

# DEPLETION OF BLUE COD IN THE MARLBOROUGH SOUNDS - FINAL ADVICE

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## Executive Summary

- 1 This Final Advice Paper (FAP) proposes three options for the short-term management of the recreational blue cod fishery in the Marlborough Sounds.
- 2 Blue cod abundance in the Marlborough Sounds is continuing to decline as a direct result of high recreational fishing pressure. Recreational fishers are catching too many recruited<sup>1</sup> blue cod from the enclosed areas of the Marlborough Sounds and this concentrated fishing effort is preventing the rebuild of localised populations. In addition, the accumulated mortality of undersize fish returned to the sea by recreational fishers is contributing to the decline of pre-recruited<sup>2</sup> blue cod across most areas of the Marlborough Sounds. Blue cod abundance within some outer areas is also declining, possibly in response to a transfer of recreational fishing effort into these areas.
- 3 The Ministry of Fisheries (MFish) proposes the following four short-term management objectives for the Marlborough Sounds blue cod fishery:
  - Lower the recreational harvest in depleted areas to a level that enables local populations to rebuild;
  - Ensure recreational fishing in the outer Marlborough Sounds is sustainable and populations are not serially depleted through displacement of fishing effort from the inner and mid-areas;
  - Ensure measures are practicable for fishers and fisheries compliance;
  - Ensure measures have sufficient community buy-in.
- 4 The Initial Position Paper (IPP) proposed a wide range of measures to address the localised depletion of blue cod populations in the Marlborough Sounds. MFish proposed the measures in response to pre-consultation discussions with the community multi-stakeholder group, SoundFish, and they are based on the above four management objectives.
- 5 MFish received over 288 individual and stakeholder group submissions, as well as 752 feedback forms from *The Fishing Paper*, in response to the IPP. All key stakeholder groups and the vast majority of individual submitters agree that additional management action is necessary to rebuild the Marlborough Sounds blue cod fishery.
- 6 MFish proposes three options to achieve the desired management objectives for the Marlborough Sounds blue cod fishery. These are:
  - Option 1 – maintain the *status quo*;
  - Option 2 – create ‘no-take’ areas for blue cod to recreational fishing in the enclosed Marlborough Sounds; excluding the Tory Channel (see Figure 1);
  - Option 3 – create ‘no-take’ areas for blue cod to recreational fishing as proposed under Option 2 and including the Tory Channel.

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<sup>1</sup> Recruited blue cod means fish at or above the 30 cm minimum legal size (MLS).

<sup>2</sup> Pre-recruited blue cod means fish less than the 30 cm MLS.

- 7 The proposed area closures under options 2 and 3 would apply over a four-year period only and expire on 1 October 2012.
- 8 In addition, MFish asks you to consider:
- An amendment to the (Challenger Area Amateur Fishing) Regulations 1986 to require recreational fishers to land blue cod in a whole or gutted state except for personal consumption when on board a boat;
  - An amendment to the Fisheries (Challenger Area Amateur Fishing) Regulations 1986 and the Fisheries (Infringement Offences) Regulations 2001 to allow penalties for persons found taking or possessing blue cod below minimum legal size in the Challenger East Area.
- 9 Having considered submissions and discussions from stakeholders and individuals, MFish has decided not to recommend proceeding with many of the initial proposals in the IPP at this time. This is because of low support for these proposals by most stakeholders. Instead, MFish considers the implementation 'no-take' areas for blue cod in the enclosed Marlborough Sounds is the only measure that achieves the management objectives with community buy-in.
- 10 The additional requirement for recreational fishers to land blue cod in a whole or gutted state (except for personal consumption when on board a boat) will make it easier to enforce the amateur minimum legal size (MLS), which is critical for the management of blue cod.
- 11 This FAP asks you to consider whether to include Tory Channel within the proposed 'no-take' areas for recreational fishing. While blue cod populations within Tory Channel appear to be healthy at this time, there is a high risk of localised depletion of blue cod populations if this area remains open. This is because of its relatively close proximity to populated areas and through an expected increase in recreational fishing effort as fishers seek alternative areas in which to catch blue cod. This risk can be mitigated by including the Tory Channel in the closed area.

## The Issue

- 12 Concerns about localised depletion of the Marlborough Sounds blue cod fishery have existed since the early 1990s. New information indicates that blue cod populations within many areas of the Marlborough Sounds are significantly depleted<sup>3</sup>. The new information indicates the relative abundance of both recruited and pre-recruited blue cod has continued to remain at low levels or declined further in many areas.
- 13 MFish believes high recreational fishing pressure is the primary cause of the localised blue cod depletion. The latest annual harvest estimate of blue cod in the Marlborough Sounds by amateur fishers is 150 tonnes<sup>4</sup>. Total annual commercial blue cod catches are about 15 tonnes (i.e. 10% of estimated recreational catch). In addition, commercial fishers target blue cod only in the outer Marlborough Sounds where localised depletion is not an issue.
- 14 Concentrated recreational fishing effort has resulted in too many recruited fish being caught from the inner and middle areas of Queen Charlotte Sound and Pelorus Sound. It is also most likely that repeat captures of undersize blue cod results in an accumulated mortality that has contributed to the decline of pre-recruited and juvenile fish across most areas of the Marlborough Sounds. Blue cod abundance within some outer areas is now also declining possibly in response to a transfer of recreational fishing effort into these areas.

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<sup>3</sup> Survey of the relative abundance of blue cod (NIWA, 2007)

<sup>4</sup> Characterisation of the Marlborough Sounds recreational fishery and associated blue cod and snapper harvest estimates (in draft NIWA, 2008).

