



Review of Sustainability Controls for SBW 1

Consultation Document SBW 1

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	Page
1 Executive Summary	1
2 Purpose	2
2.1 Need for Action	2
2.2 Management Approach	2
3 Background Information	3
3.1 Biological Characteristics of southern blue whiting	3
3.2 Fishery descriptions	3
3.3 Previous Reviews	4
3.4 Science Information	4
4 Legal Considerations	4
4.1 Setting Management measures	4
4.2 Further Considerations	5
5 Proposed Options – SBW 1	5
5.1 Option 1	5
5.2 Option 2	6
6 Other Matters	6
6.1 Deemed values	6
7 Conclusion	6

1 Executive Summary

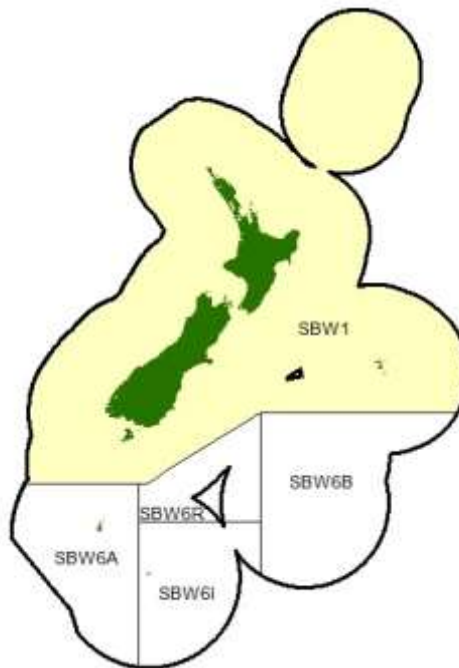


Figure 1: Quota Management Areas (QMAs) for southern blue whiting with SBW 1 highlighted

The Ministry for Primary Industries (MPI) is seeking information and views from tangata whenua and stakeholders to inform a review of catch limits for southern blue whiting in SBW 1 (see Figure 1).

SBW 1 is a stock for the purpose of fisheries management with a nominal catch limit set on introduction of SBW into the quota management system in 1999. This review is to consider how catch limits for SBW 1 should better reflect the abundance of southern blue whiting in this stock. Options proposed for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances are provided in Table 1.

Table 1: Proposed TACs, TACCs and allowances for SBW 1 (all values in tonnes)

	Allowances				
	TAC	TACC	Customary Māori	Recreational	Other sources of fishing-related mortality
Current Settings	8	8	0	0	0
Proposed options					
Option 1	32	31.5	0	0	0.5
Option 2	100	98	0	0	2

To the best of our knowledge, there is no known customary Maori or recreational take of southern blue whiting and it is proposed to retain zero allowances for these sectors. In addition, MPI proposes to maintain the allocation for other sources of fishing related mortality at 2% of the TAC (to the nearest 0.5 tonne). MPI is not proposing any change to the deemed value rates for SBW 1.

2 Purpose

2.1 NEED FOR ACTION

2.1.1 SBW 1

SBW 1 is a stock established for the purpose of fisheries management and the boundary is not based on that of a biological stock. The current TAC and TACC of eight tonnes was set at nominal levels based on observed catches in the fishery prior to its introduction to the quota management system (QMS) in 1999¹. Better information is now available on the catch in SBW 1 which has exceeded the TACC in six of the last 11 fishing years (Table 2). Since 2011/12, the total catch has increased every year, and this year (2016/17²) the TACC has already been exceeded by 64 tonnes. The recent increase in catch is considered to be the result of both improved reporting and changes in distribution and abundance of southern blue whiting outside traditional stock boundaries rather than as a result of changes in the target fisheries of which it is a bycatch.

