



Ministry of  
**Fisheries**  
Te Tautiaki i nga tini a Tangaroa

**Review of Sustainability Measures and Other Management Controls for  
Rig 2 (SPO 2) Initial Position Paper June 2011**





## Introduction

1 This Initial Position Paper (IPP) provides the Ministry of Fisheries (the Ministry's) initial views on proposals relating to sustainability measures for Rig 2 (SPO 2) fish stock for the 2011/12 fishing year, commencing on 1 October.

2 The Ministry developed this Initial Position Paper (IPP) for the purpose of consultation as required under the Fisheries Act 1996 (the Act). The Ministry emphasises the views and recommendations outlined in the paper are preliminary and are provided as a basis for consultation with stakeholders.

3 In August 2011, the Ministry will compile the Final Advice Paper (FAP) for the attached proposal. This document will summarise the Ministry's and stakeholder views on the issues being reviewed, and provide final advice and recommendations to the Minister of Fisheries and Aquaculture. A copy of the FAP and subsequently the Minister's letter setting out his final decisions will be posted on the Ministry's website as soon as it becomes available with hard copies available on request.

### *Deadline for Submissions*

4 The Ministry welcomes written submissions on the proposals contained in the IPP. All written submissions on this consultation document must be received by the Ministry no later than 4pm on Friday, 29 July 2011.

5 Written submissions should be sent directly to:

Trudie Macfarlane  
Ministry of Fisheries  
P O Box 1020  
Wellington

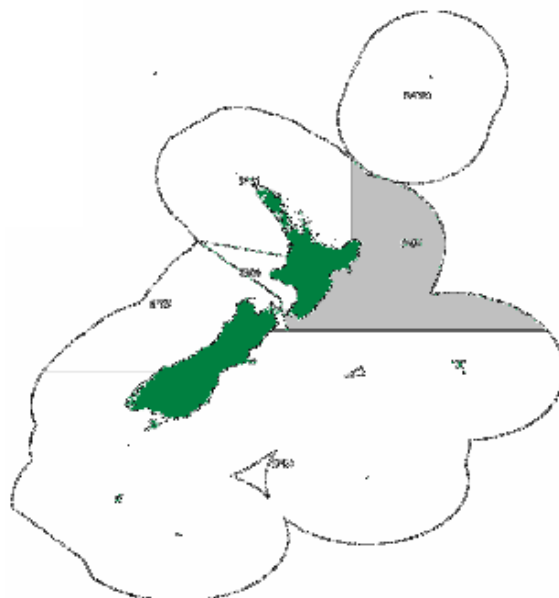
or emailed to [Trudie.Macfarlane@fish.govt.nz](mailto:Trudie.Macfarlane@fish.govt.nz)

6 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. The Ministry will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

## Rig 2 (SPO 2)

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Figure 1: Quota Management Areas (QMA) for Rig



### Introduction

8 The Ministry is seeking tangata whenua and stakeholder information and views to inform a review of catch limits and other management measures for rig in Quota Management Area 2 (SPO 2, see figure 1).

9 It is proposed that the Minister of Fisheries (the Minister) considers the following Total Allowable Catch (TAC) and allowance options:

Option	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of Mortality (t)
Option 1 (status quo)	122	86	20	10	6
Option 2	130	108	5	10	7

10 In addition, the Ministry is proposing listing all rig stocks on the Sixth Schedule of the Fisheries Act 1996 (the Act), to allow rig to be returned to the water, if likely to survive on return and the return takes place as soon as practicable (refer to *Sixth Schedule – Add All Stocks of Rig* Initial Position Paper (IPP) for more information).

11 The Ministry is also recommending reviewing the deemed value rates and ramping provisions for SPO 2 (please refer to the *Deemed Value* IPP for more information).

## Context

### *The Need to Act*

12 Available information on relative abundance of rig in SPO 2 suggests that recent levels of catch are sustainable.

13 Commercial catches in SPO 2 have exceeded the Total Allowable Commercial Catch (TACC) for the last 20 years. In some years, almost half of fishers taking rig have reported over catch and consequently have made deemed value (DV) payments.

14 The commercial stakeholder organisation for the QMA, the Area 2 Finfish Management Company (AFMC), considers the SPO 2 TACC to be constraining fishers' ability to maximise value in associated target fisheries.

### *Previous Review*

15 The TAC was reviewed in 2009. However, no change was made because best available information was equivocal on whether increased commercial catch landings since 2004 (which had exceeded the TACC by 23% on average each year) were sustainable. The Ministry recommended reconsidering SPO 2 catch limits in two years after another CPUE analysis was conducted.

