

## Sixth Schedule – addition of Rig: Final Advice Paper

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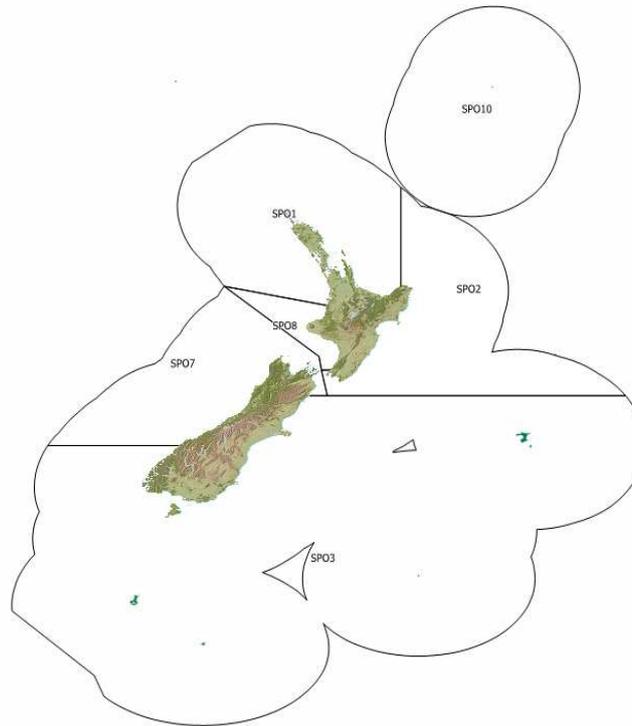


Figure 1: Quota Management Areas (QMA) for Rig

### Summary

1. The Ministry of Fisheries (the Ministry) recommends adding rig to the Sixth Schedule of the Fisheries Act 1996 (the Act) pursuant to section 72(7) (Option 2). This will allow live rig to be returned to sea, despite this being generally prohibited for Quota Management System (QMS) species.
2. Some studies have shown that when sharks are returned to the water alive and immediately after capture that as many as 60% may survive. Therefore, it is unnecessary to require fishers to land rig and impose a cost if they are unwanted, can be returned to the sea alive, and are likely to survive.
3. The current management regime for rig has resulted in some commercial fishers incurring additional costs by being required to land all rig. Currently, fishers are required to balance all rig catch with Annual Catch Entitlement (ACE) or pay the associated deemed value.
4. The Ministry consulted on the proposal and received six submissions, including two from the recreational sector, one from a customary Māori group, and three from the commercial industry. All but one of the submitters supports Option 2. The group that supports the status quo notes concerns about the catch consistently being over the total allowable commercial catch (TACC) and do not feel that listing rig on the Sixth Schedule will help reduce the over catch.

## Key Considerations

### *Need to Act*

5. The majority of rig caught is bycatch of other target fisheries. Fishers are reporting increasing amounts of over catch, particularly in SPO 2 and SPO 7.
6. Some studies have shown that sharks are robust and may survive capture and release, particularly if the trauma and injury to the shark during capture is limited.
7. The requirement to land all rig has resulted in an economic cost in the form of deemed value payments by some fishers who are unable to avoid it when fishing and do not have sufficient ACE to cover the catch. In the past five years, commercial stakeholders have reported over catch of rig ranging from 25 and 55 tonnes and paid total annual deemed values ranging from \$45,200 to \$290,100. Therefore, there may be benefits for the stock, as well as reduced cost to fishers if rig can be returned to the sea in a survivable state.

