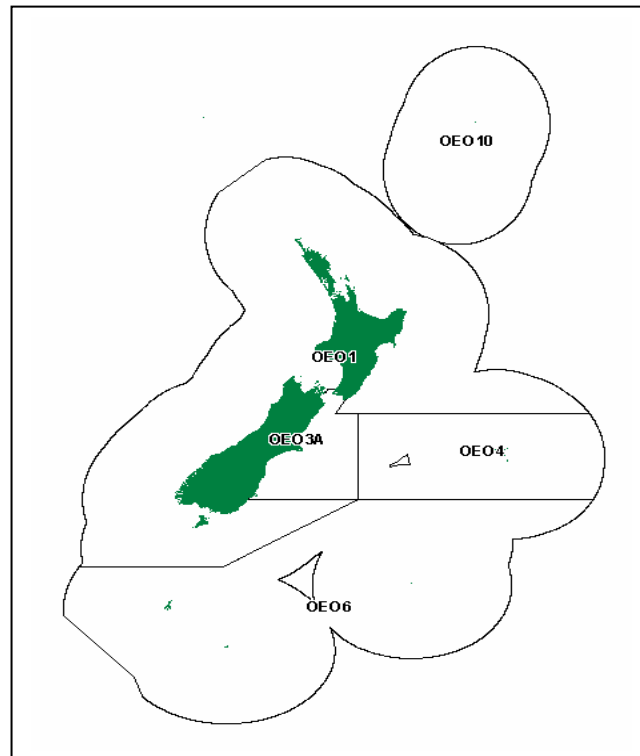


OREO (OEO 1)

Figure 1: Location of boundaries of the Oreo (OEO) Quota Management Areas.



Executive Summary

- 1 The OEO 1 Total Allowable Commercial Catch (TACC) has been well undercaught for the past few years. Although information on stock status and the sustainability of the harvest is uncertain, information based on catch history and current catch levels suggests that the current Total Allowable Catch (TAC) and TACC is too high. If the Minister considers that the sustainability risk that would result from catch at the level of the current TAC and TACC is unacceptably high, then a TAC and TACC reduction is appropriate.
- 2 Two options are proposed: *status quo* (TAC and TACC of 5,033 tonnes) and a reduction of approximately 50% (TAC and TACC of 2,500 tonnes).
- 3 There is unanimous agreement by shareholders owning 95.95% of OEO 1 quota for a reduction of the TAC and TACC by 50% (Option 2).
- 4 The best available information to date, including that of the biological characteristics of the species and current catch levels, supports Option 2 as a cautious and conservative approach to catch limits. However, the consultation process may provide further information on the sustainability of the stock and other issues relevant to the Minister's decision.

Summary of Options

- 5 MFish presents a *status quo* option and a catch limit reduction option, although the Minister may choose other options (alternative TAC and TACC levels) that he considers will best meet his obligations under the Fisheries Act 1996 (the Act).
- 6 MFish is seeking stakeholder views through the consultation process.

Option 1: Status Quo

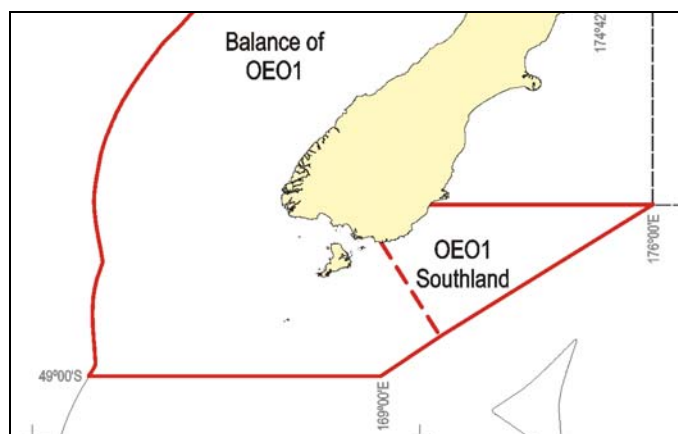
- 7 Retain the current TAC of 5,033 tonnes for the 2007–08 fishing year, and retain the current TACC of 5,033 tonnes.

