

**NRLMG 2005**

**REPORT TO  
MINISTER OF FISHERIES**

**CRA 3 ISSUES AND OPTIONS**

## **CRA 3 – ISSUES AND OPTIONS**

---

### **Purpose**

1. This paper provides you with information on a range of issues relating to the CRA 3 fishery that were raised by the previous Minister of Fisheries (the Minister).

### ***Background***

2. In April 2005 the Minister reduced the TAC and TACC for CRA 3 after considering a new stock assessment and proposals from the NRLMG to reduce catches either by reducing the TAC/TACC or by shelving ACE. He reduced the TACC from 327 to 190 tonnes, increased the allowance for illegal removals from 86 to 89 tonnes and made no change to customary or recreational allowances.
3. A full description of the CRA 3 rock lobster fishery and the background to his decision to reduce the TAC and TACC can be found in Section 3.1 of the 2004 NRLMG Annual Report and the February 2005 Final Advice Paper.
4. By a letter dated 8<sup>th</sup> August 2005, the Minister indicated his belief, based on submissions made to him, that there were two utilization issues not necessarily addressed by the TAC/TACC reduction implemented in April 2005. The first is “*equity of access to fish in CRA 3*” (specifically, whether or not commercial fishermen are provided an “access advantage” in winter). The second is “*inter-sector spatial conflict*” (specifically, whether there is increased spatial overlap between commercial and non-commercial fishermen in CRA 3).
5. The Minister asked the NRLMG to provide an “*issues and options type document*” that should consider the effect of certain management options on the rebuild strategy for CRA 3 and on socio-economic performance. The options were:
  - a) *status quo*

- b) a closed season for commercial fishermen between 1<sup>st</sup> September and 31<sup>st</sup> January and for non-commercial fishermen between 1<sup>st</sup> September and 31<sup>st</sup> October, and
- c) removal of the winter commercial concession (MLS differential) on male rock lobsters.

## **Issues Raised by the Minister**

### ***Equity of access***

- 6. The Minister has asked the NRLMG to comment on equity of access and whether the commercial MLS regime provides access advantage to commercial fishers, particularly when abundance is low.
- 7. The concern arises from the recreational sector belief that the MLS differential makes it very difficult for recreational fishers to catch a legal 54mm TW rock lobster.
- 8. The issue of equity is not simple. Regulations exist to enhance sustainability and utilization opportunities for sectors that have differing objectives, motivations, expectations and aspirations. Given that, equity, or “fairness” is difficult to judge. There is no common currency in which to make such a judgment. Regulations will frequently create differing perceptions of fairness and unfairness in different sectors. Even having no regulations (all have “equal” opportunities) would be regarded as unfair from some perspectives.
- 9. Differences in controls being used to manage each sector’s fishing can create apparent inequities that relate to a single fishery characteristic. For example, a closed area to commercial fishing may create an inequity in terms of the amount of space available to fish.
- 10. An inequity that relates to a single fishery characteristic (time, space, size, quantity) does not necessarily impact on the ability of each sector to harvest fish. In the example used above, the spatial inequity may or may not affect the ability of commercial fishermen to

harvest the TACC depending on many factors. Consequentially, sector characteristics and the whole package of controls applying to each sector may be relevant.

11. It is likely that the 52 mm TW MLS for commercial fishing does reduce the number of 54 mm TW lobsters available to the fishery in spring and summer. Unfortunately the NRLMG has no way of measuring the level of impact this has on recreational fishing success because recreational catches are not effectively monitored. The NRLMG notes that access to female lobsters is not affected by the MLS differential and commercial catches in spring and summer indicate that some male lobsters 54 mm TW and above are still available.
12. Concern over the impact of the MLS differential appears to have coincided with a period of low abundance in the fishery. The proportion of commercial landings of 52 mm – 54 mm TW lobsters has increased as stock abundance has declined, meaning that the MLS differential may have a greater impact on non-commercial fishing success when abundance is low, but again, there is no way to measure that impact.

