

Phil Appleyard  
President  
NZ Sport Fishing Council  
PO Box 207-012  
Hunua 2254  
[secretary@nzsportfishing.org.nz](mailto:secretary@nzsportfishing.org.nz)



Inshore Fisheries Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6011  
[FMSubmission@mpi.govt.nz](mailto:FMSubmission@mpi.govt.nz)

10 February 2017

## **NZ Sport Fishing Council submission on the review of Rock Lobster sustainability measures for 1 April 2017**

### **Contents**

<b>1. THE SUBMITTERS</b> .....	<b>2</b>
<b>2. EXECUTIVE SUMMARY</b> .....	<b>2</b>
<b>3. RECOMMENDATIONS</b> .....	<b>3</b>
<b>4. INTRODUCTION</b> .....	<b>4</b>
<b>5. ROCK LOBSTER - PROPOSALS</b> .....	<b>4</b>
5.1. CRAYFISH 3 (CRA 3) GISBORNE .....	4
5.2. CRAYFISH 4 (CRA 4) WELLINGTON/HAWKE'S BAY .....	8
5.3. CRAYFISH 7 (CRA 7) OTAGO.....	11
<b>6. OTHER MATTERS</b> .....	<b>13</b>
6.1. NRLMG ADVICE .....	13
6.2. CPUE AS A PROXY FOR ABUNDANCE.....	13
6.3. APPLICATION OF MANAGEMENT PROCEDURES.....	14
6.4 RECREATIONAL CATCH BY COMMERCIAL FISHERS .....	16
<b>7. PREVIOUS NZSFC SUBMISSIONS</b> .....	<b>16</b>

## 1. THE SUBMITTERS

- 1.1 The New Zealand Sport Fishing Council and supporters of our public outreach LegaSea, (the submitters) appreciate the opportunity to submit feedback on the *Discussion Paper No: 2017/03 Review of Rock Lobster Sustainability Measures for 1 April 2017*.
- 1.2 The Ministry for Primary Industries (MPI) released a summary of the National Rock Lobster Management Group's (NRLMG's) proposals on 20 December 2016. MPI released their Discussion Paper on 11 January 2016, with no amendments to the NRLMG's proposals. Submissions are due by 10 February 2017.
- 1.3 The New Zealand Sport Fishing Council is a National Sports Organisation with almost 34,000 affiliated members from 55 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.
- 1.4 Despite the lack of any meaningful responses to our earlier submissions we continue to submit our feedback because our members, LegaSea supporters and others nationwide are disillusioned with the ongoing mismanagement of rock lobster and want us to help effect change. <https://goo.gl/OxG97T>
- 1.5 Collectively we want the Minister to act in a more precautionary manner so crayfish stocks can be rebuilt, the ecosystem can be restored, and so there is sufficient abundance to provide for current and future generation's needs.

## 2. EXECUTIVE SUMMARY

- 2.1 Rock lobster abundance is important for maintaining a diverse ecosystem. It is not sufficient that current management settings are designed to maximise commercial harvest while denying public fishing opportunities both now and in the future. We remind the National Rock Lobster Management Group and the Ministry for Primary Industries that the Minister, Nathan Guy, 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.
- 2.2 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 these highly valued rock lobster stocks, which are all managed using uncertain and incomplete information.
- 2.3 It is only fair and reasonable to expect the total reduction of the Total Allowable Catch (TAC) to be applied to the Total Allowable Commercial Catch (TACC) in CRA 3 and 4. It is commercial exploitation that has depleted these fish stocks and the effects of past mismanagement are still making an impact and denying reasonable public access today.
- 2.4 In July 2014 a multi-stakeholder workshop was held to discuss the performance and future aspirations for the CRA 3 (East Cape - Gisborne) fishery. The fishery was not meeting expectations in 2014 and there is no evidence that the high yield strategy of the CRA 3 Management Procedure can meet the future aspirations of any of the stakeholders. We are concerned that the proposed 9% reduction to the CRA 3 TACC will not be enough to stop the decline in abundance and catch rates. Any new management settings must be tailored to meet the statutory obligations to both Maori and recreational non-commercial fishing interests, to provide an abundant fishery to enable people to provide for their social, economic and cultural wellbeing, and to satisfy stakeholder aspirations and the community's desire for a resilient fishery.

