



Initial Position Paper on a proposed in-season increase for Red Cod (RCO 3)

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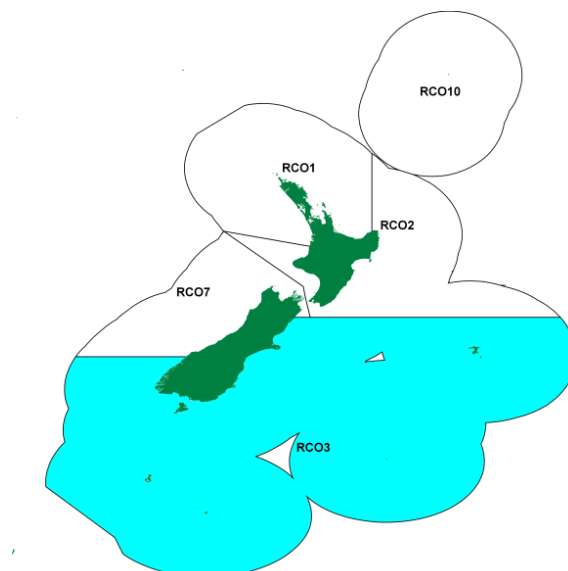
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Introduction

Figure 1: Quota Management Areas (QMAs) for red cod (RCO) stocks. RCO 3 indicated by shading.



1. The Ministry for Primary Industries (MPI) is seeking tangata whenua and stakeholder information and views on:
 - options for an in-season increase in the total allowable catch (TAC) for RCO 3 (see Figure 1); and
 - associated options for creating additional annual catch entitlement (ACE).
2. MPI proposes the following options for the TAC and ACE (Table 1):

Table 1: Proposed TACs and ACE for RCO 3.

Option	TAC (t)	TACC (t)	ACE (S68 in-season) (t)	Allowances		
				Customary Māori (t)	Recreational (t)	Other sources of fishing-related mortality (t)
Option 1 (Status Quo)	4930	4600	0	5	95	230
Option 2 (preferred option)	5761	4600 ¹	791	5	95	270

3. Option 2 is the output from the accepted management procedure and would allow for increased utilisation within sustainable levels. MPI's initial preferred option is Option 2.

¹ The total allowable commercial catch (TACC) does not change where an in-season increase is done.

Consultation

4. This Initial Position Paper (IPP) provides the Ministry for Primary Industries' (MPI's) initial views on options for an in-season increase in the total allowable catch (TAC), and associated options for creating additional annual catch entitlement (ACE) for Red cod in area 3 (RCO 3).
5. MPI has developed this IPP for the purpose of consultation as required under the Fisheries Act 1996 (the Act). MPI emphasises the views and recommendations outlined in the paper are preliminary and are provided as a basis for consultation with stakeholders.
6. In April 2014, MPI will compile the Final Advice Paper (FAP) for the attached proposal. This document will summarise MPI's and stakeholder's views on the issues being reviewed, and provide final advice and recommendations to the Minister for Primary Industries. A copy of the FAP and the Minister's letter setting out his final decisions will be posted on the MPI website as soon as these become available. Hard copies will be available on request.
7. MPI welcomes written submissions on the proposals contained in the IPP. All written submissions must be received by MPI no later than **5pm on Friday, 2 May 2014**.
8. Written submissions should be sent directly to:
Inshore Fisheries Management
Ministry for Primary Industries
P O Box 2526
Wellington 6011
or emailed to FMsubmissions@mpi.govt.nz
9. All submissions are subject to the Official Information Act and can be released, if requested, under the Act. If you have specific reasons for wanting to have your submission withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

Context

NEED TO ACT

10. Red cod is on Schedule 2 of the Fisheries Act 1996 (the Act). Schedule 2 applies to stocks whose abundance is highly variable from year to year. For any of these stocks, s 13(7) of the Act allows the Minister for Primary Industries² (the Minister) to increase the TAC within a fishing year. The Minister may do so only after considering information about stock abundance in the current fishing year and after having regard to the matters specified in subsections 13(2), 13(2A) (if applicable) and 13(3) of the Act.
11. In February/March 2014, an assessment of RCO3 abundance for the 2013/14 fishing year was completed. Based on this assessment, the in-season management procedure concludes that a TAC increase of 831 tonnes in the level of current utilisation is possible while still ensuring sustainability.

