUE at time of analysis (kg/potlift)	Rule result: TACC (t)
Rule 45 (Option CRA5_01)	1.789	350

Appendix 4: Current CRA 5 management procedure specifications

In March 2012 a previous Minister agreed to use the *2011-01 Rule* CRA 5 management procedure from the 2012-13 fishing year until the 2017-18 fishing year.

Some important elements of the current CRA 5 management procedure are:

a) The output variable is TACC (tonnes);
b) Offset-year standardised CPUE is used as an input to the rule to determine the TACC for the fishing year that begins in the following April;
c) CPUE is calculated using the 2003 *B4_L* procedure. This procedure sums all landings (to a licensed fisher receiver) and effort for a vessel within a calendar month and allocates the landings to statistical areas based on the reported area distribution of the estimated catches;
d) The management procedure is to be operated every year (no "latent year"), based on offset-year CPUE;
e) There are no minimum or maximum change thresholds for the TACC.

The current CRA 5 management procedure is based on a generalised plateau step rule, illustrated in Figure 8.4 above. Between CPUEs of zero and 0.3 kg/potlift the TACC is zero, the TACC then increases linearly with CPUE to 350 tonnes at a CPUE of 1.4 kg/potlift. The TACC remains at 350 tonnes until CPUE reaches 2.0 kg/potlift and then increases by 5% in CPUE steps of 0.2 kg/potlift.

Table C provides an outline of the history of the current CRA 5 management procedure.

Table C: History of the CRA 5 management procedure. 'Rule result' is the result of the management procedure after operation of all its components including thresholds; '-' is to be determined by you.

Year of analysis	Applied to Fishing Year	Offset-year 'B4-L'CPUE at time of analysis (kg/potlift)	Rule result: TACC (t)	TAC (t) set by the Minister	TACC (t) set by the Minister
2011	2012–13	1.740	350	467	350
2012	2013–14	1.636	350	467	350
2013	2014–15	1.587	350	467	350
2014	2015–16	1.355	335.81	467	350
2015	2016–17 (Option CRA5_02)	1.478	350	-	-

Appendix 5: Current CRA 7 management procedure specifications

In March 2013 you agreed to use the *Rule 39* CRA 7 management procedure from the 2013-14 fishing year until the 2018-19 fishing year.

In 2015 a new stock assessment was carried out for CRA 7 in conjunction with CRA 8. This assessment model was used as the operating model for evaluating the performance of the current CRA 7 management procedure. Evaluations have effectively extended the life of the current procedure to the 2020-21 fishing year.

Some important elements of the CRA 7 management procedure are:

a) The output variable is TACC (tonnes);
b) Offset-year standardised CPUE is used as an input to the rule to determine the TACC for the fishing year that begins in the following April;
c) CPUE is calculated using the 2012 *F2_LFX* procedure which uses:
    - landings to a licensed fisher receiver, along with recreational landings from a commercial vessel and the amount of rock lobsters returned to the water in accordance with Schedule 6 of the Act (i.e. highgraded rock lobsters),
    - estimates, by vessel, of the ratio of annual landed catch divided by annual estimated catch to correct every landing record in a quota management area for the vessel;
d) The management procedure is to be operated every year (no "latent year"), based on offset-year CPUE;
e) The minimum change threshold for the TACC is 10% and the maximum change threshold is 50%.

The current CRA 7 management procedure is based on a generalised plateau slope rule, illustrated in the Figure A below. Between CPUEs of zero and 0.17 kg/potlift the TACC is zero, the TACC then increases linearly with CPUE to 80 tonnes at a CPUE of 1.0 kg/potlift. The TACC remains at 80 tonnes until CPUE reaches 1.75 kg/potlift and then increases linearly.

Figure A: The current CRA 7 management procedure, showing the TACCs resulting from the rule evaluations performed in 2012 through 2015 for the 2013-14 through 2016-17 fishing years (shown as coloured shapes).

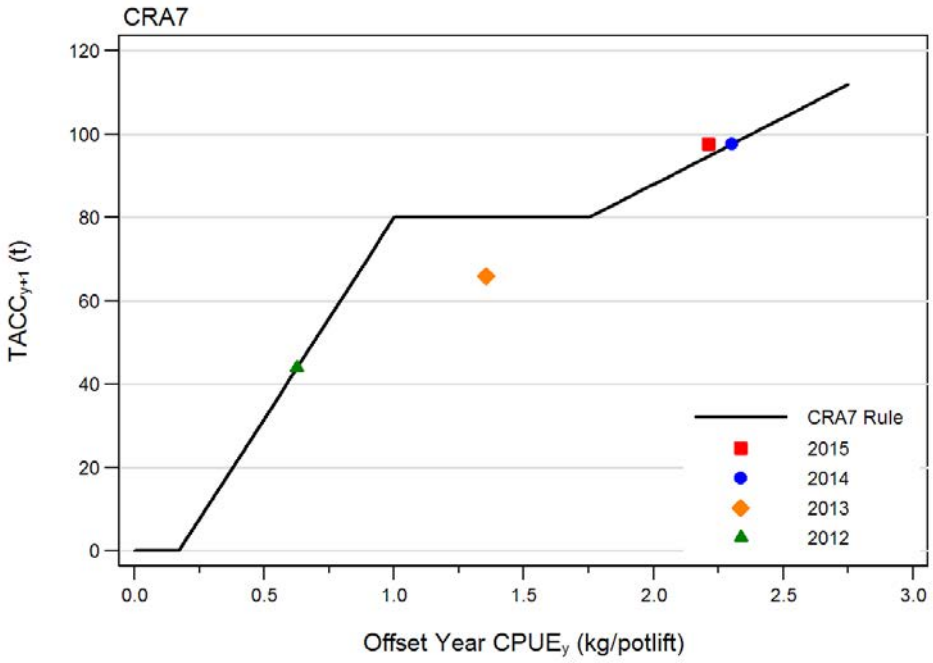


Table D provides an outline of the history of the current CRA 7 management procedure.

Table D: History of the CRA 7 management procedure. 'Rule result' is the result of the management procedure after operation of all its components including thresholds; '-' is to be determined by you.

Year of analysis	Applied to Fishing Year	Offset-year 'F2-LFX' CPUE at time of analysis (kg/potlift)	Rule result: TACC (t)	TAC (t) set by the Minister	TACC (t) set by the Minister
2012	2013–14	0.625	43.96	64	44
2013	2014–15	1.356	66.00	86	66
2014	2015–16	2.304	97.72	117.72	97.72
2015	2016–17	2.212	97.72	-	-

Appendix 6: New CRA 8 management procedure specifications

In 2015 a new stock assessment was carried out for CRA 8. This assessment model was used as the operating model for evaluating new CRA 8 management procedures.

The NRLMG considered two CRA 8 management procedure options late in 2015 and have put forward one of these 'final' rules, called *Rule 43*, for consideration.

Some important elements of the proposed new CRA 8 management procedure are:

a) The output variable is TACC (tonnes);
b) Offset-year standardised CPUE is used as an input to the rule to determine the TACC for the fishing year that begins in the following April;
c) CPUE is calculated using the new "F2_LF" procedure, which gives the "money-fish" CPUE, or $CPUE. This procedure uses:
    - landings to a licensed fisher receiver, along with recreational landings from a commercial vessel (it does not include the amount of rock lobsters returned to the water in accordance with Schedule 6 of the Act (i.e. highgraded rock lobsters) as does the F2_LFX procedure),
    - estimates, by vessel, of the ratio of annual landed catch divided by annual estimated catch to correct every landing record in a quota management area for the vessel;
d) The management procedure is to be evaluated every year (no "latent year"), based on offset-year CPUE;
e) The minimum change threshold for the TACC is 5%. There is no maximum change threshold for the TACC.

The proposed new CRA 8 management procedure is based on a generalised plateau step rule, illustrated in Figure 9.3 above. Between CPUEs of zero and 0.5 kg/potlift the TACC is zero, the TACC then increases linearly with CPUE to 962 tonnes at a CPUE of 1.9 kg/potlift. The TACC remains at 962 tonnes until CPUE reaches 3.2 kg/potlift and then increases by 5.5% in CPUE steps of 0.5 kg/potlift.

Table E provides the results of the operation of the proposed new CRA 8 management procedure for the 2016-17 fishing year.

Table E: Results of the proposed new CRA 8 management procedure for the 2016-17 fishing year, after operation of all its components including thresholds.

Proposed CRA 8 rule	Offset-year 'F2-LF' $CPUE at time of analysis (kg/potlift)	Rule result: TACC (t)
Rule 43 (Option CRA8_01)	3.062	962

Appendix 7: Current CRA 8 management procedure specifications

In March 2013 the Minister agreed to use the *Rule 13* CRA 8 management procedure from the 2013-14 fishing year until the 2018-19 fishing year.

Some important elements of the current CRA 8 Management Procedure are:

a) The output variable is TACC (tonnes);
b) Offset-year standardised CPUE is used as an input to the rule to determine the TACC for the fishing year that begins in the following April;
c) CPUE is calculated using the 2012 *F2_LFX* procedure which uses:
   - landings to a licensed fisher receiver, along with recreational landings from a commercial vessel and the amount of rock lobsters returned to the water in accordance with Schedule 6 of the Act (i.e. highgraded rock lobsters),
   - estimates, by vessel, of the ratio of annual landed catch divided by annual estimated catch to correct every landing record in a quota management area for the vessel;
d) The management procedure is to be evaluated every year (no "latent year"), based on offset-year CPUE;
e) The minimum change threshold for the TACC is 5%. There is no maximum change threshold for the TACC.

The current CRA 8 Management Procedure is based on a generalised plateau slope rule, illustrated in Figure 9.4 above. Between CPUEs of zero and 0.4535 kg/potlift the TACC is zero, the TACC then increases linearly with CPUE to 962 tonnes at a CPUE of 1.9 kg/potlift. The TACC remains at 962 tonnes until CPUE reaches 3.7 kg/potlift and then increases linearly.

Table F provides an outline of the history of the current CRA 8 management procedure.

Table F: History of the CRA 8 management procedure. 'Rule result' is the result of the management procedure after operation of all its components including thresholds; '-' is to be determined by you.

Year of analysis	Applied to Fishing Year	Offset-year 'F2-LFX' CPUE at time of analysis (kg/potlift)	Rule result: TACC (t)	TAC (t) set by the Minister	TACC (t) set by the Minister
2012	2013–14	3.346	962	1053	962
2013	2014–15	3.377	962	1053	962
2014	2015–16	3.562	962	1053	962
2015	2016–17 (Option CRA8_02)	3.297	962	-	-

Appendix 8: Current CRA 9 management procedure specifications

In March 2014 you agreed to use the *Rule 4041* CRA 9 management procedure from the 2014-15 fishing year until the 2019-20 fishing year.

Some important elements of the CRA 9 management procedure are:

a) The output variable is TACC (tonnes);
b) Offset-year standardised CPUE is used as an input to the rule to determine the TACC for the fishing year that begins in the following April;
c) CPUE is calculated using the 2012 *F2_LFX* procedure which uses:
   - landings to a licensed fisher receiver, along with recreational landings from a commercial vessel and the amount of rock lobsters returned to the water in accordance with Schedule 6 of the Act (i.e. highgraded rock lobsters),
   - estimates, by vessel, of the ratio of annual landed catch divided by annual estimated catch to correct every landing record in a quota management area for the vessel;
d) The management procedure is to be evaluated every year (no "latent year"), based on offset-year CPUE;
e) The minimum change threshold for the TACC is 5% and the maximum change threshold of 15% for TACC increases only.

The CRA 9 management procedure is based on a generalised plateau step rule, illustrated in Figure 10.2 above. Between CPUEs of zero and 0.5 kg/potlift the TACC is zero, the TACC then increases linearly with CPUE to 40 tonnes at a CPUE of 1.0 kg/potlift. The TACC remains at 40 tonnes until CPUE reaches 1.4 kg/potlift and then increases by 15% in CPUE steps of 0.75 kg/potlift.

Table G provides an outline of the history of the current CRA 9 management procedure.

Table G: History of the CRA 9 management procedure. 'Rule result' is the result of the management procedure after operation of all its components including thresholds; '-' is to be determined by you.

Year of analysis	Applied to Fishing Year	Offset-year 'F2-LFX' CPUE at time of analysis (kg/potlift)	Rule result: TACC (t)	TAC (t) set by the Minister	TACC (t) set by the Minister
2013	2014–15	3.141	60.8	115.8	60.8
2014	2015–16	2.095	46.0	115.8	60.8
2015	2016–17 (Option CRA9_01)	1.885	46.0	-	-

Appendix 9: Submissions received on the consultation document

From: Rob Pooley
Sent: Friday, 15 January 2016 11:25 a.m.
To: FMSubmissions
Subject: Submission on Cra 5 sustainablility

Categories: Transferred to Piritahi

I wish to submit the following on CRA5 sustainability. I am totally in support of long term sensible facts based system.

CRA 5 is coming under increasing in some areas from "roving" quota.

When the QMS was introduced it was sold to us as a management tool to be applied in the original micro areas i.e. 917, 933 etc., which made sense and reflected the unique structure of CRA 5 and respected the niche fishing villages and communities along our coast. Banks Peninsula, Motunau Beach, Kaikoura, Cape Campbell, and the Sounds.

They lied to us and put it across the entire geographical area which is a nonsense, we now see unsustainable pressure applied to areas that had small lots of catch history. Once these get flogged out which is happening now, pressure increases on the remaining areas, eventually the whole fishery will go into collapse again.

Do some research into CPUE by micro area all will be revealled

I submit the CRA 5 should revert to being managed by the micro area model

The CPUE formula is flawed a pot in NZ can be anything from 1m square to 2.5m square. With potential catching capacity accordingly.
The Australian model is far superior because a pot is a pot i.e. all identical.
I also submit the the amateur quota should be reduced immediately to match the cuts we as fishers were forced to accept right from the outset. I suggest 2 per person per day, a maximum weight of 5 kg and no accumulated catch in ones possession.

Allowing three days accumulation of 6 fish i.e. 18 and at 2 kg each is about as cranky a rule as one could ever perceive.

Mine is the voice of many a sensible person.

Yours Sincerely
Rob Pooley
In my capacity as a private individual but with a sound working knowledge of the fishery.

Submissions for 2016 CRA 9 area..

Pam MacKay as a Quota holder I would like to Opt for Option two Bringing Status Quo at TACC being 60 Tonne. If this area is able to Sustain the 60 Tonne Tacc with the weather Patterns off the Tarquahi Coast it is a self Governing Fishery and if it Cannot Sustain the 60 Tonne TACC I would Then like it to be Decreased to 53.5 tonne. For the 2016 - 2017 Year not back to 46 T as Sugested...