- 2.5 The CRA 4 fishery has suffered from a boom and bust cycle since at least the 1980s. It is now time for the Minister to take a more precautionary approach when managing this important fishery between the Hawke's Bay and Wellington. We acknowledge the CRA 4 commercial rock lobster association for advocating in 2016 for a lower TACC than proposed by the Ministry and National Rock Lobster Management Group. As shown by the drop in Catch Per Unit of Effort (CPUE) since, their concerns were well founded. The TAC and TACC must be reduced further to enable this fishery to rebuild.
- 2.6 We are concerned that under current management settings the biomass in CRA 7 (Otago) is projected to decline by 7% by 2018, but remain above reference levels. The proposed 15% increase to the TACC just adds to our concerns about the long-term viability of this stock. This stock is managed using uncertain, self-reported data and there is no reliable estimate of  $B_{MSY}$ , the biomass level required to produce Maximum Sustainable Yield, due to the high level of movement of rock lobster out of this management area. The current TAC, allowances, and TACC must be retained until the use of a Management Procedure is discontinued and the concession enabling the commercial harvest of rock lobster smaller than the recreational minimum legal size is revoked.
- 2.7 Management Procedures based on self-reported commercial catch rates may be a guide but we are not convinced that commercial CPUE tells the whole story regarding trends in stock abundance in most crayfish management areas. Moreover, setting and altering the Total Allowable Catches (TACs) based on unvalidated, self-reported catch by individual fishers, including legal crayfish returned to the sea and number of potlifts, requires a good deal of faith to overcome the possibility that fishers are ignoring the high incentive to change their operation to ensure stable or increasing CPUE.
- 2.8 There is no mention in the MPI Discussion Document that a commercial concession applies in CRA 3 and 7 (and CRA 8), enabling commercial fishers to take crayfish smaller than the Minimum Legal Size (MLS) applying to recreational harvest. This omission denies submitters the opportunity to learn how the exploitation of concession fish has caused ongoing conflict between commercial interests and non-commercial fishers who resent the impacts of this exploitation on their ability to harvest legal size crayfish, particularly in CRA 3. We consider this to be a serious omission of relevant information.
- 2.9 The CRA 3 concession arises from a stock rebuilding programme initiated in 1993 for 3 years, to offset the economic impacts on commercial fishers of a 50% reduction in the TACC. The CRA 7 concession arises from the historical need to land rock lobster small enough so their tails could be canned. It is highly objectionable that a tool that was generously introduced to prevent economic disaster from commercial overexploitation in CRA 3, and to enable commercial opportunities in CRA 7, is now being used as a reallocation tool for commercial benefit.

### **3. RECOMMENDATIONS**

- 3.1 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.
- 3.2 CRA 3 –
- The Minister sets a TAC of 366 t for CRA 3
  - The Minister sets aside 20 t to allow for Maori customary interests in CRA 3.
  - The Minister sets aside 20 t to allow for recreational fishing interests in CRA 3.
  - The Minister sets aside 120 t to allow for fishing related mortality in CRA 3.
  - The Minister sets a TACC of 206 t in CRA 3.

### 3.3 CRA 4 –

- The Minister sets a TAC of 484 t for CRA 4.
- The Minister sets aside 35 t to allow for Maori customary interests in CRA 4.
- The Minister sets aside 85 t to allow for recreational fishing interests in CRA 4.
- The Minister sets aside 75 t to allow for fishing related mortality in CRA 4.
- The Minister reduces the TACC to 289 t in CRA 4.

### 3.4 CRA 7 –

- The Minister sets a TAC of 117.7 t for CRA 7.
- The Minister makes an allowance of 5 t for recreational interests in CRA 7.
- The Minister makes an allowance of 10 t for customary fishing interests in CRA 7.
- The Minister makes an allowance of 5 t for other sources of fishing mortality in CRA 7.
- The Minister sets a TACC of 97.7 t for CRA 7.

## 4. INTRODUCTION

4.1 For some time the New Zealand Sport Fishing Council and supporters of our LegaSea outreach (the submitters) have been 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.

4.2 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.

4.3 The submitters object to the Ministry's ongoing habit of curbing public input by only allowing limited consultation time. Excluding the traditional pre-Christmas rush and holidays, this only left us 20 working days to respond to the Ministry's complex sustainability measures for CRA 3, 4 and 7.

4.4 It is unreasonable to expect non-commercial entities such as ours to consult with a range of interests and volunteers and respond with adequate information to inform the Minister's decision, as required by ss 12 and 13 of the Fisheries Act 1996 (the Act).

4.5 In an effort to alert people to this review and better inform our members and supporters, the Council developed a summary of the Ministry's proposals that were released on 11 January. That summary was distributed on 25 January to clubs, other groups and organisations, encouraging feedback prior to development of this submission. This submission is richer for having initiated that engagement with others.

## 5. ROCK LOBSTER - PROPOSALS

### 5.1. Crayfish 3 (CRA 3) Gisborne

5.1.1 MPI advise "*there are no sustainability concerns for the CRA 3 fishery*".

5.1.2 MPI propose a decrease to the Total Allowable Catch (TAC) by reducing the Total Allowable Commercial Catch (TACC) by 9%, or to retain the status quo.



**Table 1.** TAC, allowances and TACC proposals for CRA 3, from 1 April 2017.

	<b>TAC (tonnes, t)</b>	<b>Recreational allowance (t)</b>	<b>Customary allowance (t)</b>	<b>Other mortality (t)</b>	<b>TACC (t)</b>
Status quo	389.95	20	20	89	260.95
Proposed 9% TACC reduction	366.86	20	20	89	237.86
NZSFC recommendation	366	20	20	120	206

