Review of Rock Lobster Concession Area Minimum Legal Size Regulations Final Advice Paper – May 2012











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Executive Summary

- 1 In this Final Advice Paper (FAP) you are asked to make decisions on a review of rock lobster 'Concession Area Minimum Legal Size (MLS) Regulations' (referred to as 'Concession Areas' from now on in this paper).
- Concession Areas allow commercial fishers to harvest rock lobster at a smaller size than the 54/60 mm tail width (TW) MLS that applies to recreational fishers through-out New Zealand and to commercial fishers in other parts of New Zealand. Rock lobster Concession Areas apply in: CRA 3 (Gisborne), CRA 7 (Otago) and CRA 8 (Southern).
- Table 1 shows the options for the CRA 3, CRA 7 and CRA 8 'concession' areas. Three options are proposed for consideration for each management area.

	CRA 3	CRA 7	CRA 8	
Options	Option 1A: Retain the CRA 3 Concession Area	Option 2A: Retain the CRA 7 Concession Area	Option 3A: Retain the CRA 8 Concession Area	
	Option 1B: Remove or phase-out, the CRA 3 Concession Area from 1 June 2013	Option 2B: Remove or phase-out, the CRA 7 Concession Area from 1 June 2013	Option 3B: Remove or phase-out, the CRA 8 Concession Area from 1 April 2013	
	Option 1C: Allow recreational fishers access to the CRA 3 'concession' area MLS at the same time as commercial fishers (June to August) from 2013	Option 2C: Allow recreational fishers access to the CRA 7 'concession' area MLS at the same time as commercial fishers (1 June to 19 November) from 2013	Option 3C: Allow recreational fishers access to the CRA 8 'concession' area MLS at the same time as commercial fishers (any time of year) from April 2013	

Table 1: Concession Area options for CRA 3, CRA 7 and CRA 8

- Given that commercial fishers can land smaller sized rock lobsters than recreational fishers in the CRA 3, CRA 7 and CRA 8 fisheries at specific times, issues of fairness and equity have been raised in relation to Concession Areas. Concerns have been expressed by some CRA 3 and CRA 7 recreational fishery participants that the CRA 3 and CRA 7 Concession Areas negatively impact on the availability of rock lobsters to recreational fishers. Few concerns have been expressed about the CRA 8 Concession Area. Commercial participants note that Concession Areas provide the commercial sector with economic benefits, including greater flexibility to match rock lobster size to market demand.
- Table 2 summaries key considerations for you to take into account when making your decisions for each Concession Area. It is recommended that you consider the costs and benefits of each Concession Area independently of each other because each set of regulations were implemented for different reasons and at different times.
- When making your decision for each Concession Area, trade-offs are required that affect the social, cultural, and economic wellbeing that individual sectors derive from using the fishery. Information is lacking to robustly quantify and compare impacts. In particular, there is no robust evidence to quantify, or confirm or refute the existence of, an impact on the recreational sector from any of the Concession Area options presented in this paper. What information is available is anecdotal.

You can use anecdotal information to guide your decision-making. However, you should note that anecdotal information is by its nature uncertain and can be subject to bias. In making your decision you should be cautious where information is uncertain, but should not use uncertainty or lack of information as a reason to postpone taking any action you consider necessary to achieve the purpose of the Fisheries Act 1996 (the Act) (which is to provide for the utilisation of fisheries resources while ensuring sustainability).

Options	Key considerations
	 Concession Areas do not impact on stock sustainability. Stock assessment and Total Allowable Catch (TAC) setting processes can ensure sustainability regardless of the MLS in place. Retention of a Concession Area is the appropriate choice if you wish to retain current commercial sector benefits and opportunities.
Option 1A, 2A or 3A: Retain a Concession Area	 Retention of a Concession Area will not address perceptions of inequity and unfairness relating to the CRA 3 and CRA 7 Concession Areas by some recreational fishery participants (there are few negative recreational sector views of the CRA 8 Concession Area).
	 In CRA 3 and CRA 7, availability of rock lobsters to recreational fishers is likely to improve as abundance increases (management procedures¹ are used in these fisheries as a mechanism to rebuild abundance). The CRA 8 fishery is currently at a high level of abundance and adequately provides for recreational benefits despite the operation of a different MLS regime between recreational and commercial fishers.
	 The immediate removal or phase-out of a Concession Area will not impact on stock sustainability as long as new TACs are determined to reflect the new stock selectivity (i.e. removal of a Concession Area may result in a TAC decrease).
	 Removal or phase-out of a Concession Area is the appropriate choice if you consider there is a negative effect of a Concession Area on recreational wellbeing that is unacceptable.
Option 1B, 2B or 3B: Remove or phase-	 Removal or phase-out of a Concession Area will reduce commercial benefits. The extent of the negative impacts on the commercial sector depends on the level of current stock abundance, the number of new lobsters entering the fishery, and the biological characteristics of lobsters in each fishery.
out, a Concession Area from 2013	For CRA 3 – the maximum short-term economic impact of removal to the commercial sector is estimated to be \$2.9 m in the first year ² . However, this is the maximum loss and it assumes that the Total Allowable Commercial Catch (TACC) could not be supplemented by taking more of the larger lobster in this first year. In the longer-term MPI considers there is likely to be an increase in the availability of larger lobsters and the negative economic impact is likely to reduce.
	For CRA 7 – the maximum short-term economic impact of removal to the commercial sector is estimated to be \$3.0 m in the first year ³ . The longer-term impacts may be reduced slightly but are likely to be similar to the short-term impacts due to the biological and behavioural characteristics of rock lobsters in this fishery.

¹ A management procedure is a tool used to guide the setting of catch limits. It specifies what data will be used to make catch limit decisions and how it will be collected and analysed, and it contains a harvest control that determines what the specific output will be (ie, the TAC).

² Based on 2010/11 quantities and an average landed beach price of \$56 per kilogram.

³ Based on 2010/11 quantities and an average landed beach price of \$56 per kilogram.

Continued... Option 1B, 2B or 3B:

Remove or phaseout, a Concession Area from 2013 For CRA 8 – the maximum short-term economic impact of removal to the commercial sector is estimated to be \$5.7m in the first year⁴. However, the CRA 8 stock is currently at a high level of abundance and any displaced catch could readily be taken in full from larger lobsters in the fishery. MPI considers that the negative economic impact in CRA 8 is likely to be slight in the short- and long-terms.

• While availability of rock lobsters to recreational fishers is likely to improve as abundance increases in CRA 3 and CRA 7, removal or phase-out of the CRA 3 or CRA 7 Concession Area and implementation of the same MLS regime between recreational and commercial fishers is likely to result in direct competition with commercial fishers for the same fish at the same time. There is likely to be no significant change in the availability of CRA 8 lobsters to recreational fishers through removal of the CRA 8 Concession Area.

Option 1C, 2C or 3C:

Allow recreational fishers access to a 'concession' area MLS at the same time as commercial fishers from 2013

- Allowing recreational access to a 'concession' area MLS at the same time
 as commercial fishers from 2013 is an alternative way to reduce negative
 views held about them by some recreational fishery participants (i.e. for
 CRA 3 this would be during June, July and August; for CRA 7 from 1
 June to 19 November; and CRA 8 at any time of year).
- Allowing recreational access to a 'concession' area MLS potentially increases compliance risks through an opportunity for poachers to conceal recreationally caught undersized rock lobster from non-'concession' areas.
- These options are unlikely to impact on commercial benefits (particularly, if recreational removals do not exceed the allowance made for this interest in TAC setting).
- Availability of rock lobsters to recreational fishers is likely to increase in CRA 3 and CRA 7 under these options. This is because recreational fishers would have access to previously unavailable fish. Recreational benefits are unlikely to significantly change in CRA 8 because stock abundance is high and adequately provides for recreational fishing opportunities.

Table 2: Summary of key considerations for each Concession Area option

CRA 3 Concession Area

- 8 There is no agreement within the National Rock Lobster Management Group (NRLMG) or submitters on a recommended position for CRA 3.
- 9 Customary and commercial NRLMG members and the majority of customary (including customary non-commercial and customary commercial interests) and commercial submitters support retention of the CRA 3 Concession Area (Option 1A). Those submitters that supported Option 1A consider that the fishery is now demonstrably sustainable and removal of the Concession Area would reduce gains made in recent years in the fishery by causing greater competition between sectors over spring/summer, potentially increasing opportunities for illegal take, and causing economic loss for the commercial sector.
- 10 Recreational NRLMG members and the majority of recreational submitters support removal of the CRA 3 Concession Area (Option 1B). Most submitters (including non-commercial and commercial interests) that supported Option 1B consider there is a need to have a level playing field in relation to the MLS for recreational and commercial fishers so

⁴ Based on 2010/11 quantities and an average landed beach price of \$56 per kilogram.

that there is a reasonable chance that daily bag limits of six legal-sized rock lobsters can be filled.

MPI notes that low stock abundance (since about 2004) has had a significant influence on the availability of rock lobsters to all sectors in CRA 3. Measures have been taken to rebuild the fishery (i.e. through TAC/TACC reductions and more recently from the use of a management procedure to guide TAC setting). Best available information suggests the fishery is rebuilding and might now be above the agreed reference level. Experience has shown as stock size increases, fishing opportunities for all sectors generally improves.

CRA 7 Concession Area

- There is no agreement within the NRLMG or submitters on a recommended position for CRA 7.
- 13 Customary and commercial NRLMG members and the majority of customary and commercial submitters support retention of the CRA 7 Concession Area (Option 2A). The Industry's basis for support is because removal of the CRA 7 Concession Area would severely impact on the existence of the commercial fishery.
- Recreational NRLMG members and the majority of recreational submitters support removal of the CRA 7 Concession Area (Option 2B). Most submitters that supported Option 2B noted there is a need to have equity between recreational and commercial fishers.
- MPI cautions against the immediate removal of the CRA 7 Concession Area because, in MPI's view, to do so would have a high risk of negatively impacting the economic viability of the CRA 7 industry. A phased approach may assist to mitigate some impacts on the commercial sector, but longer-term impacts of removal are likely to remain given the biological characteristics of the CRA 7 fishery (i.e. the fishery habitat does not support an abundant stock of larger size classes and large numbers of rock lobsters migrate out of the fishery at certain times).
- MPI notes that CRA 7 abundance has fluctuated in recent years and is currently at a low level. Measures are been taken to rebuild the fishery (i.e. through implementing TAC/TACC reductions from the use of a management procedure to guide TAC setting). As a result, fishing opportunities for all sectors are likely to improve as the stock increases from its current size.

CRA 8 Concession Area

- 17 The NRLMG sector members recommend that you retain the CRA 8 Concession Area (Option 3A). This is because these members consider there are no biological or economic reasons to remove the CRA 8 Concession Area. Recreational NRLMG members also note it has very little impact on availability of rock lobsters to recreational fishers.
- MPI notes the CRA 8 fishery is currently at a high level of abundance and adequately provides fishing opportunities for all sectors.

Summary of Recommendations

CRA 3 (Gisborne) Rock Lobster Fishery

20 In relation to the CRA 3 fishery, MPI recommends that you:

EITHER

 Agree to retain the CRA 3 Concession Area MLS Regulations (Option 1A); Yes/No

OR

ii. Agree to remove or commence phasing-out of the CRA 3 Concession Area MLS Regulations from 1 June 2013 (Option 1B).

And, within this,

iii. Request the NRLMG to investigate and provide you with removal or phase-out (including timing and size increment preferences) options for consideration by November 2012.

Yes/No

OR

iv. Agree to allow recreational fishers access to the CRA 3 Concession Area MLS Regulation from 2013 (Option 1C), and amend the Fisheries (Amateur Fishing) Regulations 1986 to set a CRA 3 MLS of 52 mm tail width for male rock lobsters during June, July and August in any year.

Yés/No

CRA 7 (Otago) Rock Lobster Fishery

21 In relation to the CRA 7 fishery, MPI recommends that you:

EITHER

i. Agree to retain the CRA 7 Concession Area MLS Regulations (Option 2A);

Yes/No

OR

ii. Agree to remove or commence phasing-out of the CRA 7 Concession Area MLS Regulations from 1 June 2013 (Option 2B).

And, within this,

iii. Request the NRLMG to investigate and provide you with removal or phase-out (including timing and size increment preferences) options for consideration by November 2012.

Yes/No

OR

iv. **Agree** to allow recreational fishers access to the CRA 7 Concession Area MLS Regulation from 2013 (<u>Option 2C</u>), and amend the Fisheries (Amateur Fishing) Regulations 1986 to set a CRA 7 MLS of 127 mm tail length for male and female rock lobsters from 1 June to 19 November.

Yes/No

CRA 8 (Southern) Rock Lobster Fishery

- 22 In relation to the CRA 8 fishery, MPI recommends that you:
 - i. Agree to retain the CRA 8 Concession Area MLS Regulations Yes/No (Option 3A).
- 23 MPI notes that you may:

EITHER

ii. Agree to remove or commence phasing-out of the CRA 8 Concession Area MLS Regulations from 1 April 2013 (Option 3B).

And, within this,

iii. Request the NRLMG to investigate and provide you with removal or phase-out (including timing and size increment preferences) options for consideration by November 2012 (preferably before to allow time to progress a regulatory change for 1 April 2013).