Yours Sincerely

P. R. MacKay

Allan MacKay

22 January 2015

Fisheries Management
Ministry for Primary Industries
PO Box 2526
Wellington 6140

SUBMISSION FOR SUBSTAINABILITY MEASURES FOR APRIL 2016.

I would like to introduce myself as a Commercial Fisherman in the Cray 9 area. Fishing out of Port Taranaki for the last eight years, fishing from New Plymouth south to Opunake, Fishing vessel Rampage 901026/9792148, fishing 130 pots from 1 July to end of November.

Question, how does the TACC get set when the information such as in 2012-2013 years, most of the fisherman fishing in this area didn't carry out the pot surveys. The only way these figures could have been derived at is from catch history landings.

In 2015 all 5 boats fishing in Cray 9 I believe, carried out the electronic monitoring as we all believe we have to look after out futures.

I was always led to believe Cray 9 had a TACC of 47 tonne.

My proposal is that if the figures don't indicate the sustainability of a 60 Tonne TACC then reduce it to 53.5 Tonne TACC for the 2016 season or even 2017 and with on electronic surveying tools to calculate CPUE and with everyone on the same page striving for the same goals.

Regards
Rampage Fishing
Allan MacKay.

CRA8 Management Committee Inc.

Secretaries: McCulloch & Partners
PO Box 844
Invercargill 9840
Phone (03) 218 6179
Fax (03) 218 2238
Email murray.rankin@mcp.co.nz

Executive Officer: Malcolm Lawson
Email cra8@xtra.co.nz

26 January 2016

Fisheries Management
Ministry for Primary Industries
PO Box 2526
Wellington 6140

Submission
Review of Rock Lobster Sustainability Measures for April 2016

This submission is made by the CRA8 Management Committee Inc. ("the Committee"). 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.

Use of New Management Procedure to Guide TAC Setting for CRA8

The Committee is fully supportive of the development and use of management procedures within rock lobster fisheries to guide TAC setting and therefore operate as the cornerstone of the CRA8 fishery management regime.

The Committee holds the view that a new management procedure should include both biological and economic considerations in its development. As a result, the Committee supports a management procedure that includes a range of CPUE values (lower and upper parameters within a plateau) that would maintain the Total Allowable Commercial Catch (TACC) at a constant level and provide stability for the fishery and industry. In turn this provides confidence and some certainty for business planning and investment.

Option CRA8_01reflects this view while exceeding the statutory requirements to manage the fishery at or above *Bmsy* and also the agreed proxy *Bref.*

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 proposed management procedure as a proxy given the predicted exploitation rates and constantly high CPUE.

It should also be noted that an MEY based model results in a lower TACC than a pure sustainability based model – where CPUE fluctuates around *Bref.*

The change of design to provide for steps above the upper parameter of 3.2kgs is supported.

The intention to use a new method for preparing and utilising data for CPUE calculation and standardisation that uses only the weight of fish landed is also supported. 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 (Figure 1). Lobsters above 1.5kgs are returned to the sea.

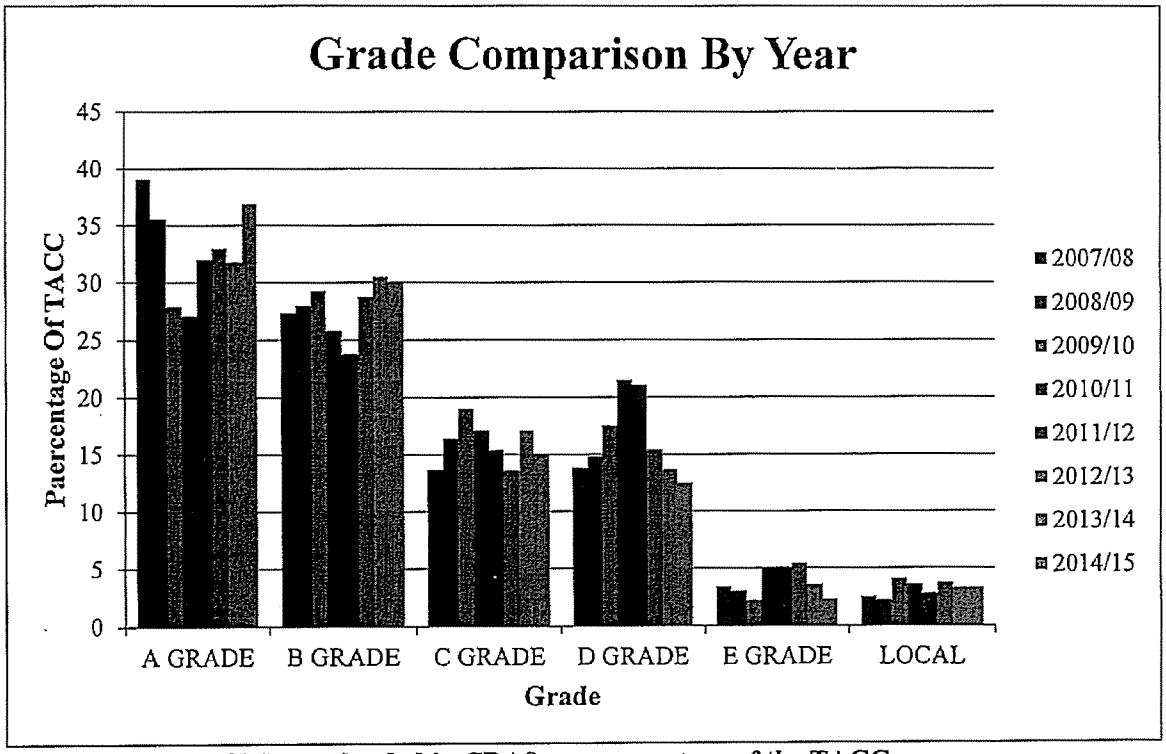


Figure1. Grades of lobsters landed in CRA8 as a percentage of the TACC

While these large lobsters obviously play an important biological role in sustaining the fishery they are of little economic benefit to the industry. It therefore follows that a management procedure that focuses on achieving MEY should be informed by an algorithm (F2-LF) that uses the data from the economically valuable portion of the fishery to achieve a $CPUE result.

TAC Setting

The Committee agrees with the retention of the current customary allowance.

The Committee agrees with the retention of the current recreational allowance.

The Committee agrees with the proposed reduction in the allowance for "other sources of mortality".

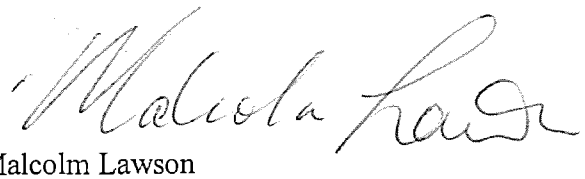
Recent stock assessments have used an estimate of 3 tonnes. This being the best available information, but bizarrely this figure has not been reflected in the allowance that had been set. There has never been any justification for using 3 tonnes in the stock assessment and yet

setting an allowance of 28 tonnes. The Committee accepts the figure of 5 tonnes is reasonable given the continuing uncertainty surrounding the data.

Accordingly the Committee supports the reduction in the TAC from 1053 tonnes to 1030 tonnes.

Summary
The Committee supports Option CRA8_01:

- Use the new management procedure;
- Retain the current TACC at 962 tonnes within the parameters of 1.9kgs and 3.2kgs;
- Use the new method for calculating $CPUE that will inform the annual operation of management procedure;
- Retain the current customary allowance at 30 tonnes;
- Retain the current recreational allowance at 33 tonnes; and
- Reduce the allowance for "other sources of mortality" to 5 tonnes.



Malcolm Lawson
Chief Executive Officer

From: Eddie Watts
Sent: Tuesday, 2 February 2016 2:42 p.m.
To: FMSubmissions
Subject: Submission (CRA4) (CRA5) (CRA8) (CRA9)

Categories: Transferred to Piritahi

Ngati whatua runanga would like to support these options

CRA4 Option 02

CRA5 Option 01

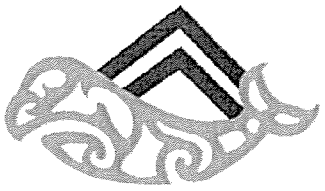
CRA8 Option 01

CRA9 Option 02

Ngati Whatua would agree with a scientific project to develop a alternative management strategy for CRA9

Regards Eddie Watts

Ngati Whatua Runanga Fishing .Co. Ltd



Maungaharuru-Tangitū Trust

Ministry of Primary Industries (MPI)
Review of fisheries sustainability measures for 1 April 2016.

Closing Date: 11 February 2016.

Inshore Fisheries Management
Ministry for Primary Industries
Manatū Ahu Matua
P O Box 2526
WELLINGTON 6011

Attention: Fisheries Management Team
FMSubmissions@mpi.govt.nz

By Email.

1. Summary

Hapū Details:

Maungaharuru-Tangitū Trust
P O Box 3376
Hawkes Bay Mail Centre
Napier 4142

Contact person: Shayne Walker
Kaiwhakahaere Matua/General Manager
Phone: (06) 835 3300
swalker@tangoio.maori.nz

2. Introduction

"Ka tuwhera a Maungaharuru, ka kati a Tangitū,

Ka tuwhera a Tangitū, ka kati a Maungaharuru.

When the season of Maungaharuru opens, the season of Tangitū closes.

When the season of Tangitū opens, the season of Maungaharuru closes.

Maungaharuru-Tangitū Trust represents the hapū of Tangoio Marae as the following: Ngāti Kurumōkihi (also known as Ngāi Tatara), Ngāti Marangatūhetaua (also known as Ngāti Tū), Ngāi Te Ruruku ki Tangoio, Ngāti Whakaari, Ngāi Tauira, and Ngāi Tahu. The takiwā (traditional area) of the Hapū extends from the Maungaharuru range in the west of Hawke's Bay, to Tangitū (the sea) in the east, and from north of the Waikare river in the north to Te Whanganui a Orotu in the south.

The Trust is a post-settlement governance entity, established to hold and manage the Treaty settlement assets of the Hapū and to be the representative body for the Hapū. Maungaharuru-Tangitū Hapū Claims Settlement Act was enacted in May 2014.

3. Activity

Consultation on proposed changes to the sustainability measures and other management controls for selected fish stocks.

3.1. Official Information Act 1982 (OIA)

We request that this submission is not made public as the information submitted is commercially sensitive and has sensitive cultural values regarding the Hapū customary fishing rights and specific details of these locations within this submission.

4. Recommendations

4.1. Recommendations are: Review of the CRA 4 (Wellington/Hawkes Bay) rock lobster

- Given the importance of the seaward Takiwā and responsibilities of the Hapū as Kaitiaki. The trust approve of the setting of non-commercial allowances regarding Customary Maori allowance that **no change** is proposed to the 35 tonne customary Maori allowance for CRA 4.

4.2. Recommendations are: Review of the CRA 4 (Wellington/Hawkes Bay)

- Within our Takiwā all Commercial allowance to be reduced as this impacts on our Customary Maori allowance.
- Within our Takiwā all Recreational allowance to be reduced as this impacts on our Customary Maori allowance.
- Commission a Cultural Impact Assessment to be conducted for our Takiwā with the consultation of our Hapū Tangata Kaitiaki, and agree on an implementation plan of the findings and recommendations.

5. Mana Whenua

5.1 Maungaharuru-Tangitū Trust makes this submission on behalf of the Hapū it represents.

5.2. The natural resources (including waters, rocks, reefs and aquatic life) within the Hapū seaward tākiwa are taonga belonging to the Hapū. The importance of these taonga to the Hapū is demonstrated through:

- the whakapapa, history and customary practices of the Hapū;
- the establishment of the Moremore Mātaitai Reserve within the Takiwā;
- the appointment of the Trust as an advisory committee for the Wairoa Hard; and

- the application under the Marine and Coastal (Takutai Moana) Act for a Protected Customary Rights Order and a Customary Marine Title.

In addition, there is a wealth of evidence about the association of the Hapū to taonga. Including that set out in various statements of association in the Deed of Settlement.

5.3. The importance of the taonga of the Hapū within the Takiwā

The natural resources (including waters, rocks, reefs and aquatic life) within their seaward Takiwā are taonga belonging to the Hapū. The following information demonstrates the importance of those taonga to the Hapū and the role of the Hapū as kaitiaki of those taonga.

5.4. The whakapapa, history and customary practices of the Hapū

Attached as Attachment 1 and 2; is a statement of association entitled "Rocks and Reefs and Hapū Coastal Marine Area" and map (OTS-201-41) from the Deed of Settlement. The statement of association expands on the following points.

- The coastline and coastal marine area integral to the identity and mana of the Hapū.
- Tangitū (the sea) is a taonga to the Hapū. It is whole and indivisible entity.
- Tangitū is spiritually important to the Hapū and Tangaroa-i-te-Rupetu (the spiritual guardian of the sea) and his descendants including the whales, waves, ocean currents and fish life, are connected by whakapapa (genealogy) to the Hapū.
- The mauri (life force) of ika (fish) travelled aboard the waka (canoe) Tākitimu on its migration to Aotearoa, and was instilled at Arapawanui and along the coastline by the tohunga (high priest) Ruawharo.
- The principal importance of Tangitū is reflected in mihi (greetings), whaikōrero (formal speeches), whakairo (carvings), kōwhaiwhai (painted panels) and tukutuku (woven panels) on Tangoio Marae as well as whakatauaki (tribal proverbs), kōrero tuku iho (Hapū history) and waiata (songs).
- Tangitū and its rocks and reefs were and remain a vital source of kai (food), rongoā (medicinal plants) and resources for the Hapū, including ika, koura (crayfish), kuku (Mussels), kina (sea urchin), pāua (abalone), kaiō (sea tulip), sea water, tāwhaowhao (driftwood), pungapunga (pumice) and rimurimu (bull kelp). These are significant named, mahinga kai (places for gathering food) all along the coast.
- Manuhiri (visitors) are served kai from Tangitū and the ability to offer the range and quality of kai their Takiwā enhances the mana of the Hapū.

- There are several kaitiaki (guardians) of the Hapū that live within Tangitū.

5.5. The establishment of the Moremore Mātaitai Reserve within the Takiwā

The Hapū have appointed tāngata kaitiaki, gazette a rohe moana in 1999 and established the first North Island Mātaitai Reserve – Moremore Mātaitai Reserve in 2005 under the Fisheries (Kaimoana Customary Fishing) Regulations 1998. The Reserve is a legislative tool to recognize and provide for customary food gathering, the special relationship between tāngata whenua and places of importance for customary food gathering, and to enable tāngata whenua to make recommendations for managing fishing within the Reserve.