- 5.1.3 There is **no proposed change to the customary allowance of 20 tonnes**. In 2015 approx. 11,000 crayfish were reported harvested from CRA 3. There is no mandatory harvest reporting system. A 20 t estimate was used in the last stock assessment model in 2014.
- 5.1.4 There is **no proposed change to the recreational allowance of 20 t**. The 2011-12 National Panel Survey estimated annual recreational harvest to be around 8 t.
- 5.1.5 There is **no proposed change to the ‘other mortality’ allowance of 89 tonnes**. MPI and the NZ Rock Lobster Industry Council had input into a 2012 report to estimate illegal take. The report<sup>1</sup> notes it did not estimate illegal take from the Mahia Peninsula area and recommends that handling mortality needs to be taken into account. In conclusion the report suggests **total illegal catch in CRA 3 “could approach 120 tonnes per year”**.
- 5.1.6 The Minister has a statutory duty to allow for *“all other mortality to that stock caused by fishing”* (Fisheries Act, s 21(1)(b)). This includes the best estimate of illegal take and handling mortality. The latter includes predation of crayfish while in the craypot, mortality in holding nets and mortality of undersize, softshell, and females in berry caught in pots and released at the surface.
- 5.1.7 In CRA 4 the estimate of illegal take is 40 t and handling mortality is 18.4 t based on the estimate calculated in the 2016 stock assessment and a 5% mortality rate. In CRA 3 the assumed handling mortality rate is 10% of released catch and the proportion of small rock lobster would be much higher than in CRA 4.
- 5.1.8 Based on plots of CRA 3 length frequency collected by MPI observers in 2013–14 **we estimate about 47% of catch (by number) is concession fish**, smaller than the legal size limit applying to recreational harvest.
- 5.1.9 In the absence of a handling mortality estimate from the 2014 stock assessment we submit that **an allowance of 31 t is needed** to cover handling mortality in CRA 3.
- 5.1.10 There is **no mention in the IPP that a commercial concession applies in CRA 3**, enabling commercial fishers to take crayfish smaller than the Minimum Legal Size (MLS) applying to recreational harvest; this is a serious omission of relevant information from the *“Consultation Document”*. This omission denies submitters the opportunity to learn how the exploitation of concession fish has caused ongoing conflict between commercial interests and non-commercial fishers who resent the impacts of this exploitation on their ability to harvest legal size crayfish.
- 5.1.11 Commercial catch rates have dropped about 22% since the stock assessment in 2014, from 2.21 kg per potlift to 1.72 kg per potlift in 2016.

<sup>1</sup> Developing and Applying a Methodology to Estimate Illegal Take from New Zealand Fisheries. MRAG Asia Pacific. February 2012.

- 5.1.12 The Rock Lobster Fisheries Assessment Working Group consider that the CRA 3 stock remains above  $B_{MSY}$ , the biomass level required to produce Maximum Sustainable Yield, but no reference biomass has been agreed on.
- 5.1.13 Using the current CRA 3 Management Procedure the Total Allowable Commercial Catch (TACC) would be decreased 23 tonnes (9%).
- 5.1.14 MPI advise the ongoing application of the CRA 3 Management Procedure will “*maintain fishing opportunities for all sectors by maintaining stock abundance above the agreed reference levels*”. Clearly the NRLMG need to reconsider those reference levels so CRA 3 can be rebuilt to a level that enables recreational fishers to access adequate numbers of legal sized crayfish.
- 5.1.15 In July 2014 representatives of the New Zealand Sport Fishing Council and Gisborne Tatapouri Sports Fishing Club participated in a multi-stakeholder workshop held in Te Runanga o Turanganui a Kiwa’s boardroom. The workshop was held to discuss the performance of the CRA 3 fishery and our future aspirations. The results of this meeting were intended to guide the development of the next CRA 3 Management Procedure.
- 5.1.16 It is timely to recall the aspirations of the multi-stakeholder workshop and rate the performance of the Management Procedure used by the NRLMG for CRA 3.
- a. **Maintain yield in CRA 3** was considered desirable by many stakeholders. This is measured as average catch and is always a trade-off between high yield and increasing abundance. The TACC and annual commercial catch remained at about 260 t in 2014–15, 2015–16 and 2016-17, which is the highest it has been since 2005–06. The Ministry proposes a 238 t TACC for 2017-18. The recreational catch is uncertain, but likely to be less than the 20 t allowance. A project that investigated survey methods to estimate recreational harvest for CRA 3 was completed, but this was not seen as a priority by the NRLMG notwithstanding that there is ongoing advocacy by commercial interests for recreational harvest reporting. The illegal take is highly uncertain but a recent case study on CRA 3 indicates it may have increased. Overall yield, particularly commercial yield, remains high.
  - b. **Maintaining or increasing abundance in CRA 3** was considered desirable by all stakeholders. On a stock-wide basis commercial Catch Per Unit Effort (CPUE) is assumed by managers to track changes in relative abundance. However, the reality is that there are many operational and market driven influences on a fishery that can overturn that assumption, but it is the view of the NRLMG that standardised CPUE is considered to be a reliable indicator of relative stock size in CRA 3. Commercial fishers at the meeting wanted to maintain 2 kg per potlift or above of takeable rock lobster. Since 2014 the sequence of standardised CPUE has declined consistently from 2.2 kg per potlift to 1.9 kg/p and now 1.7 kg/p in 2016, a 23% decline. It is likely that the recreational catch rate and availability of rock lobster has also declined over this period as commercial CPUE includes concession fish, but those fish are not available to recreational fishers. So while commercial yield has been maintained, abundance is below recreational and commercial fisher expectations.
  - c. **Maintaining a sustainable stock in CRA3 for future generations** was considered essential by all stakeholders. A stock assessment provides an update on the status of CRA 3 every five years, the last assessment was in 2014. It predicted that biomass would decline by 15-31% over the next four years and that the vulnerable biomass at the time (2014) was about 704 t. For the next 3 years the TAC was set at 389 t, or 55% of the vulnerable biomass each year. Given this exceptionally high exploitation rate it is no surprise that CRA 3 has the lowest average weight of rock lobster in country and the concession to take 52 mm males is so stoutly defended by commercial fishers.