Yes/No

OR

iv. Agree to allow recreational fishers access to the CRA 8 Concession Area MLS Regulation from 2013 (Option 3C), and amend the Fisheries (Amateur Fishing) Regulations 1986 to set a CRA 8 MLS of 57 mm tail width for female rock lobsters at any time of year.

Vec/No

Andrew Doube for Director General

AGREED / AGREED AS AMENDED / NOT AGREED

Hon David Carter

Minister for Primary Industries

21/5/2012

Background Information

This section provides you with background information to inform your decision making on whether to retain or remove each Concession Area, or allow recreational access to the 'concession' area MLS at the same time as commercial fishers.

New Zealand's Fisheries Management Framework

- A wide variety of fishery management tools are imposed on customary, recreational and commercial fishers to ensure fishing is sustainable under New Zealand's Quota Management System (QMS), both in terms of the fish that is taken as well as to manage the effects of fishing on the aquatic environment. The fishery management tools that apply to each sector reflect the different ways each sector operates in a fishery (as recognised in fisheries legislation).
- In some cases, particularly for supporting efficient delivery of education, compliance, and enforcement services, it is appropriate for the same management tool to apply across all sectors. For example, some areas are closed to all fishing to protect juvenile fish or reduce impacts of fishing on protected species.
- In other cases, particularly because of regional differences in fish biology and behaviour, or in the way fisheries have developed or operated, it can be appropriate for different management tools to apply to each sector. For example, to help ensure sustainable utilisation of a specific species within a fisheries management area, recreational fishers are required to keep within individual daily bag limits, whereas commercial fishers can land as much catch as they like on a single day as long as they can balance their monthly catch with annual catch entitlements (ACE).
- Differences in management tools that apply to each sector may be employed to ensure stock sustainability or to meet utilisation objectives relating to social, economic and cultural wellbeing. When applied for the latter reason, different application of a tool between sectors should not impact unreasonably (from the decision maker's perspective and in the context of relevant legislation) on another sectors ability to utilise the resource or increase cost to the point where it reduces overall benefit from a fishery.

Rock Lobster Minimum Legal Size

- Before rock lobster fisheries were brought into the QMS on 1 April 1990, commercial rock lobster fishing was managed by input controls. The primary input controls that were in place before catch limits were set for each management area under the QMS, included MLS regulations, a prohibition of taking berried females and soft-shelled lobsters, and some area closures.
- 30 MLS is one of the most widely accepted tools to manage fisheries. When applied for biological reasons, MLSs are usually set at the size which allows a large proportion of a population to become sexually mature before being harvested.
- 31 MLSs for rock lobster generally pursue three key objectives:
 - 1. Allowing rock lobsters to become sexually mature and reproduce (ensure egg production)
 - 2. Increase egg per recruit by allowing larger sexually mature rock lobsters to reproduce (maximise egg production), and

- 3. Increase yield per recruit by allowing rock lobsters to grow to a larger size before they are harvested (maximise yield).
- 32 The current rock lobster MLSs are 54 mm TW for males and 60 mm TW for females for commercial and recreational fishers, except for rock lobsters taken by commercial fishers from a 'concession' area. The 54/60 TW MLS regime is roughly equivalent to the first minimum capture size introduced in the mid-1900s.
- The MLS definition has changed for rock lobster over time and the method of measuring lobsters has been scientifically re-examined on several occasions. The MLS measure has changed from total length (i.e. 10" or 254 mm), to tail length (TL) (i.e. 6" or 152 mm) and finally to a separate TW measure for male and female lobsters (except in CRA 7 and for packhorse rock lobsters). Different TW MLs are needed for each sex to ensure the efficiency of escape gaps in pots (because female lobsters generally have a smaller body size than males of a similar TW).
- Regulated MLSs do not apply to customary non-commercial Maori fishers. Tangata Tiaki/Kaitiaki and authorised customary permit issuers determine size limits applying to customary fishers.

Concession Area Regulations

'Concession' areas are management areas where commercial fishers are allowed to harvest rock lobster at a smaller size than the 54/60 mm TW MLS. There are three of these areas in New Zealand. They are all of CRA 3, all of CRA 7 excepting an area alongside the CRA 8 boundary (called the "buffer zone"), and all of CRA 8. Each Concession Area was introduced for different reasons, at different times and each contains varying regulations controlling the taking, landing, transport, processing and sale of rock lobsters.

The CRA 3 (Gisborne) Concession Area

- The CRA 3 Concession Area allows commercial fishers to take male rock lobsters at or above 52 mm TW during June, July and August. At other times of year the male MLS is 54 mm TW and at all times of year the female MLS is 60 mm TW. The CRA 3 fishery is closed to commercial fishing by regulation in May.
- The CRA 3 Concession Area was implemented in 1993 as an outcome of a review of the CRA 3 fishery by a group of regional stakeholders known as the "CRA 3 User Group". Other management measures introduced at the same time included (but were not confined to): a 50% decrease in the TACC; a closed season to all users during September, October and November; and, additional closures to commercial fishers from 1 December until 31 January and 1 May until 31 May.
- The 1993 management package was introduced to support a stock rebuild, increase the unit value of the catch so that the effect of reduced commercial catches would be mitigated, and reduce illegal take and handling-related mortality. The CRA 3 Concession Area specifically provided commercial fishers with access to previously unavailable rock lobsters (52 mm TW and above male rock lobsters) in autumn-winter when market prices were highest to mitigate some of the impact of quota cuts.
- 39 In 1996, an evaluation of the management regime occurred and resulted in the management measures remaining. Elements of the CRA 3 management regime have been revised over time by the CRA 3 User Group and more recently by the NRLMG. The regulated elements of the 1993 management package that remain today are the May closure

to commercial fishing and the Concession Area (including MLS, storage and transport requirements for CRA 3 rock lobsters).

- In 2006, a CRA 3 Multi-stakeholder Forum was established to discuss and resolve two perceived utilisation issues that were causing conflict among the fishing sectors. The perceived issues were:
 - a) Inequity of access to fish in CRA 3, specifically, some recreational fishery participant beliefs that commercial fishers are provided an access advantage in winter; and
 - b) *Inter-sector spatial conflict*, specifically, some recreational fishery participant beliefs that spatial overlap between sectors near Gisborne is reducing recreational benefits.
- The CRA 3 Forum process resulted in the introduction of a voluntary commercial closed season from 1 September to 15 January in statistical areas 909 (East Coast) and 910 (Gisborne), and a voluntary commercial MLS of 54 mm TW in June, July and August for male rock lobsters in statistical area 911 (Mahia).
- Some recreational fishery participants assert that the issue of inequity of access still remains today because of the CRA 3 Concession Area, particularly in relation to access close to Gisborne City (the issue of the CRA 3 Concession Area is of less concern further north and south of Gisborne City). MPI notes that commercial members of the CRA 3 Forum proposed the investigation of a phased removal of the CRA 3 Concession Area once the agreed reference level was reached, but recreational members rejected this proposal because they wanted an immediate removal.

CRA 7 (Otago) Concession Area

- The CRA 7 Concession Area allows commercial fishers to take male and female rock lobsters at or above 127 mm TL from 1 June to 19 November in any year. The approximate TW equivalents of the TL measure are 45.6 mm TW for males and 46.9 mm TW for females⁵. The CRA 7 fishery is closed to commercial fishing from 20 November to 31 May of any year and an area alongside the CRA 8 boundary (called the "buffer zone") is closed all year round.
- Since the mid-1900s the MLS applying to CRA 7 commercial fishing has differed from the MLS applying elsewhere in New Zealand. The CRA 7 commercial MLS was introduced to support a market for canned rock lobster tails. Information available at the time of introduction of the measure also suggested that CRA 7 rock lobsters did not grow to and beyond the larger MLS that applied in other management areas and large numbers of smaller-sized rock lobsters moved out of the fishery at certain times of year emigrating south towards Foveaux Strait (within CRA 8).
- 45 For further information on the history of the CRA 7 Concession Area see Attachment 2.

CRA 8 (Southern) Concession Area

The CRA 8 Concession Area allows commercial fishers to take female rock lobsters at or above 57 mm TW at any time of year. The male MLS is the same as in most areas of New Zealand (54 mm TW) at all times.

⁵ Tail width equivalent calculations are based on work described by Breen, P.A., Booth, J.D., and Tyson, P.J. 1988: Feasibility of a minimum size limit based on tail width for the New Zealand red rock lobster, *Jasus edwardsii*. New Zealand Fisheries Technical Report No. 6.

- When the change in measure from TL to TW was implemented in 1988 it was intended that the new sizes would correlate to the old. However, the change in measure in CRA 8 resulted in a loss of access to significant quantities of previously available rock lobsters in the Southern fishery (about a 28% reduction in landings between 1987 and 1988). The TW measure affected the CRA 8 fishery, especially for females, because rock lobster tails were generally narrower for a given length in the south than in other areas (catch sampling information showed the average TW equivalent to the previous TL measures of 152 mm for female rock lobsters in the CRA 8 fishery was 56 mm).
- A judicial review of the 1988 TW measure was undertaken in the High Court based on claims from CRA 8 commercial fishers that the new MLS regulations had a serious detrimental effect on their catch and livelihood. The Court concluded that CRA 8 commercial fishers should pursue their contentions before the Minister of Fisheries to seek amendment to the MLS regulations based on an analysis of their catches and economic consequences.
- The then Minister of Fisheries granted a female size concession in the CRA 8 fishery for the 1989/90 and 1990/91 seasons (56 and 57 mm TW respectively) based on an analysis of commercial catch information and discussions with commercial fishers,. The Minister then decided that the female 57 mm TW MLS would be retained for the 1991/92 season. The Concession Area has remained ever since.
- 50 For further information on the history of the CRA 8 Concession Area see Attachment 3.

Review Outline

In this section information is provided on the issues relating to Concession Areas, an overview of the consultation and submission process, and the final proposals for you to consider.

The Issues

- Since commercial fishers can harvest rock lobster at smaller sizes than recreational fishers in the CRA 3, CRA 7 and CRA 8 rock lobster fisheries, issues of fairness and equity have arisen around Concession Areas.
- Concession Areas have consistently attracted criticism from some within the non-commercial sectors. Concerns have been expressed by some recreational fishing participants in CRA 3 (since about 2004) and CRA 7 (since about 2007) that the CRA 3 and CRA 7 Concession Areas are negatively impacting the availability of rock lobsters to recreational fishers (few concerns are expressed about the CRA 8 Concession Area).
- 54 Recreational fishers consider that the CRA 3 and CRA 7 Concession Areas:
 - a) Provide an access advantage to commercial fishers, particularly in times of low abundance:
 - b) Lead to a faster reduction in the fishing success of recreational fishers than other sectors in times of low abundance; and/or,
 - c) Increase opportunities for trafficking of illegal undersize rock lobster.
- Commercial participants on the other hand consider the MLSs that apply in 'concession' areas are matched by relevant TACs and TACCs and properly reflect the characteristics of the stocks. They note that Concession Areas provide increased opportunities to maximise economic benefits from commercial rock lobster harvest by providing industry greater flexibility to match rock lobster size to market demand.
- MPI notes there is no evidence to confirm or refute the view held by some recreational participants that the CRA 3 or CRA 7 Concession Areas are negatively impacting recreational fishers. The information that is available on whether an impact is occurring is anecdotal.
- Observations by MPI suggest that the level of concern expressed by recreational fishers about a Concession Area increases as abundance in a fishery declines. The CRA 3 fishery has been experiencing a period of low abundance but is now rebuilding. Abundance in the CRA 7 fishery has fluctuated in recent years and is currently experiencing a low level of abundance. The CRA 8 fishery is at a high level of abundance.

Consultation and Submissions

MPI released an Initial position Paper (IPP) for consultation on the previous Minister's behalf on 5 August 2011. The IPP proposed six management options (refer Table 3) and sought comment and information from tangata whenua and stakeholders.

Stock	IPP Options	Description	
CRA 3	1A	Retain the CRA 3 Concession Area	
	1B	Remove the CRA 3 Concession Area	
CRA 7	2A	Retain the CRA 7 Concession Area	
	2B	Remove the CRA 7 Concession Area	
CRA 8	3A	Retain the CRA 8 Concession Area	
	3B	Remove the CRA 8 Concession Area	

Table 3: IPP Proposed Options for the CRA 3, CRA 7 and CRA 8 Concession Areas

Eighteen written submissions were received from the following national and regional representative organisations, groups or companies. Full copies of the submissions are provided in Attachment 4 of this advice paper. Each submission is discussed further below for each Concession Area as relevant.

National Representative Organisations

- New Zealand Recreational Fishing Council (NZRFC)
- New Zealand Rock Lobster Industry Council (NZ RLIC)
- New Zealand Sport Fishing Council (NZSFC)
- Te Ohu Kaimoana Trustee Ltd (Te Ohu)

Regional Representative Organisations, Groups or Companies

- CRA 8 Management Committee Inc. (CRAMAC 8)
- Gisborne Fisheries Ltd.
- Gisborne-Tatapouri Sports Fishing Club (GTSFC)
- Hapu of nga rohe moana o Ngati Porou (including Te Aitanga A Mate, Te Aowera, Te Whanau a Hinekehu Takutai Kaitiaki Trust) (Ngati Porou hapu)
- Ngati Kahungunu lwi Incorporated (NKII)
- Ngati Porou Seafoods Ltd. (NPSL)
- Otago Rock Lobster Industry Association Inc. (CRAMAC 7)
- Rongowhakaata Iwi Asset Holding Co. Ltd (Rongowhakaata)
- Tairawhiti Rock Lobster Industry Association Inc. (CRAMAC 3)

Individuals

- Alan Dickson (with support from individual tangata whenua) CRA 3 (Mahia) commercial fisher (Mr Dickson et al)
- John Dickson CRA 3 (Mahia) commercial fisher (Mr J Dickson)
- Mike Eriksen CRA 3 recreational fisher (Mr Eriksen)
- Alain Jorion (with support from individuals/groups) CRA 3 recreational fisher (Mr Jorion et al)
- Gavin Rogers CRA 3 commercial fisher (Mr Rogers).