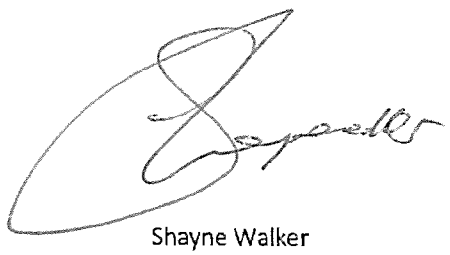
5.6. The appointment of the Trust as an advisory committee for the Wairoa Hard

The Wairoa Hard is a culturally and environmentally significant area as a nursery for fish. Accordingly, the Deed of Settlement provides for the Minister for Primary Industries to appoint the trust as an advisory committee to the Minister to advise on any proposed changes to various prohibitions and restrictions relating to the Wairoa Hard (clause 5.41 of the Deed of Settlement).

5.7. The application under the Marine and Coastal (Takutai Maona) Act

In 2014 the Trust submitted an application seeking the recognition of Protected Customary Rights and Customary Marine Title of the Hapū under section 95 of the Marine and Coastal Area (Takutai Moana) Act 2011. Attached as Attachment 3 is a map showing the area covered by the application.

Nāku Noa Nā



Shayne Walker
Kaiwhakahaere Matua/General Manager
Phone: (06) 835 3300
swalker@tangoio.maori.nz

Attachments

1) Statements of Association: Rocks and Reefs and Hapū Coastal Area;

2) Map: OTS – 201 – 41;

3) Map: Customary Marine Title & Protected Customary Rights 18 February 2014.

[Witheld]

Certified from sustainable fisheries
www.friendofthesea.org

CRAMAC 5

Canterbury Marlborough Rock Lobster
Industry Association Inc.

P O Box 4
Ward 7248
Marlborough
New Zealand

Phone: 64 3 5756877
Fax: 64 3 5756803
larnce@burkhart-fish.co.nz

Submission on

Review of Rock Lobster Sustainability Measure for CRA 5
1 April 2016

CRAMAC 5 is a fully constituted and incorporated society and is the representative commercial stakeholder's organisation for rock lobster in Quota Management Area CRA 5. It is a well-established and respected organisation that continually demonstrates its proactive approach to managing the CRA 5 commercial harvest.

CRAMAC 5 maintains the objective to manage our utilisation of the CRA 5 lobster resource at a high level of abundance to maintain a sustainable and profitable fishing business for our shareholders and ACE holders.

Executive Summary

1. CRAMAC 5 committee acknowledges that the change in the algorithm from B4-L to F2-LFX for assessing the CRA 5 rock lobster stock provides a better reflection as to what is seen and experienced on the water.

2. CRAMAC 5 supports Option 1 for the new TAC, the new allowances and the new Management Procedure. The reason for increasing the TAC is due to the increase of the recreational allowance, we have supported this on the condition that the other suites of regulatory measures that have been agreed upon are implemented.

3. CRAMAC 5 supports the additional measures for the CRA 5.

    - Introduction of "telson clipping" for recreation taking of lobster across the CRA 5 region.

    - An accumulation limit of 18 rock lobster (3 daily bag limits) along with the bag and labelling conditions across the CRA 5 region. CRAMAC 5 committee would like the NRLMG to consider requesting that this accumulation limit be based on any one location or property. Like all rules there are those that push the envelope and bag and labelling a daily bag limit for others that are not associated to that household/location. Or the practice is to label for the whole family when only one member harvests the lobster. Consideration to having

this rule based on "one property/location" would stop this practice. The CRAMAC 5 committee considers that 18 lobsters in one household or location is a good number of lobsters to hold/store for consumption.

CRAMAC 5 looks forward to the increase observations of the recreational removals for good fisheries management decisions, CRAMAC 5 would like to offer assistance with establishing monitoring/survey programme based on our knowledge of the areas of high recreational activity that have been missed in the past surveys.

Yours sincerely

G Basher
Chairman
CRAMAC 5 Association

PP. L. J. Wichman
Secretary

From:
Sent: Thursday, 11 February 2016 10:55 a.m.
To: FMSubmissions
Subject: FW: Cray 5 Review

Categories: Transferred to Piritahi

From: Ross Divett
Sent: Tuesday, 9 February 2016 8:37 p.m.
To: Alicia McKinnon <Alicia.McKinnon@mpi.govt.nz>
Cc: Mark Geytenbeek (Mark Geytenbeek) <Mark.Geytenbeek@mpi.govt.nz>; 'Mark Connor
Subject: Cray 5 Review

Hi Alicia,

We have had an interesting meeting with Commercial cray5

We would like included in the review of the Cray 5 management area.

We believe the tonnage for recreational crays is closer to 160 Tonne. For a long time the recreational take ahas been estimated at the same level as illegal take. It is now time to be realistic.

We would also like to have a daily bag limit for a skipper on a recreational boat.

We disagree with the telson cli[pping for Akaroa as it is not necessary. We don't have a black market in crayfish at the present time and it would appear that telson clipping encourages cruelty to animals in that telson clipped fish are returned to the sea.

We also disagree with the accumulated bag limit of three daily bag limits.

If this is introduced we would want to have parity with customary and have Fisheries officers able to write out permits for recreational take for a wedding ,funeral , special occasion.
I answer to your question in theory pakeha have access to kitiaki in practice this doesn't work Kitiaki make themselves scarce when pakeha want permits.

We gather that commercial would be happy to donate section 111 catch to a quota for Charter operators. This was mooted at the meeting and cray 5 members seemed happy with this option which would remove a lot of problems with both areas of the fishery.

I would appreciate you acknowledging this email and if you can't forward theses ideas and suggestions could you please contact me promptly with the person to whom we get in contact with who is able to do so.

***Ross Divett** Bsc, BDS*

9 February 2016

ROCK LOBSTER STOCK ASSESSMENT

Review of Rock Lobster Sustainability Measures for 1 April 2016

Each year the National Rock Lobster Management Group (NRLMG) produces a Stock Assessment document for consultation amongst stakeholders. Of particular interest for the 2016 year is the assessment for CRA 5.

Ngā i Tahu Seafood (NTS) engages in this process of membership of the CRAMAC 5 Group, as well as engagement with its own group of commercial fishers and discussions with other stakeholders. This document will also be circulated to Kaikō ura Rū naka to inform them of the views of Ngā i Tahu's commercial entity.

NTS acknowledge the latest CRA5 stock assessment which states;

> *"there are no sustainability concerns for the CRA5 fishery as stock levels are reported to be well above the reference levels".*

Therefore NTS are reasonably confident, based on the best information available, that the CRA5 stock is sustainable.

However, there are a number of issues around the management of the stock, and the stock assessment document that are of concern to NTS that warrant comment.

> ***NTS is concerned about the accuracy of the recreational allowance of 87t in the NRLMG review.***

After reviewing MPI Fisheries Assessment Plenary: Stock Assessments and stock status 2015 Report, MPI acknowledges "*Recreational catches of rock lobster are poorly known throughout New Zealand, but reports of increased recreational activity in CRA 5 coupled with an increasing trend in abundance makes it unlikely that recreational catches have remained constant in CRA 5.*"

MPI recommends using a provision for an 80 t recreational harvest. This figure took into account "*The 43.47 tonne 2011-12 NPS recreational harvest estimate, while acknowledging it, is assumed to be an underestimate (the degree to which it is an underestimate is unknown).*"

If it is unknown what the underestimate is (on what is this assumption founded) could it be equally likely to be an overestimate.

MPI also suggested a sensitivity trial of 140 t recreational harvest is carried out. Again there is no basis for this assumption in the document, and thus it could well be argued that a smaller figure be used for an alternate scenario or sensitivity testing.

It might seem that convenience was the factor in the selection of 87 t because it was the easier option by adjusting the TAC by 40 t and moving 7 t from other mortality to recreational.

When CRAMAC5 members who were present/involved in the NRLMG meetings, the question as to how this recreational removal was estimated, i.e. data from MPI inspections of recreational catches and/or surveys. NTS was informed the figure was "plucked from thin air" because MPI had no data to provide them. Therefore, NTS has serious concems MPI has no accurate, or any means of collecting recreational removal data in CRA 5.

Although NTS views CRA 5 stocks are sustainable at this present point of time, NTS have concerns for the future sustainability of CRA 5, if MPI continues to 'assume' recreational removal and does not develop method/s of collecting genuine recreational removal data. Especially, considering the uniqueness of Kaikō ura to recreational fishermen and recent development of charter operations utilizing recreational catch.

It is essential accurate recreational removal data is collected and utilized to ensure the most precise and robust stock assessment and overall sustainability reports are produced. A future concern for NTS is if the recreational removal is found to be > 87t, the addition tonnes will be removed from the TACC (commercial catch) to accommodate the increase in recreational removal. Reallocation of rights within a fishery by such "assumptions" is not good management, nor appropriate treatment of a Settlement partnership.

NTS is supportive of the proposed recreational measures of the introduction of 'telson clipping' and accumulation limits to help ensure CRA5 stock sustainability.

However, NTS would advise more appropriate accumulation limits could be set once accurate recreational removal data is collected.

Holistic and fine scale management approach for CRA5.

CRA5 is currently split into six statistical areas (919, 918, 917, 916, 933 and 932). The main areas of commercial fishing include Port Underwood 933, Ward/ "The Cape" 916, Kaikō ura – Motunau 917 and Banks Peninsula 918. Although, the NRLMG Review only focuses on CRA5 as a single area and management rule is for the whole of CRA5, statistics are available for each statistical area.

NTS would support a holistic and fine scale management approach of assessing the CPUE of CRA5 as a single stock. Investigating stock sustainability for each statistical area to help identify area/s of potential risk of local (and potentially serial), depletion and develop and implement the best management procedure.

Ngā mihi

T. M. Hildebrand

Thomas Hildebrand

Marine Biologist

Maru Samuels
General Manager
Iwi Collective Partnership
Auckland

IWI COLLECTIVE
PARTNERSHIP

11 February 2016

Deepwater Fisheries Management
Ministry for Primary Industries
P O Box 2526
Wellington 6011 **Email:** FMsubmissions@mpi.govt.nz

Tēnā koe,

REVIEW OF FISHERIES SUSTAINABILITY MEASURES FOR 1 APRIL 2016

1. INTRODUCTION

The Ministry for Primary Industries (MPI) is seeking feedback on proposals to review sustainability measures for various stocks for the 2016-17 fishing year, beginning 1 April 2016. Three of those stocks are quota that is owned by Iwi Members of the Iwi Collective Partnership (ICP): Rock lobster (CRA 4 and CRA 9) and Coromandel Scallops (SCA CS). This submissions relates solely to the three aforementioned stocks. Submissions close 11 February 2016.

The ICP is a collective of 14 individual Iwi from locations throughout the North Island. It was established in 2010 to, amongst other things, improve the sustainable management of New Zealand's fisheries and the participation of Iwi within that process. This stems from our responsibilities as kaitiaki ensuring that the present day utilisation of resources is managed in such a way that they will continue to support future generations. Table 1 lists our 14 Iwi Members and respective quota ownership relative to this Review.

Iwi	Region	Quota Owned
Te Arawa	Bay of Plenty	CRA4, SCA CS
Ngati Tuwharetoa	Bay of Plenty	CRA4, SCA CS
Ngai Te Rangi	Bay of Plenty	CRA4, SCA CS
Whakatohea	Bay of Plenty	CRA4, SCA CS
Ngati Awa	Bay of Plenty	CRA4, SCA CS
Ngai Tai	Bay of Plenty	CRA4
Ngati Manawa	Bay of Plenty	n/a
Ngati Ruanui	Taranaki	CRA4, CRA9
Nga Rauru Kiitahi	Whanganui	CRA4, CRA9
Taranaki Iwi	Taranaki	CRA4, CRA9
Te Rarawa	Northland	n/a
Ngati Porou	Gisborne	CRA4
Te Aitanga a Mahaki	Gisborne	CRA4
Rongowhakaata	Gisborne	CRA4

Table 1: ICP Membership

2. CRA 4

The Review paper advises that the National Rock Lobster Management Group is seeking views on a reduction in the TAC and TACC for CRA 4. The review is driven largely by a declining CPUE since 2012. The options are to maintain the TACC status quo of 467 mt, reduce it to 446 mt or reduce it to 420 mt.

The ICP supports a 15% reduction (70.05 mt) in the TACC to a new level of 396.95 mt. Such a recommendation is dependent on the outcome of the CRAMAC 4 Ballot which also closes today. Should the Ballot fail to meet the voting threshold, the ICP would support Option 2 ie. a 10% TACC reduction to 420 mt.

While our preferred 15% TACC reduction is well beyond any of the options proposed in the Review paper, a significant cut of this volume should at least arrest the decline and should place the fishery in a very positive position moving into the 2016/2017 season. CRA 4 industry sector group, CRAMAC 4, proposes a stock assessment in July 2016 as well as the development of a new Management Procedure. The new Management Procedure will then guide the TACC setting from 1 April 2017 onward. Our CRA 4 quota owners support these additional plans.

3. CRA 9

The CRA 9 review is driven largely by a declining CPUE since 2013. The CRA 9 review options are to retain the TACC status quo of 60.8 mt or reduce it to 46 mt. Discussions with our fishermen suggest that the CPUE issues are a reflection of the CPUE model as opposed to sustainability issues. Therefore our view is to support retention of the status quo with an added commitment to assess the state of the CRA9 stocks. The assessment should be undertaken in the 2016-2017 season the results of which could be used to inform the TACC setting for the 1 April 2017 season.

4. SCA CS

The TACC for the Coromandel scallop (SCACS) fishstock was increased in 2013 from 22 mt to 100 mt to enable utilisation opportunities. These increased catch limits may no longer be supported by up-to-date information. In a fishery highly valued and utilised by customary, recreational and commercial fishers it is important that management settings be reviewed and updated to reflect the current situation. Option 1 is to support the Status Quo ie. 100 mt TACC. Option 2 is a 50% reduction down to 50 mt.

The ICP supports a different option which is that proposed in the submission of Te Ohu Kaimoana that is that:

1. MPI formally acknowledges the Industry Management Program as the primary strategy supporting sustainability of the SCACS fishery.
2. MPI approves Option 3: set the TAC at 101t, the TACC at 70t, and retain the non-commercial allowances and other mortality settings.
3. MPI retains the deemed values for 2016.
4. MPI includes the Industry Management Program on the agenda of the Shellfish Working Group, March, Technical Workshop on scallops, and discuss the merits and utility of real time CPUE catch data, and the overall Industry Management Program.