In SBW 1, southern blue whiting is a bycatch in a number of fisheries (predominantly hoki, silver warehou, and white warehou target fisheries). It is not apparent that changes in the target fisheries of which SBW 1 is bycatch are responsible for the increased level of bycatch. The current levels of southern blue whiting catch in SBW 1 are small when compared to total catches of southern blue whiting in other QMAs (less than 100 tonnes of over 20,000 tonnes).

An increase in the SBW 1 TAC will better reflect the apparent increase in the abundance of fish near the edges of the distribution of this species combined with the improvement in catch reporting which will have resulted since the introduction of this species into the QMS. Given the small increase relative to catch levels in the primary spawning stock areas from which it is likely that SBW 1 flows (SBW 6I, SBW 6A and SBW 6R), a TAC increase is not considered likely to impact on these other southern blue whiting populations.

Table 2: Total catches and % of TACC caught for SBW 1 (2006/07 to 2016/17)

Fishing Year	TACC (t)	Total catch (t)	% of TACC
2006/07	8	7.3	91%
2007/08	8	1.5	19%
2008/09	8	21.3	266%
2009/10	8	5.2	65%
2010/11	8	8.4	105%
2011/12	8	5.8	73%
2012/13	8	7.6	95%
2013/14	8	20.7	259%
2014/15	8	29.1	354%
2015/16	8	35.9	449%
2016/17	8	72.6	908%

2.2 MANAGEMENT APPROACH

SBW 1 is a low volume fishery with stock boundaries established for administrative purposes. It is managed within the National Fisheries Plan for Deepwater and Middle-Depth Fisheries

¹ Southern blue whiting was introduced to the QMS in October 1999, however because it was introduced as a stock with a 1 April fishing year, the TAC set at its introduction applied from 1 April 2000.

² The fishing year for southern blue whiting is from 1 April to 30 March. The 2016/17 fishing year is not yet complete and more catch may be reported before the end of the year.

(National Deepwater Plan³) as a Tier 2 stock⁴. The quota management area does not support a target fishery, and there is no specific research done on SBW 1.

3 Background Information

3.1 BIOLOGICAL CHARACTERISTICS OF SOUTHERN BLUE WHITING

Southern blue whiting (*Micromesistius australis*) is a benthopelagic species, generally confined to sub-Antarctic waters to the south of New Zealand. During the juvenile life stage, southern blue whiting exhibits fast growth, slowing down thereafter. The maximum age of southern blue whiting is thought to be 25 years, and the maximum length to be 55-58 centimetres.

During August and September, adult southern blue whiting form dense spawning aggregations at depths of 250-600 meters at four known locations in sub-Antarctic waters (Auckland Islands, Campbell Island, Pukaki Rise, and Bounty Platform). The available scientific information shows that these four spawning locations represent four distinct biological stocks. SBW 1 does not contain a spawning stock and fish found in the area are near the edge of their normal distribution.

3.2 FISHERY DESCRIPTIONS

Each of the four sub-Antarctic southern blue whiting stocks are managed as separate QMAs within the QMS. Fisheries for southern blue whiting were initiated in the 1970s by the Soviet foreign licensed fleet. From 1992 until its introduction to the QMS, area catch limits were in place for the fishery allowing a total catch of 32,000 tonnes which increased to 58,000 tonnes in 1996. From 2000, the catch limit was set at 35,140 tonnes and has fluctuated under 50,000 tonnes until 2014/15.

The current total catch limit for all southern blue whiting stocks combined is 50,148 tonnes (Table 3). In recent years, total catches have been less than half of the total TAC, mainly because of operational challenges associated with fishing in the sub-Antarctic. High catch rates are required to make these fisheries economically viable. Of the four main fisheries, only two are regularly fished by two to five vessels each year.