Final Proposals

MPI proposes the following nine options for your consideration (Table 4). Options 1A, 2A, and 3A are the same as the IPP. Options 1B, 2B, and 3B are similar to those outlined in the IPP; however, specific dates have been added to remove or commence phasing-out a Concession Area from 2013. Options 1C, 2C and 3C have been included for consideration based on feedback from the NRLMG and some submitters.

Stock	Final Options	Description	
	1A	Retain the CRA 3 Concession Area	
CRA 3	1B	Remove or phase-out the CRA 3 Concession Area from 1 June 2013 <i>And</i> , Request the NRLMG to investigate and provide you with immediate removal or phase-out (including timing and size increment preferences) options for consideration by November 2012.	
	1C	Allow recreational fishers access to the CRA 3 'concession' area MLS during June, July and August from 2013	
	2A	Retain the CRA 7 Concession Area	
CRA 7	2В	Remove or phase-out the CRA 7 Concession Area from 1 June 2013 And, Request the NRLMG to investigate and provide you with immediate removal or phase-out (including timing and size increment preferences) options for consideration by November 2012.	
	2C	Allow recreational fishers access to the CRA 7 'concession' area MLS between 1 June and 19 November from 2013	
	3 A	Retain the CRA 8 Concession Area	
CRA8	3В	Remove or phase-out the CRA 8 Concession Area from 1 April 2013 And, Request the NRLMG to investigate and provide you with immediate removal or phase-out (including timing and size increment preferences) options for consideration by November 2012 (preferably before to allow time to progress a regulatory change for 1 April 2013).	
	3C	Allow recreational fishers access to the CRA 8 'concession' area MLS at any time of year from 1 April 2013	

 Table 4: Final proposed CRA 3, CRA 7 and CRA 8 'concession' area options.

Options 1A, 2A & 3A – Retain a Concession Area (the status quo)

- Under Options 1A, 2A and 3A, the CRA 3, CRA 7 and/or CRA 8 Concession Areas would be retained.
- 62 If you decide to keep all or some of the Concession Areas, MPI proposes to review the:
 - a) Regulatory framework applying to 'concession' areas, to ensure it is achieving desired fisheries management outcomes in the most cost-effective way without imposing unnecessary constraints on a sector. MPI proposes to commence this regulatory review after your decision on this paper.

b) Rock lobster harvest strategy objectives for fisheries with 'concession' areas (e.g. options that rebuild depleted stocks to optimal levels at faster rates and that maintain stocks at optimal levels with more certainty).

Options 1B, 2B & 3B – Remove or Phase-Out a Concession Area

- Under Options 1B, 2B and 3B, the CRA 3, CRA 7 and/or CRA 8 Concession Areas would be removed or phased-out from 2013. Each set of Concession Area regulations, including other associated regulations (e.g. packaging and labelling requirements), would be revoked or amended pursuant to section 297 (General Regulations) of the Act.⁶ These options would result in a 54/60 mm TW MLS regime for commercial fishers.
- If you choose these options, the NRLMG will be asked to investigate and provide you with removal or phase-out (including timing and size increment preferences) options for a Concession Area by November 2012. Implementation dates of April or June 2013 for these options will also allow you to take into account any implications of your decisions on TAC setting for 1 April 2013.
- Management procedures are currently used in CRA 3, CRA 7 and CRA 8 rock lobster fisheries to guide your annual TAC setting decisions. If you choose to remove a Concession Area, new management procedures that are cognisant of the changed MLS would be required to guide future TAC setting. For CRA 3, an appropriate management procedure option is already available for use but may need to be updated (it was developed in 2009). For CRA 7 and CRA 8, new management procedures will need to be developed and the evaluations would need to be linked to new CRA 7 and CRA 8 stock assessments (proposed to be undertaken from September 2012).

Options 1C, 2C & 3C – Allow recreational fishers access to the 'concession' area MLS

- 66 Under Options 1C, 2C and 3C recreational fishers would have access to the 'concession' area MLS (i.e. access to the same sized fish as commercial fishers at the same time of year). Specifically:
 - a) In CRA 3 (Option 1C), recreational fishers would be allowed to take male rock lobsters at or above 52 mm TW during June, July and August. At other times of year the male MLS is 54 mm TW. At all times of year the female MLS is 60 mm TW.
 - b) In CRA 7 (Option 2C), recreational fishers would be allowed to take male and female rock lobsters at or above 127 mm TL from 1 June to 19 November. At other times of year the male MLS is 54 mm TW and the female MLS is 60 mm TW.
 - c) In CRA 8 (Option 3C), recreational fishers would be allowed to take female rock lobsters at or above 57 mm TW at any time of year. The male MLS is 54 mm TW.
- Options 'C' will require amendments to be made to the existing amateur regulations in 2013 pursuant to section 297 (General Regulations) of the Act.

⁶ The following regulations would be revoked or amended: Fisheries (Central Area Commercial Fishing) Regulations 1986, regulations 14K, L and M Fisheries (South-East Area Commercial Fishing) Regulations 1986, regulations 6, 6A, 7, 7A and 8A Fisheries (Southland and Sub-Antarctic Areas Commercial Fishing) Regulations 1986, regulations 5C, D and E.

Option Analysis and Discussion

- This section analyses and discusses the impact the proposed Concession Area options have on the ability to:
 - a) Ensure stock sustainability; and
 - b) Provide for utilisation.
- 69 A general outline of matters relevant to all Concession Areas is undertaken first before considering each individual Concession Area. MPI discussion of relevant matters raised in submissions is also carried out in this section.

General Analysis and Discussion of Matters Relevant to all Concession Areas

Impact of Concession Areas on Ensuring Sustainability

Future Generations

- Concession Areas do not affect the potential of fisheries to meet the reasonably foreseeable needs of future generations. The management approach for rock lobster fisheries (i.e. stock assessment and TAC setting processes) can ensure stock sustainability regardless of the MLSs in place. In effect, for any combination of the male/female MLSs there is a corresponding maximum catch limit to ensure a sustainable fishery.
- 71 While Concession Areas do not impact on stock sustainability, a key objective of fisheries management is to protect spawning stock abundance to maintain reproductive output and secure recruitment into the fishery. Achieving this objective is often supported by the use of MLSs. TACs also play a significant role in maintaining rock lobster spawning stock abundance.
- Rock lobster MLSs generally seek to allow a large proportion of the population to become sexually mature and reproduce before becoming vulnerable to harvesting. MLSs can also increase the reproductive potential of rock lobsters by allowing larger, sexually mature rock lobsters to reproduce. Size at sexual maturity varies with location so the relationship between current MLSs and sexual maturity is discussed individually for each 'concession' area further below.
- A challenge for management of rock lobster fisheries is variation in recruitment. Observation suggests the main influence on recruitment success in rock lobster fisheries is environmental. Also, due to the long larval phases of rock lobster extensive mixing is likely to occur between management areas. Because of these characteristics it is important to consider breeding success at the 'whole of New Zealand' scale, as well as at the scale of individual stocks. No lack of breeding success has so far been observed in any rock lobster fishery as determined from observer catch sampling and vessel logbook data.
- Management procedures are now used in most rock lobster fisheries, including all 'concession' areas, to enable timely responses to fluctuations in recruitment of rock lobsters to the fisheries and ensure ongoing sustainability. Management procedures incorporate current fishery rules, such as MLSs, to ensure sustainability under current management arrangements.

Adverse Effects of Fishing

- Rock lobster fishing activity in 'concession' areas does not have additional adverse effects on the aquatic environment relative to such activity in other areas.
- The Act requires you to take into account the following environmental principles: associated or dependent species should be maintained above a level that ensures their long-term viability; biological diversity of the aquatic environment should be maintained; and habitats of particular significance for fisheries management should be protected. Apart from the Chatham Islands, potting is the only method of taking rock lobster allowed to commercial fishers. Potting results in relatively low levels of by-catch and has very little impact on the aquatic environment.

Impact of Concession Areas on Utilisation

How, and to what extent, Concession Areas might affect how rock lobster fisheries are conserved, used, enhanced and developed to enable people to provide for their social, economic and cultural wellbeing is difficult to assess using available information.

Sector Wellbeing

- Rock lobster fisheries are shared fisheries; there is often significant competition for access to available catch and what is deemed to constitute wellbeing varies between sectors.
- While there are some constraints⁷, the Act is largely discretionary on how you are to address competing uses. A key control in the Act, and where you frequently exercise your discretion on providing for competing uses, is the setting or varying of the TAC and its associated sector catch allowances. Once you have decided on a TAC and catch allowances, taking into consideration existing rules, MPI considers it reasonable that a sector should be able to, under normal conditions, harvest the allowance set.
- A key question relevant to the concerns raised by the recreational sector is "do the Concession Areas applying to the commercial sector affect the ability of the recreational sector to harvest their catch allowances?".
- The management approaches used for rock lobster fisheries ensure sufficient abundance of rock lobsters at or above the relevant MLSs to provide for each sector's allowance. In a 'concession' area, the abundance and size distribution of rock lobsters in the fishery may affect the ability of a sector to catch their allowance. For example, if the total number of rock lobsters above the recreational MLS (i.e. the largest MLS that applies) is low, recreational fishers may not be able to catch all the fish allowed to their sector using available recreational methods. This potential impact is more likely to occur at lower stock abundance levels.
- 82 Information on recreational fishing is limited and affects MPI's ability to assess whether this potential impact is actually occurring in any 'concession' area. Detailed quantitative information on recreational catches and catch rates, and whether allowances made for recreational interests are being taken are not currently available.

⁷ For example, when setting TACs you are required to take into account existing controls that apply to the area and when setting or varying the TACC; the Act specifies that you shall allow for Maori customary non-commercial fishing interests and recreational interests.

Management Costs

- 83 Net benefits from a fishery can be reduced by high management costs. Information is not available to quantify the additional costs associated with the implementation and compliance with Concession Areas.
- MPI considers that Concession Areas increase opportunities for otherwise illegal undersized rock lobster to be landed, reported and sold as 'concession' area rock lobsters. The majority of MPI's compliance and enforcement costs relate to commercial traceability and mainly occur from processing through to the market. Instances of Concession Area offences by commercial fishers are not common.
- 85 Concession Areas can also create perceptions of unfairness within the non-commercial sector and result in a lack of buy-in to the overall fisheries management framework and potentially an increase in illegal activity. This situation can increase compliance costs.
- In general, MPI considers that compliance and enforcement costs may decrease if a Concession Area was removed and increase if recreational fishers were allowed access to a 'concession' area MLS. MPI also considers that, if a Concession Area was removed this is likely to reduce commercial regulatory compliance costs (but no information is currently available to quantify the cost savings). Industry strongly disagrees with these considerations.
- MPI considers that allowing recreational fishers access to a Concession Area MLS would provide a currently unavailable opportunity for poachers to conceal recreationally caught undersized rock lobster from management areas outside of a 'concession' area. While the scale of this offending is difficult to predict, MPI's experience is that the cost of enforcement and monitoring nearly always increases where a disparity of rules between areas is evident (precedents for this can be found in the Marlborough Sounds blue cod fishery and the Taranaki paua fishery). Another cost associated with allowing recreational access to a 'concession' area MLS relates to education of the new recreational fishing rules.

Overview of Submissions relating to all Concession Areas

- In general, most recreational sector submitters say there is clear evidence that Concession Areas have a negative impact on the availability of rock lobsters to recreational fishers, whereas some commercial and customary submitters say there is no such evidence. Specifically:
 - a) Recreational submitter, NZRFC, suggests there is no doubt in many cases Concession Areas reduce recreational fisher access to a reasonable daily bag limit, particularly when abundance is low; and,
 - b) Customary and industry submitters (Te Ohu, NZ RLIC, and CRAMAC 8) consider there was no information presented in the IPP to support a case for removal of any Concession Area and contend that there is no evidence to support concerns expressed by some recreational fishery participants that Concession Areas reduce recreational fishing success.
- 89 Recreational submitter, NZSFC, does not think rock lobster stocks are being managed at sufficient abundance levels to enable people to provide for their social, economic and cultural wellbeing.
- The NZRFC considers it is only appropriate to apply different management tools across sectors if this does not lead to any inequities (e.g. prevent the recreational sector from having a reasonable chance to take a reasonable bag limit). CRAMAC 8 does not believe

"one size fits all" and that there should be a single MLS regime across all stocks given the variation in growth, size at onset of maturity, productivity and abundance across New Zealand.

91 Te Ohu and CRAMAC 8 note that allowing recreational fisher access to 'concession' area MLSs (Option 'C') could work to address perceptions of inequity of access. Te Ohu considers there would be a need to ensure better catch reporting by the recreational sector first. The NRLMG also recommended that Option 'C' be included in this paper for your consideration.

