Management options for the southern bluefin tuna (STN 1) fishery

Introduction

1 This initial position paper outlines management options for the southern bluefin tuna (STN 1) fishery, including **"short-term"** options that would apply for the current (2010-11) fishing year (contained in **Section A**) and additional "**medium-term**" options that would apply for the 2011-12 and subsequent fishing years (contained in **Section B**). Both the short and longer-term options are part of a package of measures New Zealand is adopting to implement decisions made by the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). CCSBT is the regional fisheries management organisation that manages southern bluefin tuna.

Executive Summary

A. Short-term options

2 The Ministry of Fisheries (MFish) proposes to alter the total allowable catch (TAC) of southern bluefin tuna under section 14 of the Fisheries Act 1996 (the Act), in order to implement decisions made by the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). The October 2009 decisions included an overall reduction in the global TAC for southern bluefin tuna, but also honoured a longstanding agreement to increase New Zealand's share of the global TAC.

3 Southern bluefin tuna is listed on Schedule 3 of the Act — allowing a within-season increase to the TAC to occur — in recognition that a national allocation for New Zealand may be determined as part of an international agreement (s14(8)(b)(ii)) and because the stock is a highly migratory species (s14(8)(b)(iv)).

4 For the **current fishing year** (2010-11— hereafter 2011) MFish proposes three options:

Option 1: keep the TAC and allowances at the 2008-09 level (420t). The TAC reverted to this level after an in-season increase in 2009-10.

Option 2: set the TAC at 539t (the TAC for 2009-10) and set the following allowances:

i. a customary allowance of 1t,
ii. a recreational allowance of 8t,
iii. an allowance for other fishing mortality of 3t, and
iv. available Annual Catch Entitlements for commercial fishers of 558t (including 114t of in-season Annual Catch Entitlements).

Option 3: set the TAC at 597t and set the following allowances:

i. a customary allowance of 1t,
ii. a recreational allowance of 8t,
iii. an allowance for other fishing mortality of 3t, and
iv. available Annual Catch Entitlements for commercial fishers of 616t (including 172t of in-season Annual Catch Entitlements)

B. Medium-term options

5 For the **next fishing year** (2011-12—hereafter 2012), MFish proposes two options to ensure New Zealand is able to implement a likely decision by CCSBT to further reduce the global TAC for southern bluefin tuna:

> **Option 1:** Retain the TAC, total allowable commercial catch (TACC) and allowances at 2008-09 levels, with commercial fishers implementing a voluntary arrangement to limit their catches if required to ensure total catches do not exceed New Zealand's national allocation (i.e. if the allocation is reduced below 420t).
>
> **Option 2:** decrease the TAC to 380t and set the following allowances:

i. a customary allowance of 1t,
ii. a recreational allowance of 3.5t,
iii. an allowance for other fishing mortality of 1.5t, and
iv. a TACC of 374t

6 Either option could be combined with a **change to the fishing year** for southern bluefin tuna, to make future implementation of CCSBT decisions more straight-forward and to better align with the current fishing season.

A. Short-term options

The Issues

7 Southern bluefin tuna (*Thunnus maccoyii*) are large, fast swimming pelagic fish that are found throughout the southern hemisphere. Southern bluefin tuna are seasonally present in New Zealand fisheries waters, where they form the basis of a fishery off the west coast of the South Island and the east coast of the North Island. Table 1 shows the TAC and associated sector allowances for STN 1 that applied in the 2008-09 fishing year. The TAC reverted to this level at the end of the 2009-10 fishing year.

Table 1: TAC and associated sector allowances for STN 1.

TAC	Maori Customary Allowance	Recreational Allowance	TACC/ACE	Other Sources of Fishing-Related Mortality
420t	1t	4t	413t / 444.213t	2t

8 The TAC that applied in 2008-09 was set in 2004 when southern bluefin tuna was introduced into the quota management system, in line with agreements made by the CCSBT on allocation of a global catch limit to individual countries including New Zealand. Within the TAC of 420t, allowances were made for other sources of fishing-related mortality (estimated based on observer reports) and non-commercial fishing (nominal estimates based on a small recreational fishery known to exist at the time).

9 New Zealand is a coastal state for southern bluefin tuna,[1] but has historically held a relatively small share of the global fishery (420t from a total TAC of 11,810t in 2009; increasing to 570t from a TAC of 9,449t in 2010). Southern bluefin tuna are a valuable

[1] A coastal state in this context is a state in whose waters a highly migratory species can be found.

product, primarily sold for use as sashimi. Because of the high fat content of its flesh, premium prices can be obtained in the Japanese market. The total value of the southern bluefin tuna fishery is estimated to be about $1.3 billion, while the New Zealand component provided export earnings of between $10.25 and $12.5 million in 2009.[2]

STN 1 stock status

10 Although southern bluefin tuna have relatively high productivity, the global population has sustained high levels of fishing since the 1960s, and as a result is currently at a low level compared to its unfished biomass. The advice from CCSBT's scientific committee in September 2009 was that spawning stock biomass for southern bluefin tuna is at a very low level: about 5% or less of unfished spawning stock biomass. This is only around 15% of the level required to achieve maximum sustainable yields (MSY). Although global catches were reduced in 2006, the scientific committee noted that there was no sign of the spawning stock rebuilding under the global catch level applying in 2009 (11,810t).