### **Spatial conflict**

13. The Minister has asked the NRLMG whether there is increased spatial overlap in fishing within CRA 3.
14. The concern arises from the recreational sector belief that commercial fishing effort has increased in the areas adjacent to Gisborne. Iwi are concerned that there has been an increase in commercial fishing within areas that have been traditionally fished for customary purposes. The situation of increasing commercial fishing within traditional customary fishing grounds is worsened for some Iwi because of the small size of their rohe moana, the limited number of reefs within those areas, and the inability for them to fish in another Iwi rohe moana. Iwi see commercial and recreational fishers being able to simply move on to another area.
15. Spatial overlap is not necessarily a problem in fisheries. In any “shared fishery” and at any level of stock abundance there will always be overlap between sectors.

16. Three main factors have increased spatial overlap in CRA 3: the declaration of the Te Tapuwae o Rongokako marine reserve, the removal of closed seasons, and the changing demographics in fishing. Declining stock size in recent years has exacerbated the spatial conflicts.
17. The commercial and amateur fishing effort displaced since 1999 by a marine reserve on previously productive fishing ground within reach of Gisborne has contributed to increased competition for fishing space in other parts of CRA 3 particularly the coastline adjacent to Gisborne.
18. The removal of closed seasons has increased the sector overlap in the fishery by one month in summer.
19. The number of commercial rock lobster vessels has declined from about 85 in the mid 1980s to 30 - 40 now. Unfortunately, little is known about the numbers of recreational fishers or the extent of or trend in the recreational catch. However, it is likely that the recreational fleet has increased in the same period.

### **Evaluations of Options Put Forward by the Minister**

20. In principle, to evaluate the options put forward by the Minister in terms of the effect on rebuilding strategy, new stock projections should be run. However, stock assessment scientists responsible for CRA 3 and other rock lobster assessments have indicated that they cannot provide, in the time available, additional technical inputs to help the NRLMG deliver the advice as requested. The assessment models are not structured to accommodate the seasonal detail inherent in the Minister's suggested management options but could be modified.
21. Nevertheless, it is possible for the NRLMG to provide advice, especially as the Minister made clear that he did not expect the completion of a full stock assessment but, rather, "*the analysis need only indicate the likely impact of any option...*" on the rebuild strategy and socio-economics.

### ***Status quo – TAC/TACC, current regulatory regime and voluntary measure***

22. Retaining the *status quo* will probably have no immediate effect in reducing perceptions of access inequity, or spatial overlap. However, if the rebuild operates as intended, increased stock abundance may go some way towards alleviating both.
23. The 2004 stock assessment and projections suggested that if the TACC were reduced to 190 t while other removals remained the same, the likely outcome (with 67% probability) would be an increase in stock size over the next three years of about 33%. Although the uncertainty associated with that likely increase was high (anything from a 55% decrease to a 200% increase), subsequent observations of catch per unit of effort have been in line with the projected increase.

#### ***Effect on rebuild strategy:***

24. Maintaining the *status quo*, by definition, would have no effect. The *status quo* embodies the implicit rebuild strategy. The *status quo* also includes the work on management procedures as undertaken in 2005 and as requested in the Minister's decision letter.
25. The implicit rebuild strategy is to move the stock towards an agreed target autumn-winter catch per unit of effort of 0.75 kg per pot lift. If a formal management procedure were agreed, that would include this as an explicit rebuild target and would include a schedule. Work on management procedures was carried out in 2005 based on the existing assessment and management arrangements. If the existing management arrangements are maintained, the management procedures work is available for consultation and advice. Work to date is reported in Section 9 of the NRLMG 2005 Annual Report.

#### ***Socio-economic impact:***

26. The *status quo* has no effect beyond what has already come about through reduced stock size, shelving arrangements in 2004-05 and the 2005 decision to reduce the TACC to 190t. Catching opportunities for commercial and non-commercial sectors are limited principally by the current stock size, although "spatial overlap" and consequent perceptions of impeded opportunity have undoubtedly been amplified by reduction of

fishing grounds within reach of Gisborne following the introduction of a 2400 hectare marine reserve in a highly productive area of the CRA 3 rock lobster fishery.

