



# **Review of sustainability and other management controls for sea perch 1 (SPE 1)**

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Prepared for the Ministry for Primary Industries  
by the Inshore Fisheries Management Team

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## **SUSTAINABILITY REVIEW OF FISH STOCKS 2013**

This Initial Position Paper (IPP) provides the Ministry for Primary Industries' (MPI's) initial views on proposals for inshore fish stock sustainability measures and other management controls for the 1 October 2013/14 fishing year.

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.

In August 2013, 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.

## **DEADLINE FOR SUBMISSIONS**

MPI welcomes written submissions on the proposals contained in the IPP. All written submissions must be received by MPI no later than 4pm on Friday, 9 August 2013.

Written submissions should be sent directly to:

Inshore Fisheries Management  
Ministry for Primary Industries  
P O Box 2526  
Wellington 6011

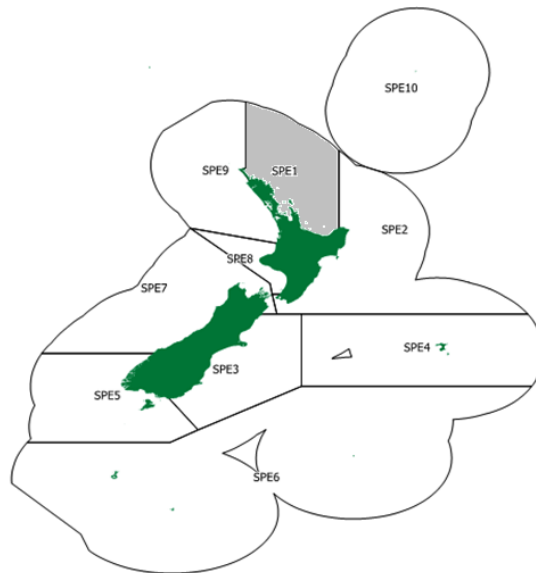
or emailed to [FMsubmissions@mpi.govt.nz](mailto:FMsubmissions@mpi.govt.nz)

## **OFFICIAL INFORMATION ACT 1982**

All submissions are subject to the Official Information Act and can be released (along with the personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment under the Act.

# REVIEW OF SUSTAINABILITY AND OTHER MANAGEMENT CONTROLS FOR SEA PERCH (SPE 1)

Figure 1: Quota Management Areas (QMAs) for Sea Perch



## INTRODUCTION

1. The Ministry for Primary Industries (MPI) is seeking tangata whenua and stakeholder information and views to inform a review of catch limits and other management measures for sea perch in Quota Management Area 1 (QMA 1) (SPE 1), see Figure 1.
2. MPI proposes the following options for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances (Table 1):

Table 1: Proposed TACs, TACCs and allowances for SPE 1

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status Quo)	35	33	1	1	-
Option 2	58	53	1	1	3

## Context

3. Management settings for SPE 1 have been reviewed once since sea perch was introduced into the Quota Management System (QMS) on 1 October 1998. In the 2006 review, the TACC was increased from the initial level of 18 tonnes to 33 tonnes. The reported annual commercial catch has exceeded the current TACC of 33 tonnes on four occasions.
4. The TAC for SPE 1 is set under section 13 of the Fisheries Act 1996 (the Act). Section 13 requires the Minister for Primary Industries<sup>1</sup> (the Minister) to set a TAC for SPE 1 that enables the stock to be maintained at, or move towards, a level at or above the level that will produce the maximum sustainable yield<sup>2</sup> ( $B_{MSY}$ ).
5. The available information on SPE 1 is insufficient to enable reliable estimates of current biomass ( $B_{current}$ ) or  $B_{MSY}$ . Where reliable estimates of  $B_{MSY}$  are not available, s 13(2A) of the Act requires the Minister to use best available information to set a TAC that 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.
6. The large extent of the SPE 1 QMA, the absence of target fishing, and the relatively low volume of catch in SPE 1 in the past, suggest that there is an opportunity to provide for a small increase in utilisation over the medium term. For SPE 1, consistent commercial landings in excess of the TACC have been used as the trigger for further investigation and consideration of review.

