

Review of Rock Lobster Regulations

A summary of proposals for the New Zealand Sport Fishing Council

February 2014

The National Rock Lobster Management Group (NRLMG) is seeking tangata whenua and stakeholder views on proposed new Management Procedures to set TACs in the CRA2 (Bream Head to East Cape) and CRA9 (Kaipara to Westland) rock lobster fisheries. Existing Management Procedures are being used to increase the TACC in CRA3 (Gisborne) and CRA7 (Otago), while a decrease is proposed for CRA4 (Wairarapa/Wellington). The Ministry for Primary Industries (MPI) seeks information and written comments on the [proposals](#) summarised in Appendix One. Submission deadline is 21 February 2014.

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”.

1. CRA 2 Management Procedures

Points of interest:

- Management Procedures (MP) contain a harvest control rule, which is a mathematical equation that determines how much the Total Allowable Catch (TAC) or Total Allowable Commercial Catch (TACC) will change given the change in commercial catch rates (kg per pot lift).
- The stock assessment models they use to test the different equations and the MP itself rely heavily on the assumption that the commercial catch rate (CPUE) is proportional to abundance.
- NRLMG claim that the new Management Procedure in CRA 2, tested by using the stock assessment, will “*Improve abundance and result in improved utilisation benefits for all sectors.*”
- The stock assessment papers are long and involved, but the results seem highly questionable given that commercial CPUE has declined steadily for the last 6 years and is now about 0.4 kg per pot lift. This is the lowest of any stock in the country (CRA3 is 2.35 kg/pot lift and CRA4 is 1.3 kg/pot lift).
- The CRA2 stock assessment results show that the stock is currently at 37% unfished biomass, and 36% above Bmsy, but 21% below the reference biomass of 460 tonnes (t). Despite the 6 year decline in CPUE the projections on future biomass show a slight increasing trend at current catch.
- The CRA2 stock assessment uses recreational catch history, which increases and decreases with abundance (proportional to it) fitted to the 1996 telephone diary survey estimate. This gives the 2011-12 catch at about 70 tonnes. The NRB national survey in 2011-12 estimated recreational catch at 41 tonnes.
- The CRA2 management options are for a 26 t (11%) or 36 t (15%) decrease in the current TACC of 236 t. The projections estimate an average CPUE of 0.46 to 0.48 kg/pot lift in 20 years time.
- The current recreational allowance is 140 t, based in the 1996 harvest estimate. NRLMG would like our views in taking a 20 t cut to that with no change to bag or size limits.

Comments:

It seems the CRA2 stock assessment and those managing it are comfortable with current CRA2 abundance. No significant increase in catch rate or stock size is likely. If there is an increase, then an increase in the TACC will fish it back down to this level. If the current spawning biomass is 530 t then, using their estimates, the unfished biomass would have been 1430 t. Given the prime cray country in the outer Hauraki Gulf, Coromandel and BOP out to East Cape this seems laughable.

- We need to get through to MPI and the Minister that the CRA2 stock is much worse than 37% of the unfished stock size.
- The huge abundance of crayfish before they became a valuable export point to a stock closer to 5% of virgin biomass. This is unacceptable.

The recreational catch is low at present because abundance is way down on where it should be. The Rena disaster also did not help as it occurred right at the start of the national recreational harvest survey period, in

October 2011. We do not support the shuffling of paper fish from the recreational allowance or the other sources of mortality (illegal take estimated at 80 t) into the TACC.

There is no adequate rebuild plan proposed in CRA 2. This needs to be our focus over the next few weeks.

Recommendations CRA 2:

- Develop a plan to rebuild stocks to a reasonable level. Greater than 1kg per pot lift should be an initial target.
- Object to management that depletes CRA 2 and makes it the worst performing stock in the country
- Discredit and reject the stock assessment as unrealistic, as it suggests CRA2 is currently at 37% of unfished levels.
- Get fishers who witnessed the stock decline to tell the story.
- Get the media interested in this story.
- A baseline catch of 200t or 210 t in the Management Procedure is just too high. This is not much different to average landed catch in recent years.
- An average CPUE of 0.46 to 0.48 kg/pot lift in the next 20 years fails to meet the objectives that the Multi stakeholder group set in May 2013 to “guide” the development of the Management Procedure.