Ngā mihi,

Maru Samuels
General Manager
m : 021723588
e : maru@iwicollective.co.nz

Phil Appleyard
President
NZ Sport Fishing Council
PO Box 93
Whangarei
secretary@nzsportfishing.org.nz

Rock Lobster submissions
Fisheries Management – Inshore Fisheries
Ministry for Primary Industries
PO Box 2526
Wellington 6140
FMSubmission@mpi.govt.nz

11 February 2016

NZ Sport Fishing Council submission on the review of Rock Lobster sustainability measures for 1 April 2016

Contents

1. INTRODUCTION

For some time the New Zealand Sport Fishing Council and supporters of our LegaSea outreach (the submitters) are concerned that current rock lobster management and the National Rock Lobster Management Group (NRLMG) processes show little regard for the public's interests, in environmental and fishing terms, and our social, economic and cultural wellbeings. These interests and wellbeings are largely ignored or passed over with a cursory paragraph or two.

This sense of disengagement is amplified by the truncated submission periods offered to stakeholders by the Ministry and NRLMG. It seems 18 working days is the norm. This timeframe does not allow for adequate consultation, particularly for NGOs such as ours that need to consult with a range of interests and volunteers.

In an effort to alert people to this review and better inform our members and supporters, the Council developed a summary of the proposals. That summary was distributed to clubs, other groups and organisations aligned with LegaSea's Principles, encouraging feedback prior to development of this submission. This submission is richer for having initiated that engagement with others.

While we aspire to have abundant rock lobster populations the models and management advice appear to favour maximum exploitation, especially in areas like CRA 2 where CPUE has continued to decline for the last two years but has failed to trigger a TACC review. In 2015, the CRA 2 standardised CPUE (which includes the weight of any legal fish returned to the sea) was just 0.2991 kg/potlift. The Management Procedure generated a proposed TACC of 199.4 t for 2016, however, as this would be a change of only 0.3% (below the minimum change threshold of 5%). The disappointing result means another year with no change to the 200 tonne TACC and another year where commercial fishers prop up the CPUE by fishing in Eastern Bay of Plenty. If any stock qualifies for an early review of the Management Procedure in 2016-17 it must be the one in the most trouble, CRA 2.

We remind the National Rock Lobster Management Group and the Ministry that the Minister for Primary Industries has a statutory duty to sustainably manage fisheries to maintain the potential of our fisheries resources to meet the reasonably foreseeable needs of future generations, pursuant to s8(2)(a) of the Fisheries Act 1996.

2. RECOMMENDATIONS

The Minister addresses the sustainability concerns of non-commercial stakeholders by agreeing to stop the use of Management Procedures based on Catch Per Unit of Effort (CPUE) controls, and to initiate a full review of rock lobster management.

- CRA 4 –
    - The Minister sets a TAC of 615 t for CRA 4.
    - The allowances for recreational and customary fishing interests remain unchanged.
    - The allowances for other sources of fishing mortality remain unchanged.
    - The Minister reduces the TACC to 420 t in CRA 4.

- CRA 5 –
    - Before significant changes to the CPUE index can be accepted there must be a clear explanation to the Minister and stakeholders of the rationale and implications of the change.
    - The Minister sets a TAC of 507 t for CRA 5.
    - The Minister makes an allowance of 80 t for recreational interests in CRA 5.
    - The Minister makes an allowance of 40 t for customary fishing interests in CRA 5
    - The Minister makes an allowance of 37 t for other sources of fishing mortality in CRA 5.
    - The Minister sets a TACC of 350 t for CRA 5.

- CRA 8 –
    - Before significant changes to the CPUE index and Management Procedure can be accepted there must be a clear explanation to the Minister and stakeholders of the scientific basis for and implications of the change.
    - The Minister sets a TAC of 1065 t for CRA 8
    - The Minister sets aside 30 t to allow for Maori customary interests in CRA 8.
    - The Minister sets aside 33 t to allow for recreational fishing interests and section 111 take in CRA 8.
    - The Minister sets aside 40 t to allow for fishing related mortality in CRA 8.
    - The Minister retains the current TACC of 962 t in CRA 8.

- CRA 9 –
    - The Minister sets a TAC of 101 t for CRA 9
    - The Minister sets aside 20 t to allow for Maori customary interests in CRA 9.
    - The Minister sets aside 30 t to allow for recreational fishing interests in CRA 9.
    - The Minister sets aside 5 t to allow for fishing related mortality in CRA 9.
    - The Minister retains the current TACC of 46 t in CRA 9.

3. NZ SPORT FISHING COUNCIL - LEGASEA

1. The New Zealand Sport Fishing Council and our public outreach LegaSea, (the submitters) appreciate the opportunity to submit feedback on the *Discussion Paper No: 2016/05 Review of Rock Lobster Sustainability Measures for 1 April 2016*. The Ministry for Primary Industries (MPI) released their proposals on 14 January 2016, with submissions due by 11 February 2016.

2. The submitters object to the Ministry's tight consultation timetable giving only 18 working days to respond to the complex sustainability measures for selected crayfish stocks. It is unreasonable to expect non-commercial entities to respond with adequate information to inform the Minister's decision, as required by ss 12 and 13 of the Fisheries Act 1996 (the Act).

3. The New Zealand Sport Fishing Council is a National Sports Organisation with over 32,000 affiliated members from 57 clubs nationwide and a growing number of contributing supporters to LegaSea. 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 Dave Lockwood, secretary@nzsportfishing.org.nz.

4. Rock lobster abundance is important for maintaining a diverse ecosystem, providing for the social, economic and cultural wellbeing of our people, and be sustainable to meet the reasonably foreseeable needs of future generations, as per section 8(2)(a & b) of the Act.

5. The submitters are committed to ensuring that sustainability measures and management controls are designed and implemented to achieve the purpose and principles of the Act. A precautionary approach needs to be taken in this highly valued fishery, which is managed using uncertain and incomplete information.

6. The New Zealand Sport Fishing Council is concerned that our members, LegaSea supporters and others nationwide are becoming disillusioned with Management Procedures, which in many areas sustain the current level of depletion of our taonga [treasure], our crayfish.

4. EXECUTIVE SUMMARY

7. In 1992 the National Rock Lobster Management Group (NRLMG) was established as a statutory body with representatives from major stakeholder groups to provide advice to the Minister on managing the rock lobster fisheries.

8. In our view it is time to review the NRLMG membership and process. A number of members have been there a long time and developed entrenched positions. It is not clear to us who the recreational representatives are representing as the New Zealand Recreational Fishing Council is no longer a functioning entity.

9. The New Zealand Sport Fishing Council (NZSFC) has raised concerns about the assumptions and risks of CPUE-based Management Procedures in previous submissions and these latest proposals just reinforce our concerns regarding the universal application of this strategy. http://goo.gl/R4j73C

10. In 2015, the CRA 2 standardised CPUE (which includes the weight of any legal fish returned to the sea) was just 0.2991 kg/potlift. If any stock qualifies for an early review of the Management Procedure in 2016-17 it must be the one in the most trouble – CRA 2.

11. The submitters support the conservative approach taken by the CRA 4 Rock Lobster Industry Association in asking for 26 tonnes in additional reductions to the Total Allowable Commercial Catch (TACC) in 2016. We are not convinced that commercial Catch Per Unit of Effort (CPUE) tells the whole story regarding trends in stock abundance in CRA 4.

12. The new stock assessment for CRA 5 estimates that in 2015 the spawning stock biomass (mature females) was 78 to 97% of the unfished level. It seems that this highly optimistic outcome is a result of changing the way CPUE is calculated to include the weight of legal rock lobster that are returned to the sea. The rationale and implications of this significant change to the index of abundance in CRA 5 must be properly documented before it can be accepted.

13. The submitters support an increase in the allowance for recreational fishing interests to 80 tonnes, but not the reduction of the allowance for all other mortality to the stock caused by fishing from 37 tonnes to 30 t. The corresponding TAC would be 507 tonnes.

14. The submitters do not support Telson clipping for recreational catch as a means of addressing illegal harvest, however, the Council has used its public media channels to urge the public not to purchase from black market sources and would support further work in this area.

15. There is another new stock assessment with a significant change to the way CRA 8 CPUE index is calculated. This change in approach is directly opposite to the proposed change in CRA 5 as it excludes legal rock lobster recorded by fishers that are returned to the sea. The scientific rationale and implications of the change must be explained before changes can be accepted. The submitters do not support the proposed reduction in allowance for all other mortality to the stock caused by fishing from 28 to 5 tonnes in CRA 8, New Zealand's largest commercial rock lobster fishery.

16. CRA 9 is another fishery where commercial CPUE is not a reliable indicator of relative stock size, but the decline in catch rates are of concern and the submitters support the return of the TACC to 46 tonnes.

17. We submit the Rock lobster Management Procedures are unravelling. Lauded as providing a well tested means of providing for utilisation while ensuring sustainability and certainty for fishers in five-year periods, this year there is no consistency. Commercial fishers want to override the Management Procedures to have larger TACC cuts (CRA 4) or no reduction in TACC (CRA 9), they want CPUE to include discarded crayfish (CRA 5) or without discarded crayfish (CRA 8) and want their Management Procedure to be changed before 5 years is up to minimise changes to the TACC (CRA 5) or allow earlier increases to the TACC (CRA 8).

5. ROCK LOBSTER MANAGEMENT

5.1. NRLMG advice

18. In 1992 the National Rock Lobster Management Group (NRLMG) was established as a statutory body to provide advice to the Minister on managing the rock lobster fisheries. It is advertised as a multi-stakeholder group comprising representatives of customary, recreational and commercial fishing interests, and the Ministry for Primary Industries (MPI). In reality, sector representatives are limited to Te Ohu Kaimoana (TOKM), NZ Rock Lobster Industry Council (NZ RLIC), past members of the now defunct New Zealand Recreational Fishing Council (NZRFC) and the Environment and Conservation Organisations of Aotearoa New Zealand (ECO).

19. In 2001 it was agreed by the Minister and the NRLMG that the group would "provide well informed, credible, and consistent research and management information and advice to sector groups, Government agencies, and Ministers[1]". The NRLMG must be held accountable to all stakeholders for achieving this unfulfilled commitment.

20. In our view it is time to review the NRLMG membership and process. A number of members have been there a long time and developed entrenched positions. It is not clear to us who the recreational representatives are representing as the NZRFC is no longer a functioning entity.

21. The Management Procedures, which the NRLMG have staunchly defended and relied on, seem to be unravelling with the CRA5 and CRA8 Procedures being reviewed before they expired due to pressure from commercial fishers. In both cases the old CPUE indices, which were previously "considered to be a reliable indicator of relative stock size in rock lobster fisheries", are discarded. In CRA4 commercial fishers are promoting a TACC reduction more than double what the Management Procedure produces, and in CRA9 NRLMG consider the CPUE and Management Procedure as unreliable, proposing it can be ignored this year.

22. Changes to Management Procedures are a significant step that needs careful consideration by managers and stakeholders. Once adopted it may not be reviewed for the next five years. There is limited supporting information available in the Discussion Paper and Plenary Report, and an impossibly short consultation period to fully understand the changes made and communicate these to interested members and supporters.

23. We have raised concerns about problems with CPUE-based Management Procedures in previous submissions and these latest proposals just reinforce our concerns regarding the universal application of this strategy. http://goo.gl/R4j73C

5.2. CPUE as a proxy for abundance

24. Assuming that commercial Catch Per Unit of Effort (CPUE) is proportional to abundance comes with many risks. CPUE is the term for kilo caught or harvested per potlift. Commercial CPUE is often affected by operational changes, discard rates and market demands, but there is no consistent way that these changes are recorded or taken into account.

25. The practice of high grading and returning the less profitable grades to the sea has become widespread. This is allowed under Schedule 6 of the Fisheries Act, but released legal fish are included in the CPUE in some areas and not others. Fisher estimates of the weight of those released crayfish have a significant influence on CPUE in some areas.

[1] NRLMG 2003 Annual Report.

26. The use of holding pots also complicates the recording of retained catch, which has to be estimated by the fisher each day. At the peak of the season some fishers work a lot of pots or work further afield. Is the fishing effort of a pot lifted every day the same as a pot lifted every 2 or 3 days? No account seems to be taken of these operational changes when assuming that standardised CPUE is proportional to abundance.

27. Another critical assumption is that commercial fishing effort effectively samples the vulnerable biomass. The submitters reject the assumption that CPUE gives an unbiased sample of population abundance, primarily on the grounds that rock lobster have always suffered serial depletion, as the stock is fished down effort is redeployed to pockets of remaining adult stock, as has happened in CRA 2.

28. The rock lobster population is fished at different rates across its range. Areas close to home are often the first to be depleted. As catch rates diminish pots are moved to grounds holding a less heavily fished population, where abundance is greater. When that area is exhausted another move is made, allowing stocks to be serially depleted without any apparent decline in CPUE to highlight changes in stock size.

29. Without knowing what effort is applied to the same area, in the same way, and the catch composition, the changes in raw CPUE data becomes non-attributable.

30. In future, some form of electronic logging of location and catch by potlift would show the extent of shifting effort.

5.3. Application of Management Procedures

31. Management Procedures are a mechanism used to guide catch limit decisions in most rock lobster fisheries. Management Procedures are driven by the annual standardised CPUE from the previous year.

32. Setting and altering the Total Allowable Catches (TACs) based on un-validated fisher-recorded catch, including legal crayfish returned to the sea and number of potlifts, requires a good deal of faith to overcome the possibility that fishers can ignore the high incentive to change their operation to ensure stable or increasing CPUE.

33. For example, a Management Procedure has applied in the CRA2 stock (Hauraki Gulf to East Cape) since 2014. The decision rule was not triggered this year even though CPUE has declined to 0.3kg per potlift. It is reported that CPUE in the northern part of CRA2 is well below 0.25kg/potlift, but because the management area is so large CPUE can be averaged out over the whole area. Managing at a smaller scale would demonstrate the reality of declining abundance in the Hauraki Gulf to Bay of Plenty regions.

34. Fishers have ready access to better boats, better haulers, and pots. Electronic aids such as sounders, sonar, GPS and bottom mapping software are now available. A potlift in 2015 is not directly comparable to a potlift 10, 20 or 35 years ago.

35. The basic understanding of rock lobster settlement, recruitment, growth, migration, natural mortality, and natural variances are mostly missing. A few small pieces have been studied, but the knowledge base is dominated by the unknown, and this alone reinforces the need for the Minister to act in a lawful, precautionary manner when managing rock lobster fisheries.

36. To better understand how the stock is affected by fishing it is critical that we know the numbers of each cohort being taken in commercial crayfish pots. This data is important if we are to have any understanding of population changes and exploitation rate, particularly when no reliable index of rock lobster settlement and recruitment exists.

5.4. MLS and size concessions

37. Tracking changes in the age/size composition of the harvest is essential if the effects of a Minimum Legal Size (MLS) concession are to be understood.