CRA 3 is propped up by the settlement of puerulus (spat) from other areas, but for how long? CRA 2 to the north is on verge of collapse, prompting commercial operators to shelve 25% of the TACC last year, yet CPUE still declined. While in CRA 4 to the south commercial operators last year insisted on a 15% reduction in the TACC, but the alarming decline in CPUE has continued. By 2019, when the next CRA 3 assessment is due, the stock will most likely be following suit with its neighbours. CPUE is heading back toward 0.5 kg/p, as it was in the mid-2000s, and all stakeholder aspirations will be dashed. Can this be avoided? The submitters believe we must try, it is what the stakeholder group asked for.

- d. **Better information on total fishing mortality in CRA 3.** Commercial landings are reasonably well recorded with about 260 t taken in 2015–16 plus 2.8 t taken home by commercial fishermen for personal use under Section 111 of the Fisheries Act. What is not well documented or reported is the number of rock lobster caught and released by commercial fishers and the estimated fishing mortality associated with this. The Minister is required to allow for “other fishing related mortality” before setting the TACC, yet this information is missing from the Rock Lobster Fisheries Assessment Working Group and NRLMG reports.

The current estimate of illegal catch is 89 t based on an estimate made by the Ministry in 1989. The allowance for other fishing related mortality is 89 t so clearly this does not include release mortality. As above, a 2012 report suggests illegal catch alone could be as high as 120 t per annum.

Since 2014 there has been a report on methods to collect information on recreational harvest in CRA 3. One of those options was a repeat of the National Panel Survey with boosted recruitment in the East Coast / Hawke’s Bay region which is scheduled to start in October 2017. An MPI project run by NIWA has monitored the main Gisborne boat ramp since October 2014 using their web camera and interview technique to collect information on recreational fishing effort, harvest and size of fish and rock lobster kept. The research report will be reviewed and published over the next few months.

- e. **Stability and certainty** was an important consideration for the Management Procedure, for fishers and Maori with commercial interests in CRA 3. While the TACC was maintained for three years, the high exploitation rate has inevitably resulted in a steady decline in abundance, as predicted by the stock assessment. The reliance on consistent recruitment of small rock lobster to the fishery is a high-risk strategy that does not meet the aspirations of recreational and customary fishers at the stakeholder meeting who wanted a better quality fishery and larger rock lobster.

5.1.17 In summary, there is no evidence that the high yield strategy of the CRA 3 Management Procedure can meet the aspirations of any of the stakeholders, or that the proposed 9% reduction in the TACC is enough to stop the decline in abundance and catch rates. Any new management settings must be tailored to meet stakeholder aspirations that were clearly articulated in 2014.

### ***Recommendations – CRA 3***

5.1.18 The Minister decides to –

- a. Discontinue the use of the Management Procedure to guide TAC and TACC settings in CRA 3 due to the continued decline of rock lobster abundance.
- b. Revoke the CRA 3 commercial concession enabling commercial fishers to take crayfish smaller than the Minimum Legal Size (MLS) applying to recreational harvest.

- c. Require the recording and public reporting of the proportions of sub-MLS crayfish versus legal sized crayfish taken commercially in CRA 3.
- d. Reduce the TACC to enable a rebuild of CRA 3 abundance. The total reduction of the TAC must be applied to the TACC given that it is commercial exploitation that has depleted the fishery and the effects of past mismanagement are still making an impact.

5.1.19 CRA 3 –

- o The Minister sets a TAC of 366 t for CRA 3
- o The Minister sets aside 20 t to allow for Maori customary interests in CRA 3.
- o The Minister sets aside 20 t to allow for recreational fishing interests in CRA 3.
- o The Minister sets aside 120 t to allow for fishing related mortality in CRA 3.
- o The Minister sets a TACC of 206 t in CRA 3.

## 5.2. Crayfish 4 (CRA 4) Wellington/Hawke’s Bay



5.2.1 The Management Procedure (MP) applying to CRA 4 has expired. MPI has proposed a new MP to apply for the next 5 years, and a reduction to the Total Allowable Catch (TAC). Two Total Allowable Commercial Catch (TACC) reductions have been proposed, either a 23% or 27% reduction. There are no proposed changes to the non-commercial allowances.