### **Removal of the winter commercial 52 mm TW MLS**

27. Removing the 52 mm TW MLS will reduce recreational sector perceptions of access inequity but may not improve recreational access to lobsters. It will increase commercial perceptions of inequity, and will further exacerbate spatial overlap.
28. Increasing the commercial MLS during the autumn-winter will reduce the commercial autumn-winter landings unless commercial effort is increased to maintain total catches at the level of the TACC. Increased, compensatory effort is most likely to occur in spring-summer but effort is also likely to increase in autumn-winter because export prices are higher during that period.

### ***Effect on rebuild strategy:***

29. The target of 0.75 kg per pot lift in autumn-winter would no longer be a meaningful target. The existing projections and all work to date on management procedure development would have to be redone.
30. These effort increases would likely result in substantial handling mortality of <54 mm TW rock lobsters. Overall mortality rate would increase in summer from the combined effects of increased exploitation rate (through increased effort) and handling mortality during autumn-winter.
31. Increasing the winter MLS would have no benefit and could have a negative effect on rebuilding the stock. If the TACC were still taken by transferring effort to spring-summer, there would be a negative effect because a proportion of the 52 mm-54 mm TW male rock lobsters foregone in winter would die through natural causes and because increased effort in both seasons would cause additional handling mortality.

### ***Socio-economic impact:***

32. The recreational sector perception of inequity caused by the differential MLS for commercial users would be removed.
33. Iwi have interests across recreation, customary and commercial sectors. From a customary and cultural values perspective it is important that Iwi are able to provide larger fish for their visitors and people. Currently, 90% of the customary catch is 52 mm TW. This is a major concern for Iwi as it impacts on their mana.
34. Iwi recognise and support the economic values associated with commercial harvest of 52 mm TW rock lobster during the winter months. However, Iwi also believe there needs to be an accommodation of customary values and the need for larger fish. Accordingly, Iwi support dialogue between stakeholders to find solutions to what are currently conflicting values.
35. The commercial sector would have either to increase effort or lose catch. The first response would increase costs, the second would reduce revenue. Any transfer of commercial effort to spring-summer would reduce the catch of higher export value winter rock lobsters and would increase the commercial presence at favoured recreational fishing times. Handling of sub-legal and egg-bearing rock lobsters would increase, further reducing commercial value and recreational desirability.
36. Historically, the commercial autumn-winter catch has been a significant proportion of the TACC. During the 1990s the proportion was 88%-99% by weight. In 2000, the proportion declined to 79% and during 2002 and 2003 it was 56%. Of those autumn-winter catches, the proportions less than 54 mm TW were 61% by number in 2002 and 65% in 2003. If the same proportions as in 2002 and 2003 were to prevail in the coming season, the sub 54 mm TW winter catch that would be removed from the fishery under a suggested increase in MLS would be on the order of 67t (56% times 63% times 190t). The export value of winter lobsters is in the range \$28 - \$38 per kg as opposed to \$24 - \$28 per kg in spring-summer, suggesting an economic loss of at least M\$0.5 and probably more if the displaced catch could not be caught in summer.

### **Introduction of closed seasons**

37. The introduction of closed seasons would reduce the amount of inter-sector spatial overlap by moving the vast majority of commercial effort into autumn and winter, and late summer (as already noted, most recreational fishing occurs in spring and summer).

From a recreational perspective, closed seasons may also balance perceived inequities by providing recreational fishers with an access advantage in late spring and summer. The availability of fish at the beginning of the main recreational season is unlikely to improve however, and may get worse because of the likely increase in commercial fishing in autumn and winter, and late summer.

38. With respect to closed seasons Iwi believe this is an appropriate tool to use for fisheries management.
  
39. An underlying rationale for proposed closed seasons in September to November is that egg-bearing females would be protected. However, egg-bearing females are already legally protected; the egg-bearing season begins in June or July and is well underway in August, and most females have “cleaned up” by November. Closures will therefore have no effect on protecting females.

***Effect on stock rebuilding:***

40. If commercial effort were removed and not transferred, the effect would be the same as decreasing the current TACC by approximately 50t. If effort were transferred, rebuild could be unaffected, reduced or enhanced depending on the details. The effect on rebuilding of a closed season for recreational fisheries would be negligible.

***Socio-economic impact:***

41. Fishing access though not necessarily fishing success would improve for the recreational and customary sectors during a period of the commercial closure. There would be little adverse effect on the recreational sector except for the loss of Labour Weekend fishing opportunities.
  