11 In 2010, CCSBT's scientific committee again considered the status of the stock, based on a review of various indicators. The scientific committee's advice on the estimated status of the stock remains unchanged from the advice provided in 2009. The current spawning stock status was noted to be very low, although the scientific committee did note some factors that suggest a somewhat more favourable outlook. In particular, catch per unit effort has increased in a number of longline fisheries, and aerial surveys indicate improved recruitment in recent years.

12 The scientific committee's analysis is consistent with indicators from the New Zealand fishery. The years of poor recruitment in the early 2000s are evident as a gap in the size classes of fish caught in New Zealand waters. In more recent seasons, a wider size range has been present, indicating a return to higher levels of recruitment (although still lower than that experienced earlier in the history of the fishery).

13 The 2010 season in New Zealand also experienced some of the positive signals observed elsewhere in the fishery. In particular, MFish observers and fishers noted more small fish in the fishery, and catch rates were up to twice the level experienced in 2009. While these are positive signs of an end to the series of poor recruitments, it will take some time for these cohorts to impact on the size of the spawning stock biomass, which is at a very low level.

Decisions adopted by CCSBT to address stock status of southern bluefin tuna

14 At its annual meeting in October 2009, the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) considered advice from its scientific committee that meaningful reductions in catch were required to reduce the risk of stock collapse for southern bluefin tuna. As part of an overall package of measures, CCSBT agreed in 2009 to reduce global catches by an average of 20% (to 9,449t) in each of the next two fishing years. For New Zealand, this decision applies to the 2010 (i.e. 2009-10) and 2011 (i.e. 2010-11) fishing years. The scientific committee did not provide specific advice on the catch level – 9,449t – chosen by the CCSBT as the global TAC. However, the projections indicate that under catches at this level, spawning stock biomass will on average slowly increase.

[2] The lower figure ($10.25 million) is based on export data figures compiled by Statistics New Zealand, and is based on an export figure of 283.7t. The higher figure ($12.5 million) is probably a truer reflection of the value of the fishery, based on information received from industry on prices received in 2009 for the full amount of catch taken in that year (419t).

15 The overall catch reductions are coupled with measures designed to improve management and control of the fishery. The agreement also covers adoption of a science-based management procedure that will be used to set future catches. In the event that the management procedure cannot be used, global catches will be further reduced, to between 5,000 and 6,000t.

16 Decisions were also made on how to allocate the available global catch between the nations that fish for southern bluefin tuna. Nominal catches were set to reflect members' shares in the fishery and as the basis for the required reductions. Because of implementation of a Memorandum of Understanding agreed between Australia, New Zealand and Japan at the first meeting of the CCSBT in 1994, the net effect of the changes agreed in 2009 was that New Zealand's nominal catch was set at 1,000t (formerly 420t), and its allocated catch at 754t. As outlined in Appendix One, additional voluntary and bilateral arrangements bring New Zealand's effective catch limit to 570t for 2010 and 2011. Other members' allocations were reduced further in order to achieve the 20% reduction in global catches whilst accommodating the changes to New Zealand's allocation.

Summary of Options— short-term (2011 fishing year)

17 MFish proposes to either retain the TAC and allowances at the 2008-09 level (**option 1**), or to implement the decisions of the CCSBT by either setting the TAC for STN 1 at 539t (**option 2**; a level similar to that set in 2009-10 after the TAC was set to 532t through an in-season increase) or by setting the TAC at 597t (in recognition of a decision confirmed by CCSBT at its meeting in October 2010 that under-catch in year one of the two-year period (2010-2011) can be carried forward to year two) (**option 3**).

Table 2: Proposed options for STN 1 for 2011 fishing year

	Option 1 **Current TAC and allowances (2008-09 level)**	**Option 2** **TAC set based on continuation of 2010 level**	**Option 3** **In-season increase based on carry-forward from 2010**
TAC (2011 fishing year)	420t	539t	597t
Allowance for other sources of fishing-related mortality	2t	3t	3t
Allowance for customary Mäori interests	1t	1t	1t
Allowance for recreational fishery interests	4t	8t	8t
TACC	413t	527t	585t
Total catches available (including carry-forward of 31t of ACE)	*444.2t*	*570t*	*628t*
Max. average catches 2010 and 2011 fishing years	*477.9t*	*541t*	*570t*
Max. average country allocation for 2010 and 2011 agreed by CCSBT	*570t*	*570t*	*570t*

Rationale for Management Options

New Zealand Harvest Strategy Standard

18 A Harvest Strategy Standard was adopted for New Zealand fisheries in October 2008. The harvest strategy standard (along with accompanying operational guidelines) outlines classifications of stocks based on their status in relation to target and limit reference points.