- 15 Blue cod is the most important recreational target finfish species in the Marlborough Sounds. Approximately 83%<sup>5</sup> of the total estimated recreational catch of blue cod from the Challenger blue cod (BCO7) fishery is taken from the Marlborough Sounds. Recreational fishing within the Marlborough Sounds has dramatically increased over the past decade. Further increases in recreational fishing are likely over the next few years. For example, there is a planned development for 500 new berths at Waikawa and Picton marinas, more baches being built, and an increase in trailer boats.
- 16 The increase in the number of recreational boats is also accompanied by an increase in average vessel size and wider use of technology such as GPS receivers and fish finders. These factors suggest that recreational fishers are increasingly mobile within the Marlborough Sounds, and more fishers are travelling to the more exposed and productive areas of the outer areas to catch blue cod. In addition, there has been an increase in the number of local charter boats – many of which are capable of travelling to the outer Marlborough Sounds and can carry a large number of fishers.
- 17 In 2003, the previous Minister of Fisheries implemented measures to address concerns about localised depletion of blue cod populations within the Marlborough Sounds. These measures focused on the recreational sector only and included decreasing the amateur daily bag limit from six to three blue cod per person and changing the blue cod MLS to 30 cm for Challenger East. Previously, a 28 cm MLS applied to the Marlborough Sounds Area<sup>6</sup> and a 33 cm MLS applied to the wider BCO7 fishery. The intent of these measures was to reduce the recreational harvest level of blue cod in the Marlborough Sounds to enable the rebuild of localised blue cod populations.
- 18 Recent information indicates the 2003 management measures have been largely unsuccessful in increasing blue cod numbers in the Marlborough Sounds (as at September 2007).
- 19 MFish proposes the following four short-term management objectives to direct appropriate measures for the Marlborough Sounds blue cod fishery:
- Lower the recreational harvest in depleted areas to a level that enables local populations to rebuild;
  - Ensure recreational fishing in the outer Marlborough Sounds is sustainable and populations are not serially depleted through displacement of fishing effort from the inner and mid-areas;
  - Ensure measures are practicable for fishers and fisheries compliance;
  - Ensure measures have sufficient community buy-in.
- 20 To address the longer-term approach for the Marlborough Sounds blue cod fishery, MFish is currently working with tangata whenua and stakeholders to develop a Challenger Inshore Finfish Fisheries (CIFF) Plan. The CIFF Plan encompasses the entire Challenger blue cod fishery, and includes the Marlborough Sounds. MFish intends to review the above interim objectives with stakeholders when developing the CIFF Plan to agree on a longer-term approach for the Marlborough Sounds blue cod fishery. MFish anticipates the CIFF Plan will be developed and ready for consultation within the next 12-18 months.

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<sup>5</sup> Characterisation of the Marlborough Sounds recreational fishery and associated blue cod and snapper harvest estimates (in draft NIWA, 2008).

<sup>6</sup> 'Marlborough Sounds Area' is currently defined as being the waters enclosed by a line from the northern tip of Stephens Island to Cape Jackson then to Cape Koamaru, then from West Head to East Head of Tory Channel across French Pass and Stephens Passage and back to the point of commencement (Challenger Area Amateur Fishing Regulation 2A).

- 21 The options in the IPP were intended to provide a suite of measures that ranged in strength and allowed stakeholders to consider whether temporary area closures were necessary, and if so, at what scale. In combination, the mix of measures was designed to enable blue cod populations to rebuild, whilst ensuring the continued use of other fisheries in the Marlborough Sounds.
- 22 The IPP did not review the Total Allowable Catch (TAC) or Total Allowable Commercial Catch (TACC)<sup>7</sup> for the BCO7 stock because the concern is about localised depletion, not sustainability of the BCO7 stock. However, the IPP proposed to prohibit commercial targeting of blue cod within a defined area<sup>8</sup> of the Marlborough Sounds to assist with the rebuilding of blue cod populations. Commercial fishers have already agreed not to fish within this closed area under a voluntary arrangement and this proposal would have formalised this arrangement.
- 23 In reviewing the Marlborough Sounds blue cod fishery, MFish accepts that a wide range of physical and human factors influence fisheries resources. While fishing pressure is considered the most significant, both land-based activities (i.e. changes in land-use and forestry effects) and marine-based activities (i.e. fishing, marine farming, and tourism) are also likely to contribute to the current state of the fishery.
- 24 MFish acknowledges that a longer-term, ecosystem-based management approach is required to promote the continued viability of the fisheries resources within the Marlborough Sounds. The proposed management approach is to enable the immediate rebuilding of depleted blue cod populations and buy time for the community to decide on longer-term management approaches. MFish and the community will address the longer-term review of any implemented proposals, research, and future ecosystem approaches to management, through the CIFF Plan.

## Summary of Options

### *Initial Proposals*

- 25 The IPP proposed the following options for the Marlborough Sounds Area:

Either:

- a) Option 1 - *Status quo*;

Or:

- b) Option 2 – input & spatial controls:

- i) Reduce the amateur daily bag limit to two blue cod per person per day<sup>9</sup>;

And/or:

- ii) Set a limit of six blue cod per boat for amateur fishers;

And/or:

- iii) Restrict amateur fishers on multi-day trips to possessing a single daily bag limit;

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<sup>7</sup> The current BCO7 TAC is 343 tonnes, the TACC is 70 tonnes, and the recreational allowance is 177 tonnes.

<sup>8</sup> The proposed closed area in the IPP applied to waters inside French Pass-Clay Point-Chetwode Island-Cape Jackson-Cape Koamaru

<sup>9</sup> Regulations, 2B was inserted by regs 2 and 3 Fisheries (Challenger Area Amateur Fishing) Regulations 1986, Amendment No 2 (SR 1993/287).