MPI Discussion of Relevant Matters Raised in Submissions for all Concession Areas

- 92 Evidence is lacking to confirm either the presence or the absence of an impact of Concession Areas on the ability of the recreational sector to harvest their set allowances. What information is available for analysis is discussed for each individual 'concession' area below. This information is uncertain and equivocal.
- 93 Section 10 of the Act requires you to take into account certain information principles when making decisions under the Act, including that:
 - a) Decisions should be based on the best available information;
 - b) Any uncertainty in the information available should be considered, and caution should be applied when information is uncertain, unreliable, or inadequate; and
 - c) The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to make a decision.
- 94 MPI considers the information presented in this document uses best available information and sets out the relevant uncertainty in, and inadequacy of, any information so that you can apply appropriate caution in assessing the proposed management options.
- MPI notes that all rock lobster stocks are being managed in a manner that is consistent with your statutory requirements. The overriding management goal is for rock lobster fisheries to be maintained at or above agreed reference levels using approaches that recognise the range of Maori customary non-commercial, recreational, and commercial concerns and values.
- MPI agrees that different management tools between sectors are appropriate in some cases. The fishery management tools that apply to each sector reflect the different ways each sector operates in a fishery (as recognised in fisheries legislation). MPI considers rules applying to one sector should not impact unreasonably on another sectors ability to harvest their allowance or increase the cost of management to the point where it reduces overall benefit from the fishery.
- 97 MPI notes bag limits for most fisheries represent an upper limit rather than the expected catch of every recreational fisher each fishing day. MPI also notes that most MLSs applying in 'concession' areas have an historical basis and were not necessarily set to reflect an optimal MLS regime for the fishery (i.e. to take into account variation in growth, size at onset of maturity, productivity and abundance across New Zealand).

Analysis and Discussion of the CRA 3 Concession Area

98 MPI proposes that you consider three options for CRA 3: retain the CRA 3 Concession Area (Option 1A); remove or phase-out the CRA 3 Concession Area from 1 June 2013 (Option 1B); or allow recreational fisher's access to the CRA 3 'concession' area MLS during June, July and August from 2013 (Option 1C).

Overview of Submissions Received on CRA 3

99 MPI received 16 submissions relating to the CRA 3 Concession Area proposals.

Support for Option 1A

- 100 Customary and commercial submitters (Ngati Porou hapu, Te Ohu, Rongowhaakata, CRAMAC 3 (endorsed by NZ RLIC), NPSL, Gisborne Fisheries and Mr Rogers) support Option 1A retain the CRA 3 Concession Area. These submitters consider the fishery is demonstrably sustainable and the removal of the Concession Area would reduce the gains made in recent years in the fishery by causing greater competition between sectors over spring/summer, potentially increasing opportunities for illegal take, and causing economic loss for the commercial sector.
- 101 Recreational submitter, Mr Eriksen, also supports Option 1A. This submitter notes that, while on the surface the Concession Area seems unfair, he would prefer it to continue rather than having commercial fishing over the December/January period (i.e. the voluntary commercial closed season is unlikely to be followed if the Concession Area is removed).
- 102 Customary submitter, NKII, notes the CRA 3 Concession Area does not impact on their fisheries interests as Mahia fishers voluntarily do not take 'concession-sized' fish⁸. NKII supports the aspirations and recommendations of other iwi in CRA 3, particularly Ngati Porou.

Support for Option 1B

Non-commercial and commercial submitters (NZ RFC, NZSFC, GTSFC, Mr Jorion *et al*, Mr Dickson *et al* and Mr J Dickson) support Option 1B – immediately remove the CRA 3 Concession Area. Most of these submitters consider there is a need to have a level playing field in relation to the MLS for recreational and commercial fishers so that there is reasonable chance that daily bag limits of six legal-sized rock lobsters can be filled. Mr Dickson *et al* and Mr J Dickson consider that sustainability and rebuild of the fishery should come first.

Support for Option 1C

Some recreational submitters state that if you choose Option 1C, recreational fishers must be given access to the CRA 3 'concession' area MLS at all times of year instead of during June, July and August as proposed.

⁸ 'concession-sized' rock lobsters are rock lobsters from the 'concession' area MLS to the 54/60 mm TW MLS.

MPI Discussion of Relevant Matters Raised in Submissions for CRA 3

Ensuring Sustainability

Key points

- The CRA 3 Concession Area does not impact on stock sustainability. The TAC is the principal sustainability control and the 'concession' area MLS is taken into account in the TAC setting process.
- The CRA 3 fishery has experienced a period of low stock abundance but is now rebuilding. Measures have been taken to rebuild the fishery (e.g. through TAC/TACC reductions and more recently from the use of a management procedure to guide TAC setting). Experience has shown as stock size increases, fishing opportunities for all sectors generally improves. Anecdotal information from local MPI staff suggest recreational fishers were catching increased numbers of legal-sized rock lobsters over summer 2011/12 than previous years.
- Best available information suggests the CRA 3 Concession Area does not impact on spawning stock abundance. CRA 3 spawning stock abundance is well above 20% of its un-fished level with high probability (20% is the level considered likely to ensure good levels of future recruitment if environmental conditions are conducive).
- The CRA 3 Concession Area applies to male rock lobsters only; therefore, it is appropriate to consider male maturity too. It is unknown what the size of male maturity is in CRA 3. Information from a study conducted in a marine reserve in the north-east of the country (within the CRA 2 Bay of Plenty fishery) indicated most male rock lobsters were physically mature at 85 mm carapace length (a TW equivalent of 46.5 mm)⁹. If males mature at a similar size in the nearby CRA 3 fishery, they would mate several times before recruiting to the fishery at 52 mm TW.
- The removal of the CRA 3 Concession Area may increase handling related mortality because commercial fishers would be required to return more rock lobster to the sea. A handling mortality level of 10% is assumed in stock assessment models, but it is unknown if this level would be sufficient to address risks associated with increased handling if the Concession Area was removed.

Submitter Comments

104 Submitters from across the sectors raised the following concerns about stock sustainability should the Concession Area be retained:

- a) The impact of small males mating with larger females in the CRA 3 fishery
- b) The effect on biological diversity of the aquatic environment
- c) The number of stock units being taken to achieve the TACC.

Other submitters were concerned that removing the Concession Area would increase handling mortality. NPSL suggests this risk could be mitigated by the introduction of a handling code of practice.

⁹ MacDiarmid, A. B. 1989: Size at onset of maturity and size-dependent reproductive output of female and male spiny lobsters *Jasus edwardsii* (Hutton) (Decapoda, Palinuridae) in northern New Zealand. Journal of Experimental Marine Biology and Ecology, Vol. 127, pp. 229-243.

MPI Response

- 106 MPI notes a decreasing abundance of large male rock lobsters may result in females mating with smaller males – potentially reducing breeding success¹⁰. Information on CRA 3 reproductive success is not currently available, but observed seasonal stock monitoring suggests no evidence of a lack of breeding success.
- 107 MPI considers that, while removal of the CRA 3 Concession Area would allow more male rock lobsters to grow to a slightly larger size before being vulnerable to the fishery, the 2mm TW increase is unlikely to significantly affect reproductive success.
- 108 Biodiversity is unlikely to be impacted by the Concession Area. This is because the management approach takes into account the 'concession' area MLS and the use of a management procedure to guide TAC setting is expected to ensure long-term sustainability of the stock.
- Catch limit decisions also take into account the size of rock lobsters that are 109 vulnerable to fishing (i.e. the number of stock units that would be taken to achieve the TACC). For any male/female MLS there is a corresponding maximum catch limit.
- MPI agrees that removal of the 'concession' area may increase handling related mortality. Handling risks could be mitigated by a handling code of practice (as suggested by NPSL). A safe handling pamphlet was developed by the CRA 3 Multi-stakeholder Forum several years ago and could be reviewed.

Non-Commercial Utilisation

Key points

- Some recreational fishery participants have expressed concern that CRA 3 recreational fishing success is adversely affected by the CRA 3 Concession Area.
- Information on catch and catch rates of recreational fishers in CRA 3 is limited and insufficient in quantity and quality to inform an assessment of whether the Concession Area is negatively impacting recreational fishing success.
- Options 1B and 1C will likely reduce the concerns associated with the CRA 3 Concession Area, but these options may not significantly change benefits to recreational fishers. Removal of the Concession Area (Option 1B) may not result in preferred size classes and numbers of legal-sized rock lobsters being available to recreational fishers in popular recreational fishing areas as a range of factors influence local rock lobster abundance (i.e. environmental factors, local fishing activity, and seasonal availability). MPI notes allowing recreational access to the 'concession' area MLS (Option 1C) may not increase benefits to recreational fishers if they consider that the benefit is driven primarily by harvesting larger sized rock lobsters.

¹⁰ MacDiarmid, A.B., Stewart, R., and Oliver, M. 2000: Mate choice in rock lobsters. Seafood NZ, Vol.8, No.7, pp. 338-39.

Submitter Comments

- Submitters (NZRFC and Mr Jorion *et al*) raised the following concerns about current utilisation opportunities in the CRA 3 fishery. They consider that:
 - a) Duties to recreational fishers under section 8 of the Act are not being fulfilled. Specifically, the development of fisheries resources to enable people to provide for their social, economic and cultural well-being.
 - b) The combination of slow growth and the 'concession' area MLS is negatively affecting recreational fishing success. In a supplementary submission (refer Attachment 1), the NZRFC presents size data from research sampling on reefs inside and outside the Te Tapuwae o Rongokako Marine Reserve in each November from 2003 to 2006. The NZRFC consider the data show that the access problems experienced by recreational fishers near Gisborne are the direct result of an extreme concentration of commercial fishing pressure for concession-sized fish.
 - c) Commercial fishers will need to improve their behaviour and fishing practices to ensure they do not concentrate their efforts on the near shore waters of Gisborne in the lead up to the recreational summer fishing season – regardless of whether the Concession Area is retained or removed. If commercial fishers don't change their behaviour the submitters suggest they will seek limits on how much quota can be taken from areas of high recreational interest or spatial separation.
- 112 Customary and commercial submitters (Ngati Porou hapu, Te Ohu, NPSL, NZ RLIC, and CRAMAC 3) note a complete lack of information to truly ascertain the negative impacts the CRA 3 Concession Area is alleged to be having on the ability for recreational fishers to catch rock lobsters in the CRA 3 fishery. Given the uncertainty, Ngati Porou hapu and NPSL suggest further research is required to determine the impacts.
- 113 Customary and commercial submitters (Ngati Porou hapu, CRAMAC 3, NPSL, Gisborne Fisheries, and Mr Rogers) also express concern about the likely increase in competition for catches in statistical areas 909 and 910 if the Concession Area is removed. A number of these submitters believe the CRA 3 Concession Area coupled with the voluntary commercial seasonal closure allows recreational fishers in 909 and 910 the best chance of catching their bag limits over the spring/summer without interference and competition from commercial fishers.

MPI Response

- 114 Evidence of the negative impact from the CRA 3 Concession Area on the recreational sector is lacking. An allowance of 20 tonnes has been made for recreational interests in the CRA 3 fishery and best available information suggests this allowance adequately allows for this interest at this time.
- MPI notes the NZRFC's comparisons between fished and un-fished areas cannot be used to inform this utilisation assessment as it does not provide information on fishing success of the recreational sector or relative success across sectors (refer Attachment 1). Also, while slower growth rates are likely to affect the fishing success of both the recreational and commercial sectors; the slowdown in growth has been incorporated into stock assessment and catch limit setting processes for CRA 3.
- 116 Catch sampling on commercial vessels provides some data for analysis (see Attachment 1 MPI research information), but the interpretation of these data, in the context of the recreational sector complaints, is uncertain and equivocal. Catch sampling information from the autumn-winter season shows a greater proportion of concession-sized male rock lobsters relative to male lobsters at or above 54 mm TW may be taken when overall stock

abundance is low. This supports an assertion by recreational participants that the ability for the recreational sector to catch legal size male lobsters may decline at a faster rate than for the commercial sector in autumn-winter in situations of declining abundance. However, because most recreational fishing occurs in spring-summer it important to consider spring-summer catch sampling data. This information shows the proportion of concession-sized male rock lobsters in pots fluctuate around 50% even at very high and very low abundance levels (i.e. there is no abundance related trend).

- 117 Catch sampling information has limitations, in particular because it only uses data collected from commercial pots. Comparable information from the recreational fishery is not available and MPI considers that it could not be gathered in a timely or cost effective manner.
- Some recreational submitters suggest all or most of the male rock lobsters are taken by commercial fishers in winter with few left for recreational fishers in summer. This is not supported by commercial catch information from across the CRA 3 fishery. This information shows commercial catch rates in spring-summer are similar to autumn-winter in times of high and low abundance levels, despite commercial fishers not having access to concession-sized rock lobsters in spring-summer.
- MPI agrees that competition for fishing space and rock lobsters is likely to increase in popular recreational fishing areas (statistical areas 909 and 910) over summer if the Concession Area is removed, as the commercial sector will likely drop the voluntary commercial closed season from 1 September to 15 January. It is unlikely that commercial fishers will be able to easily harvest their TACC without removing the voluntary closed season (particularly in the short-term).