Option 2: TAC and TACC reduction of approximately 50%

- 8 Reduce the TAC by approximately 50% to 2,500 tonnes effective 1 October 2007, and within that TAC, reduce the TACC to 2,500 tonnes. A 2,500 TACC is just above the 5-year average catch for OEO 1.
- 9 Industry supports Option 2. There was unanimous agreement by shareholders owning 95.95% of OEO 1 quota for a TACC cut of 50%, effective 1 October 2007.

Rationale for Management Options

- 10 Commercial fisheries occur for black oreo (BOE) and smooth oreo (SSO). Oreos are managed as a species group, which includes spiky oreo (SOR). The Chatham Rise (OEO 3A and OEO 4) is the main fishing area, but other fisheries occur the Bounty/Pukaki area (OEO 6) and in OEO 1. The main OEO 1 fisheries occur off Southland on the east coast of the South Island (with very small catches from OEO3A) and in the Puysegur-Snares-Macquarie Ridge area south of the South Island.
- 11 OEO 1 quota owners voluntarily restrict smooth oreo catches from the Southland fishery to 400 t. When the limit is reached, the Deepwater Group Limited requests that operators cease fishing oreo in that area.



- 12 Biological characteristics of oreo include:

	Smooth oreo	Black oreo
Maximum estimated age	86 years	153 years
Estimate age at maturity for females	31 years	27 years
Yields relative to stock size	Likely to be low because of low productivity of oreos	

- 13 These characteristics are similar to those of orange roughy, another slow-growing, low productivity fish. Because of their characteristics, sustainable yields from oreos are estimated to be low, and it easy to overestimate the unfished biomass. It is difficult to accurately specify a time stream of future catches and catch limits that will result in an orderly fishing-down phase to achieve target biomass.
- 14 For Southland smooth oreo, quantitative biomass estimates are uncertain, and not considered suitable as a basis for providing management advice. The analysis from 2004 suggests that the mature virgin biomass was probably small, less than 21,000 t, and that the stock was unlikely to be able to support a large fishery.
- 15 For OEO 1 black and smooth oreo, it is not known if recent catch level or the current TACC are sustainable, or will allow the stock to move towards a size that will support the Maximum Sustainable Yield (MSY).
- 16 Over the past five years, the OEO 1 TACC has been well undercaught, and catches have been declining each year:

Year	Catch	% Caught
2001/02	4,197	83%
2002/03	3,034	60%
2003/04	1,703	34%
2004/05	1,025	20%
2005/06	850	17%

- 17 The catch has been steadily declining for a variety of possible reasons, including:
- a) Possibly reduced abundance of oreos.
 - b) Industry ceasing to fish when the smooth oreo limit is reached in Southland. Since the majority of catch comes from Southland (in the order of 70% in recent years), when this limit is reached, there are few other economically viable fishing grounds to target.

- c) Greater fishing effort is not financially viable. There has been a steady decline in the number of vessels engaged in the OEO 1 fishery.
- d) When it was open, Puysegur contributed a substantial portion of the OEO 1 catch. Industry agreed to cease fishing oreo in Puysegur from 1 October 1998, as a part of the industry closure of orange roughy in the Puysegur area. However, the limit for OEO 1 was not significantly reduced to account for the removal of effort from Puysegur (the TACC was reduced from 6,044 t in 1997/98 to the current level of 5,033 t in 1998/99).