And:

- iv) Amateur fishers must not fillet blue cod prior to landing (gutting of blue cod is still permitted);
- v) Amateur fishers must retain all blue cod at or above MLS and cease targeting blue cod thereafter;
- vi) All hook and line fishing is prohibited from date of gazette to January 2011 (subject to review) in:

Either:

- i) Inner and middle areas of Queen Charlotte Sound (as defined as inside a line from Bull Head to Ruaomoko Point (Arapawa Island) to Otamango Point, including the Tory Channel to East Head and West Head (sub-option 3A);

And/or:

- i) Inner and middle areas of Pelorus Sound (as defined as inside a line from Tawero Point to Whakamawahi Point and to a line from Burnt Point to Post Office Point (sub-option 3B);

And:

- vii) All commercial targeting of blue cod is prohibited inside waters between French Pass-Clay Point-Chetwode Island-Cape Jackson-Cape Koamaru.

26 In addition, to the above options, the IPP also proposed the following options on behalf of SoundFish.

- a) Within the Marlborough Sounds Area the following restrictions on the use of fishing hooks for fishers fishing from a boat or vessel are proposed:
  - i) Size 6/0 hook or larger to be used;
  - ii) One hook to be used per line;
  - iii) Set lining size 10/0 hook or larger hooks to be used;

And/or:

- b) The Marlborough Sounds Area is redefined with a new boundary based on the existing Marlborough Sounds District Council (MDC) coastal boundary. The proposed boundary extends from Cape Soucis in the west to Whites Bay in the east and out to two nautical miles from shore.

## Final Proposals

MFish recommends you consider the following options for the Marlborough Sounds blue cod fishery:

EITHER

**Option 1** - *Status quo*

OR

**Option 2** - Implement 'no-take' areas from 1 October 2008 to 1 October 2012 for blue cod recreational fishing in the enclosed Marlborough Sounds as defined:

The 'no-take' areas applies to those waters inside a line drawn between Te Akaroa Point/West Entry Point (40°56.83'S, 173°59.85'E) and the Southern Point of Duffers Reef (40°57.11'S, 174°03.05'E), and a line between the nearest two points of Allen Strait (40°59.68'S, 174°03.77'E and 40°59.77'S, 174°03.93'E), and a line between Cape Jackson (40°59.70'S, 174°18.78'E) and Cape Koamaru (41°05.50'S, 174°22.98'E), and a line between Ruamoko Point (41° 14.43'S, 174° 09.73'E) and Dieffenbach Point (41° 14.00'S, 174° 08.70'E) (see Figure 1).

OR

**Option 3** - Implement 'no-take' areas from 1 October 2008 to 1 October 2012 for blue cod recreational fishing as proposed under Option 2 and including the Tory Channel as defined:

The 'no-take' areas applies to those waters the outer coordinates for the channel if included are a line between East Head (41°12.60'S, 174°19.38'E) and West Head (41°12.79'S, 174°18.90'E) of Tory Channel (refer Figure 1).

AND

Agree that the Fisheries (Challenger Area Amateur Fishing) Regulations 1986 be amended to require recreational fishers to land blue cod in a whole or gutted state except for personal consumption when on board a boat or vessel in the Marlborough Sounds Area.

AND

Agree that the Fisheries (Challenger Area Amateur Fishing) Regulations 1986 and the Fisheries (Infringement Offences) Regulations 2001 be amended to:

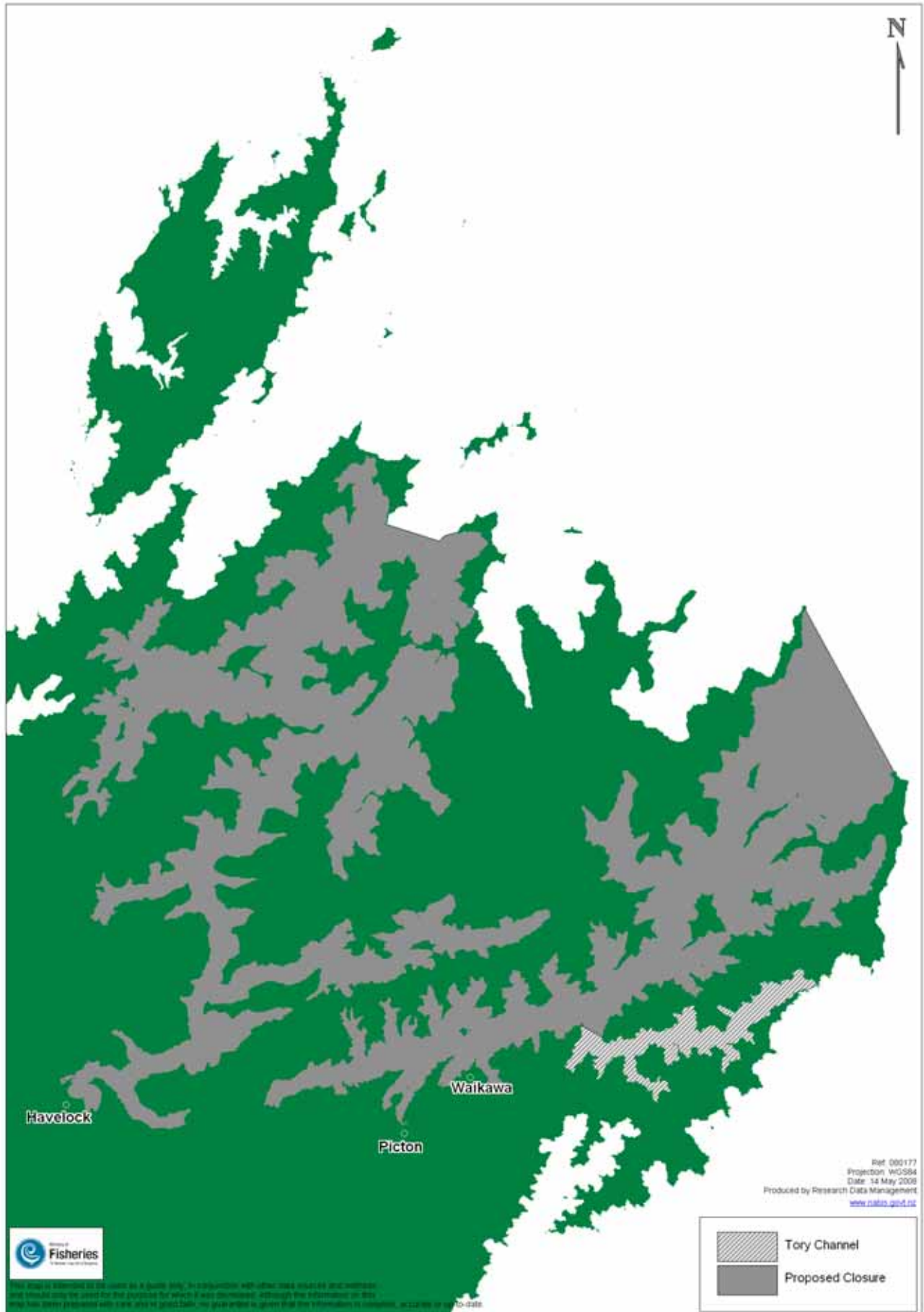
- impose infringement offence penalties on persons found taking or possessing blue cod below minimum legal size in the Challenger East Area
- create summary offences, infringement offences and penalties in connection with the closure/landing measures recommended above.<sup>10</sup>