19 In relation to highly migratory species (including southern bluefin tuna), the standard outlines that MFish will generally rely on international organisations in which New Zealand participates to determine the status of the species in question. The harvest strategy standard would then be the basis for New Zealand's negotiating position in those fora. New Zealand officials applied this approach in meetings of CCSBT, advocating for target and limit reference points in line with the harvest strategy standard.

20 In this instance, MFish considers that the low stock status of southern bluefin tuna is addressed through the overall management strategy agreed by CCSBT, including its intention to adopt a management procedure (or a TAC of 5,000–6,000t) to assist with its rebuilding strategy, and its focus on strict compliance with agreed quotas. New Zealand contributed substantially to this overall strategy, including through additional voluntary reductions in catch in 2010 and 2011 (reflected in the 570t limit available to New Zealand—see Appendix One).

21 MFish does not consider that unilateral cuts to New Zealand catches are required, particularly since the New Zealand catches remain low relative to the overall fishery. However, retaining the TAC and allowances at 2008-09 levels is an option open to the Minister (option 1).

National Fisheries Plan for Highly Migratory Species

22 Section 11(2A) of the Act outlines factors for the Minister of Fisheries to take into account before setting or varying sustainability measures (including TACs), including any relevant fisheries plans. The Minister approved a National Fisheries Plan for Highly Migratory Species under section 11A of the Act in September 2010. The fisheries plan outlines management objectives for highly migratory species (HMS), along with strategies for achieving the objectives.

23 Of particular relevance is the objective of maintaining a sustainable fishery for HMS within environmental standards, including encouraging management of HMS at specified target reference points. Additional work is needed on identifying reference points for southern bluefin tuna, although as noted New Zealand input into the development of a CCSBT management procedure (which includes target reference points) has been based on the harvest strategy standard, consistent with this objective.

24 The fisheries plan includes an objective of promoting a viable and profitable tuna fishery in New Zealand, including through negotiating favourable country allocations for New Zealand fishers. Implementation strategies include reviewing management arrangements including catch limits as required to take into account international agreements. The current in-season review is in line with this strategy.

25 The fisheries plan also outlines objectives for non-commercial use of HMS fisheries, including maintaining/enhancing recreational catch rates for HMS gamefisheries, and ensuring abundant HMS for customary use. Proposals are outlined below for making provision for non-commercial fishers when setting the TAC and allowances.

Total Allowable Catch

26 The TAC for southern bluefin tuna is able to be set under section 14 of the Act. This section provides for alternative TACs to be set for stocks specified in the Third Schedule (including southern bluefin tuna) if the Minister is satisfied that the purpose of the Act is better met in this way. In general, TACs are set in accordance with the provisions of s. 13(2) of the Act (i.e. in a manner that would maintain, or move the stock towards, a biomass at or above the level that can support MSY). This is not possible for southern bluefin tuna since it is a highly migratory species and it would be difficult to calculate MSY for the portion of the stock found within New Zealand fisheries waters (s. 14(8)(b)(iv)). Setting a TAC under section 14 also recognises that a national allocation for New Zealand has been determined as part of an international agreement (s. 14(8)(b)(ii)).

27 Section 14(6) of the Act outlines that, after considering information about the abundance during the current fishing year of any stock listed in Schedule 3 to the Act, the Minister may increase the TAC for the stock. If a TAC has been increased during the fishing year in this way, the TAC shall revert to its previous level at the end of that fishing year (s. 14(7)). For STN 1, the TAC has reverted to 420t after the in-season increase that occurred in the 2010 fishing year, when the TAC was increased to 532t.

28 MFish has provided information above about the abundance of southern bluefin tuna in the current fishing year (see paragraphs 12 and 13). The overall abundance of the stock is low. Availability within New Zealand waters is more difficult to estimate because of the highly migratory nature of the species, but was considered to be good in 2010. The low stock status is being addressed through agreements reached at the CCSBT meeting (including a reduced global TAC), and MFish considers it appropriate to implement the agreement relating to New Zealand's catch limit at this time. This is considered to be in keeping with the purpose of the Act, particularly in relation to providing for utilisation while ensuring sustainability, as well as with the approved fisheries plan for HMS.

29 The decision made by CCSBT in 2009 included provision for a two-year catch allocation, and countries were required to notify their intended split of catches between the first and second year. New Zealand notified CCSBT on the 16th of November 2009 as follows: "The New Zealand annual catch of southern bluefin tuna within its national allocation for 2010 and 2011 will average 570t over the two year period. Not more than 570t will be taken in 2010." Given that catches in 2010 were less than 570t, this provides two alternatives for changes to the TAC for 2011, while **Option 1** is to retain the TAC at the 2008-09 level (420t):

a. Allow for total catches of no more than 570t in 2011 **(Option 2)**; or

b. Allow for average catch in 2010 and 2011 to equal 570t (with a slightly higher TAC in 2011 to account for catches below 570t in 2010) (**Option 3)**.