2. CRA 9 Management Procedures

Points of interest:

- NRLMG claim that the new MP in CRA 9 tested by using the stock assessment will “Maintain a high CRA 9 abundance and provide high utilisation benefits for all sectors.”
- The stock assessment uses a less complicated model and there is some doubt whether CPUE is a good measure of abundance. Currently the catch rate is 3.2 kg/pot lift and NRLMG state “*For CRA 9 there is a small amount of commercial catch data available for CPUE analysis¹⁹, which may result in CPUE indices that are sensitive to different catching patterns rather than changes in stock size. Despite this sensitivity, CRA 9 CPUE has been used as the abundance indicator in the new CRA 9 management procedure.*” High grading (returning large cray) in the commercial fishery also adds uncertainty.
- CRA 9 is a large area of the SW coast of the North Island and NW Coast of the South Island. Current TACC is 47 t, and this is fished by relatively few boats. Cray in commercial and recreational catch are quite large.
- The CRA 9 stock assessment results state that the stock is currently about 780 t. This is 56 % above Bmsy. The size of the unfished biomass was not estimated.
- The CRA 9 Management Procedure options are for a 14 t (29%) or 20 t (44%) increase in the current TACC of 47 t. The projections estimate an average CPUE of 2 kg/pot lift in 20 years time.
- This is the first time that a TAC has been set for this stock. Two options are proposed for the recreational allowance (25 or 30 t) and customary allowance (5 or 20 t) and other sources of mortality (1 or 5 t) (see Appendix 1). No change to bag or size limits is proposed.



Comments:

It looks like the size and availability of rock lobster in CRA 9 is better than in most other CRA areas in New Zealand. It is a large area of exposed coast. Local depletion may be an issue close to some ports. Commercial CPUE is at an historic high but the managers say this may not reflect abundance. This demonstrates that even when fundamental data is uncertain the boffins will estimate Bmsy and make predictions to support their Management Procedures.

From 1982 to 2000 CPUE was about 1 kg/potlift. The model projections predict a long term average around 2 kg/pot lift. At 2kg per pot lift the TACC would be reduced to 46 t (option CRA9_01 and CRA9_02) or 40 t (option CRA9_03 and CRA9_04), under this Management Procedure. These options seem reasonably conservative. It may be possible to maintain high CPUE by catching and recording large crayfish and returning them alive or moving to previously unfished areas. High grading of crayfish is legal and fishers can target the highest price grades.

Recommendations for CRA 9:

Commercial catch rates in CRA 9 are some of the highest in the country. The stock assessment may be wrong, but supporting data on size and catch rates indicate the stock is okay.

- We should support the higher allowances for non-commercial fishers and other mortality to allow for the uncertainty in the current estimates.
- We need to seriously question why a Management Procedure would be based on commercial CPUE when there is doubt whether CPUE is measuring abundance.

3. Proposed TAC changes in CRA 3

Points of interest:

- NRLMG claim that the CRA 3 stock is well above Bmsy, based on the last stock assessment in 2009, and there has been an increase in commercial CPUE since then.
- In 2013 the commercial catch rate was 2.36 kg/pot lift. The Management Procedure would allow a TAC of 585 t but a limit of 10% increase per year is also part of the rule, so a TAC of 390 t is proposed. If all of the increase was added to the TACC it would rise from 225.5 t to 261 t up 15.7%.
- CRA 3 is a contentious management area with recreational fishers struggling to catch legal sized crayfish and a concession for commercial fishers allowing harvest of undersize males during some months of the year.
- The NRB national recreational harvest survey estimate of catch in CRA 3 was just 8 t in the 2011-12 year. This is by far the lowest catch for a North Island CRA area.
- The current recreational allowance is 20 t, customary allowance 20 t and other mortality 89 t.

Comments:

The issues we raised in last year's submission on a 10% TAC increase in CRA 3 remain the same. In our view implementation of the proposed Management Procedures in our Rock Lobster fisheries will not meet the statutory obligations in the Fisheries Act 1996.

Recommendations for CRA 3:

- The use of Management Procedures based on CPUE driven harvest controls must cease; and
- A full review must be undertaken to correct the misnomer that in all Rock Lobster stocks 'CPUE is a reliable indicator of abundance'.
- The majority of crayfish in CRA 3 are small and the concession that enables commercial fishers to take undersized crayfish must be revoked.

4. Proposed TAC changes in CRA 4

Points of interest:

- The commercial catch rate increased sharply from 2008 to 2012 but has declined 6% in 2013.
- Commercial fishers claim that the decrease was caused by poor weather in autumn-winter and low market prices, rather than a reflection of available abundance.
- The Management Procedure in CRA 4 would reduce the TAC by about 5% and the TACC from 500t to 467 t, a 7.6% reduction.
- The NRB national survey estimate of recreational catch in CRA4 was 44t in the 2011-12 year.

- The current recreational allowance is 85 t, customary allowance 35 t and other mortality 75 t.