AND

Direct the CIFF Fisheries Plan Advisory Group to set review criteria to evaluate the success and need to maintain the proposed blue cod 'no-take' areas.

<sup>10</sup> Summary offence penalties will be in the normal range for offences of this type- \$10,000-\$20,000. Infringement offence penalties will be in the normal range of \$250-\$500.

**Figure 1. Proposed temporary 'no-take' areas for blue cod in the enclosed Marlborough Sounds (Option 2) and Tory Channel (Option 3)**



## Submissions Received

- 27 MFish received 288 written submissions on the initial proposals for the Marlborough Sounds blue cod fishery.
- 28 *The Fishing Paper* independently created a feedback form that included the options stated in the IPP, as well as a range of their own options. *The Fishing Paper* targets recreational readers and has a circulation of 50,000 distributed across the top of the South Island and Christchurch. MFish received 752 feedback forms from *The Fishing Paper*.
- 29 The feedback from the written submissions received as part of the consultation is summarised in Table 1 below. In addition, Table 2 and Table 3 summarise feedback from *The Fishing Paper's* feedback form. The *Summary of Submissions* section contains detailed information on individual and stakeholder views and comments.

## Key issues raised in consultation

- 30 MFish received a very large number of individual and stakeholder group submissions in response to the IPP. All key stakeholder groups and the vast majority of individual submitters generally agree that management action is necessary to rebuild the Marlborough Sounds blue cod fishery. However, there is no consensus across the recreational sector about what management measures are necessary to achieve the desired management objectives.
- 31 MFish received the following key points from the consultation:
- There is general support for temporary 'no-take' areas to recreational blue cod fishing;
  - All key recreational stakeholder groups indicate that 'no-take' areas will only be acceptable provided all commercial fishing methods capable of catching blue cod are excluded from the proposed closed areas;
  - Most stakeholders consider three years to be an appropriate length of time for a temporary closure. Several individuals suggest including a sunset clause for the closure;
  - Submitters generally do not support the IPP proposals to reduce the recreational bag limits (i.e. daily boat limit of six blue cod, no accumulation of blue cod catches on multi-day trips);
  - The SoundFish proposal to amend the Marlborough Sounds Area generated considerable debate amongst stakeholders and individuals. Overall, there was low support for this proposal.



**Table 1. Summary of submissions from individual and stakeholder groups (does not include feedback forms)**

IPP Proposals	Status Quo	Temporary closure to QC	Temporary closure to Pelorus	Bag limit reduced from 3 to 2	Limit 6 per boat	No accumulation of bag limits (possess only one day's bag limit)	Land fish whole or gutted fish landed	Retain all fish caught at or above MLS	Commercial targeting of blue cod closure in enclosed Sounds (As per current voluntary agreement)	Require fishers to use size 6/0 hooks or greater	Require fishers to use no more than 1 hook per line	Longlining to use size 10/0 hooks or larger	Proposed alteration of the Marlborough Sounds boundary
<b>Number support proposal in IPP</b>	66	32	41	72	55	56	70	64	84	68	66	47	54
<b>%</b>	23	11	14	25	19	20	25	22	29	24	23	16	19
<b>Number support alternative</b>	0	87	71	11	17	8	9	10	9	5	2	6	5
<b>%</b>	0	31	25	4	6	3	3	4	3	2	1	2	2
<b>Number don't support</b>	219	107	98	84	82	76	54	52	38	61	52	51	50
<b>%</b>	77	38	34	29	29	27	19	18	13	21	18	18	18
<b>No comment received</b>	0	47	62	104	117	131	137	145	138	137	151	166	158
<b>%</b>	0	16	22	36	41	46	48	51	48	48	53	58	55

**Table 2. Summary of submissions from *The Fishing Paper* feedback forms (highest percentage is in bold) (Figures expressed as percentages for A – Agree/D – Disagree)**

Ministry of Fisheries Proposals Contained in The IPP									SOUNDFISH Proposals Contained in the IPP				
Status Quo	Temporary closure to QC	Temporary closure to Pelorus	Bag limit reduced from 3 to 2	Limit 6 per boat	No accumulation of bag limits (possess only one day's bag limit)	Land fish whole or gutted fish landed	Retain all fish caught at or above MLS	Commercial targeting of blue cod closure in enclosed Sounds (As per current voluntary agreement)	Require fishers to use size 6/0 hooks or greater	Require fishers to use no more than 1 hook per line	Longlining to use size 10/0 hooks or larger.	Proposed alteration of the Marlborough Sounds boundary	
A D	A D	A D	A D	A D	A D	A D	A D	A D	A D	A D	A D	A D	
0 100	26 74	26 74	28 72	48 52	59 41	16 84	16 84	85 15	65 35	58 42	63 37	46 54	