### *Relevant Fishery Information*

8. Rig is relatively long-lived and has low fecundity<sup>1</sup>, meaning it would recover more slowly from a depleted state than more productive species.
9. Several studies have found that most sharks are capable of recovering from the physiological stress of capture. Mortality is believed to be more closely linked to any physical injury incurred during capture.<sup>2</sup>
10. Rig is predominantly taken by set net and trawl. Since its introduction into the QMS, a larger proportion has been taken by trawlers (75%) as bycatch than in set nets.
11. Rig requires timely processing at sea to maintain their value. The flesh may be tainted with ammonia if the carcass is not headed, gutted, bloodlines removed (trunked) and iced shortly after capture. The inability of fishers to process and store the carcasses may increase the likelihood for fishers to illegally discard unwanted rig.
12. The inability of some fishers to cover all their bycatch with ACE and the cost of deemed values may also be creating disincentives to process or land their catch. The actual fishing mortality or wastage might be greater than what is reported. The Ministry has no independent information to verify these claims.

### *Proposals Consulted On*

13. An initial position paper (IPP) was released 1 July 2011 and proposed two options (Table 2).

**Table 2:** Proposed options for listing all rig stocks on the Sixth Schedule of the Fisheries Act (1996)

<b>Option 1</b>	Status quo. No specific measures allowing rig to be returned to the sea.
<b>Option 2</b>	Rig can be returned to the sea, if they are in a survivable state. Not counted against ACE.

<sup>1</sup> The lifespan of rig has not been established but tagging research shows rig live longer than 20 years.

<sup>2</sup> Skomal GB (2007) Evaluating the physiological and physical consequences of capture on post-release survivorship in large pelagic fishes. Fish Management Ecology 14:81–89

14. Option 1 is the status quo for all QMS stocks not included on the Sixth Schedule.
15. Under Option 1, all mortality associated with commercial fishing of rig will, in theory, be entirely constrained within the TACC as all rig landed are counted against ACE (or attract deemed values). In practice, however, it is likely that substantial unreported (illegal) discarding of rig would occur due to the economic cost of landing unwanted rig, making estimations of total fishing-related mortality difficult.
16. Option 1 also does not alleviate the economic cost associated with fishers having to hold ACE or pay deemed values on all rig that is caught but could be released alive.
17. Under Option 2, all rig stocks (SPO1-3, 7 and 8) would be added to the Sixth Schedule to enable commercial fishers to immediately return rig taken as incidental bycatch back to the sea, if it is likely to survive on return, and if the return takes place as soon as practicable after the rig is taken.
18. There is a risk that rig released under the Sixth Schedule will not survive. This risk is increased for rig caught and released from set nets having longer soak times. In inshore bottom trawl and set net fisheries, rig are known to survive capture if they are immediately returned to sea. This has been seen in previous trawl surveys. Several rig were caught, tagged, released and recaptured at a later date. For those rig that are not likely to survive, they will still need to be landed and counted against the fisher's ACE.
19. Option 2 may also provide benefits for sustainability, especially if releases include mature females.
20. Option 2 provides a further means for fishers to balance their ACE holdings and avoid making deemed value payments for incidental catches of rig. Such an approach could result in less wastage as fishers have more incentive to value their catch. There might also be better reporting of rig catches by reducing the incentive to illegally discard and not report. It is important that the level of use of the Sixth Schedule provisions for rig be monitored. A separate generic code has been established for Sixth Schedule reporting where there is no requirement for released catch to be counted against ACE.
21. Under option 2 commercial fishers would be required by the Fisheries (Reporting) Regulations 2001 and section 72(6) of the Act to report fish returned to the sea in accordance with the provisions of the Sixth Schedule.

### *Submissions*

22. Six submissions regarding this proposal were received from:
  - Te Ohu Kaimoana (TOKM)
  - NZ Sport Fishing
  - Bill Hartley (recreational fisher)
  - Sanford Ltd
  - The New Zealand Seafood Industry Council (SeaFIC)
  - Challenger Finfisheries Management Company Ltd (Challenger).
23. Copies of these submissions are available in the separate document containing all submissions to the October Sustainability Round IPPs.
24. All six submitters except for NZ Sport Fishing support the addition of all rig stocks to the Sixth Schedule of the Act (Option 2).