Commercial Utilisation

Key points

- It is difficult to quantify the value of the CRA 3 Concession Area to industry. However, removal of the Concession Area would be expected to have negative impacts on catch, catch rates and economic benefits.
- Removal of the Concession Area would also result in an opportunity cost relating to a reduction in the flexibility to harvest a 2 mm wider size range of rock lobsters to meet variable market demands.

Submitter Comments

- 120 If you decide to remove the CRA 3 Concession Area (Option 1B) customary and commercial submitters (CRAMAC 3, Mr Rogers, Gisborne Fisheries, NPSL, and Rongowhakaata) consider that there would be:
 - a) More spring/summer fishing to catch the available TACC. This is likely to increase the costs of catching, landing and holding rock lobsters for export
 - b) A decrease in the value of commercial landings because less fish are likely to be landed in the high value autumn-winter period. The value of the commercial catch is significantly higher in winter compared to spring/summer
 - c) A reduced ability to add value through timing of catch to market demand and size range of product caught during the season

d) An increase in the number of days commercial fishers/pots are in the water. This can possibly result in damage to both legal and sub-legal rock lobsters and increase predation by species like octopus, rig, school shark and snapper.

MPI Response

- MPI notes that removal of the CRA 3 Concession Area will likely reduce commercial benefits.
- 122 Removal of the CRA 3 Concession Area would immediately reduce the stock available to the fishers from which to harvest the TACC. In the short-term this could increase the cost of catching their quota, and possibly even result in them not catching all their entitlement.
- The maximum negative short-term impact of removal of the CRA 3 Concession Area is estimated to be \$2.9 m in the first year (approx. 27% of the total potential earnings)¹¹. However, this is the maximum loss, assuming that the total catch could not be supplemented by taking more of the larger lobsters in this first year. Longer term, the abundance of rock lobsters is expected to increase and it is likely that this negative impact will be lessened.

Utilisation - Illegal Removals

Key points

- Illegal fishing can impact on utilisation benefits for all fishery sectors and undermine the fisheries management framework.
- The level of illegal removals from the CRA 3 fishery has been an issue for some time. Although uncertain, MPI compliance estimates of illegal removals peaked at over 200 tonnes prior to the implementation of the 1993 management regime (which included the introduction of the CRA 3 Concession Area). Since then MPI estimates of illegal removals have ranged from about 40 to 140 tonnes. The current estimate of 89.5 tonnes has not being updated since 2003, but information from Fishery Officers suggests actual removals could be half this level.

Submitter Comments

- 124 Commercial submitters (CRAMAC 3 and NPSL) note if the CRA 3 Concession Area is removed, commercial fishers will no longer implement the voluntary closed season from 1 September to 15 January. This means commercial pots may be in the water over a longer period of time, particularly over spring/summer. As a result, fish thieves will have increased opportunities to steal fish from those (and other) pots.
- Recreational submitter, GTSFC, suggests in relation to minimising illegal take, the reintroduction of the legislated closed seasons for commercial (1 September to 31 January) and recreational (1 September to 30 November) so that illegal fishing is easier to police.

¹¹ Based on 2010/11 quantities and an average landed beach price of \$56 per kilogram.

MPI Response

- MPI advises that the estimated quantity of illegal removals in the CRA 3 fishery appears to be linked to rock lobster abundance and the duration of commercial fishing. Removal of the CRA 3 Concession Area could potentially result in an increase in illegal take in the fishery (i.e. theft of rock lobsters from commercial pots) if fishing occurs over a longer period.
- MPI notes a reduced period of fishing (i.e. closed seasons) allows compliance to more effectively target illegal activity.

Analysis and Discussion of the CRA 7 Concession Area

128 MPI proposes that you consider three options for CRA 7: retain the CRA 7 Concession Area (Option 2A); remove or phase-out the CRA 7 Concession Area from 1 June 2013 (Option 2B); or allow recreational fisher's access to the CRA 7 Concession Area MLS between 1 June and 19 November from 2013 (Option 2C).

Overview of Submissions Received on CRA 7

MPI received nine submissions relating to the CRA 7 Concession Area proposals.

Support for Option 2A

130 Customary and commercial submitters (Te Ohu, Rongowhaakata, CRAMAC 7, CRAMAC 3 (endorsed by NZ RLIC) and Gisborne Fisheries) support Option 2A – retain the CRA 7 Concession Area. The Otago Rock Lobster Industry Association, CRAMAC 7, explicitly note in their submission the basis for their support is because removal of the CRA 7 Concession Area would severely impact on the industry.

Support for Option 2B

Submitters (NZRFC, NZSFC, and Mr Dickson *et al*) support Option 2B – remove the CRA 7 Concession Area. The NZRFC acknowledges an overnight removal of the CRA 7 Concession Area would have significant impacts on commercial fishers and believe a phased removal would lead to equity of access.

MPI Discussion of Relevant Matters Raised in Submissions for CRA 7

Ensuring Sustainability

Key points

- The CRA 7 Concession Area MLS does not impact on CRA 7 stock sustainability. The TAC is the principal sustainability control and the 'concession' area MLS is taken into account in the TAC setting process.
- CRA 7 fishery abundance has fluctuated in recent years and is currently at a low level.
 Measures are being taken to rebuild the fishery (i.e. through implementing TAC/TACC reductions based on the use of a management procedure to guide TAC setting). As a result, fishing opportunities for all sectors are likely to improve as the stock increases from its current size.

- Best available information suggests the size at which 50% of the females are mature in CRA 7 is larger than the 'concession' area MLS and the 'standard' 60 mm TW MLS for females¹². Therefore, neither MLS regime is likely to have an effect on increasing CRA 7 spawning stock abundance if used in isolation from other output controls. Also, information is not currently available to determine where current CRA 7 spawning stock abundance is in comparison to the stock's un-fished level.
- The removal of the Concession Area may increase handling related mortality because commercial fishers would be required to return more rock lobster to the sea (i.e. previously available lobsters). A handling mortality level of 10% is assumed in stock assessment models, but it is unknown if this level would be sufficient to address risks associated with increased handling if the Concession Area was removed

Submitter Comments

- 132 Commercial submitter, CRAMAC 7, suggests if the CRA 7 Concession Area was removed:
 - a) There would be no material difference in spawning stock abundance
 - b) It would not lead to resident rock lobsters growing through to the 54/60 mm TW MLS. They suggest a lack of suitable habitat/substrate appears to be a factor which determines the overall abundance and size distribution of CRA 7 rock lobsters. The limestone, sand and gravel bottom of much of CRA 7 does not support an abundant stock of larger size classes; instead extensive kelp beds provide habitat for puerulus settlement and protection of juvenile rock lobster.
- 133 CRAMAC 7 also explains in their submission that there is a regular one way emigration of immature rock lobsters down the South East coast to CRA 8. This submitter notes the CRA 7 rock lobster industry is built around the emigration of immature rock lobsters and an MLS that reflects the 'structure and natural dynamics of the fishery'.

MPI Response

- MPI agrees there may not be a significant change in spawning stock abundance by moving to a 54/60 mm TW MLS regime because average size at onset of maturity for CRA 7 rock lobsters occurs at a much larger size. MPI also notes that benefits to spawning stock abundance are difficult to quantify because recruitment to a fishery is unlikely to be closely related to the size of the spawning stock because of environmental factors influencing larval and juvenile distribution and survival.
- While there are a number of rocky reef systems in CRA 7 to support mature rock lobsters, there are wide open spaces of sand/gravel. Research catch sampling information from the mid-1980s shows there were few rock lobsters in larger size classes in CRA 7. However, without further research, it is not known how the size distribution of rock lobsters in CRA 7 will change if the Concession Area was removed and how abundant rock lobsters over 54/60 mm TW will become.
- When the CRA 7 Concession Area was implemented in the mid-1900s information available at the time suggested rock lobsters did not grow to and beyond the larger 'standard' MLS and large numbers of rock lobsters moved out of the fishery at certain times of year. Current research information suggests there are rock lobsters in the CRA 7 fishery that are at

¹² A 1980 study indicated that 50% of female rock lobsters are mature in Moeraki (within CRA 7) at 118 mm carapace length (the approximate TL equivalent is 71.3 mm).

or above the 54/60 mm TW MLS. However, tagging information still confirms that there is a significant directed alongshore migration towards CRA 8 (south along the east coast of the South Island, west through Foveaux Strait and around the south of Stewart Island, then north along Fiordland). In a review of historic tagging records, data from Banks Peninsula south showed that up to 29% of both male and female tagged rock lobsters were recaptured after moving at least 5 km and migrations of at least 100 km occurred from many tagging sites¹³. There is no evidence for any return migration.

Non-Commercial Utilisation

Key points

- Some recreational fishery participants have expressed concern that CRA 7 recreational fishing success is adversely affected by the CRA 7 Concession Area.
- Information on catch and catch rates of recreational fishers in CRA 7 is limited and insufficient in quantity and quality to inform an assessment of whether the Concession Area is negatively impacting recreational fishing success.
- Options 2B and 2C will likely reduce the concerns associated with the CRA 7 Concession Area, but these options may not significantly change benefits to recreational fishers. Removal of CRA 7 Concession Area (Option 2B) may not result in preferred size classes and numbers of legal sized rock lobster being available to recreational fishers in popular fishing areas, however, because commercial fishers will be targeting the same fish in order to land the TACC. Similarly, allowing recreational access to the 'concession' area MLS (Option 2C) may not increase benefits to recreational fishers if they consider that the benefit is driven primarily by harvesting larger sized rock lobsters.

Submitter Comments

- Recreational submitter, NZRFC, suggests in their submission that CRA 7 recreational fishers have given up fishing in CRA 7 because there is so much inequity. NZRFC also notes, if the result of the review provides no change to the commercial Concession Area, they demand the same access rights apply to them (i.e. Option 2C).
- 138 Commercial submitter, CRAMAC7, notes that there is no information to suggest the CRA 7 Concession Area reduces recreational fishing success.

MPI Response

MPI Response

- Evidence of the negative impact from the CRA 7 Concession Area on the recreational sector is lacking. The only research information available at this time is from catch sampling on commercial vessels, but the interpretation of these data, in the context of the recreational sector complaints, is uncertain and equivocal (see Attachment 2 MPI research information).
- 140 Catch sampling information from commercial vessels shows the proportion of concession-sized male and female rock lobsters relative to rock lobsters at or above 54/60 mm TW in pots fluctuates around 20% even at very high and very low abundance levels. This suggests the proportion of 54/60 mm TW rock lobsters in the population is relatively constant.

¹³ Booth, J.D. 1997: Long-distance movements in *Jasus* spp. and their role in larval recruitment. Bulletin of Marine Science 61(1): 111-128.

- 141 Catch sampling information has limitations, in particular because it uses data collected from commercial pots. Comparable information from the recreational fishery is not available and MPI considers that it could not be gathered in a timely or cost effective manner.
- An allowance of 5 tonnes is made for recreational interests in the CRA 7 fishery and best available information suggests this allowance adequately allows for this interest at this time. This allowance reflects the low participation rates of recreational fishers in the CRA 7 fishery. It is unknown if these participation rates are the result of low fisher population, poor weather conditions affecting access to fishing grounds, or low availability of rock lobsters.
- MPI suggests any differing impact of the Concession Area on recreational fishers may be mitigated to some extent through exclusive recreational access to CRA 7 fishing grounds from 20 November to 31 May of any year (the commercial fishery is closed during this time). This benefit is not an intentional consequence of implementation of the CRA 7 Concession Area because the closed season was introduced historically for different reasons.

Commercial Utilisation

Key points

- It is difficult to quantify the value of the CRA 7 Concession Area to industry. However, removal of the Concession Area would be expected to have negative impacts on catch, catch rates and economic benefits.
- Removal of the Concession Area would also result in an opportunity cost relating to a reduction in the flexibility to harvest a wider size range of rock lobsters to meet variable market demands. Detailed information on the value of different sized rock lobsters in the marketplace is not currently available to MPI and has not been provided in submissions.

Submitter Comments

- 144 If you decide to remove the CRA 7 Concession Area (Option 2B), commercial submitter, CRAMAC 7, suggests this would severely impact on the economic viability of the CRA 7 industry, devalue equity and investments in quota shares and infrastructure.
- Recreational submitter, NZRFC, acknowledges in their submission that an overnight removal of the CRA 7 Concession Area would have significant impacts on commercial fishers and believe a phased removal over a period of no more than four years would lead to equity of access. For example, this submitter contends that the Concession Area could be removed by either making annual incremental increases in tail size or by imposing a decreasing percentage of the TACC that can be taken as concession-sized fish.

MPI Response

MPI agrees that removal of the CRA 7 Concession Area is likely to result in significant socio-economic impacts for the CRA 7 industry because of biological and behavioural characteristics of rock lobsters in the fishery. Concession-sized rock lobsters make up an important component of the commercial landings (i.e. there are fewer fish over the 54/60 mm TW – refer Figure E, Attachment 2).

147 The maximum negative short-term impact of removal of the CRA 7 Concession Area is estimated to be \$3.0 m in the first year (approx. 84% of the total potential earnings)¹⁴. The longer-term impacts may be reduced slightly but are likely to be similar due to the biological and behavioural characteristics of rock lobsters in this fishery (small lobsters have always made up the bulk of the catch in this fishery and historically there has been little accumulation of larger lobsters in the fishery).