38. Concessions enabling commercial fishers to take rock lobster below the MLS, at 52mm and 53mm, apply in CRA 3 (Gisborne), CRA 7 (Otago) and CRA 8 (Southland).

39. Moreover, we are seriously concerned that commercial fishers, in CRA 3 in particular, are reliant on concession fish. At earlier CRA 3 regional meetings fisheries managers advised that concession fish were estimated to be between 60 and 70% of landed catch.

40. The Minister must insist that information is made available on where, when, and how many concession fish are being harvested. This information is critical to determining whether it is the abundance of these small fish that are skewing the CPUE results. Having validated this information the Minister will then be empowered to make a more informed TAC decision.

41. Without this information we can only guess at the proportion of how many rock lobster below the MLS are contributing to the CPUE.

42. In 2013, 2014 and 2015 the NZSFC requested the following information. We received no response. We repeat our questions with the expectation of receiving answers this year –
    a. What percentage of fish below the national MLS are landed, per stock?
    b. Where and when fish below the national MLS are being harvested, per stock?
    c. What proportion of legal rock lobster catch is returned to the sea?
    d. What is the trend in high grading over time in each rock lobster fishery?

    Management without this supporting information means there is no ability to cross-check the changes observed in CPUE. Validation of such important information enables credible management.

43. Crayfish have very high social, economic and cultural value and it is important for the Minister to insist he receives full and balanced advice, and MPI must provide the Minister with the best information – not just an all-powerful point estimate of standardised average CPUE.

5.6. Recreational catch by commercial fishers

44. There is a high level of catch classed as "recreational" taken by commercial under s111 of the Fisheries Act 1996. This catch is taken during normal commercial fishing and needs to be added on to harvest estimates from recreational fishing surveys.

Table 1. The proportion of the recreational allowance taken from commercial fishing operations in 2014-15.

Stock	S111 catch (t) 2014-15	Recreational allowance (t) 2014-15	% of recreational allowance
CRA 4	5.18	85	6.1
CRA 5	6.12	40	15.3
CRA 8	13.85	33	42.0
CRA 9	3.75	30	12.5

6. ROCK LOBSTER PROPOSALS

6.1. Crayfish 4 (CRA 4) Wellington/Hawkes Bay

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA4_01: Use the current CRA 4 management procedure and decrease the TAC by decreasing the TACC by 4.5 %	641 t ↓	35 t	85 t	75 t	446 t ↓
CRA4_02: Decrease the CRA 4 TAC by decreasing the TACC by 10% (industry proposal subject to endorsement from CRA 4 quota share owners)	615 t ↓	35 t	85 t	75 t	420 t ↓
CRA4_03: Retain the current CRA 4 TAC, allowances and TACC	662 t	35 t	85 t	75 t	467 t

Table 2: Summary of Total Allowable Catch, allowances and Total Allowable Commercial Catch proposals for CRA 4.

Points to note

- Commercial catch rates have dropped about 25% since the stock assessment in 2011. From 1.194 kg per potlift to 0.88 kg per potlift in 2015.
- The Working Group consider that the CRA 4 stock remains above Bmsy and the reference biomass.
- Under the CRA 4 Management Procedure the TACC would be decreased 21 tonnes (4.5%) to 446 t.
- The CRA 4 Rock Lobster Industry Association (CRAMAC 4) consider that the 21 t decrease does not go far enough to ensure the stock is maintained above agreed reference levels. They propose a 47 tonnes (10%) decrease to the TACC.
- The estimated recreational harvest in CRA 4 was 44 tonnes in the 2011–12 National Panel Survey.
- Allowances for recreational and customary catch and other mortality will remain the same.
- A new stock assessment and Management Procedure will be developed in 2016 for consideration next year.

CRA 4 management options

45. NZSFC supports the conservative approach taken by the CRA 4 Rock Lobster Industry Association. The Management Procedure is a guide and we are not convinced that commercial CPUE tells the whole story regarding trends in stock abundance in most CRA areas.

46. The summer recreational fishery for cray in CRA4 has been adversely affected by easterly winds and periodic heavy swells. Recreational harvest will be down on previous years.

Recommendations for CRA 4:

- The Minister sets a TAC of 615 t for CRA 4.
- The allowances for recreational and customary fishing interests remain unchanged.
- The allowances for other sources of fishing mortality remain unchanged.
- The Minister reduces the TACC to 420 t in CRA 4.

6.2. Crayfish 5 (CRA 5) Canterbury – Marlborough

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA5_01: Use the new CRA 5 management procedure and set the following TAC and allowances, while retaining the TACC	507 t ↑	40 t	87 t ↑	30 t ↓	350 t
CRA5_02: Use the current CRA 5 management procedure and retain the TAC, allowances and TACC	467 t	40 t	40 t	37 t	350 t

Table 3: Summary of Total Allowable Catch, allowances and Total Allowable Commercial Catch proposals for CRA 5.

Points to note

- There is a new stock assessment for CRA 5. It estimates that in 2015 the spawning stock biomass (mature females) was 78 to 97% of the unfished level. Total biomass in 2015 was about 67% of the unfished level. We find these estimates implausibly high relative to virgin biomass in the area 150 years ago.
- Projections using 2014 catch levels and recent recruitments estimate that stock biomass will decline in the next four years by 8 to 10%.
- Feedback from a multi-sector meeting in Blenheim in August 2015 identified common goals that goals to:
    - Maintaining good levels of abundance for all sectors levels of abundance, which is a stock size well above Bmsy;
    - Ensuring sustainability and availability of rock lobsters for all sectors.
- The main difference between the new and current CRA 5 management procedures is in the length of the "plateau". Under the new procedure the TACC is 350 tonnes between CPUEs of 1.2 and 2.2 kg/potlift, whereas under the current procedure the TACC is 350 tonnes between CPUEs of 1.4 and 2.0 kg/potlift.
- It is proposed that the 40 tonne recreational allowance for CRA 5 is increased to 87 tonnes to reflect new survey information that suggests recreational harvest is more than what has been allowed for in the past.
- In addition, the NRLMG is proposing that additional recreational regulatory measures be consulted upon in different process for implementation in October 2016 to support the ongoing sustainable utilisation of this fishery. These additional measures include the introduction of 'telson clipping' and an accumulation limit of 18 rock lobsters (3 daily bag limits) for recreational fishers.
- Frequent monitoring of recreational rock lobster harvest through MPI approved survey methodologies is also proposed.
- The National Panel Survey estimate recreational harvest in CRA 5 at 43 tonnes, however a separate boat ramp survey just in the Motunau and Kaikoura area estimated harvest at 54 tonnes in 2012–13.
- It is proposed that the 37 t allowance for other sources of fishing-related is decreased to 30 t.

Catch Per Unit of Effort (CPUE)

47. There has been a significant change in the way the CPUE is calculated to produce the offset year index of abundance used in the new stock assessment model and new Management Procedure. This change converts the low 2013-14 CPUE of 1.355 kg per potlift, which could have triggered a TACC reduction last year if the current Management Procedure had been applied, in to a much higher value.

48. The new procedure (called F2_LFX) includes the weight of legal rock lobster returned to the sea. There is no explanation of the effect of the change on the stock assessment or trend in CPUE just a footnote in the Discussion Document (copied below)

[10] The "F2_LFX" procedure for preparing data for CPUE standardisation is designed to better represent the estimation/landing process than a previous procedure and adjusts for change in data reporting practices.

There is no reference to the change in CPUE or the rationale for the change in the November 2015 Plenary Report which shows the application of the current Management Procedure (Figure 1a) but then includes the F2_LFX CPUE index in the status of the stock summary. Only information presented in the body of the Plenary Report can be used in the summary table.

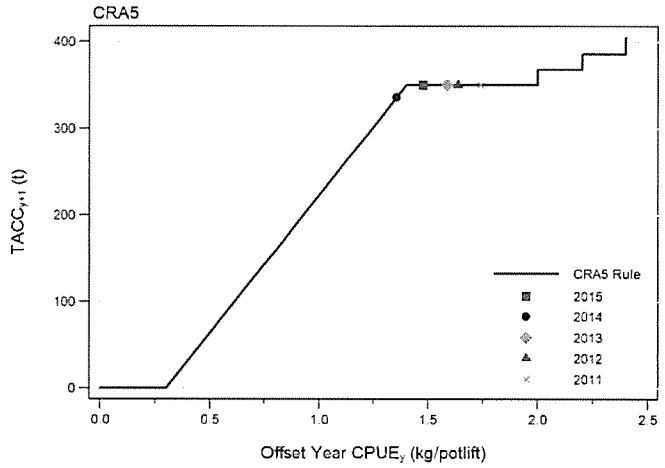


Figure 1a. The current CRA5 Management Procedure with the 2015 CPUE of 1.478 kg/potlift (red square) calculated using landings only (BL4 method)

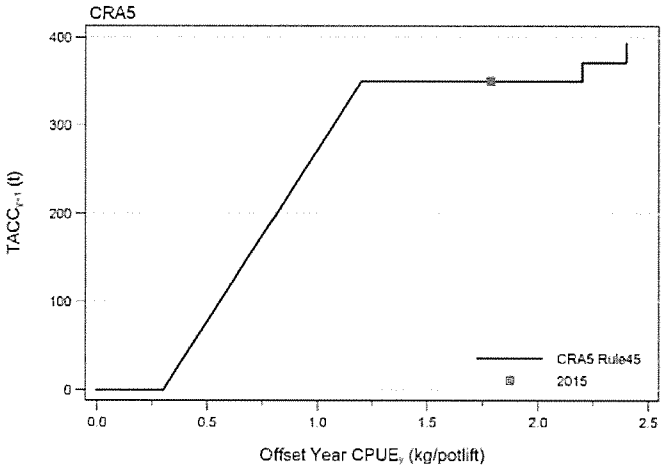


Figure 1b. The proposed CRA5 Management Procedure with the 2015 CPUE of 1.789 kg/potlift (red square) calculated using landings and discarded legal catch (F2_LFX method)

49. So in 2015 the standardised offset year CPUE increases by 21% if legal discards are included. Data collected on the same forms will also increase and should show the same relative trends year on year. But for many years legal discards were not reported so how has the relative shift between form types been allowed for? If no correction was made then the assumption is there were no discards of legal crays due to market forces or fisher preference prior to the change in forms. There needs to be supporting documentation available to show what has been assumed and why, because it will make a significant difference to the recent trend in CPUE.
50. NZSFC has been highlighting the fact that reporting behaviour has a significant effect on CPUE and here is a clear example that the assumptions made will give two different answers.
51. The NRLMG considers that catch rates are a reliable indicator of relative stock size. If the reliable indicator is going to be changed significantly then there must be a clear explanation to the Minister and stakeholders of the rationale and implications before it can be accepted.

52. Clearly when viewed together the difference between the BL_4 and F2_LFX CPUE for CRA 5 is significant. The shape and values below 1 kg per potlift are very similar in both plots but the trend since 2000 is much more positive in the proposed F2_LFX data.

53. The BL_4 value in 2014 indicates a stock size about twice what it was in 1980. The F2_LFX CPUE in 2014 is above estimates for all the years prior to 2009 and indicates a stock size nearly three times what it was in 1980.

54. Given the huge implications of the change in CPUE index it is astounding that the Plenary Report still lists the major source of uncertainty in the assessment as the levels of non-commercial catch!

Figure 8.1: The history of CPUE in CRA 5, 1980 – 2014 (offset years).

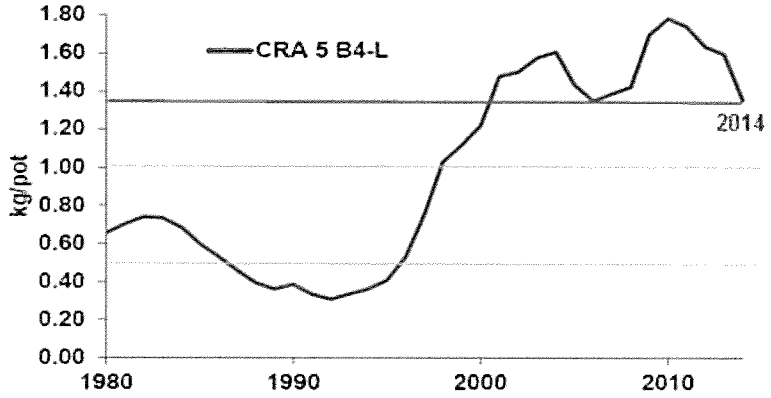


Figure 7.1: The history of CPUE in CRA 5, 1980 – 2015 (offset years) (based on the procedure for preparing data for CPUE standardisation called "F2_LFX"[10])

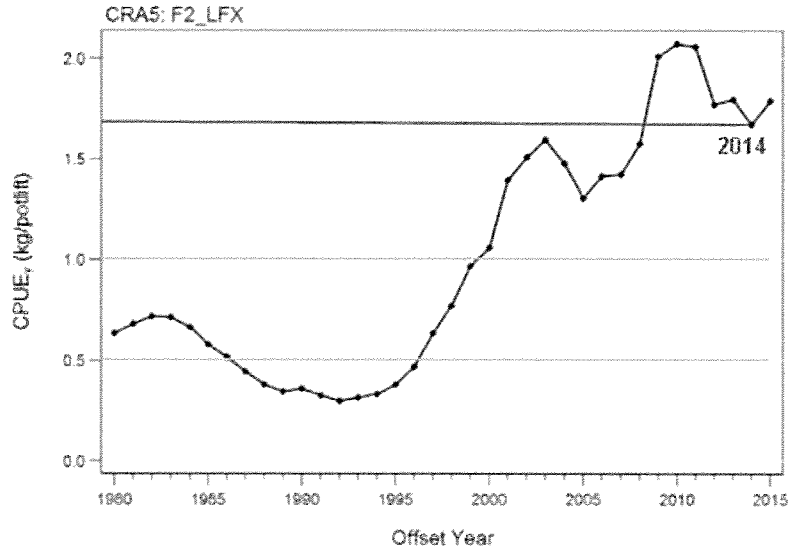


Figure 2. Copies of figure 8.1 from the 2015 Discussion Document and Figure 7.1 from the 2015 Discussion Document.

CRA 5 management options

55. The new stock assessment model suggests that CRA 5 is well above the reference biomass. It seems that the commercial fishers and stakeholders don't believe the model either, as they have not asked for an increase in catch and in fact extended the plateau in the proposed Management Procedure.

56. The optimistic assessment does make it relatively easy to increase the recreational allowance and increase the TAC. Recreational catch was high, especially in the Kaikoura area during the harvest survey in 2012-13. Recreational fishers report that catch rates have declined since then.