30 The 2010 meeting of CCSBT discussed the way in which countries had chosen to set their catch limits for 2010 and 2011 fishing years. Some countries had interpreted the catch limit as a two-year limit and proposed adjustments to their 2011 catch limits based on actual catches in 2010, while some countries had viewed the initial notifications as fixed limits. The 2010 meeting agreed that the current TAC allocation decided in 2009 was a 2-year total TAC, and could be distributed across the two year period, with unused catch from the first year carried forward to the second year.[3]

31 The higher TAC proposed under option 3 would therefore be in line with decisions made by CCSBT, and would allow for maximum utilisation in 2011 (for further discussion see

[3] Report of the Seventeenth Annual Meeting of the Commission for the Conservation of Southern Bluefin Tuna, October 2010, paragraph 52.

the section on TACCs, below). However, a substantial body of submissions was received on the previous in-season increase process from those who considered no increase to be appropriate at this time, given the poor state of the stock. The Minister may therefore wish to consider option 2 as an alternative TAC level that would also be consistent with CCSBT decisions but allows for a lower increase than does option 3.

32 In light of the poor stock status of southern bluefin tuna, the Minister could also choose to retain the 2008-09 TAC and allowances for the current (2011) fishing year (option 1). No reduction to the TAC would be possible, since the fishing year has already commenced. Although CCSBT has adopted a number of measures designed to improve the status of the stock, the Minister could chose to forgo any increase to New Zealand's TAC at this time to avoid the increased risk from higher catches. In the context of the southern bluefin tuna stock the benefits of this action are likely to be minor, although submitters have previously outlined that they consider such an action may have moral weight in the context of international negotiations. The Minister could also consider the potential risk of over-expansion in the fishery given the likelihood that catches in the future will be reduced, possibly to below the existing level of 420t, as discussed further in Section B.

33 MFish proposes that if making a decision to increase the TAC for the 2011 fishing year under either option 2 or 3, the Minister should consider the available ACE in the fishery. STN 1 is a stock which has previously had provision for the limited carry-forward of unfished ACE.[4] Within the current fishing year 444.2t of ACE are available in the fishery, including 413t generated from the TACC, and an additional 31.2t of carry-forward ACE (see table 2). There is therefore scope for fishers to fully fish the available ACE without attracting any over-fishing penalties (such as deemed value payments). For example, in the 2009 fishing year, total commercial catches were 417.3t (but no deemed values were paid). This brought total catches to very close to the New Zealand country allocation of 420t.

34 MFish proposes that the TAC for the 2011 fishing year be set at a level that provides for non-commercial fishing and other sources of fishing related mortality as outlined below, and a level of ACE for commercial fishers that allows them to increase existing catches, but removes any risk of fishing over and above the country's allocation. That is, the ACE carried forward from the 2010 fishing year (31t) would be removed from the maximum TAC that could be set based on agreements reached at CCSBT, as outlined in table 2 above.

TACC and allowances

<u>Recreational and customary allowances</u>

35 Southern bluefin tuna has historically been an occasional target of recreational gamefisheries, with fairly limited catches. More recently, a recreational gamefishery for Pacific bluefin tuna has developed off the west coast of the South Island. This fishery also has a bycatch of southern bluefin tuna from time to time, particularly earlier in the season.

36 MFish has been monitoring catches in this fishery through a voluntary reporting arrangement with the recreational charter vessels involved (compulsory charter boat reporting covering this fishery was introduced from 1 November 2010). Sixteen vessels report their catches and landings of both Pacific and southern bluefin tuna to MFish. Some fish are tagged and released, while others are landed. This information is summarised in table 3.

[4] The Minister has agreed to remove these carry-forward provisions by placing STN 1 on Schedule 5A of the Fisheries Act, so no ACE will be carried forward from this fishing year to the 2011-12 fishing year or in subsequent years, due to concern that New Zealand not be at risk of exceeding its country allocation. In addition, if the TAC is reduced, no carry-forward would occur in any case, in keeping with the provisions of section 67A of the Act.

Table 3: Available information on recreational catches of southern bluefin tuna.

	2007 Landed*	Released #	2008 Landed*	Released #	2009 Landed*	Released	2010 Landed*	Released
Number of fish	35	20	3	0	1	-	2	-
Weight (kgs)	4,025	2,171	400	0	130	-	240	-

Data for 2009 and 2010 is provisional
* Data compiled from Voluntary Reporting Forms
# Provisional data compiled from Gamefish Tag Reports – yet to be compiled for 2009 or 2010
- Not yet available

37 Reported landings since 2008 have been well below the allowance of 4t, while landings in 2007 were slightly over. Catches are variable, and are affected by the timing of the season as well as other factors. Vessel numbers and trips for 2009 and 2010 were possibly reduced from earlier levels because of financial factors. There is potential for recreational landings of southern bluefin tuna to exceed the current allowance, at least in some years. If choosing to increase the TAC under option 2 or 3, MFish proposes the Minister allow for 8t of recreational catch and 1 tonne for customary fishing when deciding on the amount of ACE to make available within the TAC. MFish proposes the existing allowances be retained under option 1.