Utilisation – Other Matters

Submitter Comments

148 Commercial submitter, CRAMAC 7, suggests removal of the CRA 7 Concession Area will significantly undermine the availability of legal sized rock lobsters to recreational fishers (assuming the closed season and "buffer-zone" is removed also). Recreational fishers will be competing directly with commercial fishermen twelve months of the year and across the whole Quota Management Area.

MPI Response

MPI acknowledges the immediate removal of the CRA 7 Concession Area is likely to result in direct competition between sectors for the same sized fish at the same time. This situation has the potential to reduce recreational fishers access to legal sized fish.

Analysis and Discussion of the CRA 8 Concession Area

150 MPI proposes that you consider three options for CRA 8: retain the CRA 8 Concession Area (Option 3A); remove or phase-out the CRA 8 Concession Area from 1 April 2013 (Option 3B); or allow recreational fisher's access to the CRA 8 'concession' area MLS at any time of year (Option 3C).

Overview of Submissions Received on CRA 8

MPI received eight submissions relating to the CRA 8 Concession Area proposals.

Support for Option 3A

- 152 Customary and commercial submitters (Te Ohu, NZRFC, CRAMAC 8, CRAMAC 3 (endorsed by NZRLIC) and Gisborne Fisheries) support Option 3A retain the CRA 8 Concession Area. The CRA 8 industry association, CRAMAC 8, explicitly note their basis for support is because they consider there is no biological or economic reason to remove the CRA 8 Concession Area.
- Recreational submitter, NZRFC, also supports Option 3A because they consider that the CRA 8 Concession Area has very little impact on recreational fishers.

Support for Option 3B

Submitters (NZSFC and Mr Dickson *et al*) support Option 3B – immediately remove the CRA 8 Concession Area. These submitters express concerns about the ability to remove immature females from the CRA 8 fishery.

¹⁴ Based on 2010/11 quantities and an average landed beach price.

MPI Discussion of Relevant Matters Raised in Submissions for CRA 8

Ensuring Sustainability

Key points

- The CRA 8 Concession Area MLS does not impact on CRA 8 stock sustainability. The TAC is the principal sustainability control and the 'concession' area MLS is taken into account in the TAC setting process.
- Best available information suggests the size at which 50% of the females are mature in eastern parts of CRA 8 is larger than the 'concession' area MLS and the 'standard' 60mm TW MLS for females. Therefore, neither MLS regime is likely to have an effect on increasing CRA 8 spawning stock abundance if used in isolation from other output controls. CRA 8 spawning stock abundance, however, is well above 20% of its un-fished level with high probability due to the current stock size and the current harvest strategy.
- The removal of the CRA 8 Concession Area may increase handling related mortality because commercial fishers would be required to return more rock lobster to the sea (i.e. previously available lobsters). A handling mortality level of 10% is assumed in stock assessment models, but it is unknown if this level would be sufficient to address risks associated with increased handling.

Submitter Comments

NZSFC and Mr Dickson *et al* are concerned about the impact taking immature females has on the sustainability of the CRA 8 stock.

MPI Response

- MPI notes increasing the female MLS to 60 mm TW could allow more rock lobsters to breed before being vulnerable to the fishery, but the real benefits are difficult to quantify because recruitment to the fishery is unlikely to be closely related to the size of the spawning stock because of environmental factors influencing larval and juvenile distribution and survival.
- 157 MPI advises no lack of breeding success has so far been observed in the CRA 8 fishery as determined from observer catch sampling and vessel logbook data. Because individual rock lobster fisheries are likely to be open systems, larvae from another area may be replenishing the CRA 8 population.

Non-Commercial and Commercial Utilisation

Key points

Best available information suggests the CRA 8 Concession Area does not currently impact
on the benefits the recreational sector can realise from the use of their allowance. In
recent years, stock abundance in this fishery has been maintained well above the level
that can produce maximum sustainable yield and there are only low participation rates of
recreational fishers in the fishery (3% of the current CRA 8 TAC is allowed to recreational
fishing and best available information suggests this allowance adequately allows for this
interest at this time).

- While options 3B and 3C will reduce any negative views of Concession Areas held by recreational fishers, these options are unlikely to have any effect on the fishing success of recreational fishers because there is a high level of rock lobster abundance in CRA 8.
- The CRA 8 industry advises that in the 2010-11 fishing year, 7-10% (71-102 tonnes) of the total CRA 8 landings were concession-sized rock lobster.
- Removal of the CRA 8 Concession Area would result in an industry opportunity cost relating to a reduction in the flexibility to harvest a 3 mm wider size range of rock lobsters to meet variable market demands.

Submitter Comment

- Recreational submitter, NZRFC, notes the CRA 8 fishery has significant areas of no take and many areas which are not commercially fished. The NZRFC advises this combination is providing excellent access for amateur fishers; therefore, they see no need to change the management of concession fishing in this area.
- 159 The CRA 8 industry association, CRAMAC 8, submits that:
 - a) The rock lobsters that fall within the concession size in CRA 8 (females between 57 60 mm TW) represent a new cohort that is repeated each year. These rock lobsters are caught as they move onto and along the outer edges of the foul ground. The following year the next cohort does the same. The rock lobsters do not stay in the area and on-grow. The CRA 8 fishery consequently has two fisheries, the "resident" rock lobsters that do not migrate over long distances and the "run" rock lobsters.
 - b) Concession-sized rock lobsters represent a substantial economic opportunity within the CRA 8 area and the harvesting of them has no negative impact on other stakeholders.
 - c) If you decide to remove the CRA 8 Concession Area this would result in a lower TAC/TACC and is contrary to the government's stated aim of increasing economic return from inshore fisheries.

MPI Response

- MPI notes many areas are closed to commercial fishing in the CRA 8 and these areas provide the non-commercial sectors with exclusive access to rock lobster populations. A number of these areas, in particular the inner fiord area where no commercial fishing occurs, were established by the Fiordland Marine Guardians under a 'gifts' and 'gains' approach. The commercial rights holders 'gifted' the inner fiords to recreational fishers by agreeing to withdraw from these areas in return for 'gaining' continued access to the outer coast. In return for recreational fishers 'gaining' exclusive access to the inner fiords, the recreational sector agreed to a series of measures (i.e. pot limits, a lower daily bag limit and an accumulation limit) that were more restrictive than elsewhere in CRA 8.
- MPI notes the maximum short-term impact of removal of the CRA 8 Concession Area to the commercial sector is estimated to be \$5.7 m per annum in the first year (approx. 10% of the total potential earnings)¹⁵. However, the CRA 8 stock is currently at a high level of abundance and MPI considers any displaced catch could readily be taken in full from larger lobsters in the fishery. Therefore, the negative economic impact in CRA 8 is likely to be slight in the short- and long-terms.

¹⁵ Based on 2010/11 quantities and an average landed beach price.

MPI also acknowledges the removal of the Concession Area will potentially result in an immediate loss of access to the "run fish" (i.e. migrating rock lobsters)¹⁶. However, as mentioned above, MPI considers any displaced catch from the removal of the Concession Area could readily be taken from larger lobsters in the fishery.

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¹⁶ Rock lobster tagging studies in southern New Zealand have shown that "run" rock lobsters migrate over long distances from the east coast to the west coast around the bottom of the South and Stewart Islands. "Run fish" are often identified by the wear on the claws of their legs and are either male or immature females

Conclusion

Table 5 summarises key costs and benefits for you to consider in making your decision for the CRA 3, CRA 7 or CRA 8 Concession Areas. It is recommended that you consider the costs and benefits of each Concession Area independently of each other because each area was introduced for different reasons and at different times.

	Management Options		
	Option 1A, 2A or 3A Retain a Concession Area	Option 1B, 2B or 3B Remove or phase-out a Concession Area	Option 1C, 2C or 3C Allow recreational fishers access to the 'concession' area MLS at the same time as commercial fishers
Impact on stock sustainability	No impact in all areas – each Concession Area is taken into account in stock assessment and TAC setting processes	No impact in all areas – as long as a new TAC is determined to reflect the new stock selectivity (removal may result in a TAC decrease).	No significant impact in all areas – as long as actual recreational catch remains at or below stock assessment assumptions of recreational catch.
Research Implications	Nil	For CRA 3 – the CRA 3 Management Procedure will need to be re-evaluated to reflect the new MLS regime. For CRA 7 and CRA 8 – a new stock assessment and Management Procedure will need to be developed (currently proposed for late 2012).	Nil (at this time)
Illegal take	No change in all areas	For CRA3 – potential increase. Commercial pots may be in water for a longer period of time (i.e. through not following the voluntary closed season from 1 September to 15 January if the Concession Area was removed); therefore fish thieves will have increased opportunities to take fish. For CRA 7 and CRA 8 – no change likely.	Potential risk in all areas of an increase – through allowing recreational access to the 'concession' area MLS.

		Management Options		
	Option 1A, 2A or 3A Retain a Concession Area	Option 1B, 2B or 3B Remove or phase-out a Concession Area	Option 1C, 2C or 3C Allow recreational fishers access to the 'concession' area MLS at the same time as commercial fishers	
Economic impact on commercial stakeholders	No commercial cost in all areas.	Highest commercial cost of the three options but difficult to quantify. For CRA 3 – maximum short-term cost of immediate removal is estimated to be \$2.9m in the first year. For CRA 7 – maximum short-term cost of immediate removal is estimated to be \$3m in the first year. For CRA 8 – maximum short-term cost of immediate removal is estimated to be \$4-5.7m in the first year.	Low commercial cost in all areas.	
Availability of rock lobsters to recreational fishers	For CRA 3 and CRA 7, no change – but availability is likely to improve as abundance increases. For CRA 8, no change – abundance is currently maintained at high levels.	For CRA 3 and CRA 7 – availability likely to improve if abundance of larger fish increases, however, recreational fishers may have difficulty accessing lobsters through direct competition for space and fish during popular recreational fishing period/for same fish at the same time. For CRA8 – no significant change as abundance is at high levels.	In all areas – increase in availability of rock lobsters through access to previously unavailable fish.	
Perceptions of "inequity" by recreational fishers	In CRA 3 and CRA 7 – negative perceptions likely to be maintained. In CRA 8 – no change because there are few perceptions of inequity.	In CRA 3 and CRA 7 – reduced negative perceptions likely. In CRA 8 – no change in perceptions because few negative views currently held.	In CRA 3 and CRA 7 – likely reduction because perceived inequity removed. In CRA 8 – no change in perceptions because few negative views currently held.	

	Management Options		
	Option 1A, 2A or 3A Retain a Concession Area	Option 1B, 2B or 3B Remove or phase-out a Concession Area	Option 1C, 2C or 3C Allow recreational fishers access to the 'concession' area MLS at the same time as commercial fishers
Competition in popular fishing areas	No change in all areas. This is because: For CRA 3 – the voluntary commercial closure may be maintained in statistical areas 909 and 910 for the time being; For CRA 7 – temporal and spatial separation is likely to be maintained (i.e. if closed season and "buffer zone" remains). For CRA 8 – there is no change to current temporal and spatial separation.	For CRA 3 – potential increase in intersector competition for catches over summer (also, further increase if commercial fishers don't follow the voluntary closed season if the Concession Area is removed). For CRA 7 – likely increase in inter-sector competition for available fish. Further potential increase if closed season and "buffer zone" removed. For CRA 8 – no change (fishing spatially separated anyway).	For CRA 3 – unknown change, however recreational catches in autumn/winter would be expected to increase and this may result in inter-sector competition for available fish. The current voluntary commercial closure may be maintained in stat areas 909 and 910 over spring/summer under this option. For CRA 7 – potential increase in intersector competition for available fish, particularly if closed season and "buffer zone" removed. For CRA 8 – no change in competition.

Table 5: Summary of key costs and benefits for CRA 3, CRA 7 and CRA 8 Concession Area options

- When making your decision for each Concession Area, trade-offs are required that affect the social, cultural, and economic wellbeing that individual sectors derive from using the fishery. Information is lacking to robustly quantify and compare impacts. In particular, there is no robust evidence to quantify, or confirm or refute the existence of, an impact on the recreational sector from any of the Concession Area options. What information is available is anecdotal.
- You can use anecdotal information in making your decision. However, you should note that anecdotal information is by its nature uncertain and can be subject to bias. In making your decision you should be cautious where information is uncertain, but should not use uncertainty or lack of information as a reason to postpone taking any action you consider necessary to achieve the purpose of the Fisheries Act 1996 (the Act) (which is to provide for the utilisation of fisheries resources while ensuring sustainability).
- There is no agreement within the NRLMG or submitters on a recommended position for CRA 3 or CRA 7. Customary and commercial NRLMG members and the majority of customary and commercial submitters support retention of the CRA 3 and CRA 7 Concession Areas (Option 'A'). Recreational NRLMG members and the majority of recreational submitters support removal of the CRA 3 and CRA 7 Concession Areas (Options 'B').
- There is general agreement within the NRLMG and submitters on a recommended position for CRA 8. The NRLMG recommends that you retain the CRA 8 Concession Area (Option 3A).
- Observations by MPI suggest that the level of concern expressed by recreational fishers about a Concession Area increases as abundance in a fishery declines. The CRA 3 fishery has experienced a period of low abundance but is now rebuilding. Abundance in the CRA 7 fishery has fluctuated in recent years and is currently experiencing a low level of abundance. The CRA 8 fishery is at a high level of abundance.
- 169 Based on available information, the MPI considers that:
 - a) Retention of a Concession Area (CRA 3 Option 1A, CRA 7 Option 2A, CRA 8 Option 3A) is the appropriate choice if you wish to retain current commercial sector benefits and opportunities.