### *SPO 2 Stock Status*

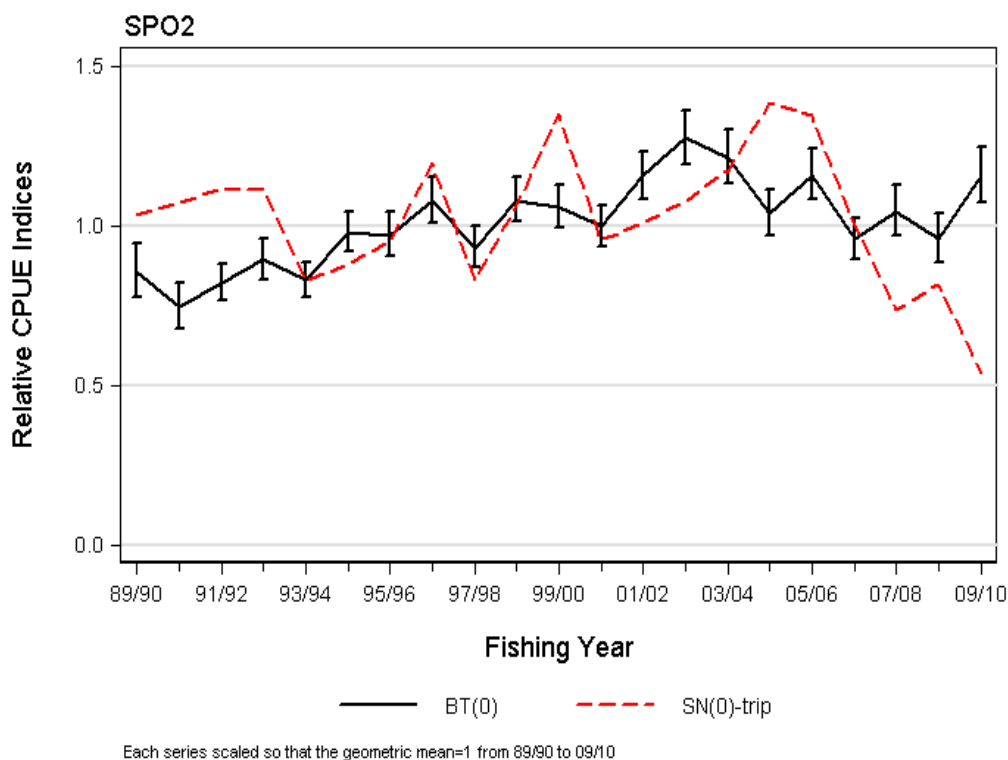
16 The current size of the SPO 2 fish stock ( $B_{\text{CURRENT}}$ ) and the SPO 2 stock size that would produce the maximum sustainable yield ( $B_{\text{MSY}}$ ) are unknown.

17 Standardised catch per unit effort (CPUE) for all bottom trawl fisheries provides information on the relative size of the SPO 2 stock through time. This CPUE series suggests stock size increased gradually from 1989/90 to 2002/03 after which the series remains reasonably stable through to 2009/10 (Figure 3).

18 A CPUE series based on set net data is reasonably similar to the bottom trawl series until the mid-2000s when the set net series goes into a steep decline. However, the set net series is believed to be less credible than the bottom trawl series due to fewer available data, poor vessel overlap through time and the fact that the set net fishery largely targets blue warehou and blue moki.

19 The Ministry's Stock Assessment Plenary has concluded that current catches of SPO2 are unlikely to cause the stock to decline.

**Figure 3: Standardised CPUE indices for all bottom trawl fisheries landing rig in Fisheries Management Area (FMA) 2 (BT(0)) and all set net fisheries landing rig in FMA 2 (SN(0)-trip).**



### *Biological Characteristics of SPO 2*

21 Rig (*Mustelus lenticulatus*) is caught in coastal waters throughout New Zealand (NZ). Five management stocks are recognised in NZ (SPO 1, 2, 3, 7 and 8).

22 The biological characteristics of rig make it vulnerable to fishing effects; rig are relatively long-lived and have low fecundity<sup>1</sup>.

### *SPO 2 Fishery*

23 Since 1986, commercial landings of rig in SPO 2 have increased, probably due to the SPO2 stock size, which was likely depleted prior to introduction to the Quota Management System.

24 The majority of rig taken commercially in SPO 2 is bycatch of other target fisheries. Rig is predominantly taken as bycatch from the tarakihi (TAR 2) and red gurnard (GUR 2) trawl fisheries (59% in the previous 6 years). Other fisheries catching rig include the flatfish (FLA 2), rig target (SPO 2), blue warehou (WAR 2) and blue moki (MOK 1) fisheries.

25 The TACC for rig has been exceeded every year since it was set in 1992-1993. Since 2004, the annual commercial landings have fluctuated between 101 and 114 tonnes (Figure 2).