Comments:

Even the fishers collecting the catch rate information don't believe the change in 2013 CPUE was related to abundance. Once these MPs are in place it seems very hard to shake the NRLMGs faith in them. The proposed TACC decrease effectively reverses last years TACC increase. It seems unlikely that all the 500 t TACC will be caught in 2013-14 anyway.

Recommendations for CRA 4:

- The use of Management Procedures based on CPUE driven harvest controls must cease; and
- A full review must be undertaken to correct the misnomer that in all Rock Lobster stocks 'CPUE is a reliable indicator of abundance'.

5. Proposed TAC changes in CRA 7

Points of interest:

- The commercial catch rate doubled in CRA7 between 2012 and 2013 (1.36 kg/pot lift).
- This Otago fishery relies heavily on new recruits reaching the legal size. After a few years in this area they are thought to move south and west into CRA8.
- The NRLMG consider that in 2013 the CRA7 stock was close to the reference biomass. No Bmsy has been calculated for CRA 7 (so Section 13(2A) of the Fisheries Act applies).
- The MP would see the TAC increase to 86 t and the TACC increase from 44 t to 66 t (50% the maximum in one year allowed by the rules of the MP).
- The NRB national recreational harvest survey only had one fisher do one cray trip in CRA7 so could not give a harvest estimate.
- The current recreational allowance is 5 t, customary allowance 10 t and other mortality 5 t.

Comments:

Each CRA stock has different characteristics. CRA 7 is has variable catch rate and annual catches. The MP is designed to take advantage of new recruits while they are there. There is a risk that by the time the TACC increase becomes available the crayfish will have moved on. Despite this, the NRLMG consider that commercial catch rate information to be a reliable indicator of relative stock size, suitable for use in the CRA7 Management Procedure.

The new Management Procedures are the most vulnerable. Once the Minister approves them it is hard to get NRLMG or MPI to consider alternatives.

Recommendations for CRA 7:

- We need to highlight the inconsistencies between Management Procedures where they occur.
- The use of Management Procedures based on CPUE driven harvest controls must cease; and
- A full review must be undertaken to correct the misnomer that in all Rock Lobster stocks 'CPUE is a reliable indicator of abundance'.

Appendix One

1. MPI summary of options in current TAC review

Stock	Option	TAC	Customary	Recreational	Other mortality	TACC
CRA 2	CRA2_01: Be guided by the <u>new Rule 4</u> CRA 2 management procedure and decrease the TAC and TACC	416.5 t ↓	16.5 t	140 t	60 t	200 t ↓
	CRA2_02: Be guided by the <u>new Rule 6</u> CRA 2 management procedure and decrease the TAC and TACC	426.5 t ↓	16.5 t	140 t	60 t	210 t ↓
	CRA2_03: Retain the current CRA 2 TAC, allowances and TACC	452.583 t	16.5 t	140 t	60 t	236.083 t
CRA 3	CRA3_01: Be guided by the CRA 3 management procedure and increase the TAC and TACC	389.95 t ↑	20 t	20 t	89 t	260.95 t ↑
	CRA3_02: Retain the current CRA 3 TAC, TACC and allowances	354.5 t	20 t	20 t	89 t	225.5 t
CRA 4	CRA4_01: Be guided by the CRA 4 management procedure and decrease the TAC and TACC	662 t ↓	35 t	85 t	75 t	467 t ↓
	CRA4_02: Retain the current CRA 4 TAC, allowances and TACC	694.7 t	35 t	85 t	75 t	499.7 t
CRA 7	CRA7_01: Be guided by the CRA 7 management procedure and increase the TAC and TACC	86 t ↑	10 t	5 t	5 t	66 t ↑
	CRA7_02: Retain the current CRA 7 TAC, allowances and TACC	64 t	10 t	5 t	5 t	44 t
CRA 9	CRA9_01: Be guided by the <u>new Rule 4041</u> CRA 9 management procedure, set a TAC of 91.8 tonnes and increase the TACC	91.8 t	5 t	25 t	1 t	60.8 t ↑
	CRA9_02: Be guided by the <u>new Rule 4041</u> CRA 9 management procedure, set a TAC of 115.8 t and increase the TACC	115.8 t	20 t	30 t	5t	60.8 t ↑
	CRA9_03: Be guided by the <u>new Rule 4144</u> CRA 9 management procedure, set a TAC of 98.6 t and increase the TACC	98.6 t	5 t	25 t	1 t	67.6 t ↑
	CRA9_04: Be guided by the <u>new Rule 4144</u> CRA 9 management procedure, set a TAC of 122.6 t and increase the TACC	122.6 t	20 t	30 t	5t	67.6 t ↑
	CRA9_05: Retain the current CRA 9 TACC (no TAC or allowances have been	N/A	N/A	N/A	N/A	47.008 t