57. The NZSFC is opposed to telson clipping for recreational fishers. It will create a compliance problem for genuine recreational fishers and fisheries officers while having little effect on large scale poachers. If illegal harvest is the problem then any measures need to be directed towards that activity and rock lobster sales. NZSFC has used its public media channels to urge the public not to purchase from black market sources and we would support further work in this area.

58. There is a recreational paua harvest survey underway in the Kaikoura area and some data on rock lobster could be generated. NIWA also have boat ramp interviewers on the main access points in Marlborough Sounds and Tasman Bay. While these surveys are not intended to generate rock lobster harvest estimates they will provide some new data on catch rates and intercept rates with potters and divers for cray. Any new survey of recreational harvest needs to wait until these data are available.

59. NZSFC has seen no evidence that the F2_LFX is providing a reliable index of abundance, and the 2015 stock assessment based on this index is implausible. The NZSFC considers the proposed Management Procedure will only lock in the status quo TACC for the foreseeable future.

60. Abundance has been reasonable in parts of CRA 5, and although recent recruitment has been poor, a TACC of 350 t, a recreational allowance of 80 t and TAC of 500 t seems reasonable.

Recommendations for CRA 5:

- Before significant changes to the CPUE index can be accepted there must be a clear explanation to the Minister and stakeholders of the rationale and implications.
- The Minister sets a TAC of 507 t for CRA 5.
- The Minister makes an allowance of 80 t for recreational interests in CRA 5.
- The Minister makes an allowance of 40 t for customary fishing interests in CRA 5
- The Minister makes an allowance of 37 t for other sources of fishing mortality in CRA 5.
- The Minister sets a TACC of 350 t for CRA 5.

6.3. Crayfish 8 (CRA8) Southern South Island

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA8_01: Use the new CRA 8 management procedure and set the following TAC and allowances, while retaining the TACC	1030 t ↓	30 t	33 t	5 t ↓	962 t
CRA8_02: Use the current CRA 8 management procedure and retain the TAC, allowances and TACC	1053 t	30 t	33 t	28 t	962 t

Table 4: Summary of Total Allowable Catch, allowances and Total Allowable Commercial Catch proposals for CRA8.

Points to note

- There is a new stock assessment for CRA 8. It estimates that in 2015 the spawning stock biomass was 44% of the unfished level. Total biomass in 2015 was about 27% of the unfished level
- With 2014 catch levels, stock biomass is projected to remain near its current level.
- The NRLMG propose a unique way of calculating commercial CPUE in CRA 8. This will not count the estimated weight of cray returned to the sea, which can be "*about 40% by weight of legal rock lobsters brought on board. The CRA 8 industry considered it unrealistic to drive a management procedure with the* (F2_LFX) *CPUE based on all rock lobsters brought on board when only a part of the catch is retained.*" This proposed CPUE is called "money-fish CPUE", "$CPUE".
- In 2013 the Minister agreed to use the current CRA 8 Management Procedure to guide TAC setting in the CRA 8 fishery until the 2018-19 fishing year. The stock assessment and Management Procedure evaluations for the CRA 8 fishery were brought forward by two years based on a request from the CRA 8 rock lobster industry to explore greater utilisation opportunities.
- Under the proposed or old Management Procedure the TACC will stay at 962 tonnes. The money-fish CPUE for 2015 is 3.06 kg per pot lift while the CPUE with released cray for 2015 is 3.3 kg per pot lift, just a 7% difference.
- What the new Management Procedure does is reduce the CPUE increase required to generate a TACC increase.
- It is proposed that the 28 tonne allowance for other sources of fishing-related mortality is decreased to 5 tonne.

Catch Per Unit of Effort (CPUE)

61. The NRLMG considers that catch rates are a reliable indicator of relative stock size yet it is able to change, at whim, the CRA 8 CPUE index used based on commercial fishers preference. This change in approach is directly opposite to the proposed change in CRA 5. The scientific rationale and implications of the change must be explained before changes can be accepted.

62. CRA 8 has been a consistently good performing fishery over the last 10 years. Even though CPUE is the highest in the country (3.3 kg per potlift using F2_LFX) the CRA 8 stock has a low biomass relative to Bzero. Total biomass is estimated to be 27% of the unfished level in 2015.

63. The NRLMG has previously noted that CPUE is not independent of the TACC. If there is a 60 t increase in the TACC then the money fish kept per pot lift could increase even if the stock was stable or declining. In this fishery commercial fishers have the most to lose if the stock size starts to decline. There was a long period when standardised CPUE in CRA 8 was below 1 kg per potlift without a precautionary approach to management it could happen again.

64. The 2016 Discussion Document describes the new Management Procedure (Appendix 5). It appears that CPUE would have to reach about 1.6 kg per potlift to exceed the 5% minimum change threshold before and TACC change would occur (Figure 3). By then, we submit, it could be too late.

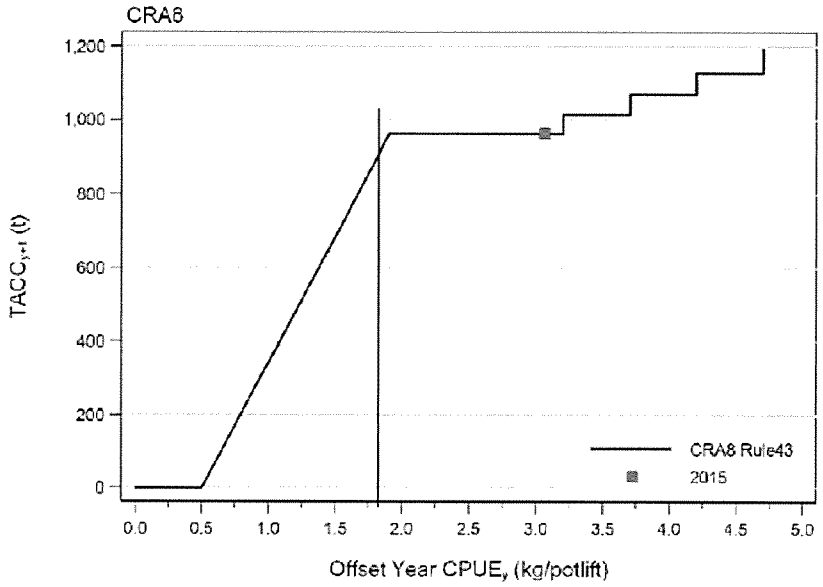


Figure 3. The proposed new Management Procedure for CRA 8 using the new money fish CPUE.

CRA 8 management options

65. The NRLMG propose to discard the 5 year review period use a unique CPUE method based on money fish and introduce a new Management Procedure to explore greater utilisation opportunities.

66. The CRA 8 may be resilient to these changes but it does highlight for the NZSFC the inconsistency in approach across stocks by the NRLMG.

67. Another example is the puzzling proposal to reduce the allowance for "*All other mortality to that stock caused by fishing*" (s. 21 Fisheries Act 1996) from 28 t to 5 t. The Act does not allow NRLMG to decide that this allowance only covers illegal catch only and not to allow for the mortality associated with discarded legal fish, cray trapped in lost pots, predation of cray in the pot or holding pot etc. In the CRA 8 stock assessment model there is a 10% allowance for discard mortality. That assumption should apply in all CRA fisheries and must be included in the allowance.

68. The NLMG state that the estimated weight of cray returned to the sea can be "*about 40% by weight of legal rock lobsters brought on board.* Therefore the allowance for discard mortality should be 4% of the landed catch, about 38 t.

Recommendations for CRA 8:

- The Minister sets a TAC of 1065 t for CRA 8
- The Minister sets aside 30 t to allow for Maori customary interests in CRA 8.
- The Minister sets aside 33 t to allow for recreational fishing interests and section 111 take in CRA 8.
- The Minister sets aside 40 t to allow for illegal harvest in CRA 8.
- The Minister retains the current TACC of 962 t in CRA 8.

6.4. Crayfish 9 (CRA 9) Kaipara Harbour – Westland

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA9_01: Use the current CRA 9 management procedure and decrease the TAC and TACC	101 t ↓	20 t	30 t	5 t	46 t ↓
CRA9_02: Retain the current CRA 9 TAC, allowances and TACC	115.8 t	20 t	30 t	5 t	60.8 t

Table 5: Summary of Total Allowable Catch, allowances and Total Allowable Commercial Catch proposals for CRA9.

Points to note

- CRA 9 covers a large area of exposed west coast in the North and South Islands. Commercial effort is not high and weather conditions and access to suitable rocky reef areas may affect CPUE as much, or more than, abundance. Reportedly there are a lot of large crayfish in areas such as Taranaki, good for recreational fishers, but not the preferred target size for commercial fishers.
- The current TAC in CRA 9 is 115.8 tonnes. CRA 9 is considered to be above Bmsy.
- A TACC of 47 tonnes was in place from 1992 to 2014. In 2014 the TACC was increased to 61 t, under the first year of the new Management Procedure with CPUE at an historic high, at over 3 kg per potlift.
- If the Management Procedure was followed in 2015 the TACC would have returned to 46 t. The Ministry's final advise to the Minister recommended that the TAC and remain unchanged at 115.8 tonnes and the TACC remain at 61 t.
- NRLMG note that CPUE could be affected by different catch patterns rather than changes in stock size.
- The 2015 standardised CPUE was 1.885 kg per potlift and the Management Procedure would again drop the TACC by 25%, from 61 to 46 t.
- The current recreational allowance is 30 t, customary allowance 20 t and other mortality 5 t. There is little information in the Discussion Document on the rationale used when setting these allowances and no change is proposed.
- The National Panel Survey estimate for CRA 9 was 18 t in 2011-12.

Catch Per Unit of Effort (CPUE)

69. The NRLMG is not so sure that catch rates are a reliable indicator of stock size in CRA 9. Catch rates are measured by commercial F2_LFX CPUE were 1.885 kg per potlift. This is down from 2013 (3.14 kg) and from 2014 (2 kg). An audit of the CRA 9 CPUE concluded that the decline in offset year CPUE in the last two years is real. However, the figures for 2013 and 2014 above from the November 2015 plenary report do not match the CPUE trend plotted in the Discussion Document (Figure 4).

70. We re-submit that commercial CPUE is not a good measure of abundance or the risk to sustainability in this fish stock.

71. Large rock lobster caught and release are included in the standardised F2_LFX CPUE. A healthy fish stock has a reasonable number of large adult fish. Large crayfish are prime breeding stock and can play an important role in the ecosystem. It is encouraging that CRA 9 still has reasonable numbers of large crayfish.

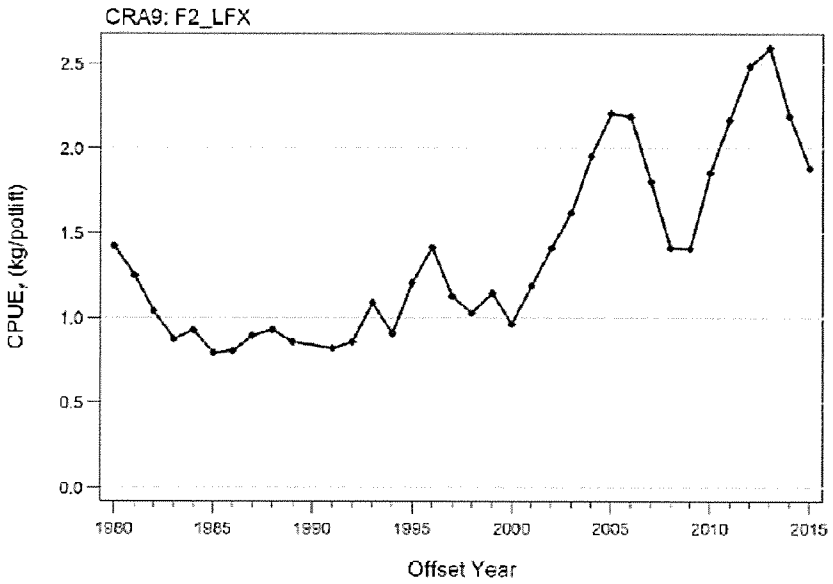


Figure 4. The history of CPUE in CRA 9, 1980 – 2015 (offset years) (based on the procedure for preparing data for CPUE standardisation called F2_LFX.

CRA 9 management options

72. The current TAC in CRA 9 is 115.8 tonnes. The NRLMG propose two options CRA9_01 and 02. CRA9_01 applies the Management Procedure to decrease the TAC and TACC. CRA9_02 retains the status quo. Neither option would change the existing allowances for non-commercial fishing and other sources of fishing related mortality.

73. Under option 01 the TAC would be decreased by 13%, from 116 to 101 t and TACC would be decreased by 24%, from 61 to 46 tonnes.

74. The NRLMG note that CRA9_01, *"will decrease the current utilisation benefit of the fishery. How the reduction is shared amongst the fishery sectors will depend on allocation decisions"*. Another interesting comment.

75. We submit that commercial interests reaped all the benefits from the TAC and TACC increase in 2014 and the retention of the higher TACC in 2015. Given that the fishery requires catch reductions those reductions must be attributed to the commercial sector.

76. We submit these Rock lobster Management Procedures are unravelling. Lauded as providing a well tested means of providing for utilisation while ensuring sustainability and certainty for fishers in five-year periods, this year there is no consistency. Commercial fishers want to override the Management Procedures to have larger TACC cuts (CRA 4) or no reduction in TACC (CRA 9), they want CPUE to include discarded crayfish (CRA 5) or without discarded crayfish (CRA 8) and want their Management Procedure to be change before 5 years is up to minimise changes to the TACC (CRA 5) or allow earlier increases to the TACC (CRA 8).

Recommendations for CRA 9:

- The Minister sets a TAC of 101 t for CRA 9
- The Minister sets aside 20 t to allow for Maori customary interests in CRA 9.
- The Minister sets aside 30 t to allow for recreational fishing interests in CRA 9.
- The Minister sets aside 5 t to allow for illegal harvest in CRA 9.
- The Minister retains the current TACC of 46 t in CRA 9.

7. PREVIOUS NZSFC SUBMISSIONS

2015 – Submission on the review of Rock Lobster sustainably measures for 1 April 2015.

2014 – Submission on the review of Rock Lobster sustainability measures for 1 April 2014.

2013 – Submission on the review of Rock Lobster sustainability measures for 1 April 2013.

2012 – Submission on the review of Rock Lobster regulatory controls.

2012 – Submission on the review of Rock Lobster sustainability measures for 1 April 2012.

2011 – Submission on the review of Rock Lobster commercial Concession Area Regulations

2011 – Submission on the review of Rock Lobster sustainability measures for 1 April 2011

2010 – Submission on the review of sustainability measures for CRA 3 & 4 for 1 April 2010.

2010 – NZSFC Zone 5 clubs submission on the review of CRA sustainability measures for 1 April 2010.