## Management Approach

7. Sea perch stocks are managed under the Draft National Fisheries Plan for Inshore Finfish (the Finfish Plan)<sup>3</sup>. The Finfish Plan is an MPI policy document that came into operation from July 2011. It sets out management objectives for inshore finfish stocks, including SPE 1. Within the Finfish Plan stocks are grouped, with management approaches and objectives tailored accordingly for each group.
8. SPE 1 is in Group 6 in the Finfish Plan. The management approach for Group 6 stocks ensures that costs reflect benefits. It recognises these stocks are subject to less fishing pressure than some other stocks and that less comprehensive information for management is therefore required. Management objectives for Group 6 stocks are:
  - enable utilisation of each stock;
  - ensure catch is at a level that is sustainable;
  - protect, maintain and enhance habitats of significance to fisheries management; and
  - minimise adverse effects of fishing on the aquatic environment.
9. As fishing pressure on Group 6 stocks is relatively low, the general approach is to minimise management costs by using catch trends as the key monitoring tool for each stock. Declining catch trends or landings in excess of the TACC are used as a trigger for further investigation and consideration of review.

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<sup>1</sup> The Minister for Primary Industries now exercises the powers and responsibilities of the Minister of Fisheries under the Act.

<sup>2</sup> Maximum sustainable yield is defined in section 2 of the Act as: '...the greatest yield that can be achieved over time while maintaining the stock's productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock'.

<sup>3</sup> The Fisheries Plan has not been formally approved under the Act.

10. Given the associated uncertainty with using catch as a monitoring tool for stock status, a relatively cautious approach should be taken to adjusting catch limits, particularly for species with biological characteristics that make them vulnerable to fishing, like sea perch. Additional information or monitoring could support a less cautious approach, but for low value stocks such as SPE 1 this is unlikely to be cost-effective.

### **Previous Review**

11. The TAC and TACC for SPE 1 were reviewed last in 2006. Commercial landings exceeded the TACC for a number of years and the TACC was increased to the average of the previous 7 years plus an additional 10%.

### **Biological Characteristics of SPE 1**

12. Sea perch (*Helicolenus spp*) are bottom-dwelling fish that occur on the continental shelf, seamounts and ridges. A recent characterisation has found evidence of three species of sea perch in NZ waters.<sup>4</sup> The depth distribution of sea perch catches suggests that these species are separated by depth and/or geography. SPE 1 most likely is the 'H sp. A' species because depths from 250-700 with a peak abundance around 300m are preferred.
13. H sp. A growth is relatively slow with a maximum age of 59 years. Sea perch are opportunistic feeders and prey on a variety of animals close to the sea floor.

### **Stock Status**

14. Estimates of  $B_{\text{current}}$  and  $B_{\text{MSY}}$  are not available for any sea perch stocks.
15. The best available information on stock status for SPE 1 is trends in catch. Reported landings from SPE 1 have not exceeded 53 tonnes since reliable records have been available (1983-84). Since introduction into the QMS, landings per fishing year have ranged from 19 to 53 tonnes. Given the wide distribution of SPE1, the absence of target fishing, the low volume of previous catches and assuming a low exploitation rate it is likely that the SPE 1 biomass is currently at or above that required to support the MSY. MPI acknowledges that the assumption of low exploitation rate is highly uncertain in the absence of an index of abundance.

### **SPE 1 Fishery**

#### **Commercial**

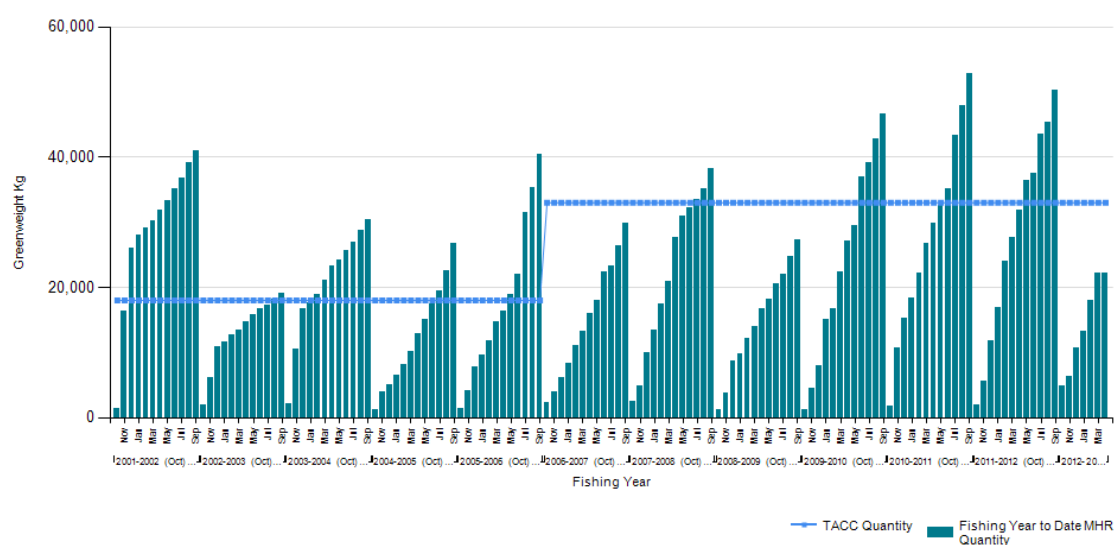
16. Sea perch is currently a low value commercial fishery. The Fish Monetary Stock Account: 1996–2009 published by Statistics New Zealand in 2010 estimated the 2009 asset value of all stocks of sea perch at \$1.7 million.
17. No target fishing for SPE 1 is reported. Reported catch is taken largely as a bycatch in trawl and bottom line fisheries. Bottom trawl accounts for 85% of the SPE 1 catch and 80% of the total catch comes from the Bay of Plenty – statistical area 8, and 9. In the Bay of Plenty, SPE 1 is taken mostly when targeting scampi.