Table 3: Current TACs for all SBW fisheries

Stock	Area	TAC (t)	2015/16 catch (t)
SBW 1	Southern Blue Whiting New Zealand (excluding sub-Antarctic)	8	36
SBW 6A	Southern Blue Whiting Auckland Islands	1,640	90
SBW 6B	Southern Blue Whiting Bounty Platform	3,000	2,405
SBW 6I	Southern Blue Whiting Campbell Island Rise	40,000	22,100
SBW 6R	Southern Blue Whiting Pukaki Rise	5,500	11
Total		50,148	24,642

3.2.1 SBW 1

Southern blue whiting is not targeted in this area and is caught only as incidental bycatch of hoki and warehou fisheries. It is not apparent that there has been a change in the nature of the target fisheries that explains the increase in SBW 1 bycatch in recent years. The original TAC for SBW 1 was a nominal limit set based on reported catches prior to the introduction of the species into the QMS and has not been adjusted since. It is likely that catch reporting has

³ http://www.fish.govt.nz/en-nz/Deepwater/National+Deepwater+Plan.htm?wbc_purpose=Basic%26WBCMODE

⁴ Tier 2 fisheries are typically less valuable bycatch fisheries or are only targeted at certain times of the year.

improved since then and MPI considers that it is also likely that there has been increased movement of southern blue whiting into SBW 1 from other areas.

Despite the increase in SBW 1 catch in recent years relative to catch in the main spawning areas, it is not significant. For example, in 2015/16, catches from SBW 1 made up 0.1% of the total SBW landings. In terms of export earnings, in the 2015 calendar year, southern blue whiting provided around \$23.5 million, of which the SBW 1 contributed around \$8,000 (based on proportion of landings).

3.3 PREVIOUS REVIEWS

The SBW 1 TAC has not been reviewed since it was introduced into the QMS in 2000. At the time, it was set at eight tonnes based on observed catches of southern blue whiting in this area since records began in 1986. These catch levels were small and varied greatly, ranging from five kilograms in 1991 to just over 20 tonnes in 1995. Total catches between 1986 and 1999 totalled 24 tonnes, with an average catch per annum of 1.7 tonnes. Setting a nominal catch limit of eight tonnes was considered appropriate at that time however more recent catches are considered to better reflect the abundance of southern blue whiting in this area.

3.4 SCIENCE INFORMATION

There is no spawning stock in SBW 1, fish in this area are thought to be overspill from other southern blue whiting sub-Antarctic biological stocks (SBW6A, SBW6B, SBW6I, and SBW6R). The recent increase in catch is considered to be, in part, the result of changes in distribution and abundance of southern blue whiting outside traditional stock boundaries rather than a result of any change in the nature of the target fisheries of which it is a bycatch.

4 Legal Considerations

4.1 SETTING MANAGEMENT MEASURES

MPI considers that given there is no biological stock of southern blue whiting in SBW 1, the current level of the SBW 1 stock and the level of the stock that can produce the maximum sustainable yield cannot be estimated reliably. Section 13 (2A) therefore applies when setting a TAC for SBW 1. This paper provides the Minister with options that MPI considers satisfy his obligations under section 13 (2A). MPI considers that the proposed options are not inconsistent with the objective of maintaining the SBW 1 stock at or above a level that can produce MSY.

The TAC must be apportioned between the relevant sectors and interests set out under the provisions of section 21 of the Act. Section 21 requires the Minister to allow for Maori customary non-commercial interests, recreational fishing interests, and for any other sources of fishing-related mortality, when setting or varying the TACC.

There is no known customary Maori or recreational take in SBW 1 and as such, MPI proposes retaining nil allowances for these sector groups.

Currently, an allowance of 2% of the TAC exists to account for other sources of fishing related mortality (to the nearest 0.5 tonne). MPI proposes to retain this allowance of 2% for the 2017/18 fishing year.

4.2 FURTHER CONSIDERATIONS

When making a decision concerning the TAC for a stock under Section 13 (2A) of the Act, the Minister must have regard to interdependence of stocks, the biological characteristics (discussed above) and any environmental conditions affecting the stock. MPI considers that the scale of the options proposed will not influence fishing effort in the area of the stock and will therefore not result in adverse effects on interdependent stocks. There are no specific environmental conditions affecting the stock that MPI considers relevant.