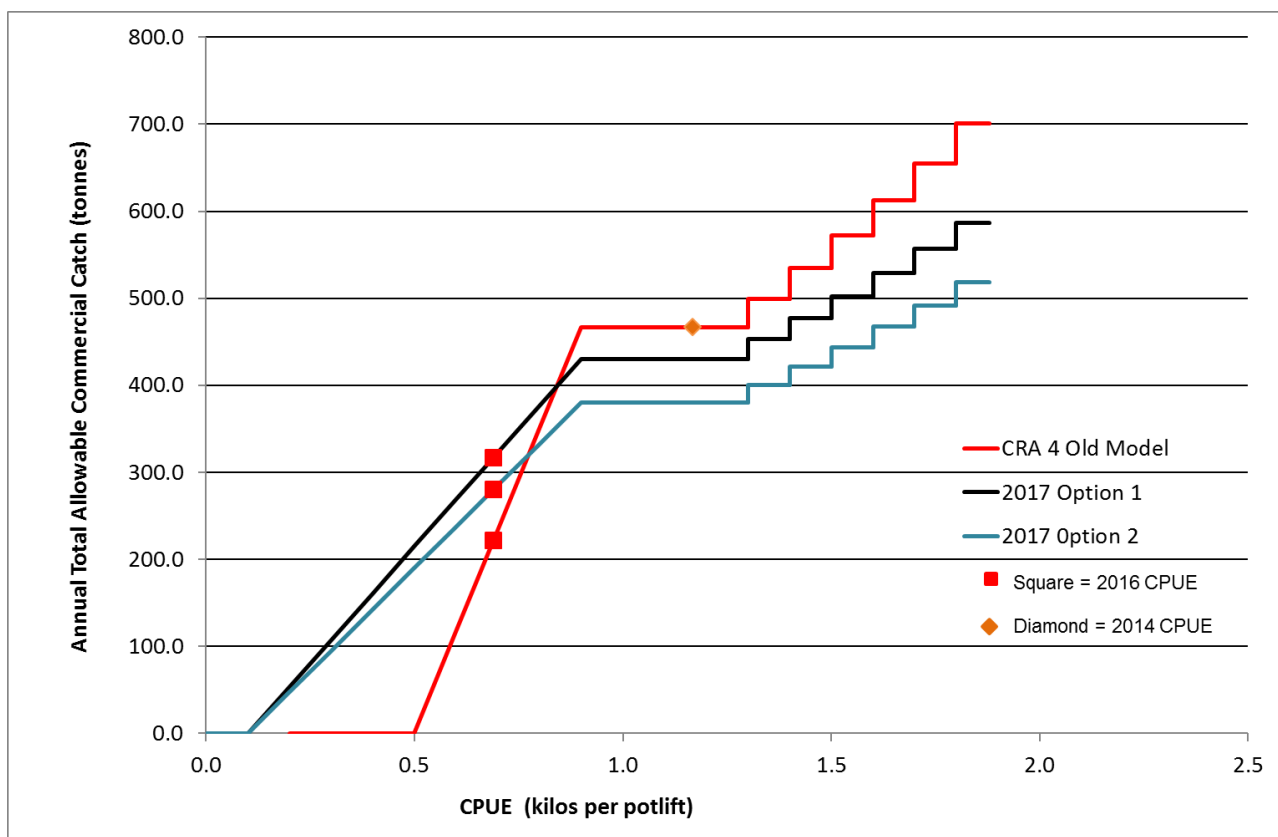
**Table 2.** TAC, allowances and TACC proposals for CRA 4, from 1 April 2017.

	TAC (tonnes, t)	Recreational allowance (t)	Customary allowance (t)	Other mortality (t)	TACC (t)
Status quo	592	85	35	75	397
<b>Option 1</b> - Proposed 23% TACC reduction	502	85	35	75	307
<b>Option 2</b> - Proposed 27% TACC reduction	484	85	35	75	289
NZSFC recommendation	484	85	35	75	289

- 5.2.2 **Commercial catch rates have dropped about 48%.** The peak was in 2012 when CPUE was 1.37 kg per potlift, while in 2016 it was 0.71 kg per potlift.
- 5.2.3 The proposed reductions in the table above come from two options for the new Management Procedure. Both are more conservative than the current Management Procedure when CPUE is about average.
- 5.2.4 There is no proposed change to the ‘Other mortality’ allowance of 75 t. For the 2015-16 fishing year the illegal catch estimate used in the model was 40 t.
- 5.2.5 The 2016 stock assessment assumed that handling mortality was 10% of returned crayfish until 1990, and 5% thereafter based on a literature review.
- 5.2.6 In the 2016 stock assessment model MPI assume that estimated levels of illegal catch (40 t) and handling mortality (18.14 t) are within the other mortality allowance.



- 5.2.7 In 2016 MPI proposed a 5% TACC reduction, the CRA 4 Rock Lobster Industry Association (CRAMAC 4) recommended a 10% and then a 15% TACC reduction. The Minister approved the 15% reduction in March 2016. The NZSFC is concerned **this fishery is continuing to decline** despite the NRLMG's faith that the CRA 4 Management Procedure will produce a precautionary outcome.
- 5.2.8 CRA 4 has produced the second largest commercial yield in New Zealand behind the CRA 8 fishery (Fiordland and Southland). The average yield over the last 5 years has been 467 t per year, but the catch rate has declined in each of the last 4 years. The new stock assessment shows the current biomass is below the reference biomass (Bref), and predicts that **abundance will continue to decline at current catch rates**.
- 5.2.9 Two options are presented for a new Management Procedure. Both have a lower TACC at average CPUE than the old Management Procedure, as shown by the flat section of the plots, between 0.9 and 1.3 kg/potlift, in Figure 1. Currently **all eastern North Island CRA stocks are in decline and not as productive as they once were**. Models based on past fishery performance may be overly optimistic.



**Figure 1:** The three Management Procedure options presented by NRLMG and MPI with the status quo (Old Model) in red. New Option CRA4\_01 in black and option CRA4\_02 in blue, and the position of the 2016 standardised CPUE (red square) that could determine the TACC for 2017–18.

- 5.2.10 The submitters acknowledge the conservative approach taken by the CRAMAC 4 last year in advocating for a more precautionary TACC than proposed. As shown by the drop in CPUE over the last year, their concerns were well founded. Management Procedures may be a guide, but we are not convinced that commercial CPUE tells the whole story regarding trends in stock abundance in most CRA areas.
- 5.2.11 The CRA 4 TACC was 467 t in 2015-16 and the options presented this year equate to a 35% and 38% reduction over two years. Having less ACE to catch will lead to a change in behaviour of fishers. For

example, they could concentrate their effort in places and times with good catch rates and not have to fish through leaner parts of the season to catch their ACE. The NRLMG note in their discussion on the choice of a previous CRA 3 Management Procedure that, “*In reality, future CPUE will not be independent of the TAC. For example, setting a lower TAC would result in a higher CPUE the following year than would setting a higher TAC*”.