38 The customary allowance is primarily to cover catches of southern bluefin tuna that are governed by customary regulations. There is no evidence to date that catches of southern bluefin tuna are made in this way; most if not all non-commercial catches are probably taken in line with general provisions for non-commercial fishing (rather than under the customary fishing regulations).

Allowance for other sources of fishing related mortality

39 The current allowance of 2t for other sources of fishing related mortality was set based on observer data on the (minimal) level of discards within the southern bluefin tuna fishery. Based on scaled observer data it is estimated that eleven dead SBT were discarded during the 2008/09 season. The total weight of the discards was estimated at around one tonne.

40 If the TAC is to be increased, MFish proposes to pro-rate the existing allowance to provide a new allowance within the overall TAC that reflects what other sources of fishing related mortality might be under a higher level of fishing. An amount of 3t (rounded) is proposed within the TAC.

TACC—Option 1 (status quo)

41 Under option 1, the TACC that applied in 2008-09, and to which the fishery reverted after the in-season increase in 2010, would remain in place. Retaining the TACC at 413t allows commercial fishers to gain some utilisation benefit from the southern bluefin tuna fishery, but would not provide any additional benefit from the potential increase in allocation available to New Zealand.

TACC—Option 2

42 The TACC cannot be altered within the fishing season, but an equivalent amount in additional ACE can be made available to fishers (s. 68(1)). In general, if ACE is increased within the season this would be made available to quota holders in proportion to their quota holdings. Section 68(2A) provides an alternative for highly migratory species, whereby the Minister may determine a different allocation mechanism if deemed appropriate. In this

instance, MFish proposes that the most appropriate approach would be to allocate the additional ACE proportionately to existing quota holders.

43 Under option 2, MFish proposes that an additional 114t of ACE be made available within the 2011 fishing season. The proposed amount is reached by subtracting the allowances for non-commercial fishing and for other sources of fishing related mortality from the TAC (based on total catches being no more than the 570t allowed for in 2010). As outlined above, this proposal takes account of the existing amount of ACE available in the fishery (31t of unfished ACE that was carried forward from the 2010 fishing year). The total ACE available under this option would be 558t).[5]

44 The southern bluefin tuna fishery is a relatively high value fishery for a premium tuna product, with export earnings of around $10.25 to $12.5 million in 2009. The export value of an additional 114t of southern bluefin tuna is between $3.9 and $4.6 million (depending on assumptions made about the value per kilo)[6]. The indicative trading price for STN 1 ACE is $7,216 per tonne, suggesting an additional value of around $822,624 from making an additional 114t of ACE available, assuming the additional ACE traded at similar levels to previous transactions in the fishery.[7]

TACC—Option 3

45 Under option 3, MFish proposes that an additional 172t of ACE be made available within the 2011 fishing year. The proposed amount is reached by subtracting the allowances for non-commercial fishing and for other sources of fishing related mortality from the TAC (based on total catches averaging no more than 570t over the 2010 and 2011 fishing years; i.e. a total catch of 628t in 2011).

46 The export value of an additional 172t of southern bluefin tuna is around $5.9 to $6.9 million, an additional $2 to $2.3 million compared to option 2. Based on the trading price for STN 1 ACE outlined above, an additional 172t of ACE could represent around $1,241,152 in trades.

47 As noted in the TAC section, the additional utilisation benefits provided by option 3 would need to be weighed against concern over the sustainability of southern bluefin tuna. MFish notes that the opportunity for additional utilisation is in the context of a rebuilding strategy adopted by CCSBT, including a 20% reduction in global catches, however many submitters on the past in-season increase proposed that New Zealand take unilateral action to not fish its allowable national allocation because of the low stock status.

48 There is considered to be additional capacity within the New Zealand industry to respond to an increase in TAC, and this is reinforced by catches in 2010, where much (although not all) of the additional ACE made available was caught. However, there is potential risk of over-expansion in the fishery if future catches are reduced, possibly to below the existing level of 420t (see Section B: Medium-term options for details).

[5] The additional ACE generated by the TAC increase in 2010 is not eligible for carry-over.
[6] The higher figure is based on the 2009 greenweight export price of $41.06/kg compiled by Statistics New Zealand and allowing for limited processing. The lower figure ($34.15 per kg) is probably a truer reflection of the value of the fishery, based on information received from industry on prices received in 2009 for the full amount of catch taken in that year (419t), and taking into account the relative values of the fresh and frozen components of the fishery.
[7] This figure is based on the average ACE price of $7,216 per tonne for STN 1 from the 2006/07 fishing year. Insufficient ACE trading has occurred in more recent years to determine a more accurate figure (although trading has occurred, the associated values have not always been reported, or may represent transfers within companies).