MANAGEMENT APPROACH

12. Red cod stocks are managed within the draft National Fisheries Plan (the Finfish Plan) for Inshore Finfish. The Finfish Plan is an MPI policy document which came into operation from July 2011. It sets out management objectives for stocks including RCO 3. Within the Finfish Plan, stocks are grouped based on the characteristics of biological vulnerability and desirability to fishers. The management approach and objectives are tailored accordingly.
13. RCO 3 is a Group 2 stock within the Finfish Plan. Management objectives for Group 2 stocks include:
 - Maximise the overall social, economic and cultural benefits obtained from each stock by enabling annual yield to be maximised.
 - Maintain relative stock abundance at or above an established minimum reference level.
14. The management approach for Group 2 stocks, including RCO 3, is designed to enable responsiveness to changing abundance levels by listing on Schedule 2 to provide for the opportunity to increase utilisation during periods of higher abundance, therefore enabling greater benefits to be obtained without risking stock sustainability.
15. Under the management framework a baseline TAC is set to ensure long term sustainability of stock. Abundance is assessed each year to determine whether the baseline TACC can be increased within the fishing year based on annual changes in

² The Minister for Primary Industries now exercises the powers and responsibilities of the Minister of Fisheries under the Fisheries Act 1996

abundance. If the TACC is increased within season, it is automatically reduced to the baseline level at the end of the fishing year. .

BIOLOGICAL CHARACTERISTICS OF RCO 3

16. Red cod are a relatively fast-growing, short-lived species, resulting in highly variable recruitment to the stock. Due to such variable recruitment abundance and catches between years can fluctuate.
17. Red cod enter the fishery at approximately two years of age and few fish older than six years remain in the commercial fishery. This means that pulses of strong recruitment produce periodic bulges of higher biomass moving through the fishery. The management approach aims to take advantage of these periods of higher biomass.

Stock Status

18. It is not known whether the current level of the RCO 3 stock is at or above the level that can produce the Maximum Sustainable Yield (MSY) or if the current TAC or any of the options in this paper will maintain the RCO 3 stock at or above a level which can produce the MSY. No recent stock assessments have been carried out on any red cod stocks. Biomass estimates from the recently reinstated winter East Coast South Island Trawl Survey confirm that biomass is low relative compared to the 1990s. (see below)
19. The in-season management procedure uses a model that takes the catch per unit effort (CPUE) from the first three months of the fishing year as indicating in-season abundance and is used to predict the end of year catch. This model has been reviewed by the Southern Inshore Finfish Working Group.
20. The in-season increase will provide for increased utilisation from the fishery. However, MPI also notes there is always risk inherent in the accuracy of such a procedure but considers this option to be low risk based on the available information.
21. The CPUE index is considered to be a good indicator of in season RCO 3 abundance and has been increasing since 2000. This is supported by the increasing biomass estimates as reported by the East Coast South Island Trawl survey, which could potentially be an *MSY* compatible proxy.

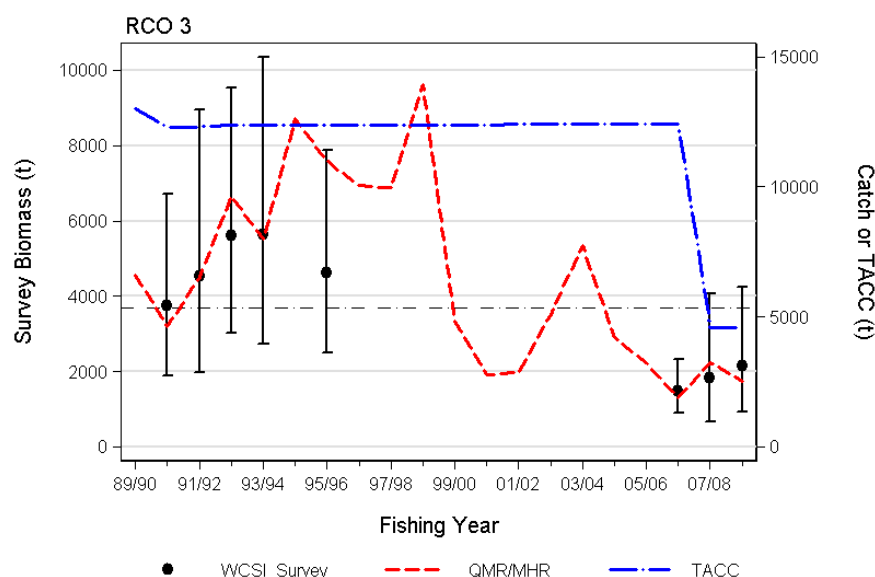


Figure 2 East Coast South Island survey biomass(points) commercial catch(red dashed line) and TACC(blue dashed line)for the period 1990 to 2009 Horizontal line dashed is the mean biomass index,1992-2009