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12 February 2016

Inshore Fisheries Management
Ministry for Primary Industries
FMsubmissions@mpi.govt.nz

Tēnā koe,

Submission to the National Rock Lobster Management Group's review of Rock Lobster sustainability measure for 1 April 2016.

This submission is from Te Atiawa (Taranaki) Holdings Limited (THL). THL is a subsidiary of Te Atiawa (Taranaki) Settlements Trust and is charged with the responsibility of managing THL's fisheries Treaty Settlement assets. As such, we have an interest in the proposal put forward by the NRLMG.

Summary of THL's position

THL has considered the information contained in the MPI consultation document, and supports the following options:

1. In relation to CRA9:

- Supports option CRA9-02 to retain the current TAC and allowances
- Supports a small project being carried out to assess the state of CRA9 stocks.

2. In relation to other matters:

- Final consultation period is inadequate
- Supports MPI imposing Telson Clipping on recreational fishers.

NRLMG Proposal

Review of the CRA9 (Westland/Taranaki) rock lobster fishery

There are two options proposed for the ongoing management of the CRA9 fishery; option one is based on the current management procedure (informed by CPUE) which recommends a decrease in the TACC by almost 25%; option two will see the status quo retained. These are summarised below in table 1.

Table 1 CRA9 Options

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA9_01: Decrease the TACC to 46t	101t	20t	30t	5t	46t
CRA9_02 Retain the current CRA9 TAC, allowances and TACC	105.8t	20t	30t	5t	60.8t

THL supports option CRA9_02 to retain the current TAC, allowances and TACC.

There is little to be gained by reducing the TACC as per option CRA9_01 as it effectively results in less data with which to base sustainability decisions on. The paucity of information will only further contribute to potential issues of hyper stability of CPUE and its effects on setting the TACC. THL consider that retaining the current allowances (as proposed under option CRA9_02), will mitigate issues of sensitivity of the CPUE. In addition, retaining the current TAC for one year is unlikely to pose a risk to stock sustainability in the short term.

THL, along with other NRLMG participants, also propose a scientific project being carried out to investigate productivity in CRA9 from fishing patterns, catch and effort data and area-specific length frequencies. We would support this being done in the 2016 fishing year. To this end, the NRLMG should be aware of the systems and quality of data that industry can provide. The results from this research could be used to recommend an alternative management procedure for CRA 9 for the 2017-18 fishing year onwards.

Other matters

Final consultation time is inadequate

We are extremely concerned that the Minister for MPI is diminishing the integrity of the NRLMG consultation process by constraining consultation to a short period in the New Year. The Minister is failing in his responsibilities to consult meaningfully with Iwi and the Public.

We consider that releasing the consultation documents prior to Christmas would provide more opportunity to review, discuss, and consult with relevant parties prior to responding to proposals.

Telson Clipping

THL has no objection to the introduction of Telson clipping for recreational fishers.

If you have any questions on the content of this submission, please contact Maureen Hannan (06) 759 7318.

Maureen Hannan
Executive Administrator
Te Atiawa (Taranaki) Holdings Limited

NZ ROCK LOBSTER INDUSTRY COUNCIL

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STATUTORY CONSULTATION ON 2016/17 TAC DECISIONS FOR ROCK LOBSTER FISHERIES

February 14th 2016

The NZ RLIC has canvassed all nine CRAMACs in the preparation of this submission and is confident that the majority views where expressed each carry very significant mandate from the rock lobster industry.

This NZ RLIC document incorporates two submissions from regional rock lobster industry organisations – CRAMAC 4 and CRAMAC 9. The relevant sections of this document should be read as being submissions from each of those organisations.

THE 2016/17 TAC PROPOSALS

CRA 4:

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA4_04: Use the current CRA 4 management procedure and decrease the TAC by decreasing the TACC by 15 %	592 t ↓	35 t	85 t	75 t	397 t ↓

1. **The NZ RLIC and CRA 4 Rock Lobster Association (CRAMAC 4) endorse a new and alternative recommendation (CRA 4_04 (a) and (b)) as follows.**

   a) Be guided by the current CRA 4 Management Procedure but implement a more conservative approach to TAC setting by reducing the TACC by 15% and making no changes to existing non-commercial allowances.

b) Implement a seasonal non-commercial landings monitoring programme to ensure that the new CRA 4 TAC is not exceeded.

2. The November 2015 CRAMAC 4 Annual General Meeting spent considerable time in discussion about the outcome of the CRA 4 Management Procedure and the status of the stock as observed by fishermen in the current season from 01 April 2015. The Management Procedure had been operated and had invoked a 4.6% TACC reduction. The issue for the AGM was that once again the fishery seemed to be drifting into a period of decline. The concern expressed was that CRA 4 stock abundance has previously been seen to decline rapidly unless corrective action is promptly taken.

3. The consensus of the AGM attendees was that a 4.6% TACC reduction invoked by the CRA 4 Management Procedure was not sufficient to halt and possibly reverse the observed decline in abundance.

4. A situation report was posted to all CRA 4 Quota Share and ACE owners in December 2015. That report explained several factors likely relevant to observed stock status, noting significant habitat damage, loss of fishing grounds and a prolonged period of average to less than average puerulus settlement observed at collector sites at Castlepoint and Napier.

5. The CRAMAC 4 Executive Committee then completed a review of all the available CRA 4 catch and landing data to the end of December 2015. The Committee also surveyed major LFRs and asked for an estimate of the quantity of CRA 4 ACE they believed might remain uncaught at the end of the current season.

6. The situation as at January 26th was that the CRA 4 landings to the end of December 2015 were confirmed by FishServe to be 49 tonnes down on the same period for the previous season. That shortfall was driven primarily by the relatively poor performance of the AW 2015 (April to October) fishery in most areas.

7. The 49 tonnes shortfall was the starting point used by the Committee when considering their recommended TACC reduction. That equated to roughly 10% of the TACC.

8. The Committee agreed a risk that January, February and March 2016 landings may not track similar to the same months in 2015. That was something that was clearly on the minds of the LFRs who supplied information to the Committee. Their projections were that there will be 62 tonnes of ACE uncaught when the season ends. This was inclusive of the 49 tonnes noted above. That 62 tonnes equates to approximately 13.3% of the current TACC.

9. A principal reason for considering the scale of a TACC reduction is to set a TACC which at very least arrests any further stock decline and at best reverses it. If the current TACC was reduced by 13.3% the Committee was unanimously of the view that the CRA 4 industry would be just getting back to 'ground zero' and not imposing a meaningful catch reduction.

10. If on the other hand, the Committee started thinking in terms of a far more significant catch reduction they ran the risk of failing to obtain the required CRA 4 quota share owner (QSO) mandate and the default position would then become the TACC reduction generated by the operation of the

CRA 4 Management Procedure – 4.6%. And the Committee unanimously agrees that to be meaningless in the current circumstances.

11. A 15% TACC reduction would be meaningful. The 15% is higher than the predicted shortfall in landings against available ACE for the current season. It has potential to leave some fish in the water next season – admittedly not a huge amount but a catch saving of some magnitude.

12. A 15% TACC reduction should put the CRA 4 fishery into a 'holding pattern' for the 2016/17 season during which two very important things are scheduled to happen. First a new CRA 4 stock assessment will be done commencing July. Second a new CRA 4 Management Procedure will be developed before November 2016 and will be used to guide TAC/TACC setting from April 2017. The CRA 4 stakeholder representatives will have every opportunity to guide the design of a new Procedure.

13. If stock abundance does not improve during 2016 the recommended 15% TACC reduction may also 'cushion' the CRA 4 industry against an even greater 2017/18 TACC cut that would likely be generated by the operation of a new Management Procedure in November this year. As noted above, the Committee is extremely mindful of how rapidly the stock declined in the mid-2000s necessitating two voluntary catch reductions of 40% and 60% of the TACC respectively

14. Industry contends that every effort needs to be made to ensure that any 'catch savings' initiated by a 15% TACC reduction will accrue to the standing stock and not become a re-allocation across to non-commercial extractive users and fish thieves. There is an inherent obligation on the NRLMG to ensure that all TACs have integrity so that statutory obligations can be met and industry will be looking for that responsibility and accountability to be emphasized strongly in final advice to the Minister.

15. The CRA 4 Rock Lobster Association conducted a ballot of all CRA 4 quota share owners. Consistent with the rules of Association, the final decision was decided on the basis of quota shares owned. If greater than 75% of quota shares owned vote in support of the recommended 15% TACC reduction, then the Association could confirm that new option to the NRLMG and to the Minister.

16. The ballot response was overwhelmingly in favour of a 15% TACC reduction. More than 84% of all CRA 4 quota shares owned support that option. The CRAMAC Committee is expecting late voters to increase the mandate. Only 2.2% have opposed.

CRA 5:

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA5_01: Use the new CRA 5 management procedure and set the following TAC and allowances, while retaining the TACC	507 t ↑	40 t	87 t ↑	30 t ↓	350 t

17. The NZ RLIC endorses the CRAMAC 5 submission.

18. The CRAMAC 5 Committee supports **Option CRA5-01** to increase the TAC at 507 tonnes, retain the customary allowance at 40 tonnes, increase the recreation allowance to 87 tonnes, reduce other sources of mortality to 30 tonnes, and retain the TACC at 350 tonnes.

19. The NZ RLIC endorses that option only if the accompanying regulatory and administrative measures are to be implemented no later than October 2016. These are:

    a) Introduction of telson clipping for recreation taking of lobster across the CRA 5 region.

    b) An accumulation limit of 18 rock lobsters (3 daily bag limits) along with the daily catch bag and labelling conditions across the CRA 5 region.

    c) Ongoing surveys of charter industry and recreational fishing and diving to monitor landings against the proposed new allowance.

20. The CRAMAC 5 Committee considers that 18 lobsters in one household or location at any one time is a reasonable number of lobsters to hold/store for personal or family consumption.

21. The NZ RLIC submits that without an implicit guarantee that frequent monitoring of recreational rock lobster harvest, through MPI approved survey methodologies and properly reported amateur charter vessel information, will be carried out to determine trends in recreational harvest from the CRA 5 fishery the NRLMG should urgently consider regulatory interventions to be implemented from October 2016 which will actively constrain non-commercial removals until such time as more and better information is known.

22. The NZ RLIC notes that industry participants are still far from satisfied that sufficient is being done to audit and monitor recreational removals of rock lobsters and remains concerned that various MPI compliance and enforcement initiatives, as successful as some are, still do not produce results which justify the allowance made for illegal unreported removals.

CRA 8:

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA8_01: Use the new CRA 8 management procedure and set the following TAC and allowances, while retaining the TACC	1030 t ↓	30 t	33 t	5 t ↓	962 t

23. The NZ RLIC endorses the CRA 8 Management Committee (CRAMAC 8) submission and supports **Option CRA8_01**:

    a) Use the new management procedure;

    b) Retain the current TACC at 962 tonnes within the parameters of 1.9kgs and 3.2kgs;

c) Use the new method for calculating $CPUE that will inform the annual operation of CRA 8 Management Procedure;

d) Retain the current customary allowance at 30 tonnes;

e) Retain the current recreational allowance at 33 tonnes; and

f) Reduce the allowance for "*other sources of mortality*" to 5 tonnes.

24. Option CRA8_01 exceeds the statutory requirements to manage the fishery at or above *Bmsy* and also the agreed proxy, *Bref*

25. The NZ RLIC agrees that the ability to target commercial fishing effort at certain times of the season; and at certain grades when market prices are at their most favourable within season, is a desirable management outcome. The CRA 8 industry desire to achieve Maximum Economic Yield (MEY) is supported. In the absence of a true MEY model it is reasonable to consider the proposed management procedure as a proxy given the predicted exploitation rates and consistently high CPUE.

CRA 9:

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA9_01: Use the current CRA 9 management procedure and decrease the TAC and TACC	101 t ↓	20 t	30 t	5 t	46 t ↓

26. The NZ RLIC and CRAMAC 9 note the operation of the CRA 9 Management Procedure in 2015 and concede that CPUE has declined – in which case a TAC reduction seems appropriate. Subject to the considerations noted further on in this discussion industry feel we have no choice but to endorse CRA9_01. Although we make the point again in 2016 that the Management Procedure is to 'inform and guide' TAC setting and not a method of doing so.

27. As noted in the statutory consultation document a recent audit of the CRA 9 CPUE concluded that the recent low number of vessels and poor reporting problems have contributed to the instability of CPUE in recent years. However, the audit confirmed that the F2-LFX procedure for calculating CPUE was appropriate and that standardisation model options did not affect the CPUE results. It concluded that *the decline in offset year CPUE in the last two years is real* and that *the declining CPUE signal in the last two years is reasonably robust.*

28. However, the NZ RLIC and CRAMAC 9 struggle to see any other evidence of a stock decline in CRA 9. Commercial landings are significantly constrained by the current 60.8 tonnes TACC; the size frequency distribution of commercial catches is at odds with a lobster stock under any pressure; and the usual litmus test of stock abundance – recreational fishing satisfaction – is still extremely positive as now routinely reported in fishing media.

29. It is also our view that if CRA 9 stock abundance is deemed to have declined then the NRLMG should have paid greater attention to the burden of rebuild being shared more equitably between all extractive users. In a fishery where 55 tonnes is allowed for non-commercial removals and only 60.8 tonnes for commercial we would expect a 'shared' response to any confirmed stock decline.

30. As noted in the 2014 and 2015 NRLMG consultation documents – *"A management procedure is a kind of decision rule that is used to guide the setting of catch limits in rock lobster fisheries".* (Emphasis added). The NZ RLIC and CRAMAC 9 do not agree that *catch limits* should apply only to commercial catches.

31. It is disappointing that no relevant option was included for statutory consultation.

32. There is tacit industry support for the use of management procedures to inform and guide TAC setting, however in our view it is improbable that stock abundance in CRA 9 has declined to anywhere close to an unsustainable level. We still genuinely feel that the CRA 9 Management Procedure is less reliable than others currently operating because we are unable to bring sufficient catch and effort data to the CPUE standardisation process.

33. With only six vessels in the CRA 9 fleet, split between North and South Island fishing grounds; and each vessel fishing only a small portion of the management area over a relatively short period of time in each season we feel that CRA 9 CPUE lacks the 'substance' that is observed in other management areas.

34. Industry retains confidence that good science should continue to guide TAC setting for rock lobster stocks. There remains a very strong commitment to the refinement and use of Management Procedures for example; but CRA 9 presents some unique challenges as a consequence of its geographical spread, small commercial fleet, size distribution of lobsters, and extensive but uneven distribution of effort across the management area.