B. Medium-term options

The Issues

49 CCSBT has confirmed its commitment to rebuilding the southern bluefin tuna fishery from its current low level, and has adopted an interim rebuilding target of 20% of unfished spawning stock biomass levels within 25 to 30 years. Additional scientific analyses will be undertaken in advance of a special meeting of CCSBT in August 2011 to adopt a management procedure that will guide the setting of TACs that allow this rebuilding target to be met.

50 The management procedure would first be applied to set the TAC in either 2012 or 2013. It is anticipated that the management procedure will indicate the need for additional cuts to the global TAC in the short term. If the management procedure is not used to set the TAC in 2012, CCSBT's scientific committee has recommended retaining the current TAC of 9,449t. However, at least one country has indicated they consider substantial additional reductions to the TAC should occur in 2012.

51 The final decision on the TAC for 2012 (i.e. the 2011-12 fishing year for New Zealand) is unlikely to be made until October 2011, after the start of the fishing year. It is not generally possible to reduce the TAC once the fishing year has started, so MFish proposes two options to ensure total catches would not exceed New Zealand's allocation, even if the allocation is reduced below 420t.

52 Under the future operation of the management procedure, global TACs will be set for 3-year periods, which will provide greater stability for the fishery, and will require less frequent changes to New Zealand's TAC.

Summary of Options— medium-term (2012 and subsequent fishing years)

Table 4: Proposed options for STN 1 for 2012 fishing year

	Option 1—Status quo* (2008-09 TAC)	Option 2—assuming a global TAC of 5,000t in 2012
TAC (2012 fishing year)	420t	380t
Allowance for other sources of fishing-related mortality	2t	1.5t
Allowance for customary Mäori interests	1t	1t
Allowance for recreational fishery interests	4t	3.5t
TACC	413t	374t

*** Plus an arrangement with industry to maintain catches below the country allocation if required (i.e. if allocation is reduced below 420t)**

Rationale for Management Options

53 CCSBT agreed in October 2009 to use a science-based management procedure to assist in determining appropriate catch limits in future years. Although the actual catch limit will depend on the agreed parameters for this management procedure (such as the target year for rebuilding the stock to 20%B_0 and the probability level desired for this), there is a high likelihood that the management procedure will recommend further cuts to global catches of southern bluefin tuna. Further, if the management procedure cannot be finalised or agreed, CCSBT has agreed that global catches would reduce to 5,000–6,000t in 2012. This would imply further reductions for New Zealand, potentially to below the existing catch limit of 420t if a global TAC of 5,000t were chosen.

54 Prior decisions of the CCSBT assume that allocations made at the 2009 annual meeting would be implemented in 2010 for New Zealand; the decision to increase the TAC during the 2010 fishing year also reflects this assumption. This creates a precedent that decisions be implemented immediately after the annual meeting, which generally occurs after the fishing year for STN 1 has already started. In the case of decisions that lead to a decrease in New Zealand's country allocation, this precedent would be difficult to follow unless provisions are made in advance, as outlined in the options below. Although there is provision within the Act for an increase in TAC to occur within a fishing season, there is no equivalent provision for any decrease to the TAC.

55 Some reduction to the global TAC could be accommodated within the existing country allowance for New Zealand, because of the revised nominal catch level (as outlined at paragraph 16). The New Zealand allocation would be unlikely to reduce below the 2008-09 TAC of 420t unless the global TAC falls below 5,449t (a 4,000t reduction from the present level).

56 New Zealand needs to ensure its catches do not exceed the agreed limit, but it would be open to New Zealand to determine the most appropriate means of doing so. MFish considers either voluntary (**option 1**) or regulatory (**option 2**) means could be considered as a way of ensuring total catches do not exceed New Zealand's national allocation. The costs and benefits of both options would need to be carefully considered, and in particular any risk of catches exceeding the allocation. Any catch in excess of the national allocation would need to be 'paid back' in subsequent years.

57 Either option could be combined with a **change to the fishing year** for southern bluefin tuna, to make future implementation of CCSBT decisions more straight-forward, and to better align with when fishing occurs.

Option 1— Status quo plus voluntary reduction (if required)

58 Under this option, the status quo (2008-09) TAC, TACC and allowances would remain in place. If CCSBT agrees on a global TAC that incorporates a national allocation for New Zealand of less than 420t, it would be necessary for commercial fishers to ensure their catches did not exceed this reduced limit (unless implemented in conjunction with a change to the fishing year, as outlined below).[8]

59 Examples of such voluntary arrangements in other fisheries include ACE shelving arrangements,[9] and application of area-based sub-limits.[10] MFish invites industry to provide further information on how it could successfully institute such an arrangement. Components of an arrangement could include:

- A commercial understanding between quota owners that would apply to all (or a high percentage) of quota holders such that they would not fish a set percentage of their ACE;
- More frequent catch reporting to MFish so that total catches could be monitored;
- Arrangements for managing target fisheries to ensure sufficient ACE was still available to cover bycatch in other tuna fisheries later in the season.