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<sup>4</sup> Bentley, N., Kendrick, T.H. MacGibbon, D.J. (2013). Fishery characterisation and catch-per-unit-effort analyses for sea perch (*Helicolenus spp.*) in New Zealand 1989/90 to 2009/10. NZ Fisheries Assessment Report 2013/XX

18. Much of the remaining 15% of the catch is taken by bottom longline, chiefly in the ling, bluenose and snapper target fisheries.
19. The highest annual combined landings prior to introduction into the QMS were 25 tonnes. Since then, the highest annual landings for SPE 1 were reported in 2010/11 and totalled 53 tonnes (exceeding the TACC by approximately 60%). The deemed value charges in that year were approximately \$10 000. The TACC was exceeded to a lesser extent also in 2011/12, and deemed value payment reached \$32 600. Landings to date indicate that the TACC may be exceeded in the 2012/13 fishing year (Figure 2).

**Figure 2: Cumulative reported monthly landings and TACC (t) for SPE 1 from fishing year 2001/02 to the start of the 2012/13 fishing year**



### **Recreational**

20. Sea perch is not an important recreational target fishery in SPE 1 probably because *H spp. A* occurs only in deep water. There is new quantitative information available on recreational fishing of SPE 1. The FMA 1 & 9 Recreational Forum characterised sea perch as a welcome bycatch for recreational fishers and that their catch may be exceeding the current allowance.

### **Māori Customary**

21. There is no new information since the last review of SPE 1 in 2006. No fishing for sea perch is reported in the Maori customary database.

### **Other Sources of Fishing Related Mortality**

22. Discards reported for SPE 1 range from 6–26% of the catch. This suggests a high quality of commercial reporting because reported discards are counted against ACE (or deemed value payments made). However, some additional fishing related mortality of unwanted/unmarketable sea perch may be occurring. Likewise a small amount of other sources of fishing related mortality of sea perch might be attributed to recreational fishers. MPI considers it prudent to set an allowance for other sources of fishing related mortality; however, only at the nominal level of 3 tonnes (5% of the TAC).



## Other Key Considerations

23. When making a decision concerning the TAC for a stock, the Minister must have regard to the interdependence of stocks, the biological characteristics (discussed above) and any environmental conditions affecting the stock. MPI is unaware of any relevant environmental conditions affecting SPE 1.
24. While SPE 1 landings have exceeded the TACC in the past, there is no reported target fishing. Small increases to the TACC are therefore unlikely to translate to a significant increase in fishing effort and associated impacts on other species or the environment.
25. The Minister must also have regard to the provisions of sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 when dealing with a stock in the area of the HGMP. Section 7 recognises the national significance of the Hauraki Gulf, including its capacity to provide for the relationship of tangata whenua with the Gulf and the social, economic, recreational and cultural well-being of people and communities. Section 8 sets out objectives for the management of the Hauraki Gulf. Objectives of relevance include; the protection and enhancement of the natural, historic, and physical resources of the Hauraki Gulf; the protection and enhancement of those resources of the Hauraki Gulf with which tangata whenua have an historic, traditional, cultural and spiritual relationship; and the maintenance and enhancement of the contribution of the resources of the Hauraki Gulf to the social and economic well-being of the people and communities of the Hauraki Gulf and New Zealand. Resources of the Hauraki Gulf would include sea perch although very little catch of sea perch is reported from the HGMP area. Providing for a small increase in utilisation of SPE 1 is consistent with these objectives.