**Table 3. Summary of submissions from *The Fishing Paper* feedback forms on proposals NOT included in the IPP (highest percentage is in bold) (Figures expressed as percentages for A – Agree/D – Disagree)**

Alternative Proposals NOT Contained in the IPP													
Increase the amateur minimum legal size to 33cm in the Challenger Area.		Reduce the Wellington blue cod daily bag from 20 to 3 per person.		Close the blue cod fishery during spawning season.		A blue cod survey be conducted in Double Cove before any closures in the Marlborough Sounds be implemented.		Limit the number of mussel farms until it is known if they have a negative impact on the blue cod fisheries.		Close the Marlborough Sounds to all commercial fishing, creating an amateur only fishing area.		Establish "no take" areas for blue cod only.	
A	D	A	D	A	D	A	D	A	D	A	D	A	D
68	32	94	6	69	31	84	16	79	21	91	9	74	26

## Rationale for Management Options

### *Overview of approach*

- 32 Having considered submissions and discussions from stakeholders and individuals, MFish recommends that most of the initial proposals in the IPP should not progress at this time. This is because of low support by most stakeholders. Instead, MFish considers the implementation of temporary ‘no-take’ areas for blue cod in the enclosed Marlborough Sounds is the only measure that achieves the short-term management objectives and responds to feedback received.
- 33 MFish is currently working with tangata whenua and stakeholders to develop a CIFF Plan to progress long-term management objectives and strategies for the main CIFF fishstocks including the Challenger blue cod fishery (which includes the Marlborough Sounds). MFish intends to review the above interim objectives with stakeholders when developing the CIFF Plan to agree on a longer-term approach for the Marlborough Sounds blue cod fishery. MFish anticipates the CIFF Plan will be developed and ready for consultation within the next 12 to 18 months, and implemented before the proposed ‘no-take’ areas are scheduled to reopen.
- 34 MFish considers the final proposals are short-term measures only. The intention of these proposals is to stop further depletion of blue cod within the inner and mid-areas of the Marlborough Sounds, and allow the community to decide on a longer-term management strategy. During the interim period of the proposed closure, it is essential that you direct the CIFF Fisheries Plan Advisory Group to work with community stakeholder groups to look at measures to ensure the long-term sustainability of the Marlborough Sounds blue cod fishery.
- 35 The principal approach MFish proposes in this FAP is the implementation of temporary ‘no-take’ areas for recreational blue cod fishing only. This is because the original proposal in the IPP to close areas to all hook and line fishing was very unpopular. A number of stakeholder groups proposed blue cod ‘no-take’ areas for the enclosed Marlborough Sounds. In addition, the requirement for recreational fishers to land whole or gutted blue cod will improve compliance with the amateur MLS. MFish believes these measures are necessary to provide greater certainty in reducing recreational harvest levels of blue cod and to allow the rebuilding of localised blue cod populations.
- 36 MFish recognises there are many other factors influencing the depletion of blue cod populations in the Marlborough Sounds. While fishing pressure has had a significant impact on blue cod abundance, both land-based activities (i.e. changes in land-use, forestry effects) and marine-based activities (i.e. fishing, marine farming, tourism) are also likely to contribute to the current state of the fishery. MFish concurs with many submitters that an ecosystem-based management approach is desirable. This longer-term approach should be considered by the CIFF Plan in the interim period of the proposed temporary closures.

### *Temporary closed areas*

- 37 The proposed 'no-take' areas for blue cod will stop recreational fishers from targeting blue cod in the depleted areas of the Marlborough Sounds. This approach is specific to blue cod only. Recreational fishing for other finfish species within the 'no-take' areas will continue unaffected (but subject to all other fishing restrictions that apply to the affected areas).
- 38 You need to consider whether the Tory Channel should be included in the 'no-take' area for blue cod. There is anecdotal evidence from recreational fishers and NIWA that blue cod are not depleted within the Tory Channel. However, MFish believes there is a high risk of localised depletion of blue cod populations within this area. This is as a direct consequence of the relatively close proximity to populated areas and through an expected increase in recreational fishing effort as fishers seek alternative areas in which to catch blue cod.
- 39 MFish considers it appropriate to review the blue cod 'no-take' areas once information from the next blue cod abundance survey (scheduled for August 2011) becomes available. This survey should provide some information on whether the proposed management measures are assisting the Marlborough Sounds blue cod fishery to rebuild. This review is important to assess the success of the 'no-take' areas and ensure there is consideration for appropriate management criteria prior to re-opening. MFish anticipates this new information should become available to review the fishery in time for 1 October 2012. You should direct the CIFF Fisheries Plan Advisory Group to set review criteria to evaluate the success and need to maintain the proposed blue cod 'no-take' areas.
- 40 You need to be aware that closing areas to recreational blue cod fishing for a specified period is unlikely to provide sufficient time for depleted populations to re-establish. Rather, the period should allow a base level of both juveniles and adult blue cod to increase, and provide a window of opportunity for the community to focus on development and acting on longer-term strategies for the Marlborough Sounds blue cod fishery.
- 41 MFish anticipates the 'no-take' areas will cause an increase in fishing effort in areas remaining open to taking blue cod. Populations of blue cod are considerably higher in the outer areas of the Marlborough Sounds and therefore less vulnerable to depletion in the short-term. Furthermore, the exposure of the coastline and rising fuel prices provide a degree of control on recreational fishing pressure. MFish considers that blue cod populations within the open areas do require additional long-term management measures to prevent localised depletion from fishing, but that these measures should be progressed through the development of the CIFF plan.
- 42 MFish believes the decline in blue cod abundance is not attributable to commercial fishing. However, many stakeholder groups have suggested that commercial finfishing should be excluded from any 'no-take' area. MFish is unable to consider this proposal as this time as the IPP did not include this in the discussion, and s 311 of the Act requires the use of a dispute resolution