35. The NZ RLIC supports the increasing interest in exploring alternative management approaches for the CRA 9 fishery and has confidence in commercial interests being willing to lead the way in this regard.

36. CRAMAC 9 and the NZ RLIC will continue to work with stock assessment scientists to explore ways in which commercial record keeping and reporting and fishery data collection can be enhanced to give better and more reliable contrast between seasons and more substance to the CPUE standardisations.

37. CRAMAC 9 installed electronic logbook units on all CRA 9 commercial rock lobster vessels from 01 April 2015 and anticipates that more detailed catch and effort information will assist scientists and managers in better understanding the fishery in the future. It would of course be useful if similar attention was given to monitoring non-commercial effort and catch.

GENERAL

38. The NZ RLIC notes and strongly agrees that the statutory consultation was restricted to a range of TAC decisions and we support final advice being given to the Minister only in that regard – with the

one proviso that the CRA 5 regulatory and administrative package is essential to the recommended TAC decision. In our view there are no other considerations which are relevant to the compilation of final advice.

39. However, there remains a good deal of work yet to be done by the NRLMG before drafting advice in December 2016. In our view the initial 2015 NRLMG advice paper was again not properly anchored in the purposes and principles of the Fisheries Act and continued to leverage off an operational policy internal to MPI which is both ill-conceived and now ageing. We draw attention to the text below – paragraphs which are drawn from Section 3.2 of the initial advice paper.

- The NRLMG's management goal is consistent with the rock lobster objectives in the *Draft MPI National Fisheries Plan for Inshore Shellfish Fisheries*. These objectives are to maximise the overall social, economic and cultural benefit obtained from each stock and to maintain biomass of each stock at or above the level that can produce the maximum sustainable yield or at a level that is not inconsistent with this (i.e. B*msy* or an accepted proxy, B*ref* – refer to section 4.2).

- The overall management approach for rock lobster fisheries is to monitor and manage them closely to provide for utilisation while ensuring sustainability. The use of responsive management procedures and regular review of rock lobster TACs are consistent with this management approach. Being able to respond to seasonal changes in rock lobster abundance is important because rock lobster populations can fluctuate with changes in their environment.

40. The NZ RLIC does not endorse the draft plan referred to and never has. Nor does the NZ RLIC concede that only TACCs should be adjusted in order to adjust TACs when setting sustainable limits. It is interesting to observe that in the case of CRA 5 the Ministry seems to agree; but for CRA 4 and CRA 9 they hold hard to a reliance on TACC cuts and offer no consideration of or support for other options.

41. We have repeatedly attempted to highlight to the NRLMG and to RLFAWG discussions that TACs once set must have integrity. If not, then Ministers are in breach of the statutory obligations which led them to the decision making in the first place. Possibly of more importance is that intended fisheries management outcomes are not attainable and levels of dissatisfaction with the quality of the lobster fishing experience prompt criticism, accusations, claims and counter-claims which distract legitimate sector representative groups from their accountability and their responsibility to ensure the ongoing abundance, productivity and success of shared fisheries.

42. The NZ RLIC cannot concede any TACC reductions that are not matched with management interventions that minimise the chances of such reductions becoming re-allocations to other extractive users.

43. No significant progress is being made on the intended monitoring and managing referred to the in paragraphs quoted above. The NZ RLIC notes that it is unfortunate to the point of almost being wilful neglect that in 2015 the NRLMG has to again report that

'There is no reliable information on current levels of illegal catch.' and

'Despite the NRLMG and Rock Lobster Fisheries Assessment Working Group having little confidence in the estimates of illegal catch because the estimates cannot be verified ... '

44. How many more NRLMG Reports will have to repeat those statements?

On behalf of the NZ Rock Lobster Industry Council and contributing CRAMACs

Yours sincerely

Cheryl R Sykes

Executive Officer.

TE OHU
KAIMOANA

MĀORI FISHERIES TRUST

16 February 2015

Inshore Fisheries Management
Ministry for Primary Industries
FMsubmissions@mpi.govt.nz

Tēnā koe,

Submission to the National Rock Lobster Management Group's review of Rock Lobster sustainability measures for 1 April 2016.

Introduction

This submission is from Te Ohu Kai Moana Trustee Ltd in its role as corporate trustee of Te Ohu Kai Moana Trust (Te Ohu Kaimoana). Te Ohu Kai Moana Trust was established under s.31 of the Maori Fisheries Act 2004. The purpose of Te Ohu Kai Moana Trust is to advance the interests of Iwi individually and collectively, primarily in the development of fisheries, fishing, and fisheries-related activities.

Te Ohu Kaimoana make this submission in our capacity as trustee for the Maori Fisheries Settlement and also our role as temporary owner of quota in CRA4, CRA5 and CRA9 prior to allocation being completed. In preparing this submission, it has been circulated for comment to all iwi owning CRA quota and those expected to own quota in these QMAs. Nothing in this submission overrides any views from individual Mandated Iwi Organisations (MIOs) or Iwi Asset Holding Companies (AHCs).

Overview

Every year the National Rock Lobster Management Group (NRLMG) considers the results from the operation of management procedures. This determines whether catch limit changes are required for the upcoming April fishing year to ensure the sustainable use of the rock lobster resource. Management procedures are used in all rock lobster fisheries except for CRA6 and CRA10.

In 2015 the NRLMG did stock assessments in CRA5, CRA7 and CRA8. The results suggest there are no sustainability concerns arising from any of the assessments. In CRA5, stock biomass is projected to decline in the next four years by 8 to 10%, but will remain well above reference levels. In CRA7 and CRA8, stock biomass is projected to remain near the current level.

As a result of these stock assessments and new catch and recruitment information, new management procedures are proposed for CRA5 and CRA8. In CRA8, the proposal is to adopt a management procedure that can segment "commercial fish" in its operation.

In addition to the above, in CRA4 and CRA9, proposals for changes in the TAC have been triggered because their respective management procedures demand this as a result of changes in the CPUE in these areas. In CRA4 there has been a steady decline in CPUE since 2012 and corrective measures are now proposed. In CRA9, a recent audit of the CPUE data concluded that the recent low number of vessels and poor reporting problems have contributed to the instability of CPUE in recent years. If the TAC is reduced, hyper stability problems will worsen.

Summary of Te Ohu Kaimoana's position:

Te Ohu Kaimoana has considered the information contained in the MPI consultation document, and supports the following options:

1. **In relation to CRA4:**
    - supports the CRA4 Industry Association proposal to reduce the TACC by 15% from 467t to 397t, and retain current levels for the remaining allowances.

2. **In relation to CRA5:**
    - supports option CRA5_01 – increase the TAC from 467t to 507t, increase the recreational catch from 40t to 87t (to take account of new catch information), and retain current levels for the remaining allowances.

3. **In relation to CRA8:**
    - supports option CRA8_01 – decrease the TAC from 1053t to 1030t, reduce other mortality from 28t to 5t, and retain current levels for the remaining allowances.

4. **In relation to CRA9 :**
    - support option CRA9_02 to retain the current TAC and allowances
    - supports a small project being carried out to assess the state of CRA9 stocks.

5. **In relation to other matters:**
    - MPI releases future NRLMG IPPs prior to Christmas
    - supports MPI imposing Telson Clipping on recreational fishers

NRLMG PROPOSALS

Review of the CRA4 (Wellington/Hawkes Bay) rock lobster fishery

The NRLMG proposed three options for the ongoing management of the CRA4 fishery; two of which will involve different levels of cutes to the TACC, and one option to retain the status quo. These are summarised below in Table 1.

Table 1. CRA4 Options

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA4_01: Decrease the TACC by 4.5%	641 t	35 t	85 t	75 t	446 t
CRA4_02: Decrease the TACC by 10% (industry proposal)	615 t	35 t	85 t	75 t	420 t
CRA4_03: Retain the current CRA4 TAC, allowances and TACC	662 t	35 t	85 t	75 t	467 t

The current CRA4 management procedure indicates a 4.6% decrease in the TACC is required in order to correct falling CPUE.

Te Ohu Kaimoana supports the CRA4 Industry Association's proposal, dated January 2016, to reduce the TACC by 15%, from 467t to 397t, and as summarised in Table 2.

Table 2. CRA4 alternative option as proposed by CRA4 Industry Association

Option	TAC	Customary	Recreational	Other Mortality	TACC
CRA4_Industry Association Proposal: Decrease the TACC by 15%	592t	35t	85t	75t	397t

We congratulate CRA4 industry members for taking the initiative to advocate a reduction in catches that is more than three times that recommended by the management procedure. It demonstrates commitment to ensuring sustainability and the quick recovery of the resource.

Review of the CRA5 (Canterbury/Marlborough) rock lobster fishery

There are two options proposed for the ongoing management of the CRA5 fishery; option one proposes an increase in the allowance for recreational fishers (using the CRA5 management procedure), with no change proposed to any of the other sector allowances, or option two, keeping the status quo. Neither of these options affect the customary allowance or the TACC. The two options are summarised below in Table 3.

Table 3. CRA5 Options

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA5_01: Increase recreational allowance, decrease other mortality allowance	507 t	40 t	87 t	30 t	350 t
CRA5_02: Retain the current CRA5 TAC, allowances and TACC	467 t	40 t	40 t	37 t	350 t

Te Ohu Kaimoana support option CRA5_01 – increase the TAC from 467t to 507t, increase the recreational catch from 40t to 87t (to take account of new catch information), and retain the current levels for the remaining allowances.

Te Ohu support the recreational sector getting a more appropriate share of the allowance. However, to mitigate the risk of catches continuing to increase we would support the implementation of tighter catch and accumulation controls on recreational fishers. We are mindful of the situation with the Blue Cod fishery in FMA7 and the controls that have needed to be put in place to stem increasing recreational fishing.

We encourage the NRLMG to develop a shared allocation policy for CRA5. This policy would enable the NRLMG to be proactive in its approach to dealing with future TAC adjustments. At the moment the NRLMG operates with no allocation policy.

Review of the CRA8 (Southern) rock lobster fishery

There are two options proposed for the ongoing management of the CRA8 fishery; option one will adopt a new CRA 8 management procedure and decrease the TAC and; option two will use the current CRA 8 management procedure and retain the CRA 8 TAC. These are summarised below in Table 4.

Table 4. CRA8 Options

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA8_01: Decrease other mortality allowance to 5t, retain other allowances	1030 t	30 t	33 t	5 t	962 t
CRA8_02: Retain the current CRA8 TAC, allowances and TACC	1053 t	30 t	33 t	28 t	962 t

Te Ohu Kaimoana supports option CRA8_01 – decrease the TAC from 1053t to 1030t, reduce other mortality from 28t to 5t, and retain the remaining allowances.

We note the industry desire to focus on "commercial fish". We support this approach. However, the NRLMG need to also provide a focus on the larger fish too, as the larger fish are more important to recreation and some customary fishers.

Review of the CRA9 (Westland/Taranaki) rock lobster fishery

There are two options proposed for the ongoing management of the CRA9 fishery; option one is based on the current management procedure (informed by CPUE) which recommends a decrease in the TACC by almost 25%; option two will see the status quo retained. These are summarised below in Table 5.

Table 5. CRA9 Options

Option	TAC	Customary	Recreational	Other mortality	TACC
CRA9_01: Decrease the TACC to 46t	101 t	20 t	30 t	5 t	46 t
CRA9_02: Retain the current CRA9 TAC, allowances and TACC	115.8 t	20 t	30 t	5 t	60.8 t

Te Ohu Kaimoana supports option CRA9_02 to retain the current TAC and allowances.

There is little to be gained by reducing the TACC as per option CRA9_01 as it effectively results in less data with which to base sustainability decisions on. The paucity of information will only further contribute to potential issues of hyper stability of CPUE and its effects on setting the TACC. Te Ohu Kaimoana consider that retaining the current allowances (as proposed under option CRA9_02), will mitigate issues of sensitivity of the CPUE. In addition, retaining the current TAC for one year is unlikely to pose a risk to stock sustainability in the short term.

Te Ohu Kaimoana encourage the NRLMG and stakeholders to develop a scientific project to investigate productivity in CRA9 from fishing patterns, including catch and effort data and area-specific length frequencies. We would support this being done in the 2016 fishing year. The results from this research could be used to recommend an alternative management procedure for CRA 9 for the 2017-18 fishing year onwards.

Other Matters

Final consultation period is inadequate

In 2015 members of the NRLMG met with the Minister and senior MPI officials to discuss aspects of the NRLMG Initial Position Paper (IPP). One of the matters that was discussed was the need to improve the consultation process so that Te Ohu and others can properly consult their constituents on the

NRLMG's IPP. Te Ohu Kaimoana consider the Minister's current consultation period is too short, and this is a point that has been reiterated over a number of years.

Notwithstanding that some stakeholders have been consulted early in the process (June/July), there is still much that can happen between this consultation and the IPP being released in December or January.

Te Ohu Kaimoana attempts to bring relevant iwi to the NRLMG table so they can participate in the annual NRLMG evaluations that occur in October/November, prior to the IPP being finalised, but this isn't enough on its own. We have found it is still necessary to consult the broader number of iwi and their asset holding companies, and to also have discussions amongst the wider recreational and commercial stakeholders. This is what we consider meaningful consultation. Further, the current consultation period has been particularly intensive given iwi are also extensively involved in consultation on significant issues the Government is promoting.

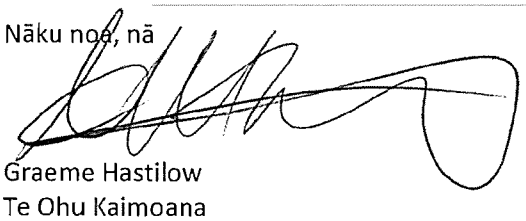
The Minister agreed his officials would look into the consultation matter but we are essentially no further ahead. This starts to raise questions about the integrity of the statutory consultation process and why MPI is trying to minimise the amount of time that iwi and the wider public has to respond to proposals. MPI is failing to meet its legal responsibilities by operating below the consultation standards that have been set down by the courts. We have not been provided with good reasons why the IPP cannot be released a week or two before the Christmas break, especially when the NRLMG has completed the IPP in November. If this could be achieved we would no longer have a problem. We would have more time to consult with iwi, and it would provide iwi more time to consider the proposals.

Our experience is all interested parties struggle with the short consultation period. It isn't a situation where as MPI claims, stakeholders don't want consultation documents released before Christmas. We have been reading submissions to the NRLMG for well over 20 years and we can recall no such submissions. If anything, we have seen a number of submissions requesting the process be longer.

Telson Clipping
Te Ohu Kaimoana has no objection to the introduction of Telson Clipping for recreational fishers.

If you have any questions on the content of this paper, please contact Graeme Hastilow

Nāku noā, nā



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