5.2.12 **The submitters advocate for the most precautionary option for CRA 4 this year**, given the uncertainty associated with the inputs into the stock assessment model, and the boom and bust cycle in this fishery since at least the 1980s. (Refer figure below, source: MPI). We oppose an increase in the TAC and TACC if that is based on a small increase in commercial CPUE in 2017, and where that CPUE increase is due to a lower TACC rather than an increase in abundance as assumed in these Management Procedures.

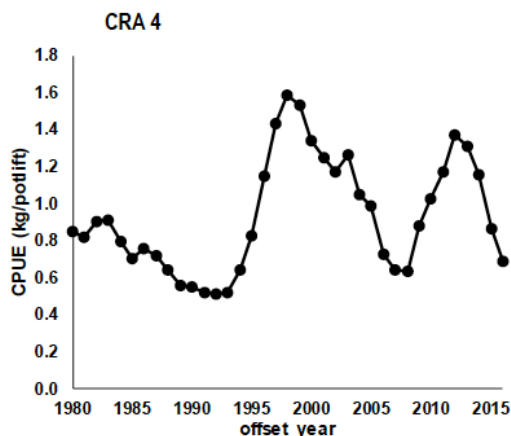


Figure 7.1: The history of CPUE in CRA 4, 1980 – 2016 (offset years) (based on the procedure for preparing data for CPUE standardisation called “F2-LFX”).

- 5.2.13 While there is no proposed change to the recreational allowance of 85 tonnes, it is an ongoing concern that recreational catch and catch rates are declining. The Minister has a statutory duty to ‘allow for’ recreational interests in this important fishery.
- 5.2.14 There is no proposed change to the customary allowance of 35 t. Annual estimated harvest is less than 5 tonnes in the past three years. There is no mandatory reporting system so it is unclear if this harvest level satisfies existing customary needs. We remind the Minister there is a statutory obligation to provide for the input and participation into fisheries management by tangata whenua while enabling them to fulfil their kaitiaki responsibilities, including establishing a robust reporting system if that is desired.
- 5.2.15 The submitters acknowledge the foresight of Ngai Te Ruruku o Te Rangi in establishing two mataitai reserves in Hawke’s Bay in 2005. Commercial fishing is prohibited in these mataitai. The Moremore mataitai encompasses the Pania reef, near the Port, and the area from Whirinaki north to Old Man’s Bluff. Both are now providing the local Napier community with sufficient abundance of rock lobster to meet their needs. People from the wider Hawke Bay region would like to enjoy similar abundance of crayfish however, the effects of commercial fishing and stock depletion denies them adequate access to this taonga, treasure.

### **Recommendations – CRA 4**

- 5.2.16 The Minister decides to -
- a. Discontinue the use of the Management Procedure to guide TAC and TACC settings in CRA 4 due to

the continued decline of abundance of rock lobsters.

- b. Apply the total reduction of the TAC to the TACC given that it is commercial exploitation that has depleted the fishery and the effects of past mismanagement are still making an impact.

#### 5.2.17 CRA 4 –

- o The Minister sets a TAC of 484 t for CRA 4.
- o The Minister sets aside 35 t to allow for Maori customary interests in CRA 4.
- o The Minister sets aside 85 t to allow for recreational fishing interests in CRA 4.
- o The Minister sets aside 75 t to allow for fishing related mortality in CRA 4.
- o The Minister reduces the TACC to 289 t in CRA 4.

### 5.3. Crayfish 7 (CRA 7) Otago



5.3.1 MPI advise “*there are no sustainability concerns for the CRA 7 fishery*”.

5.3.2 MPI has proposed a 15% TACC increase or retention of the status quo. There are no proposed changes to the non-commercial allowances.

**Table 3.** TAC, allowances and TACC proposals for CRA 7, from 1 April 2017.

	TAC (tonnes, t)	Recreational allowance (t)	Customary allowance (t)	Other mortality (t)	TACC (t)
Status quo	117.72	5	10	5	97.72
Proposed 15% TACC increase	132.52	5	10	5	112.52
NZSFC recommendation	117.7	5	10	5	97.7

5.3.3 The submitters do not accept that Management Procedures (MP) based on commercial CPUE is a legitimate indicator of abundance, **so we do not accept the proposed CRA 7 TACC increase is valid.**

5.3.4 We are concerned that under current management settings **the biomass is projected to decline by 7% by 2018**, but remain above reference levels. The proposed 15% increase to the TACC just adds to our concerns about the long-term viability of this CRA 7 stock.

5.3.5 There is **no mention in the MPI Discussion Document that a commercial concession applies in CRA 7** enabling commercial fishers to take crayfish smaller than the Minimum Legal Size (MLS) applying to recreational harvest. We consider this to be a serious omission of relevant information from the “Consultation Document”. This omission denies submitters the opportunity to learn how the exploitation of concession fish has caused ongoing conflict between commercial interests and non-commercial fishers who resent the impacts of this exploitation on their ability to harvest legal size crayfish.

5.3.6 MPI note “*no regulatory or other changes are proposed as part of this document,*” however, we intend to continue to highlight the concession regulation because:

- a. The concession is so unfair to non-commercial interests;
- b. The concession jeopardises the future productivity of CRA 7; and
- c. We support the conservative management of CRA 7.