process before areas can be closed to commercial fishing to create recreational fishing only zones. The main issue concerning the Marlborough Sounds blue cod fishery is the localised depletion of populations due to high recreational fishing pressure. Commercial catch information indicates there is no targeting of blue cod in the proposed closed areas and bycatch across the whole Marlborough Sounds and statistical area 17 is very low (i.e. less than 2 tonnes of blue cod in 2007). MFish will continue to work with the recreational and commercial sectors to explore ways to mitigate the impacts of commercial bycatch of blue cod within the Marlborough Sounds.

### ***Requirement to land whole or gutted blue cod***

- 43 MFish considers it is appropriate to require recreational fishers to land whole or gutted blue cod within the Marlborough Sounds Area to increase compliance with the amateur MLS. MFish compliance officers inspecting recreational fishers' catches frequently come across bins of fish fillets and the new requirement will improve the likelihood of detection while also serving as an additional deterrent to offending. A high level of compliance with the amateur MLS is critical to the management of blue cod in the Marlborough Sounds. This is because blue cod become mature at about 22-27 cm (total fish length) and taking of fish less than 30 cm reduces the breeding capacity of the overall population
- 44 MFish considers the proposed requirement for recreational fishers to land fish whole or gutted represents a small inconvenience to some fishers, outweighed by the benefits of improving the compliance with the amateur MLS. It is necessary to allow landing of gutted fish so that the catch does not spoil. Measurement of gutted fish against the MLS is not as accurate as whole fish, but will allow compliance officers to make an assessment. MFish believes it is appropriate to provide an exemption to the proposed measure to allow personal consumption of blue cod when on a boat. This exemption is consistent with the current regulations for scallop and oyster, and will improve the buy-in from the local fishing community.

### ***Amateur Minimum Legal Size***

- 45 There is strong support from some stakeholders to increase the MLS from 30 cm to 33 cm. The IPP discussed the uncertainty of outcomes of changing the existing amateur MLS for blue cod. Amending the amateur MLS was not included as an option in the IPP because of the risk that any gains under a higher MLS may be countered by a corresponding increase in incidental mortality of returned fish from hook damage and predation. Nevertheless, a large section of the community support increasing the MLS to 33 cm.
- 46 MFish believes that the consideration for changes to the MLS is a longer-term issue that should be discussed through the CIFF plan. The decision to increase the MLS should be based on research on the impact of incidental mortality from recreational fishing practices and post-release predation on the overall blue cod fishery. In addition, the high recapture rates of tagged blue cod indicate that incidental mortality is likely to be compounded by repeat captures; this also requires research.

## ***Penalty clause for Regulation 2D of the Fisheries (Challenger Area Amateur Fishing) Regulations 1986***

47 Regulation 2D of the Fisheries (Challenger Area Amateur Fishing) Regulations 1986 prevents a person from taking or possessing a blue cod that is less than 30 cm in length from the Challenger East Area. The regulation was adopted in 2003 and at the time no penalties were directly associated with breaching it. This has created a situation where fishery officers faced with a breach of this regulation have no other option than to warn the offender. The wording below was included in the 2003 FAP that introduced the measure. This shows a clear intent to have penalties, more specifically infringement notices, serve as a tool for enforcement:

*“MFish agrees enforcement of the proposed daily bag and minimum legal size limits is important if the proposed measures are to achieve the desired outcome of reducing the recreational catch level. MFish intends making full use of the new infringement notices to send a clear message to fishers that non-compliance is not acceptable. The use of infringement notices is a more efficient and effective means of deterring offenders than prosecution through the courts, or using verbal or written warnings”.*

48 For the reasons listed above and as part of this latest effort to improve the health of the blue cod stock, MFish is now proposing that penalties be specified for breaches of this existing regulation.

## **Assessment of Management Options**

### ***Option 1 – Status Quo***

#### *Impact*

49 Under this option, the existing management approach for the Marlborough Sounds blue cod fishery remains unchanged.

50 There is clear evidence that the reduction of the amateur daily bag limit from 6 to 3 blue cod per person in 2003 has not achieved the desired goal of reducing recreational catch levels of blue cod to enable local blue cod populations to rebuild. This is particularly evident in the inner and mid-areas of the Marlborough Sounds. Recreational catches remain significant despite poorer catch rates in the inner and mid-areas. Under the *status quo*, recreational fishing pressure will continue to remain high and will most likely increase further if the planned marina expansions in Waikawa and Picton proceed.

51 Retaining the *status quo* will continue to cause serial depletion of localised blue cod populations, and in some areas this may lead to the disappearance of some populations altogether. Continued localised depletion will prevent the rebuilding of blue cod populations in depleted areas, as well as leading to a transfer of more fishing effort to the outer areas of the Marlborough Sounds as fishers attempt to exploit areas where acceptable catch rates exist. This transfer of fishing effort is likely to cause local depletion issues within the outer areas in the medium-term.

- 52 The potential for non-compliance within the recreational fishery will increase if the blue cod fishery continues to decline. Declining fish numbers leads to ever decreasing catch rates and fishers are tempted to retain fish smaller than the MLS.