42. The main effect of the suggested closures would be to prevent commercial fishermen catching the current TACC. As with changes in the MLS regime, the commercial sector would be forced to transfer effort either to the more lucrative winter season (increasing handling mortality) or to spring-summer (increasing overlap with recreational fisheries). In the past three fishing years, the commercial catch in the period 1<sup>st</sup> September to 31<sup>st</sup> January has been 78.5t, 74.4t and 48.3t; the commercial sector could attempt to catch this earlier or later.

43. Commercial fishing would be displaced for an additional three months and the sector would lose access to important markets before Christmas and the Chinese New Year. Effort would likely be transferred to try to catch the TACC, causing greater overlap with non-commercial fisheries in the remainder of the summer fishery and possibly leading to greater effort in winter (see above). The net results would be increased costs and reduced revenues.

### **The need for stock rebuild**

44. Much of the debate about CRA 3 has arisen because of the current poor state of the stock. When the stock is low, catching opportunities for all sectors are reduced and spatial conflicts and perceptions of inequity arise. The NRLMG considers that rebuilding the stock to a size that can support the aspirations of all sectors is essential.
45. It is natural, therefore, to consider how a TAC/TACC reduction would affect rebuilding and what socio-economic impacts would be felt.
46. Using the existing assessment and projections, as presented in the 2004 Annual Report, it is possible to advise directly as to how changes in catch limits would affect rebuilding. The provision of advice on specific catch levels, however, is dependent on the desired rebuild strategy.
47. Rather than work from the assessment and projections to provide advice on changed TAC/TACCs, it is more appropriate, as requested by the Minister in his decision letter, instead to provide advice on the adoption of a management procedure which would prescribe catch and provide greater certainty as to rebuilding and future catches.

### **Operational Management Procedure (alternatively referred to as a decision rule)**

48. The development of a management procedure to determine catches for CRA 3 was recommended by the NRLMG and accepted by the Minister in 2005. Work has progressed and advice could be delivered in a timely fashion as to the adoption of a procedure – but only if the existing management arrangements are maintained. If changes to the commercial 52 mm TW arrangements are made, or closed seasons introduced, advice on management procedures for CRA3, and work on other rock lobster assessments and management procedures, will be delayed. This is primarily because CRA 3 management procedure development to date has been based on an

interpretation of the autumn-winter catch per unit of effort, which is contingent on the existing MLS and closed season arrangements.

49. Management procedures are developed using complex and computer intensive modelling, but the net result is a simple method to be applied regularly as a basis for determining catches. A management procedure is in operation for CRA 7 and CRA 8 and its operation is the subject of separate NRLMG advice.
50. An agreed management procedure would set TAC/TACCs in a transparent way, allowing better planning and providing greater confidence in future decision making.

## **Conclusions**

51. The issues in CRA 3 are not simple and cannot be resolved quickly or to everybody's satisfaction. The NRLMG considers underlying tensions, particularly those arising from perceptions about inequities, will not be resolved without the full engagement of all fishery participants.
52. For example, Iwi recognise and support the economic values associated with commercial harvest of 52mm rock lobster during the winter months. However, Iwi also believe there needs to be an accommodation of customary values and the need for larger fish. Accordingly, Iwi support dialogue between stakeholders to find solutions to what are currently conflicting values.
53. Likewise, the commercial sector and the recreational sector have already demonstrated a common interest in the threat to fishing caused by illegal operators and the effects of displacement caused by the declaration of the marine reserve.
54. A CRA 3 management regime implemented in April 1993, acknowledged to have been of benefit to the fishery, was developed by fishery participants. CRA 3 Iwi have recently recommended the establishment of a CRA 3 multi-sector stakeholder group to deal with current competing interests.

55. The NRLMG believes its own focus should be on rebuilding the stock and that the proposed local approach, coupled with the rebuild of the stock, would provide the best mechanism to achieve robust and enduring solutions. Please note the recommendation in the NRLMG 2005 Annual Report seeking your support for establishing a local multi-sector stakeholder group.

***Recommendation***

56. The NRLMG recommends that you
- a) **note** the contents of this paper.

NOTED

Hon Jim Anderton  
**Minister of Fisheries**

**Date:**