Assessment of Management Options

- 18 Although information is uncertain, there would be greater stock sustainability risk if catches reached the TACC. A reduction in the TACC by 50% will provide greater certainty over the longer term that OEO 1 will be managed at or above B_{MSY} , in light of the uncertainties in the best available information, including uncertain stock information. It is, however, not possible to ascertain with any certainty the actual or likely effect of the proposed TAC or TACC reduction on the biomass and sustainability of OEO 1, and is best characterised as a risk mitigation approach. If the Minister considers that the sustainability risk that would result from catch at the level of the current TACC is unacceptably high, then a reduction in the TACC is warranted.
- 19 MFish considers that the limited information, current levels of catch, and the biological characteristics of the species, together suggest that a cautious approach to catch limits is appropriate. The inherent difficulties in information gathering for oreos, coupled with the relatively small biomass and fishery for OEO 1, mean that more information or more certain information is unlikely in the short-term.
- 20 A reduced TACC would reduce the non-attributable costs imposed on quota owners through the cost recovery system. Current cost recovery levies for OEO 1 are approximately \$150,000; a reduced TACC could significantly reduce this cost to quota owners, representing an economic benefit. MFish considers this to be a relevant economic factor that the Minister may consider relevant under s 13(3).
- 21 Industry supports a 50% reduction in the TACC for the following reasons:
 - a) There is a mismatch between annual catches and the TACC.
 - b) The perceived status of the stock in relation to the TACC.
 - c) A reduction is a reasonable precautionary measure in light of the unavailability of science on which to base catch limits.
 - d) To rationalise costs given that MFish levies are TACC-based and the fishery is realising only a fraction of the TACC.
- 22 MFish is seeking the views of other stakeholders through the consultation process.

- 23 Based on best available information, MFish proposes to recommend reducing the catch limits under Option 2.

APPENDIX 1 – STATUTORY CONSIDERATIONS

- 24 When setting sustainability measures under the Act, the Minister is required to consider the following statutory criteria:

Purpose of the Act: section 8

- 25 Under the purpose of the Act, the Minister must provide for the utilisation of oreo while ensuring sustainability. Ensuring sustainability is the bottom line and the ultimate objective. There are sustainability concerns with the current TAC and TACC for OEO 1. Option 2 provides a more cautious approach than the *status quo*. Based on the best available information, this option increases the likelihood that the harvest will be sustainable over the long term. However, there remains a high degree of uncertainty about the level at which harvest of the stock is sustainable.

International obligations and the Treaty of Waitangi: section 5

- 26 Section 5 of the Act requires the Minister to act in a manner consistent with New Zealand's international obligations relating to fishing; and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992. Relevant international obligations include the United Nations Convention on the Law of the Sea and the United Nations Fish Stocks Agreement as well as regional fishery management agreements. MFish considers that in making the proposed reduction to the TAC and TACC the Minister would be acting consistently with section 5.

Environmental principles: section 9

- 27 Section 9 requires the Minister to take into account the following environmental principles when making his decisions on whether to vary the TAC and the TACC: (a) Associated or dependent species should be maintained above a level that ensures their long-term viability; (b) Biological diversity of the aquatic environment should be maintained; (c) Habitat of particular significance for fisheries management should be protected.
- 28 The specific nature and extent of the effects of OEO 1 fishing are not known. No specific concerns have been raised relating to ss 9(a) and (b) that would be relevant to setting the TAC or TACC for OEO 1. MFish is not currently aware of any habitat of particular significance for fisheries management that should be protected in the area in which OEO1 stock are present (s 9(c)).

Information principles: section 10

- 29 Section 10 of the Act sets out information principles the Minister must follow when making his decisions on varying the TAC and TACC. MFish considers that the information used to support the proposed options for OEO 1 is the best available (s 10(a)). MFish is currently not aware of any other information that could be made available without unreasonable cost, effort, or time. However, the consultation process may reveal that further information is available. Given the level of uncertainty, as outlined in the body of this IPP, the Minister should be cautious (ss 10(b) and (c)). However, this uncertainty has not been

used as a reason for postponing or taking any measure to achieve the purpose of the Act. Therefore, this IPP considers whether a TAC and TACC reduction is required and what the appropriate level of reduction may be (s 10(d)).