Options 1A and 2A will not address perceptions of inequity and unfairness relating to the CRA 3 and CRA 7 Concession Areas by some recreational fishery participants. However, Option 1A for CRA 3 may result in the retention of the current non-commercial benefit of exclusive access to statistical areas 909 and 910 from September to mid-January (through retention of the voluntary commercial closure) for the time being. Also, any impacts of the CRA 7 Concession Area on recreational fishers would continue to be mitigated by exclusive access to the fishery from late November to June.

Option 3A does not result in any impacts on any sector. The CRA 8 fishery is currently at a high level of abundance and adequately provides for recreational benefits.

b) Immediate removal or phase-out of a Concession Area (CRA 3 - Option 1B, CRA 7 - Option 2B, CRA 8 - Option 3B) is the appropriate choice if you consider there is a negative effect of a Concession Area on recreational wellbeing that is unacceptable and wish to address perceptions of inequity and unfairness held by some fishery participants about a Concession Area. This option will result in the same MLSs applying to the commercial and recreational sectors at all times.

Options 'B' will negatively impact on the commercial sector:

- For CRA 3 the maximum short-term impact of removal of the CRA 3
 Concession Area is estimated to be \$2.9 m in the first year (approx. 27% of
 the total potential earnings)¹⁷. However, this is the maximum loss and it
 assumes that the total catch could not be supplemented by taking more of the
 larger lobsters in this first year. Longer term, the abundance of rock lobsters
 is expected to increase and it is likely that this negative impact will be
 lessened.
- For CRA 7 the maximum short-term economic impact of removal to the commercial sector is estimated to be \$3.0 m in the first year¹⁸. The longer-term impacts may be reduced slightly but are likely to be similar to the short-term impacts due to the biological and behavioural characteristics of rock lobsters in this fishery.
- CRA 8 the maximum short-term economic impact of removal to the commercial sector is estimated to be \$5.7m in the first year¹⁹. However, the CRA 8 stock is currently at a high level of abundance and any displaced catch could readily be taken in full from larger lobsters in the fishery. MPI considers that the negative economic impact in CRA 8 is likely to be slight in the shortand llong-terms.

If you choose Options 'B', a Concession Area would be immediately removed or phased-out from 2013. MPI cautions against immediate removal of the CRA 7 Concession Area because, in MPI's view, it would have a high risk of affecting the economic viability of the commercial CRA 7 fishery.

c) Allow recreational fisher access to the 'concession' area MLS at the same time as commercial fishers (CRA 3 - Option 1C, CRA 7 - Option 2C, CRA 8 - Option 3C) is an alternative way to reduce negative views held about Concession Areas generally by some recreational fishing participants with only minimal impacts on commercial sector benefits.

However, actual improvements to recreational wellbeing may be limited if recreational fishers consider that the benefit is driven primarily by harvesting larger sized rock lobsters.

For CRA 8 in particular, allowing recreational access to the 'concession' area MLS is unlikely to significantly change the benefits to recreational because existing benefits are high.

MPI notes Options 'C' could potentially increase compliance risks and management costs by providing an opportunity for poachers to conceal recreationally caught undersized rock lobster from non-'concession' areas.

¹⁷ Based on 2010/11 quantities and an average landed beach price of \$56 per kilogram.

¹⁸ Based on 2010/11 quantities and an average landed beach price of \$56 per kilogram.

¹⁹ Based on 2010/11 quantities and an average landed beach price of \$56 per kilogram.

Other Matters

- 170 A number of submitters commented on topics that were outside the immediate scope of this paper. These included:
 - a) NZRLIC and CRAMAC 8 support an immediate review of Concession Area regulations as they apply to commercial fishing.
 - b) Ngati Porou hapu suggests there should be a mandatory requirement for commercial fishers to separately report concession-sized fish on statutory reporting forms.
 - c) NZRFC suggest all concession-sized fish should be export only (no domestic sales).
 - d) NZRFC, GTSFC and Mr Jorion *et al* suggests, in association with the removal of the CRA 3 Concession Area, customary fishers should be required to take fish above 52mm TW.
 - e) NZRFC, GTSFC and Mr Jorion *et al* also suggests the CRA 3 TACC should be maintained at 164 tonnes until biomass has increased.
 - f) The NZRFC suggests the method of measuring commercial rock lobsters in CRA 7 should change from TL to TW immediately.
- 171 The MPI notes in response to submitter comments outlined above:
 - a) If you decide to keep all or some of the Concession Areas, a regulatory review will commence after your decision on this paper. There are various regulatory requirements relating to the packaging and sale of concession-sized rock lobster. For example, there is a lack of consistency in rules for record-keeping, transportation and disposal of concession-sized rock lobsters. These issues can limit the ability for commercial fishers to maximise benefits from the fisheries.
 - b) It is responsibility of the customary permit issuer (the Tangata Kaitiaki/Tiaki) to specify size conditions for harvested rock lobsters.
 - c) CRA 3 TAC and TACC decisions are guided by an approved management procedure. Any proposed changes to the TAC and TACC generated by the management procedure are separately consulted on. For the 2012-13 fishing year you recently decided to increase the CRA 3 TACC from 164 to 193.3 tonnes based on the use of the CRA 3 Management Procedure.
 - d) There would be a relatively high cost of changing to a TW measure in the CRA 7 fishery, particularly if the MLS is going to incrementally increase over a period of time. There is a MPI cost in developing new measuring devices and educating fishers of the new fishing rules.
- In addition, NRLMG commercial sector members suggest that implementation of any decision to remove the CRA 7 Concession Area should coincide with the removal of the closed season (20 November to 31 May) and the removal of the "buffer-zone" in CRA 7. MPI notes separate public consultation is required before you can make a decision on whether to remove the CRA 7 closed season and closed area. This consultation would be initiated if you decide to immediately remove the CRA 7 Concession Area.

Attachment 1: Supplementary Information on CRA 3

Information from the NZRFC on the impact of the CRA 3 Concession Area

The following information is based on the NZRFC's independent analysis of raw size data Debbie Freeman collected for her PhD on the biological characteristics of rock lobsters in the absence of fishing and with the effects of fishing in CRA 3. Research pot sampling was completed inside the Te Tapuwae o Rongokako Marine Reserve and outside the reserve almost exclusively within 2km of the boundary. The NZRFC obtained access to the raw data through a 2009 Official Information Act request to the Department of Conservation.

"There are two sets of figures showing length frequencies of each size class of rock lobster sampled in each November over a four year period from 2003 to 2006. Figure A relates to information collected inside the Te Tapuwae o Rongokako Marine Reserve and Figure B relates to fished areas adjacent to the Marine Reserve. The NZRFC chose to present the November period because it is after the commercial concession period, after the main moult (increase in size) and before the main recreational harvest season. The NZRFC consider this is the population at its most accessible to recreational fishers.

Both graphs contain a light blue dotted line, showing the sort of distribution the NZRFC would expect to see in a fishery managed at an optimum trade-off between extraction and biodiversity in a reasonably steady state of recruitment.

Reserve Catch (Males)

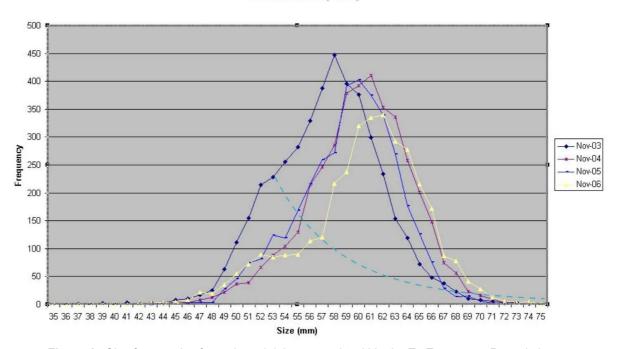


Figure A: Size frequencies for male rock lobster caught within the Te Tapuwae o Rongokako Marine Reserve in each November over a four year period from 2003 to 2006. Note, the NZRFC indicated they divided the November 2003 figures in half from the actual data for scaling purposes.

Fished Area Catch (Males)

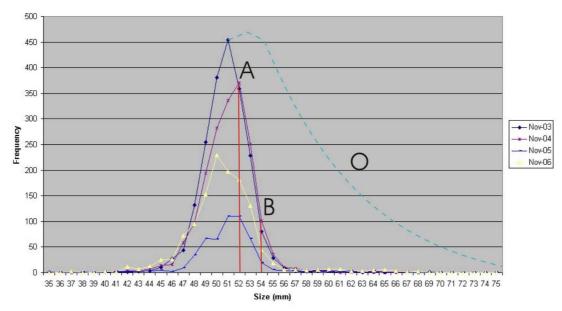


Figure B: Size frequencies for male rock lobster caught outside reefs surrounding the Te Tapuwae o Rongokako Marine Reserve in each November over a four year period from 2003 to 2006. Note, the NZRFC indicated they divided the November 2003 figures in half from the actual data for scaling purposes.

There are three lines shown in Figure B: 'A' is the minimum legal size for commercial harvest, 'B' is the minimum legal size for recreational harvest, and the dotted line 'O' represents the sort of distribution the NZRFC would expect in a healthy fishery managed for an optimum trade-off between extraction and biological diversity without a concession in place.

The NZRFC suggests the area under the graph gives the number of fish present and they estimate that the area between A and B is over 3 times the size of the area to the right of B. The NZRFC estimates commercial fishing is taking about 70% of the fish before it is available to recreational fishers."

MPI Response to the NZRFC's Supplementary Information

MPI received advice directly from Debbie Freeman in 2011 on the NZRFC's independent analysis of raw data size collected for her PhD. Debbie Freeman advised:

- a) The research pot sampling completed outside Te Tapuwae o Rongokako Marine Reserve was undertaken almost exclusively within 2 km of the marine reserve's boundary. Debbie considers it very unlikely that the research sampling reflects the CRA 3 fishery as a whole, particularly given the interaction between lobsters within and surrounding the reserve, the variation in fishing effort across CRA 3, and the differences between the placement of lobster pots associated either with research sampling or fishing.
- b) The research data show that male lobsters are larger and more abundant within Te Tapuwae o Rongokako Marine Reserve than in the adjacent fishery. The recovery in size and abundance of a previously-harvested species within a no-take area is certainly not unexpected and is consistent with published results from some other New Zealand and Australian no-take areas where Jasus edwardsii occurs. The recovery of lobster populations in Australasian marine protected areas is highly variable and a range of factors is likely to contribute to this recovery, the previous history of exploitation being just one factor. Therefore, data from a no-take area may

not always be useful for assessing the state of a surrounding fishery. Debbie notes that the data from Te Tapuwae o Rongokako Marine Reserve also suggest an ongoing decline in CPUE within the marine reserve, which the submission does not refer to.

- c) The NZRFC analysis includes solely data from November. During the surveys Debbie completed between 2003 and 2006, the largest research catches were obtained in November and were dominated by male lobsters. CPUE, size and sex composition demonstrated significant variability among seasons. Debbie suggests that this variability should be considered in order to more fully assess lobster availability to the fishery.
- d) While the data for 2003 and 2006 do show a peak in size frequency below the concession size, this pattern is not consistent. Debbie notes that for female lobsters (data provided to the NZRFC but not presented in their submission) the peak in size frequency occurred well below the minimum legal size both within and outside the marine reserve. This suggests that harvesting of legal-sized animals is not the sole driver of size frequency distribution, so she would question the assertion that "commercial fishing is taking about 70% of the fish before it is available to recreational fishers" and the suggestion that mortality of lobsters below the concession size is being caused by commercial fishing.
- e) With reference to a distribution to be expected in a "fishery managed at an optimum trade-off between extraction and biodiversity". Debbie is unsure how this distribution was constructed, how such a trade-off could be undertaken and how the research data were used to construct the curve. Similarly, without the details of how this distribution was derived, she cannot comment on the estimation of the "biomass available for harvest in an optimally managed system".
- f) The sampling Debbie undertook was based solely on pot catches and did not account for aspects such as catchability, which may have varied over time and between fished and reserve locations, particularly as the population size structure changed. The graphs do not show the "number of fish present", rather the number of lobsters caught in pots. The variability among research catches between reserve and fished locations, and in relation to the time of the year, suggest that catchability is a factor that should be considered when comparing abundance estimates. In addition, the submission does not consider lobsters that are available for capture by methods other than lobster pots.

MPI adds, in response to the information supplied by the NZRFC:

- a) Debbie Freeman's research showed the average growth increment of sub-legal males outside the Te Tapuwae o Rongokako Marine Reserve (almost exclusively within 2km of the reserve boundary) was 1.0 mm TW, whereas MPI's growth data suggests the average increment of male rock lobsters through-out CRA 3 was about 2 mm. While on average sub-legal males grow 1-2 mm TW per moult, some rock lobsters will grow more, and some will grow less. This means some rock lobsters will moult in spring and become available to recreational fishers before the winter commercial fishing season.
- b) The timing of Debbie Freeman's research coincided with a time of very low stock abundance. The stock hit a low point in the 2004-05 fishing year. Standardised commercial CPUE (a reliable indicator of relative stock size) by fishing year shows this. In the 2004-05 fishing year CPUE was 0.49 kg/potlift, whereas in the 2010/11 fishing year CPUE was 1.18 kg/potlift.
- c) The 2008 CRA 3 stock assessment took into account the observed slow growth and an appropriate TAC/TACC was adopted to reflect the reduced productivity of the stock (the TACC was reduced from 190 to 164 tonnes for the 2009/10 fishing year)

d) Other research information also shows there are few male rock lobsters above the 54mm TW MLS and that this size distribution was observed before the CRA 3 Concession Area was introduced in 1993. Few fish over the MLS is characteristic of a highly exploited fishery.