### *Costs*

- 53 The continued depletion of localised blue cod populations in the Marlborough Sounds has unmeasured implications for the local economy and tourism. Blue cod is the main recreational fishery within the Marlborough Sounds, and depleted populations affect both the immediate recreational fishing sector and the wider community.
- 54 The decline in the Marlborough Sounds blue cod fishery is also likely to have economic implications for the local charter industry. There are a considerable number of charter boats operating in Queen Charlotte Sound and Pelorus Sound that take tourists and resident fishers into the Marlborough Sounds to catch fish. Given the importance of blue cod to the local recreational fishery, many charter boats specifically target this species, particularly in the outer areas. A decline in blue cod populations may dissuade some recreational fishers from using this service, although fishers will still be able to catch a range of other 'recreationally valued' fish species including snapper, kahawai and groper. The failure to ensure a sustainable and continued blue cod fishery could reduce the economic viability of some charter boat operations in the medium and long-term.

### *Benefits*

- 55 There are no benefits in maintaining the *status quo*. This approach would avoid the costs of the proposed measures to the community and fiscal costs for changing regulations, raising community awareness, and compliance however these benefits would be outweighed by the impacts of the depleted blue cod fishery to the fishers and wider community of the Marlborough Sounds.
- 56 The majority of submitters do not support the *status quo*.

### ***Option 2 – 'No-take' areas for blue cod in the enclosed Marlborough Sounds (not including Tory Channel)***

#### *Impact*

- 57 This option will prevent recreational fishers from taking blue cod within defined 'no-take' areas of the Marlborough Sounds. The proposed area closures will apply between 1 October 2008 and 1 October 2012.
- 58 Under this option, recreational fishers will still be able to catch other 'recreationally-valued' species such as snapper, kahawai and gurnard within the proposed 'no-take' areas. Fishers may continue to inevitably catch blue cod as bycatch, but fishers will be required to return these fish immediately back to the sea.
- 59 Many of the impacts associated with the proposed 'no-take' areas are already occurring within the inner and mid-areas of the Marlborough Sounds. This is

because recreational fishers are currently exhibiting problems in catching their amateur daily bag limit of blue cod as a direct consequence of depleted blue cod populations in many areas of the Marlborough Sounds. As a result, recreational fishers already travel to the outer areas to attain reasonable catch rates of blue cod.

- 60 The outer areas of the Marlborough Sounds, which would remain open under this proposal, are more exposed to weather and sea conditions. The more exposed conditions and greater travel distance will favour fishers with access to larger boats.
- 61 Under this option, there is a risk that Tory Channel will become depleted of blue cod as fishers transfer into this area to catch blue cod. This risk can be managed by including Tory Channel as part of the 'no-take' area and this is considered under Option 3.
- 62 Many recreational fishers wishing to target blue cod will choose to fish adjacent areas such as Okiwi Bay (48 km from Havelock) and Port Underwood (18 km from Picton). There is insufficient information to assess the risk of fishing on local blue cod populations within these areas.
- 63 There are likely to be difficulties associated with enforcing the proposed 'no-take' areas, as offending fishers would need to be caught in the act of removing blue cod from the area and then retaining it. Without witnessing the removal of the fish from the prohibited area, it would be difficult to ascertain whether the fish came from within the closed area. As such, the proposed 'no-take' areas will require recreational fishers to demonstrate a high level of voluntary compliance and self-policing for the proposed 'no-take' areas to be effective in achieving the goals set out in this paper. Imposing higher penalties for non-compliance with the 'no-take' areas will provide a greater deterrent. A discussion on proposed penalties is included below.

### *Costs*

- 64 There is insufficient information to evaluate the costs of implementing the proposed 'no-take' areas on both recreational fishers and the wider community. MFish has identified the following potential costs for recreational fishers wishing to take blue cod for the duration of the closure period:
- Local recreational fishers will be required to travel further by boat or car to access open areas - this additional travel will incur an increase in costs for fuel and time;
  - Non-resident fishers may choose to fish for blue cod in other locations such as Kaikoura or Moeraki during the duration of the closure period. While there is no available information to assess this impact, it is likely that there will be a reduction in economic return to the local region due to less spending on accommodation, food, etc.



### *Benefits*

- 65 MFish considers the proposed 'no-take' areas will significantly reduce the quantity of blue cod extracted by the recreational sector in the depleted areas. Recreational blue cod fishing is the most significant factor in the decline of localised blue cod populations within many areas of the Marlborough Sounds. MFish considers it is necessary to prohibit the taking of blue cod in the proposed closed areas to allow depleted blue cod populations to rebuild. The proposed 'no-take' areas will give greater certainty of rebuilding these populations back to higher levels.
- 66 The proposed 'no-take' areas are specific to blue cod fishing only. This approach enables recreational fishers to continue to catch other finfish species. As such, MFish anticipates there will be considerable community 'buy-in' on the proposed management measure.
- 67 The proposed four-year duration for the 'no-take' areas will allow time for the community, representative stakeholder groups and the CIFF Plan to work on longer-term strategies for blue cod management in the Marlborough Sounds.

### ***Option 3 – Temporary closure for the taking of blue cod in the enclosed Marlborough Sounds including the Tory Channel***

#### *Impact*

- 68 This option extends the proposed 'no-take' areas for blue cod fishing to include Tory Channel.
- 69 The proposed temporary closures apply to the taking of blue cod only and do not affect the utilisation of any other species by recreational fishers.
- 70 Anecdotal information from fishers and NIWA suggests the Tory Channel has a good population of blue cod. The Tory Channel is a popular area for recreational fishers and charter vessels. A 'no-take' closure in this area will increase travel and fuel costs for fishers targeting blue cod as they will need to travel further to reach areas where blue cod can legally be taken.
- 71 The other impacts and risk assessment described in Option 2 apply here.