RCO 3 Fishery

22. The red cod fishery is characterised by large variations in catches between years, both within and among seasons. Research indicates that this inter-annual variation in catch is due to varied recruitment causing biomass fluctuations rather than a change in catchability.
23. Trawl surveys and catch sampling of red cod have shown that the fishery is based almost exclusively on two and three year old fish and is highly dependent on recruitment success. From commercial catch data, recruitment has been negatively correlated with sea surface temperature. Recruitment appears largely controlled by climatic variability that prevails during early life history. Because the fishery is based almost exclusively on 2+ and 3+ year-old fish, a strong or weak year class can have a major impact on abundance in the fishery.
24. Red cod is a key target species within a complex of fished species in the Southern Inshore (trawl) Finfish Fishery. Fishers target their operations around the inter-annual variation in the abundance of the species that make up this fishery complex. RCO 3 is a very large QMA covering FMAs 3, 4, 5 and 6.
25. Most of the catch in RCO 3 is caught as a target catch by trawling and as a bycatch of other target species baracouta (16%), tarakihi (6%) and flatfish (4%). Around 95% of targeted RCO 3 landings is taken by bottom trawl, the remaining 5% is taken by Danish seine, midwater trawl and set net. Peak catches in the trawl fishery occur in summer to early autumn for most of RCO 3.

26. The original TACC for RCO 3 was set at a high level, based on 1983 catch levels that were the highest on record at that time. From 1986, the TACC was increased from 9000 t to 12396 t by quota appeals. The TACC was intended to allow high levels of commercial catch in years of high abundance. Landings over the seven year period from the 1992-93 fishing year until 1998-99 exceeded 8000 t annually, except for in 1993-94 which was just below. Since then, according to the best available information, landings have averaged around 4000 t but declined to just over 1800 t in 2006-07 after that they have returned to average 4000 t until 2011-12 (Figure 2).
27. Anecdotal information from commercial fishers this year suggests that the abundance of the red cod are not spread throughout the whole of the fishery, with some of the smaller inshore boats not catching large volumes of red cod. However some of the vessels operating in the deeper water in the Canterbury Bight are catching significant volumes at this time of the season although weather conditions have limited fishing days.

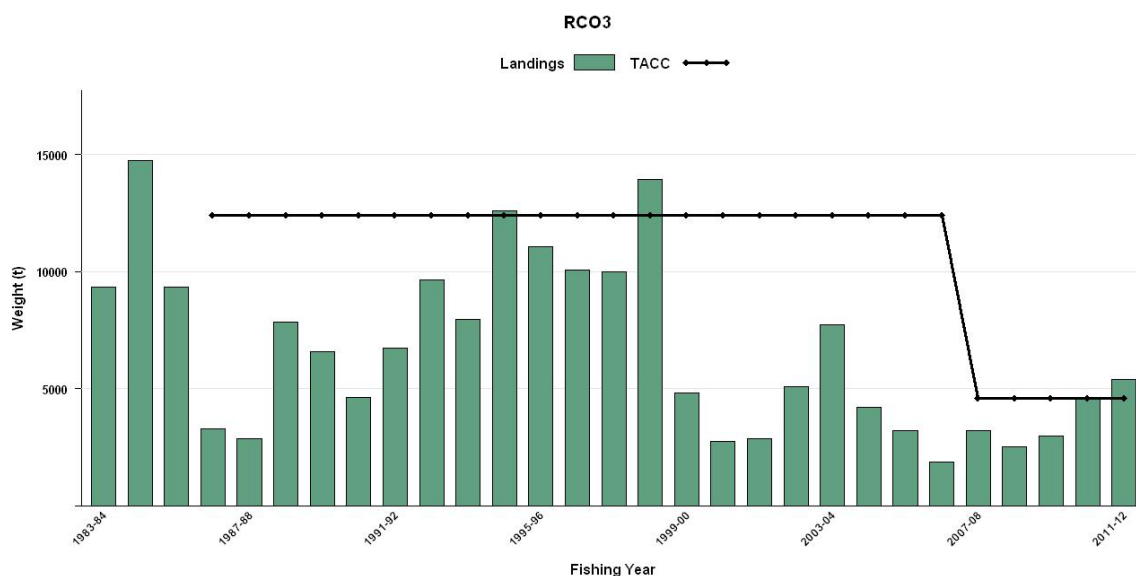


Figure 3: Historical landings and TACC for RCO 3

Recreational

28. Red cod is a reasonably important recreational fish species in this area. The main method is line fishing from boat or shore.
29. There is a minimum legal size for red cod of 25cm and a maximum daily bag limit of 10 in the RCO 3 area.
30. There is no current recreational catch estimate for RCO 3 specifically, but the recreational catches of RCO 3 are understood to be low compared to those of the commercial sector. MPI has commissioned research on recreational fisheries (the national

panel survey in 2011/12) which shows that nationally, recreational catches of RCO are less than 50 tonnes. Obtaining more precise information at the QMA scale for species such as RCO is not considered feasible due to cost.

31. Recreational fishers, especially those in the Akaroa Harbour and the general Canterbury Bight area, report they are still not seeing the abundant red cod catches that they have seen in previous years.