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[8] If CCSBT agrees on a national allocation for New Zealand that is equal to or greater than 420t for 2011-12, this could be implemented through an in-season review in the event of an increase, or by making no further change.

[9] For example in various rock lobster fisheries.

[10] For example in the hoki fishery, where industry manage to sub-area catch limits within an overall TAC.

60 Based on the level that MFish proposes setting the TACC under option 2, such voluntary arrangements would potentially have to apply to around 39t of ACE (around 9% of the current TACC).

61 A voluntary arrangement could provide fishers with greater certainty about the future level of catches available to them, and to develop appropriate mechanisms for ensuring catches do not exceed the national allocation (for example through close management of target and bycatch fisheries). The arrangement would only be applied if required (i.e. if the national allocation agreed for 2012 is less than 420t).

62 The risk of applying a voluntary arrangement is that if some fishers fail to implement such an arrangement, catches could exceed the country allocation (by up to 9% based on a possible reduced country allocation of 380t). In that situation, New Zealand would reduce the catch limit in a subsequent fishing year or years by the equivalent amount of overcatch. Nonetheless, overcatch could harm New Zealand's reputation as a responsible fishing nation that is able to control its catches.

63 MFish would like more information from industry on whether they would support this voluntary option and if so, how they would minimise the risk of any overcatch occurring under a voluntary arrangement.

64 The status quo TAC and allowances could potentially be retained in conjunction with a change to the fishing year for southern bluefin tuna, as outlined under the future management section below. Section 19 of the Act outlines that a fishing year shall be established for every quota management stock, commencing either in 1 October or 1 April. If the stock were changed to a 1 April fishing year, there would be time to implement the catch limit agreed in October 2011 before 1 April 2012 (whether the agreed country allocation was the same, a decrease, or an increase), meaning a voluntary arrangement would probably not be required. Any catch limit set at that point would need to make allowance for catches between October 2011 and March 2012 (when the TAC of 420t would be in place). Such catches tend to be low (5t or less).

Option 2— Baseline TAC decrease

Total Allowable Catch

65 The reduction in catch that CCSBT will likely adopt is a critical part of its rebuilding strategy for southern bluefin tuna, aimed at restoring biomass levels for the stock to a level where there is substantially less risk of stock collapse. A reduction to the TAC, as outlined under option 2, is one option to ensure New Zealand can implement CCSBT decisions.

66 A global TAC of 5,000t is a reduction of 47% from the current level (9,449t), and is considered the lowest plausible level for 2012. CCSBT operates under consensus. Consensus has already been outlined in an existing decision on a fall-back position of a TAC of 5,000 to 6,000t. There is no agreement on any lower TAC. The Minister may however also wish to consider the risk of CCSBT adopting a lower TAC, noting that one member has proposed catch limit reductions of up to 5,000t (i.e. to 4,449t).

67 Paragraphs 18 to 26 above outline some general provisions of relevance when setting or altering the TAC for southern bluefin tuna, including consideration of the harvest strategy and the National Fisheries Plan for HMS, as well as the provisions of section 14 of the Act. Section 14(5) of the Act outlines that, except in the case of in-season increases, every setting or variation of a TAC shall have effect on and from the first day of the next fishing year for the stock concerned. This means that if a global TAC lower than around 5,000t (and/or a New Zealand country allocation of less than 420t) were adopted in 2011 with effect for the 2012 fishing year, it would not generally be possible to reduce the TAC

after the start of the fishing year. Given that information is already available on the stock status of southern bluefin tuna, and CCSBT has developed a strategy to address the situation over time, a further major reduction in the TAC is unlikely to fit within the bounds of the provision for emergency measures (s 16).

68 At a lower TAC, there may be some problem with bycatch of southern bluefin tuna, for example in other tuna fisheries. Catches in the most recent season were 499.5t, so the proposed reduction is around 25% (noting that this is a minimum level that could be increased in-season). However, catches in the recent past have been around 380t or less. Option 2 would give greater certainty that catches would remain within a reduced country allocation, if that is the decision adopted by CCSBT. Controls such as deemed values are set at a level that currently makes overcatch of the available ACE unlikely.

69 There is some risk of constraining utilisation unnecessarily under option 2. In the circumstance that CCSBT decisions in 2011 would not result in New Zealand needing to reducing its TAC below 420t, an in-season increase could be undertaken to reflect the country allocation available to New Zealand. There would nonetheless be some disruption, particularly to commercial fishers, who would have less certainty about the catch level available to them at the start of the season. This reduced certainty could affect ACE prices.