Sections 9(a) and (b) also require the Minister to take into account that associated or dependent species be maintained at or above a level that ensures their long-term viability, and that the biological diversity of the aquatic environment should be maintained.

Any interactions with marine mammals, seabirds and the benthos in SBW 1 are associated with the targeted species in that area, namely hoki, silver warehou and white warehou. The proposed changes to the TAC for SBW 1 are unlikely to result in any changes in fishing effort and therefore are considered unlikely to increase impacts of the fishery.

5 Proposed Options – SBW 1

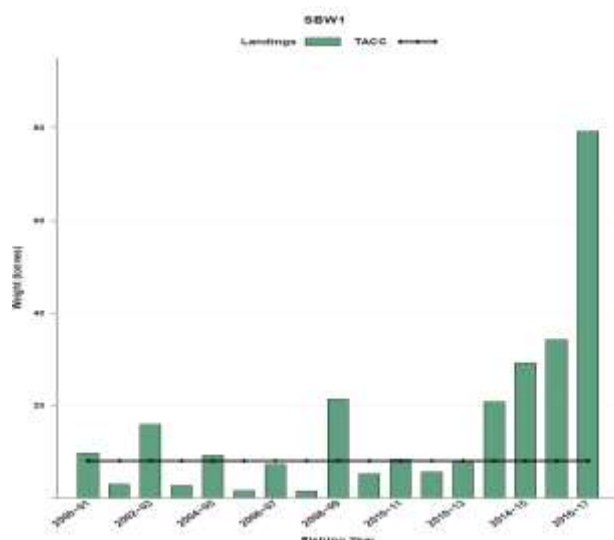


Figure 2: Landings and the TACC for SBW 1 from 1999-00 to 2016-17.

MPI is consulting on the following management options for the TAC, TACC and allowances for SBW 1 as set out below (Table 4).

Table 4: Proposed TACs, TACCs and allowances for SBW 1 (all values in tonnes)

Option	Allowances				Other sources of fishing-related mortality
	TAC	TACC	Customary Māori	Recreational	
Current Settings	8	8	0	0	0
Option 1	32	30.5	0	0	0.5
Option 2	100	98	0	0	2

5.1 OPTION 1

This option is based on the average catch over the last five years in SBW 1. This option is consistent with the method used to set the TAC when SBW 1 was introduced to the QMS but

includes the setting of an allowance for other sources of fishing-related mortality of 2% of the TAC.

5.2 OPTION 2

Implementing Option 2 would set a TAC reflecting the increasing trend of incidental bycatch of southern blue whiting in the areas where southern blue whiting is not traditionally targeted. While this option presents the largest increase, the change to the catch level is still relatively insignificant when compared with the TACC in the main commercial target fisheries in neighbouring areas (1,640 tonnes around Auckland Islands and 5,500 tonnes at Pukaki Rise).

6 Other Matters

6.1 DEEMED VALUES

Deemed values are an economic tool intended to constrain commercial catch to respective catch limits by encouraging fishers to balance catch with ACE while not discouraging them from landing and accurately reporting catch. Ensuring deemed value rates are appropriately set is a fundamental principle of the QMS.

MPI is not proposing any changes to the deemed value rates for SBW 1 of \$0.46/kg to ensure continued reporting of this bycatch fishery. Catches will continue to be monitored and if the catch continues to exceed the TACC, deemed value rates may be reviewed in future.

7 Conclusion

Better information is now considered to be available to set the TAC and TACC for SBW 1. Higher catches in the fishery are considered to be a result of both improved reporting since SWB 1 entered the QMS and an apparent increase in abundance resulting from migration from other stock areas. Options are presented to better reflect this more recent information. Changes to the TAC and TACC in this area are highly unlikely to have any impact on the main commercial fisheries as the tonnages involved are very small by comparison with the overall southern blue whiting fishery.