- 5.3.7 MPI advise there is a reliable estimate of current biomass. MPI advise there is no reliable estimate of  $B_{MSY}$ , the biomass level required to produce Maximum Sustainable Yield, due to the high level of movement of rock lobster out of this management area.
- 5.3.8 MPI emphasise the revenue gain for the industry from the TACC increase as approx. \$1.07 million. No attempt is made to assess the value of an abundant CRA 7 fishery to non-commercial interests or the Otago region.
- 5.3.9 Catch Per Unit of Effort started to decline after 2009, reaching a low point of 0.68 kg per potlift. Whether by a miracle of nature or management, the application of a Management Procedure in 2013 saw the CPUE leap to an unprecedented 2.06 kg/p in 2014. The following year it increased slightly, to 2.09 kg/p, before returning to 2.06 kg/p in 2016.
- 5.3.10 **Commercial CPUE includes concession fish.** There is no data to describe the proportions of sub-MLS crayfish versus legal sized crayfish. The collection and public reporting of this data must be part of the future management regime applying to CRA 7 or any rock lobster stock that enables the commercial harvest of concession, smaller than minimum legal size, crayfish.
- 5.3.11 In 2014-15 the TACC increased from 44 to 66 tonnes. In 2015-16 the TACC was increased again, from 66 to the current 97.72 t. If the fishery is really this healthy and able to cope with a 122% TACC increase then we submit **the concession needs to be revoked now.**
- 5.3.12 There is no proposed change to the customary allowance of 10 tonnes. An estimate of 1 tonne was used in the last 2015 stock assessment. There is no mandatory reporting system for customary harvest.
- 5.3.13 There is no proposed change to the recreational allowance of 5 t. The 2011-12 National Panel Survey estimated annual recreational harvest to be around 0.23 tonnes, not reliable given it was based on one fisher's data. A 5 t harvest estimate has been used in the stock assessment.
- 5.3.14 There is no proposed change to the 'Other mortality' allowance of 5 t. A 1 tonne estimate is used in the stock assessment model.

### ***Recommendations:***

- 5.3.15 The Minister decides to -
- a. Discontinue use of the Management Procedure to guide TAC and TACC settings in CRA 7.
  - b. Revoke the commercial concession enabling commercial fishers to take crayfish smaller than the Minimum Legal Size (MLS) applying to recreational harvest.
  - c. Require the recording and public reporting of the proportions of sub-MLS crayfish versus legal sized crayfish taken commercially in CRA 7.
  - d. Retain the current TAC, allowances and TACC until the use of Management Procedures is discontinued.
- 5.3.16 CRA 7 –
- The Minister sets a TAC of 117.7 t for CRA 7.
  - The Minister makes an allowance of 5 t for recreational interests in CRA 7.
  - The Minister makes an allowance of 10 t for customary fishing interests in CRA 7.
  - The Minister makes an allowance of 5 t for other sources of fishing mortality in CRA 7.
  - The Minister sets a TACC of 97.7 t for CRA 7.

## 6. OTHER MATTERS

### 6.1. NRLMG advice

- 6.1.1 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 participants include Te Ohu Kaimoana (TOKM), NZ Rock Lobster Industry Council (NZRLIC), past members of the now defunct New Zealand Recreational Fishing Council (NZRFC), and the Environment and Conservation Organisations of Aotearoa New Zealand (ECO).
- 6.1.2 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*”<sup>2</sup>. The NRLMG must be held accountable to all stakeholders for achieving this unfulfilled commitment.
- 6.1.3 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 participants are representing as they do not represent public opinion and they do not report to or consult with us, the New Zealand Sport Fishing Council, the largest recreational fishing organisation in the country.

### 6.2. CPUE as a proxy for abundance

- 6.2.1 Assuming that commercial Catch Per Unit of Effort (CPUE) is a reliable index of 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.
- 6.2.2 The practice of high grading and returning the less profitable grades of rock lobster to the sea has become widespread. This is allowed under Schedule 6 of the Fisheries Act, but released legal fish are included in commercial CPUE in some areas and not others. Fisher self-reported estimates of the weight of those released crayfish have a significant influence on CPUE in some areas.
- 6.2.3 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.
- 6.2.4 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.

---

<sup>2</sup> NRLMG 2003 Annual Report.

- 6.2.5 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.
- 6.2.6 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.
- 6.2.7 In future, some form of electronic logging of location and catch by potlift would show the extent of shifting effort.

### 6.3. Application of Management Procedures

- 6.3.1 Management Procedures (MPs) are a mechanism used to guide catch limit decisions in most rock lobster fisheries. The Management Procedures, which the National Rock Lobster Management Group have staunchly defended and relied on, seem to be unravelling. Management Procedures are driven by the annual standardised commercial CPUE from the previous year.
- 6.3.2 Setting and altering the Total Allowable Catches based on un-validated, self-reported catch by individual fishers, 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.
- 6.3.3 When the MPs deliver an inconvenient result the approach by the Ministry and NRLMG is to simply abandon it. For example, a Management Procedure was applied in CRA 9 for the first time in 2014-15 to set the Total Allowable Catch (TAC) and increase the Total Allowable Commercial Catch (TACC) by 29%. The Management Procedure was abandoned “*when the NRLMG accepted advice that CPUE was not a reliable index of abundance for this stock<sup>3</sup>*”. MPI advise the Minister agreed not to use the CRA 9 MP in 2016 “*as long as alternative management approaches were explored*”. Five commercial fishers are now using logbooks to record catch rates and size frequencies. So, the MP was abandoned in 2015, a new reporting system has been established, yet the inflated TAC and TACC remain intact.