Recreational and customary allowances

70 As noted at paragraphs 35 to 37, there is some recreational catch of southern bluefin tuna, largely as a bycatch of Pacific bluefin tuna fisheries. While recognising the importance and value of this fishery, MFish proposes reducing the non-commercial allowances within a reduced baseline TAC. The reduced allowance would probably still be sufficient to accommodate recreational catches that have occurred in the last few seasons, although it might not be sufficient in all years. If New Zealand's allocation remained at this low level (i.e. there was no subsequent in-season increase), it would be necessary to closely monitor the recreational fishery to see whether additional management is required to ensure catches remain within the reduced allocation. Compulsory charter boat reporting will enable monitoring of the fishery.

71 It is proposed to retain the existing customary allowance of 1t.

Allowance for other sources of fishing related mortality

72 As noted above, the current allowance of 2t for other sources of fishing related mortality was set based on observer data on the (minimal) level of discards within the southern bluefin tuna fishery. MFish proposes a slightly-reduced allowance of 1.5t to reflect other sources of fishing related mortality that might occur under a lower level of fishing.

TACC

73 After setting a TAC and allowing for non-commercial catches and other sources of fishing related mortality, MFish proposes that the TACC be set to 374t under option 2. This is a reduction of 39t from the current TACC, and would represent a substantial loss of potential earnings from the fishery (approximately $1.6 million). Although quota holders' shares in the fishery would not be altered, the amount of ACE generated by their holdings would decline. At the indicative value of ACE outlined above, this would represent a reduction of around $281,424.

74 This potential reduction in utilisation must be weighed against the need to give effect to decisions of CCSBT. In addition, there would be scope to have an in-season increase to TAC and the ACE available to commercial fishers depending on CCSBT decisions in 2011, although as noted this would still lead to some uncertainty for fishers and potentially a

perceived loss in value of the quota asset even if the catch entitlements are subsequently increased again.

Other Management Issues

Future management

75 MFish is also implementing other elements of the package of measures CCSBT agreed to improve the status of the southern bluefin tuna stock. These measures include submitting an action plan detailing intended monitoring and control of the New Zealand fishery, and areas in which improvements are planned. During 2010 New Zealand also coordinated an inter-sessional working group tasked with assessing potential compliance risks in the global fishery, and proposing solutions to these risks. This work will be furthered with development of a series of policy papers outlining members' obligations for managing their catches of southern bluefin tuna, and proposing independent auditing to ensure compliance.

76 MFish will continue to contribute to development of the management procedure in 2011, using the New Zealand harvest strategy as a basis for input. The management procedure will be important for setting future catch limits in a way that helps rebuild the fishery over time, while managing the impacts on fishing industries.

77 Once the management procedure is operational, it has been agreed that global TACs will be set for three-year periods. This will provide greater certainty about the future level of the TAC, and will help overcome some of the current uncertainty (although it should be noted that the countries involved have not yet reached consensus on whether they favour fewer, larger reductions in catch, or more gradual reductions over time, which will have implications for future catch limits). Over time, as the fishery starts to rebuild towards a larger biomass level, additional yield will become available from the fishery.

Change to the fishing year

78 As noted above, one option to lessen the need for future catch limit reviews (particularly in-season reviews) would be to change the fishing year for southern bluefin tuna from a 1 October to a 1 April year. This change would make it easier to implement decisions made by CCSBT at its annual meeting, which is generally held in October.[11] Such a change could be made in conjunction with either option 1 or option 2 of the medium-term options outlined in Section B. However, depending on when such a change was implemented, it could potentially remove the need for a reduction in the baseline TAC, as proposed under option 2. For example, the next fishing year for STN 1 could begin on 1 October 2011 but finish on 31 March 2012. The following fishing year would begin on 1 April 2012, allowing the catch limit set for that year to be determined *after* the October 2011 meeting of the CCSBT.

79 The suggestion to alter the fishing year was recently made by some fishers in the context of improving access to ACE within the fishery (the current fishing year finishes very close to the end of the fishing season, which can make it difficult to source ACE).

80 MFish seeks further comments from fishers and quota holders on this suggestion.

[11] Different member countries of CCSBT operate to different fishing years, but several other countries do use a 1 April fishing year.

Appendix One—Summary of CCSBT catch limit decisions for 2010 and 2011, as agreed by CCSBT in 2009 and confirmed in 2010[12]

Members				
	Nominal catch (tonnes)	Allocated catch (tonnes)	Effective catch limit (voluntary reductions)	Additional New Zealand reduction (bilateral transfer)
Japan	5,665	2,261	2,261	2,400
Australia	5,665	4,270	4,015	4,015
New Zealand	1,000	754	709	570
Korea	1,140	859	859	859
Taiwan	1,140	859	859	859
Indonesia	750	651	651	651
Cooperating Non-members				Allocated catch
			Philippines	45
			South Africa	40
			European Community	10
TOTAL				9,449 tonnes

[12] For details refer to the Reports of the Sixteenth Annual Meeting of the Commission, October 2009; and the Seventeenth Annual Meeting, October 2010; www.ccsbt.org.