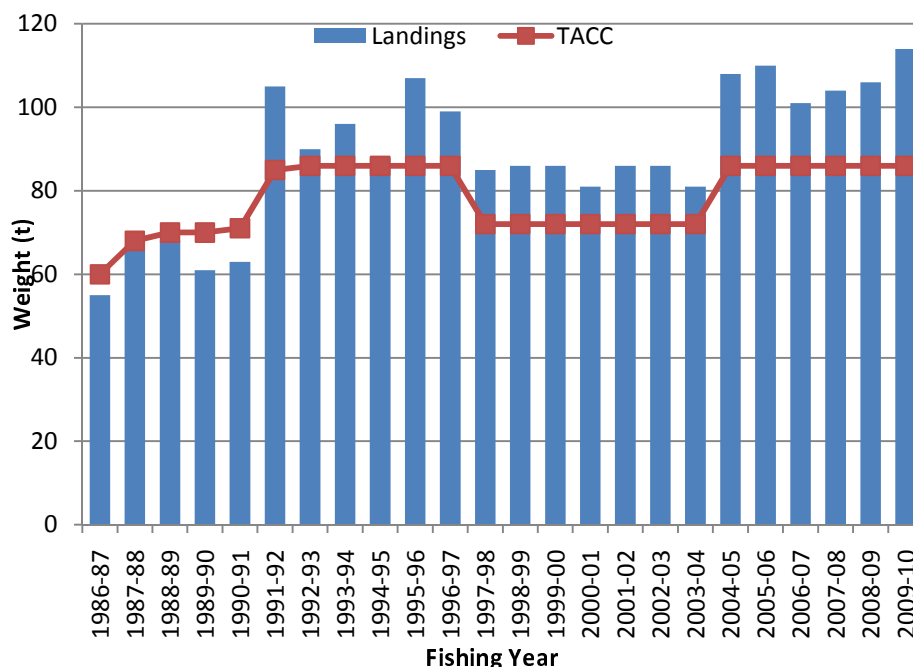
<sup>1</sup> The lifespan of rig has not been established but tagging research shows rig live longer than 20 years. Mature female rig breed annually and give birth once each year, producing between two and 37 offspring.

26 Commercial fishers are legally required to land all rig caught and must pay a deemed value for any rig they are unable to balance with annual catch entitlement (ACE). In the past six years, 25-40% of fishers taking rig have paid total annual deemed values ranging from \$36,240 to \$100,081 for SPO 2 over catch.

27 The inability of some fishers to cover all their bycatch with ACE and the cost of DV can create an incentive to illegally discard; actual commercial fishing mortality in SPO 2 might therefore be greater than what is reported. The Ministry has no information to confirm occurrence or quantum of illegal discarding in the SPO 2 commercial fishery.

28 Customary and recreational catch levels are uncertain. However, available information suggests that customary and recreational catch is only a small portion (<15%) of the total catch. Only one customary permit was reportedly granted in the last two years. Both sectors take rig mostly by lining and set net methods.

**Figure 2: Historical landings and TACC for SPO 2.**



29 The SPO 2 recreational catch estimates vary between 9-33 tonnes and are highly uncertain because of poor representation of the region in the research sample<sup>2</sup>.

30 Quantitative estimates of other sources of fishing-related mortality are not available for rig.

### Proposed Measures

31 The Ministry is consulting on the following management options for setting TACs, TACCs and allowances for SPO 2 (Table 1).

<sup>2</sup> All of the recreational harvest estimates based on diary surveys are known to contain uncertainty. The 1999-00 National Marine Recreational Fishing Survey contains the best estimate because surveys including and pre-1996 contain a methodological error, and the 2000 and 2001 estimates are implausibly high for many important fisheries including rig.

**Table 1: Proposed TACs, TACCs and allowances for SPO 2.**

Option	TAC	TACC	Customary Non-commercial Catch	Recreational Catch	Other sources of Mortality
Option 1 (status quo)	122	86	20	10	6
Option 2	130	108	5	10	7

32 The TAC for SPO 2 is set under section 13 of the Act.

33 Before a TAC can be set under section 13(2) of the Act an assessment of  $B_{CURRENT}$  and  $B_{MSY}$  is required. The available information on SPO 2 is insufficient to enable estimates of  $B_{CURRENT}$  and  $B_{MSY}$ .

34 Where estimates of  $B_{CURRENT}$  and  $B_{MSY}$  are not available, section 13(2A) of the Act provides for the Minister to use the best available information to set a TAC that is not inconsistent with the objective of maintaining the stock at or above  $B_{MSY}$ , or moving the stock towards or above,  $B_{MSY}$ .

35 For SPO 2, best available information to inform TAC setting at this time is the standardised CPUE series for SPO 2 described above. CPUE trends suggest current catches of SPO 2 are unlikely to cause the stock to decline.