## PROPOSED RESPONSE

26. MPI is consulting on the following management options for setting TACs, TACCs and allowances for SPE 1 (Table 1.2).

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

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status Quo)	35	33	1	1	-
Option 2	58	53	1	1	3

27. The best available information to inform TAC setting for SPE 1 is to use catch trends as the key monitoring tool for this stock.
28. The proposed changes to the TAC are intended to better reflect current catch which is taken as incidental bycatch. Because of the wide distribution of sea perch over a large management area, the absence of target fishing, and the low volume of previous catches, MPI considers both the options proposed are consistent with the objective of maintaining the SPE 1 stock at or above the level that can produce the maximum sustainable yield in the short-term.

## Option 1 (Status Quo)

29. Option 1 proposes to retain the current management settings for SPE 1. This option would retain the current TACC, which is at a similar level to the average commercial landings since introduction into the QMS.
30. The current TAC is likely to maintain the stock biomass at or above the level that can produce  $B_{MSY}$ . However, the current TACC is constraining catches and in some years fishers are incurring substantial deemed value payments. Furthermore, as SPE 1 is mainly taken as an incidental bycatch, attempts to constrain catch might create disincentives to report and land catch, making it difficult to identify trends or signals that there are opportunities or concerns arising in the fishery. Addressing these disincentives (e.g. by increasing vessel monitoring) would generate further unnecessary costs if the current level of catch is considered to be sustainable.

## Option 2

31. Option 2 proposes to adjust management settings to better provide for existing utilisation.
32. A TAC increase from 35 tonnes to 58 tonnes (65%) is unlikely to move stock biomass below  $B_{MSY}$  in the medium term. The TAC proposed may be greater than some previous annual landings, but still relatively cautious because of the wide distribution of sea perch, historically low levels of fishing and assumed low exploitation rate.
33. The information available strongly suggests that the current catch levels of SPE 1 are unavoidable bycatch. There is no commercial targeting of SPE 1, and large deemed value penalties are being paid by the commercial sector for the bycatch.
34. This option allocates an increase to the commercial sector, with a TACC increase from 33 tonnes to 53 tonnes (60%). Based on the 2012/13 port price of \$0.65 per kilogram, the benefits from this option would be an additional commercial catch of 20 tonnes worth \$13 000. A more practical statistic is the avoidance of deemed value payments of up to \$35 000 – based on previous payments.
35. Option 2 is intended to provide appropriate incentives for commercial fishers to retain, land, and report catches of SPE 1.
36. A 3 tonne allowance for other sources of fishing-related mortality is proposed. This proposal recognises that unwanted/unmarketable sea perch are discarded but the amount of the allowance is offset because of the responsible practice of many fishers to report against ACE fish that is returned, abandoned or accidentally lost at sea.
37. The large scale multi species survey (LSMS) has provided a clearer picture of recreational fishing, including in the SPE 1 fishery. The estimated recreational catch of SPE 1 in 2012 from the LSMS is 0.67 tonne (CV 0.4). This point estimate is within the current recreational allowance of one tonne. MPI recognises that the sea perch fishery might be increasingly important to the recreational sector although the LSMS suggests any such trend is applicable more to South Island stocks (that fishes a different species of sea perch, which occupies a shallower habitat).
38. There is currently no information to support a change to the Māori customary allowance.

## **Other Management Measures**

39. No other changes to other management settings are proposed.

## **FUTURE CONSIDERATIONS**

40. Recent research has improved understanding sea perch speciation and stock relationships. Future research to clarify speciation and fully describe species would be useful. In terms of fishery performance, an improved understanding of discarding would be beneficial.

## **INITIAL CONSULTATION**

41. During May 2013, MPI provided the opportunity for tangata whenua and some stakeholder representatives to provide initial feedback on the options proposed.
42. Te Hiku o Te Ika Fisheries Forum has expressed initial support for MPI to review SPE 1 catch limits.
43. Fisheries Inshore New Zealand and the Northern Inshore Management Group support Option 2.
44. The FMA 1&9 Recreational Forum supports a review of the SPE 1 recreational allowance.

## **CONCLUSION**

45. The current TAC and TACC for SPE 1 were reviewed last in 2006 based on historic catches. While average landings remain at this level, the TACCs have been exceeded a number of times in recent years.
46. Option 2 enables more efficient utilisation of sea perch by increasing: the TAC; the TACC and setting an allowance for other sources of fishing-related mortality. The TACC increase of 20 tonnes is low volume given the size of QMA 1, but significant in relation to the current settings. The costs of deemed value payments or of additional monitoring are avoided by adopting Option 2. Because Option 2 is only allowing an increase that reflects what is already being caught, the changes are a reflection of current practice rather than encouraging further increases in the commercial landings of SPE 1. The proposal to increase the TACC is not anticipated to undermine the interests of customary and recreational fishers.