Māori Customary

32. There is no estimate of the current level of customary non-commercial catch. There are very few customary permits issued for red cod in RCO 3. Harvesting by tangata whenua is, therefore, assumed to be taken under the recreational catch.

OTHER SOURCES OF FISHING-RELATED MORTALITY

33. Processing limits on red cod are sometimes imposed to discourage fishers from landing red cod when the species cannot be processed or when markets are poor. This practice has encouraged dumping. Processing limits are currently less of a problem than in earlier years. Although this can change depending on the market preferences for the finished product.
34. MPI proposes to stay with the estimate of 5% of the proposed TACCs for other sources of fishing-related mortality. This is applied proportionally to the in-season increase option.

Other Key Considerations

35. When making a decision concerning the TAC for a stock, the Minister must have regard to interdependence of stocks, the biological characteristics (discussed above) and any environmental conditions affecting the stock. MPI is unaware of any relevant environmental conditions affecting RCO 3.

Proposed Response

36. MPI is consulting on the following management options for RCO 3 (Table 2):

Table 2: Proposed TACs TACCs and S 68 ACE for RCO 3.

Option	TAC (t)	TACC (t)	ACE (S68 in-season) (t)	Allowances		
				Customary Māori (t)	Recreational (t)	Other sources of fishing-related mortality (t)
Option 1 (Status Quo)	4930	4600	0	5	95	230
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37. A scientific assessment of the fishery undertaken in early 2014 indicated that the TAC could be increased within season while ensuring sustainability. An increase to the TAC will enable greater value to be derived from the fishery for the 2013/14 fishing year when compared to the baseline line TAC.

38. In view of the results of the in-season management procedure, MPI considers that both options proposed are not inconsistent with the objective of maintaining the RCO 3 stock at or above the level that can produce the maximum sustainable yield in the short-term.

Option 1 (Status Quo)

39. Option 1 is the status quo and proposes no changes to the TAC.

40. Based on the available information (discussed above), this option presents a very cautious approach to sustainability. As the in season CPUE analysis indicates and the East Coast Trawl survey biomass estimates shows, RCO 3 abundance is moderately high and there is potential for increased utilisation while ensuring sustainability that will not be realised under Option 1.

Option 2

41. Option 2 proposes:

- The TAC be increased from 4930 t to 5761 t (approximately 16% increase).
- The available ACE for the current season be increased by 791 t.
- No changes to customary Māori or recreational allowances.

42. Option 2 proposes additional ACE be provided under s 68(1) of the Act. The best available information suggests that catches at current and proposed levels would be unlikely to cause the stock to decline to undesirable levels. MPI considers Option 2 provides for some economic growth opportunities. The management procedure concludes that a TAC increase of 831 tonnes could be made. With this increase, the available ACE for the current season would be 5391 tonnes.

43. Section 68(1) says that if a TAC is increased under s 13(7), the Minister must, under s 21(1) consider Māori customary non-commercial fishing interests, recreational interests and other fishing-related mortality and create additional ACE that equals the amount by which he would have increased the TACC, but for s 20(4). Any additional ACE will be allocated to existing quota owners. As the TAC allocations for Māori customary non-commercial and recreational interests are at levels above those currently reported or estimated MPI consider there is no benefit in applying an in-season increase to these allocations.
44. Based on the 2012/2013 port price of \$0.61/kg, Option 2 would generate an additional \$480 000 of revenue compared to Option 1 (the status quo).
45. The effect of any increase on the price of ACE is unknown, under both options. It may be a reasonable assumption that it may rise under the status quo as ACE will be in short supply and potentially fall under Option 2 as ACE will be in more plentiful supply.

FUTURE CONSIDERATIONS

46. Red cod on the east coast South Island lends itself to the provisions of Schedule 2. An analysis of the recruitment-environment relationship shows there is strong recruitment under certain environmental conditions, with a periodic 14 month lag for those fish to enter the commercial fishery. This periodic pulse in recruitment allows for the provision of in season increases within a fishing year. Further, the east coast South Island trawl survey will be able, in future years, to provide more fishery-independent information on relative abundance, year class strength and recruitment into the fishery, which will contribute to the fine tuning of the management procedure.

INITIAL CONSULTATION

47. During February and March 2014, MPI had preliminary discussions with tangata whenua and some stakeholder representatives. MPI sought initial views on the options to be included in this paper.

Conclusions

48. The best available information suggests that current abundance is high and there may be opportunity for increased utilisation from RCO 3, at least in the short-term and that Option 2 would provide this.
49. MPI is seeking information and views from tangata whenua, fishery stakeholders and other interested parties to inform the review of in-season catch limits for RCO 3.
50. It is important to note that the Minister has broad discretion in exercising his powers of decision-making. He will make his own independent assessment of the information presented to him by both MPI and stakeholders before making a final decision.