25. Two of the submitters (SeaFIC and Challenger) would also like to see school shark added to the Sixth Schedule. Additionally, Challenger would like elephant fish added to the Sixth Schedule. The Ministry is not currently suggesting anymore stocks be added to Sixth Schedule at this time. However, the Ministry may suggest the listing of additional stocks to the Sixth Schedule in future sustainability rounds, if it is considered to be appropriate.

## Final Proposals and Analysis

26. The options proposed in the IPP remain unchanged for your consideration:

**Table 2:** Proposed listing of all rig stocks to the Sixth Schedule of the Fisheries Act (1996)

<b>Option 1</b>	Status quo. No specific measures allowing rig to be returned to the sea.
<b>Option 2</b>	Rig can be returned to the sea, if they are in a survivable state. Not counted against ACE.

27. Option 1 is the status quo. Under Option 1, all commercial fishers targeting rig or catching it as bycatch would be required to land it and count it against their ACE or attract deemed values. NZ Sport Fishing was the only submitter to support this option, because they are concerned that listing rig to the Sixth Schedule will be counterproductive in that it will provide for legalised dumping.

28. NZ Sport Fishing is also concerned that commercial fishers will not make returning rig to the sea a priority over the “valuable” fish. NZ Sport Fishing also claims that there is no evidence that including rig in the Sixth Schedule will reduce mortality on the stock.

29. The Ministry considers that there is scientific evidence which shows that rig can survive if returned to sea.<sup>3</sup> Additionally, Commercial fishers are likely to process or return the rig to sea quickly to avoid ammonisation of the flesh.

30. The Ministry considers the status quo may also provide an incentive for commercial fishers to dump unwanted rig, since they must utilise hold space to store and land the rig. Fishers must also balance the catch with ACE or pay deemed values.

31. Option 2 allows more flexibility to fishers and may also provide a sustainability benefit to rig stocks. Returned rig may contribute to the spawning stock and thus increase the number of young being produced.

32. Option 2 would also allow commercial fishers to decide whether to 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, or land the rig and balance it with ACE. Option 2 is supported by five of the six submitters.

33. Option 2 would also provide some relief for all affected fishers and may limit illegal dumping since fishers will have the option of returning rig to the sea, if likely to survive. Fishers will not be forced to source ACE or pay deemed values for all rig caught.

<sup>3</sup> Francis, MP., 1989. Exploitation rates of rig (*Mustelus lenticulatus*) around the South Island of New Zealand. NZ Journal of Marine and Freshwater Research. Vol. 23, 239–245.

34. Under option 2, rig returned to sea, in accordance with the Sixth Schedule, will be recorded under a separate code. It is the Ministry's view that this information will assist in providing more accurate reporting on rig stocks, which in turn, will assist in the management of the stocks.

### **Additional Management Controls**

35. No other management controls are proposed. As the proposal reduces regulatory restrictions and uses existing Sixth Schedule provisions, no supporting offence or penalty provisions need to be introduced.

### **Assessment against Statutory Obligations**

#### *General Obligations*

36. The Ministry considers that all options presented in this paper satisfy your obligations under section 8 of the Act in that they provide for utilisation in the rig fishery while ensuring sustainability. Each management option proposed will ensure the long term sustainability of the stocks. Option 1 is more cautious but is likely to limit utilisation opportunities.

37. In contrast, Option 2 (the Ministry recommended option) will provide fishers the flexibility to return rig likely to survive back to the sea or secure ACE to land the rig (or pay associated deemed values). Option 2 may also have benefits for sustainability, especially if releases include mature females.

38. You must also act in a manner consistent with New Zealand's international obligations to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

39. This proposal is consistent with actions and objectives in the National Plan of Action for Sharks.<sup>4</sup> An action listed in the Plan is to review use of Schedule 6 provision to allow live release of additional shark species. The objectives of the Plan include:

- Minimise waste and discards from shark catches in accordance with article 7.2.2.(g) of the code of Conduct for Responsible Fisheries.
- Facilitate the improvement of species specific catch and landings data and monitoring of shark catches.