#### **Case study – CRA 2**

- 6.3.4 A Management Procedure has applied in the CRA 2 stock (Pakiri to East Cape) since 2014. The decision rule was not triggered last year or this year even though Catch Per Unit of Effort (CPUE) declined to less than 0.3kg per potlift in both 2015 and 2016.
- 6.3.5 Last year CPUE from the Eastern Coromandel area of CRA 2 was measured at 0.25 kg per potlift, meaning a fisher lifts his craypot four times before he harvests, on average, one kilo of rock lobster. How can this be sustainable?
- 6.3.6 Despite the low catch rates MPI advises “*there is no information to suggest a strong sustainability concern for the fishery at this time*”. The submitters do not accept this assessment given that recreational harvest has collapsed and the overall allowance of 140 t is uncatchable. Recreational harvest is now less than 30% (41 t) of the allowance set aside by the Minister to provide for recreational interests, and there are regular, independent reports of once-prolific areas now devoid of any legal size crayfish.

---

<sup>3</sup> Operation of Management Procedures. For the NRLMG. Starr & Breen. 16 November 2016.

6.3.7 At the beginning of the last fishing season commercial rock lobster fishers in CRA 2 voluntarily cut landings by 25% (50 t). This should have made crayfish easier to catch as fishing could focus on times and areas where rock lobster were available. Instead, the catch rate is the lowest it has ever been since 1980. (see Figure 2).

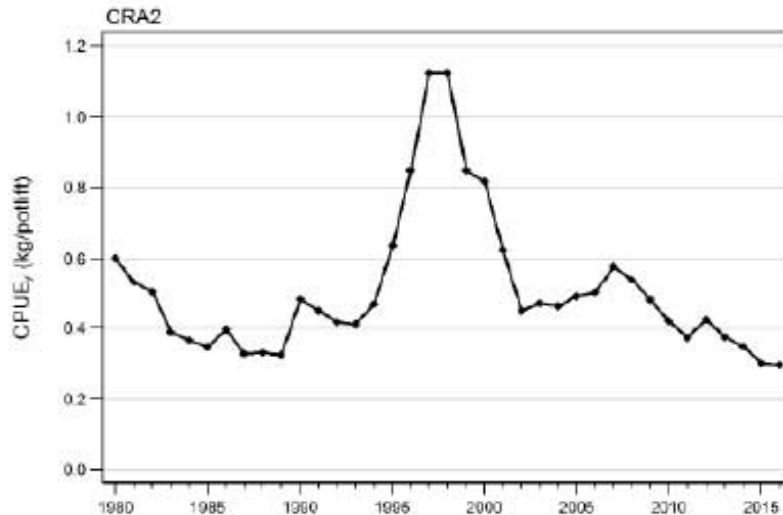


Figure 2. CRA 2 Catch Per Unit of Effort (CPUE) 1980 to 2016.

6.3.8 A review of the CRA 2 stock has been brought forward to 2017-18. However, the signs of decline have been obvious to managers, commercial and non-commercial interests for several years yet the NRLMG, including MPI officials, have failed to address the decline, and neither have they acknowledged the failure of the Management Procedure to deliver an abundant fish stock.

6.3.9 MPI and the NRLMG cannot avoid the natural conclusion that this fishery is in trouble. The sooner we acknowledge this dire situation and address it; the sooner CRA 2 can be restored to an abundant state. Any other action, or inaction, represents a blatant disregard for the statutory duties of the Minister to manage fisheries at a level required to provide for both the needs of current fishing interests and those of future generations.

### ***Management Procedures must be revoked***

6.3.10 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. <https://goo.gl/LQPXLw>

6.3.11 Management Procedures must be acknowledged for what they are – a tool to engineer favourable outcomes for commercial users of the rock lobster fishery.

6.3.12 Management Procedures must be revoked and replaced with a responsive management regime that provides for public use and future generation’s needs.

6.3.13 The effort and resources that MPI apply to maintaining the use of Management Procedures in the rock lobster fishery while denying reasonable public access to this taonga [our treasured crayfish] is a reflection of the state of broader fisheries management in Aotearoa, where we have a government

department totally captured by commercial fishing industry interests. This state of capture poisons the dreams of many who hope for abundance and diversity in our inshore waters.

## 6.4 Recreational catch by commercial fishers

6.4.1 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 commercial fishing operations and is added to harvest estimates from recreational fishing surveys. (Refer Table 1)

**Table 4.** Section 111 landings, in tonnes, as reported by commercial fishers, by QMA, in 2015-16.

Stock	S111 catch (t)	Recreational allowance (t)	Proportion of recreational allowance (%)
CRA 2	1.38	140	<1
CRA 3	2.84	20	14.2
CRA 4	5.09	85	6
CRA 7	0.33	5	6.6
CRA 9	2.96	30	9.9

## 7. PREVIOUS NZSFC SUBMISSIONS

The New Zealand Sport Fishing Council maintains an online record of our rock lobster submissions, Ministry proposals and the Ministers decisions. <https://goo.gl/OxG97T>

2016 – Submission on the review of the [Crayfish 3 \(Gisborne\) fishery](#).

2016 – Submission on the review of Rock Lobster [sustainably measures for 1 April 2016](#).

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](#).