Effects on the aquatic environment: section 11(1)(a)

- 30 Section 11(1)(a) requires the Minister to take into account any effects of fishing on any stock and the aquatic environment when setting or varying any sustainability measure. Information relating to the effects on the aquatic environment is provided above in the section addressing the environmental principles. As orange roughy is commonly intermixed with oreo, MFish would be concerned about the potential increase in orange roughy catch should the OEO 1 TAC and TACC be unchanged. MFish has considered the effects of the OEO 1 options on fish bycatch, benthic effects, seabirds and marine mammals. The proposed options are not likely to have any adverse implications for any of these elements of the aquatic environment.

Existing controls that apply to the stock: section 11(1)(b)

- 31 Section 11(1)(b) requires the Minister to take into account any existing controls under the Act that apply to the stock or area concerned when setting or varying any sustainability measure. There is currently a TAC and TACC set for the stock there are no other controls on the stock imposed under the Act.

Natural variability of the stock: section 11(1)(c)

- 32 Section 11(1)(c) requires the Minister to take into account the natural variability of the stock concerned when setting or varying any sustainability measure. Best available information is that oreo are not highly variable.

Resource Management Act 1991: section 11(2)(a)

- 33 Section 11(2)(a) requires the Minister to have regard to any provisions of any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991, when setting or varying any sustainability measure. MFish is not aware of any relevant considerations in any regional policy statement, regional plan or proposed regional plan made under the Resource Management Act 1991 that apply to the variation of a TAC for OEO 1.

Conservation Act 1987: section 11(2)(b)

- 34 Section 11(2)(b) requires the Minister to have regard to any provisions of any management strategy or management plan made under the Conservation Act 1987 that apply to the coastal marine area and are considered by the Minister to be relevant. MFish is not aware of any relevant considerations relating to any provisions of any management strategy or management plan made under the Conservation Act 1987.

Hauraki Gulf Marine Park Act 2000: section 11(2)(c)

- 35 Section 11(2)(c) requires the Minister to have regard to sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000. Although the OEO 1 quota management area encompasses the waters of the Hauraki Gulf Marine Park, the distribution of oreo and the fishery for it do not intersect with the Park boundaries. Therefore MFish considers that there are no relevant concerns regarding sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000.

Conservation or fisheries services and fisheries plans: section 11(2A)

- 36 Section 11(2A)(a) to (c) requires the Minister to take into account any conservation services or fisheries services and any relevant approved fisheries plan; and any decisions not to require conservation services or fisheries services. MFish does not consider that existing or proposed conservation or fisheries services materially affect the proposed TAC options. There is no approved fisheries plan for OEO 1.

Interdependence of stocks: section 13(2)

- 37 Section 13(2) requires that the Minister set the TAC having regard to the interdependence of stocks. Available information about the interdependence of stocks is highly uncertain, but there is no evidence to suggest that this consideration should affect any of the options.

Social, cultural and economic factors: section 13(3)

- 38 Section 13(3) requires the Minister to have regard to social, cultural, and economic factors as he or she considers relevant. There are no known likely adverse economic consequences of a TAC reduction, and there would be some cost savings that result from reduced cost recovery levies. There is no known recreational or customary fishing for oreo, and no allowance has been provided to non-commercial extractive users. There is a broad social benefit from the maintenance of oreo populations, which is promoted through a sustainable fishery. There are no known cultural factors relevant to sustainability or management decisions.

Matters to be taken into account in varying any total allowable commercial catch: section 21(1)

- 39 Under section 21(1), in varying any TACC the Minister shall have regard to the TACC for that stock and shall allow for Maori customary non-commercial fishing interests, recreational interests and all other mortality to that stock caused by fishing. Section 21(4) requires the Minister to take into account any mataitai reserve in the relevant quota management area, any area closure or any fishing method restriction or prohibition in the relevant quota management area that is imposed by the Minister under section 186A. Section 21(5) requires the Minister to take into account any regulations that prohibit or restrict fishing in any area for which regulations have been made following a recommendation made by the Minister under section 311.

- 40 There is no known non-commercial fishing for OEO 1, and therefore no allowance is made for recreational or customary fishers. Other sources of fishing-related mortality have been considered when setting the TACC. There is no relevant any mātaimai reserve or any closure under section 186. There are no relevant regulations made under section 311.