40. The Ministry also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5 (b)).

#### *Input and Participation*

41. The Ministry has an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga. The Ministry sought input from and provided an opportunity for participation from iwi listed under schedule 3 of the Maori Fisheries Act 2004, the Ministry's Iwi Forums (via the forum chairs) and tangata whenua groups with a Fisheries Protocol. This opportunity was provided in writing prior to the development of the IPP. The Ministry did not receive any input on kaitiakitanga or on customary interest in rig during this time although the Ministry acknowledges timeframes for input were short due to the development process. The Ministry is looking at ways to provide more time for input and participation of tangata whenua in the future.

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<sup>4</sup> New Zealand National Plan of Action for the Conservation and Management of Sharks October 2008

42. In addition to an opportunity to input and participate in the development of the IPP, the Ministry also consulted with the above tangata whenua groups and with tangata whenua who have registered an interest in rig, on the options developed through the IPP. In particular, due to the uncertainty of the information the Ministry currently holds on customary permit fulfilment, the Ministry sought information from tangata whenua on levels of customary harvest. However, no additional information was submitted during the consultation period. The Ministry will continue to work with tangata whenua to improve reporting and information on customary non-commercial catches.

### *Environmental considerations*

43. The Act requires that when any effect of fishing is adverse this effect should be avoided, remedied or mitigated. More specifically, section 9 requires you to take into account that associated or dependent species be maintained at or above a level that ensures their long-term viability, that the biological diversity of the aquatic environment should be maintained, and habitat of particular significance for fisheries management should be protected.

44. It is unlikely either of the management options proposed would materially affect associated or dependent species or the biological diversity of the aquatic environment or affect relevant habitats of particular significance.

### *Information Principles*

45. The information principles of the Act require that decisions be based on the best available information, taking into account any uncertainty in the available information and applying caution when information is uncertain, unreliable, or inadequate. The management options proposed have been developed based on the best available information for rig.

### *Quota Management System*

46. Section 72(1) prohibits fishers from returning or abandoning any fish, aquatic life, or seaweed of legal size, or for which no legal size is set, that is subject to the quota management system. However, under subsection (1) does not apply if the stock is listed on the Sixth Schedule of the Fisheries Act. Under subsection (7), you may recommend that the Governor-General, by Order in Council, add or omit stocks to the Sixth Schedule.

### **Conclusion**

47. This review suggests the addition of rig to the Sixth Schedule is appropriate as rig can survive return to sea and adding rig would provide important flexibility in managing unavoidable bycatch of rig. The Ministry's recommendation is in favour of listing all stocks of rig on the Sixth Schedule of the Act.

48. Because this is a regulatory amendment it will not be in place by 1 October 2011. If the measure is approved, fishers will be formally advised of when the measure will come into effect.

49. Including all rig stocks on the Sixth Schedule of the Act would assist in the reduction of costs associated with landing unwanted rig and allows operators to return rig that are in a survivable state back to the sea. Of importance to the Ministry is that better reporting outcomes may be achieved by including rig on the Sixth Schedule, as it may provide a disincentive to discard and not report rig catch.

50. Allowing operators to return rig that are in a survivable state back to the sea also may result in less wastage and confer sustainability benefits.

## Summary of Recommendations

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51. The Ministry recommends that you:

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|---|----------|
| a) <b>Agree</b> to recommend the Governor-General amend the Sixth Schedule of the Act, by Order in Council, to allow return to sea of rig where they are likely to survive. | Yes / No |
|---|----------|

Leigh Mitchell  
**for Director General**

AGREED / AGREED AS AMENDED / NOT AGREED

Hon Phil Heatley  
**Minister of Fisheries and Aquaculture**

/ / 2011