#### *Option 1 (Status Quo)*

36 Under Option 1, the existing TAC would be retained on the basis that the current TAC is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce the maximum sustainable yield. This option reflects a cautious approach to change, and the uncertainty in information on the status of the stock.

37 Retaining the current TAC for SPO 2 at 122 tonnes may reduce the ability of commercial stakeholders to maximise the value of catch taken in SPO 2 and associated target fisheries. Deemed values paid for over catch of the SPO 2 TACC reduce the value of catch landings in target fisheries that take rig as bycatch. Since 2004, commercial stakeholders have paid total annual deemed values ranging from \$36,240 to \$100,081 for SPO 2.

#### *Option 2*

38 Under Option 2, the SPO 2 TAC would be increased by 8 tonnes in line with recent reported catch levels. The increase is unlikely<sup>3</sup> to cause stock decline. Therefore Option 2 is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce the maximum sustainable yield. Option 2 reflects the existing level of commercial catches to a better extent than option 1.

39 Under Option 2, the TACC would be increased by 22 tonnes to 108 tonnes. 108 tonnes represents the average commercial catch reported in the last six years. Increasing the TACC would provide economic benefits to commercial fishers as they would likely be able to obtain ACE to cover more of their SPO 2 bycatch rather than have to pay deemed values.

<sup>3</sup> The Ministry defines the term “unlikely” in the plenary reports as less than 40% probability.



40 Information on Māori customary and recreational catch levels is limited and uncertain. The Ministry has no research or anecdotal information to indicate the catches of these sector groups have increased above current allowances. No interest group from either sector has communicated a need to increase their annual allowance or daily bag limit.

41 No new recreational harvest information is available to inform a change to the recreational allowance.

42 Some new customary harvest information is available from reporting of customary authorisations. The information relates to a portion (approximately half) of the QMA as iwi in other areas are operating under regulation 27 and 27A of the Fisheries (Recreational Fishing) Regulations 1986, in which reporting was non-mandatory for reported customary landings. Reported customary Māori catch is low, with only one customary authorisation issued in the last two years. This suggests tangata whenua use of customary Māori harvesting rights (as opposed to commercial or recreational) is low at this time.

43 Option 2 proposes adjusting the customary Māori allowance to reflect available information on customary harvest, which suggests catch is likely significantly lower than the current 20 tonne allowance. The Ministry notes that:

- a. the adjustment to the allowance does not constrain customary catch as harvest is authorised by Kaitiaki
- b. the adjustment to the allowance will not affect availability of rig to customary fishers, as no overall change to current catch levels are proposed
- c. accurate information on customary harvest levels is important to support stock status assessments as poor information affects the quality of the assessments (for example, an over estimate of harvest can result in overly optimistic assessments of stock productivity).

44 The proposed customary Māori allowance is 5 tonnes. However, the Ministry recognises that information on customary harvest is uncertain and invites iwi, Tangata Tiaki/Kaitiaki, and customary permit issuers to submit any additional information they hold on their catch levels in SPO 2.

45 Information on the level of incidental rig mortality as a result of trawl and set nets is unknown. In previous TAC setting decisions for SPO 2, an allowance for other sources of fishing-related mortality has been estimated at 5% of the combined Māori customary, recreational and TACC allowances. The proposed increase in the allowance for other sources of fishing-related mortality from 6 to 7 (Option 2) approximately retains this proportional increase.

## **Other Management Measures**

### *Addition of rig to the Sixth Schedule of the Fisheries Act*

46 The Ministry is consulting on a proposal to add all rig stocks (SPO1, 2, 3, 7 and 8) to the Sixth Schedule of the Act to enable commercial fishers to immediately return rig taken as incidental bycatch back to the water, if it is likely to survive on return and if the return takes place as soon as practicable after the rig is taken. The full proposal is outlined in *Sixth Schedule – Add All Stocks of Rig IPP*.

47 The addition of rig onto the Sixth Schedule of the Act may reduce the current level of deemed values paid by commercial fishers if Option 1 is adopted, as live rig could be returned to the water with no ACE or deemed value cost incurred. Addition to the Sixth Schedule would also support maximisation of value under Option 2, as fishers would only need to use ACE to cover bycatch not likely to survive return to sea.

### *SPO 2 Deemed Value Rates*

48 The Ministry is consulting on changes to deemed value rates for a number of fisheries, including SPO 2. The Ministry is proposing to change the current SPO 2 settings to maintain incentives to balance catch with ACE. For further information, please refer to the *Deemed Value IPP*.

### **Conclusions**

49 The Ministry's initial view on setting catch limits for SPO 2 is to increase the TAC and adjust sector allowances where appropriate, to reflect current catch levels (ie, Option 2 above). The proposal is unlikely to result in sustainability issues and will enable more value to be derived from the SPO 2 fishery.

50 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 the Ministry and stakeholders before making a final decision.