MPI Information on the Availability of Legal Sized Rock Lobsters

Analysis of catch sampling information from the CRA 3 fishery provides an indication of the proportion of male rock lobsters between 52 and 53.9 mm TW compared to male rock lobsters at or above 54 mm TW that could have being taken in the CRA 3 fishery each fishing year. This comparison is shown in Figure C for the autumn-winter season (1 April to 30 September) and in Figure D for the spring-summer season (1 October to 31 March).

Commercial CPUE is overlaid in Figures C and D to provide a relative index of stock abundance. It is important to note Figures C and D show proportions by numbers, not by weight. Also, the figures do not show the actual proportions of male rock lobsters landed by commercial fishers; it provides an indication only. The proportions shown can be influenced by commercial fishers high grading to maximise the value of their catch.

Figure C shows the proportion of male rock lobsters at or above 54 mm TW in the autumn-winter season declines as stock abundance declines and increases as the stock increases. Male rock lobsters are mainly taken by commercial fishers during autumn-winter because females are unavailable for harvesting from late March to mid-September due to being "in berry" (carrying external eggs).

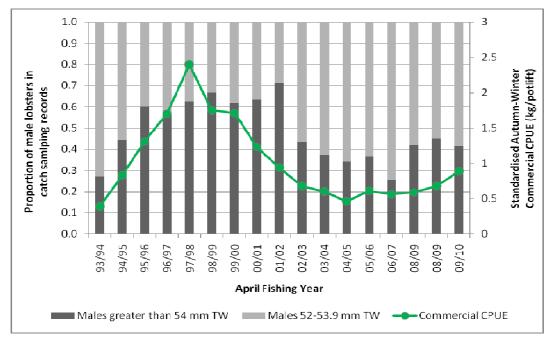


Figure C: The proportion of male rock lobsters 52-53.9 mm TW) compared to male rock lobsters at or above 54 mm TW in the CRA 3 catch sampling records for the autumn-winter season (1 Apr to 30 Sept).

Figure D shows the proportion of male rock lobsters seen in pots in the spring-summer season (note males rock lobsters between 52 and 53.9 mm TW cannot be taken by commercial fishers during spring-summer). The proportion of males at or above 54 mm TW in recent spring-summer periods are as good or even higher than in spring-summer periods in the peak of stock abundance from 1997 to 1999. This information suggests male rock lobsters at or above 54 mm TW are available to recreational and commercial fishers during spring-summer.

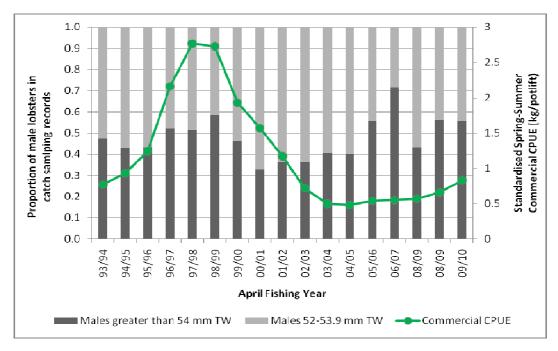


Figure D: The proportion of male rock lobsters 52-53.9 mm TW compared to male rock lobsters at or above 54 mm TW in the CRA 3 catch sampling records for the spring-summer season (1 Oct to 31 Mar).

Attachment 2: Supplementary Information on CRA 7

History of the CRA 7 Concession Area Regulations

Key changes to the CRA 7 Concession Area regulatory framework are summarised below:

- The Fisheries (General) Regulations 1948 came into force in June 1948 and introduced the Otago Concession Area regulations into the national rock lobster fishery management framework. The Otago Concession Area was defined as that part of the sea lying 1 marine league (3 NM) from the coast of the South Island between the mouth of the Waitaki River and the mouth of the Waipati River (north of Chaseland's Mistake). At the time of establishment, no MLS applied to the take of rock lobster from the Otago Concession Area. The MLS that applied in other management areas in 1948 was 9 inches total length.
- In **1959** amendments were made to the Fisheries (General) Regulations 1950 to introduce a 6 inch total length MLS for the take of rock lobster from the Otago Concession Area.
- In 1963 amendments were made to the Fisheries (General) Regulations 1950 to increase the MLS to 7 inches total length and to reduce the size of the Otago Concession Area by shifting the northern boundary southwards to Nugget point. The amendment came into force in December 1963 and was part of an 'accommodation' made by the Fishing Industry Committee. In 1962 the Committee recommended the phasing out of the Otago Concession Area by incrementally increasing the MLS by 1 inch per year until the national MLS of 10 inches (total length) was achieved. The Committee's recommendation was met with resistance from commercial stakeholders, who believed incrementally increasing the MLS would, "...destroy the livelihood of the boats and men involved, and the quantity of rock lobsters landed could not all be disposed of in New Zealand, because the small sized rock lobster were not acceptable to the public outside of Otago."
- The Rock Lobster Regulations 1969 came into force in January **1970**. The seaward extent of the Otago Concession Area was increased 8 nautical miles (NM) from the coastline, and the method used to measure rock lobster in the area was changed from 6 inch total length to a "nearly equivalent" 4½ inch tail length. The measurement method was changed to reflect the national changes in rock lobster MLS measurement from total length to tail length.
- In 1971 amendments were made to the Rock Lobster Regulations 1969 to increase the MLS to 5½ inch tail length and to introduce a two year closed area prohibiting the take of rock lobster from that part of sea lying east of the Otago coastline between Nugget Point and Long Point. In 1970-71 the Fishing Industry Committee recommended phasing-out the Otago Concession Area MLS in two equal increases, the first in 1971 and the second in 1972. The 1971 amendments were to come into force in two parts: (i) the two year closed area from Nugget Point and Long Point (known as the Otago Buffer Zone) in July 1971, and (ii) the increased MLS to 5½ inch (tail length) in June 1972. Although the two year closed area came into force in July 1971, subsequent amendments in 1972 revoked the proposed increase in MLS before it came into force in June 1972. In 1972 amendments were made to the Rock Lobster Regulations 1969 to increase the 4¾ inch (tail length) MLS by ½ an inch per year over three years. The outcome of the 1972 amendments was a 5¾ inch tail length MLS for the Otago Concession Area by 1974.
- In **1973** amendments were made to the Rock Lobster Regulations 1969 to defer the ½ an inch per year (over three years) MLS increase that was proposed. The amendments came into force in June 1973 and replaced the three year timeframe

- with a revised five year timeframe. The outcome of the 1973 amendments was a 5³/₄ inch tail length MLS for the Otago Concession Area by 1977.
- In **1974** amendments were made to the Rock Lobster Regulations 1969 to increase the MLS to 5 inches tail length, and to phase out the Otago Concession Area through incremental ¼ inch per year MLS increases over four years. The amendments came into force in July 1974 and replaced the five year timeframe and ½ inch incremental MLS increases. The outcome of the 1974 amendments was a 5¾ inch tail length MLS for the Otago Concession Area by 1977.
- In **1975** and **1976** amendments were made to the Rock Lobster Regulations 1969. The outcome of the 1975 and 1976 amendments was to retain the 5 inch tail length MLS, and extend the expiry of the Otago Concession Area until 1975.
- In 1977 amendments were made to the Rock Lobster Regulations 1969 to change the 5 inch tail length MLS to 127mm tail length, remove the 1976 expiry date from the Otago Concession Area Regulations and to introduce a 1 June to 19 December commercial closure over that part of CRA 7 lying east of the Otago coastline between Nugget Point and Long Point (called the 'Buffer Zone').
- The Fisheries (South-East Area Commercial Fishing) Regulations 1986 came into force in October 1986. The area subject to the Otago Concession Area Regulations was extended and re-defined as that part of the sea lying seaward of the mean highwater mark between a straight line drawn from the Waitaki River South Head Aero beacon bearing 135 degrees and a straight line drawn from Nugget Point lighthouse bearing 135 and within New Zealand fisheries. The area closed to commercial fishing (the 'Buffer Zone') was re-defined as that part of the sea lying seaward of the mean high-water mark between a straight line drawn from the Nugget Point lighthouse bearing 135 degrees and a straight line drawn from Long Point bearing 135 degrees.
- In 1993 an amendment was made to the Fisheries (South-East Area Commercial Fishing) Regulations 1986 to shorten the 21 June to 19 December Otago Concession Area by one month.
- In 1994 amendments were made to the Fisheries (South-East Area Commercial Fishing) Regulations 1986 to remove the 1 June to 19 December timeframe for the closed area (Otago Buffer Zone) and replace it with a year round commercial closure and also introduce new CRA 7 seasonal commercial closed season. The closed season prohibited the take of rock lobster from that part of the sea lying seaward of the mean high-water mark between a straight line drawn from the Waitaki River South Head Aero beacon bearing 135 degrees and a straight line drawn from Nugget Point lighthouse bearing 135 and within New Zealand fisheries waters from 20 November in any year and ending 20 June in the next year.
- In **2009** an amendment was made to the Fisheries (South-East Area Commercial Fishing) Regulations 1986 to shorten the closed season by 19 days. From the 20th day of November (in any year) and ending with the 31st day in May (in the next year) no commercial fishers shall take rock lobster from the Otago Concession Area.

Analysis of CRA 7 Catch Sampling Information

Analysis of catch sampling information from the CRA 7 fishery provides an indication of the proportion of male rock lobsters 45.6-53.9 mm TW and females 46.9-59.9 mm TW compared to male/female rock lobsters greater than 54/60 mm TW that could be taken in the CRA 7 fishery each fishing year (refer to Figure E below). CPUE is overlaid in Figure E to provide a relative index of stock abundance. It is important to note Figure E shows proportions by numbers, not by weight. Also, the figure does not show the actual proportions of rock lobsters landed by commercial fishers; it provides an indication only. The proportions shown can be influenced by commercial fishers high grading to maximise the value of their catch.

Figure E shows the proportion of male/female rock lobsters greater than 54/60 mm TW make up a small proportion of the catch sampling records regardless of CPUE.

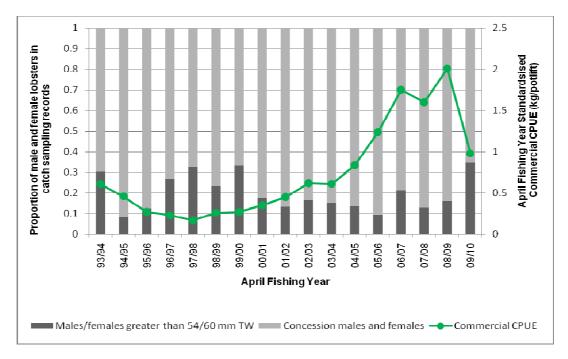


Figure E: The proportion of concession-sized rock lobsters (males 45.6-53.9 mm TW and females 46.9-59.9 mm TW) versus male/female rock lobsters greater than 54/60 mm TW in the CRA 7 catch sampling records by April Fishing Year.

Attachment 3: Supplementary Information on CRA 8

History of the CRA 8 Concession Area Regulations

Key changes to the CRA 8 Concession Area regulatory framework are summarised below:

- The CRA 8 Concession Area Regulations were implemented in **1988** and permitted the take of 152 mm tail length female rock lobsters by commercial fishers during 1 January 1989 and ending 30 April 1989 in the same year. In 1989, the female MLS in other management areas (except CRA 7) was 58mm tail width.
- In 1989 amendments were made to the Fisheries (Southland and Sub-Antarctic Areas Commercial Fishing) Regulations 1986 to replace the existing total length measurement with a tail width measurement, increase the Concession Area regulation timeframe by five months in 1989 and eight months in 1990, and introduce a staged increase in the CRA 8 Concession Area MLS from 56mm to 57mm over two years from 1989 to 1991.
- In **1991** and **1992** amendments were made to the Fisheries (Southland and Sub-Antarctic Areas Commercial Fishing) Regulations 1986 to extend the Southland Concession by one year to 1992 and 1993 (1992/86), and to retain the 12 month concession timeframe and 57mm tail width MLS for the retention of female rock lobsters by commercial fishers.
- In 1993 and 1994 amendments were made to the Fisheries (Southland and Sub-Antarctic Areas Commercial Fishing) Regulations 1986 to extend the Southland Concession Area Regulations by one year to 1995 and to 1996, and to retain the 12 month concession timeframe and 57mm tail width MLS for the retention of female rock lobsters.
- In **1996** amendments were made to the Fisheries (Southland and Sub-Antarctic Areas Commercial Fishing) Regulations 1986 to remove the 1996 expiry and extend the Southland Concession Area Regulations indefinitely with no set timeframe and to retain the 57mm tail width MLS for the commercial retention of female rock lobsters.

Attachment 4: Submissions Received on Initial Advice