#### *Costs*

- 72 There will be an increase in fuel overheads for recreational boat owners and charter operators out of Picton and Waikawa who wish to target blue cod. This may affect the profitability of their businesses. MFish does not currently know how many charter operators specifically target blue cod in the Tory Channel.
- 73 MFish is currently engaging with the charter boat industry to pre-consult on future registration and reporting. Only four charter operators who operate out of Picton and Waikawa, which are the nearest ports to the Tory Channel, have responded to the pre-consultation
- 74 The additional costs for Option 2 apply here.

### *Benefits*

- 75 MFish believes the application of the enclosed Marlborough Sounds ‘no-take’ areas as described in Option 2 will leave the Tory Channel vulnerable to depletion of blue cod. This is because of the closer proximity of the Tory Channel to Picton and Waikawa from the outer boundary of the proposed closure. In addition, the Tory Channel is sheltered and popular with fishers.
- 76 Applying the proposed ‘no-take’ closure for blue cod to include Tory Channel will ensure the transfer of fishing effort does not deplete this waterway. In addition, preventing harvesting of blue cod within the Tory Channel may assist with the repopulation of adjacent areas of Queen Charlotte Sound.

### *Additional measures*

*Requirement for recreational fishers to land blue cod in a whole or gutted state only.*

#### *Impact*

- 77 The proposed requirement for fishers to land blue cod whole or gutted except when consumed on board a boat will be an inconvenience for some fishers. The existing bag limit of three fish equates to a small amount of extra space used for storage of kept fish.
- 78 Requiring fishers to land blue cod whole will make it easier for compliance officers to quickly establish whether or not the blue cod is of legal size. This requirement will not prevent individuals from landing filleted blue cod outside of the Marlborough Sounds area or any other fish species from being filleted within the Marlborough Sounds. This latter aspect creates the potential for fishers to conceal undersized blue cod amongst other species of filleted fish.
- 79 The exemption for individuals to consume filleted blue cod on board a boat further limits the timeframe to detect potential offending to the brief period when fishers are landing their catch. This limited window of opportunity for fishery officers along with the earlier mentioned means of circumvention will challenge enforcement of this measure. Therefore, this restriction will also rely on a large level of community buy-in and voluntary compliance.
- 80 There are currently no other regulations that specifically require fishers to land a finfish species whole or gutted.

#### *Costs*

- 81 The proposed measure may lead to an increase in blue cod frames being filleted and discarded at ports.
- 82 Some recreational fishers and charter operators may need to purchase larger storage facilities to accommodate whole blue cod. MFish believes that the bag limit of three blue cod per person per day and relatively small size of the fish (30–45 cm) will incur a small cost to a minority of boat owners.

### *Benefits*

- 83 The proposed measure will improve the compliance with the recreational MLS by making it easier to detect offending and by providing an additional form of deterrence.
- 84 Including an exemption to allow fishers to consume blue cod on board will improve buy-in from fishers and is consistent with the current regulations for scallop and oyster.

### ***Amend the Fisheries (Challenger Area Amateur Fishing) Regulations 1986 and the Fisheries (Infringement Offences) Regulations 2001***

#### *Benefits*

- 85 Regulation 2D of the Fisheries (Challenger Area Amateur Fishing) Regulations 1986 prevents a person from taking or possessing a blue cod that is less than 30 cm in length from the Challenger East Area. The regulation was adopted in 2003 and at the time no penalties were directly associated with breaching it. This has created a situation where fishery officers faced with a breach of this regulation have no other option than to warn the offender.
- 86 MFish is now proposing that penalties be specified for breaches of Regulation 2D of the Fisheries (Challenger Area Amateur Fishing) Regulations 1986. This will allow compliance officers to impose penalties on fishers who infringe the MLS for blue cod and increase the deterrent effect.

### ***Other Management Controls***

#### *Infringement Notices*

- 87 MFish believes the acute local depletion concerns for the Marlborough Sounds blue cod fishery justify penalties for infringement offences in these blue cod 'no-take' areas above levels currently applying in other areas. Current infringement penalties for 'no-take' areas in Double Cove, Marlborough Sounds (all fish) and Fiordland (blue cod) are set at \$250. MFish believe that a higher infringement offences penalty is appropriate for the proposed blue cod 'no-take' areas in the Marlborough Sounds. This higher infringement offences penalty should be set at a level that will provide a greater deterrent effect having regard to the lower detection rates that are likely to result from the relatively large areas of the proposed closure. MFish believes that the infringement offences penalty should be set at \$500.

#### *Additional controls proposed in IPP*

- 88 The IPP proposed a number of other options that MFish no longer considers appropriate at this time. These options and the reasons they are not being promoted for your consideration are as follows:
- 89 **Reduce the daily bag limit from three to two blue cod per person.** One quarter of 'direct' submissions and one quarter of the *Fishing Paper* returns ('poll results') support reducing the amateur daily bag limit from three to two blue cod per person. Twenty-nine percent of direct submissions and 74% of

poll results disagree with this proposal. Forty-two percent of direct submissions expressed no opinion on the proposal. The main reasons given for opposing the proposal include the view that blue cod abundance is higher within the Marlborough Sounds than 20 years ago, the IPP did not propose a corresponding decrease to the TACC, and a lower daily bag limit will not achieve a significant reduction in blue cod recreational catches. Some submitters also express concern that the daily bag limit will be applied across the whole of Challenger East, including Tasman and Golden Bays, where there is no evidence of blue cod depletion.

- 90 **Introduce a daily boat limit of six blue cod.** There was general opposition to imposing a new amateur daily bag limit of six blue cod per vessel (regardless of number of fishers on board) Some submitters state this measure will remove the ability for amateur fishers to take their daily bag limit, noting there is no difference between one boat with six fishers and two boats with three fishers. A major stakeholder expressed concern that the proposed boat limit will be applied to other fish species. Several major stakeholders state that if the purpose of the proposed boat limit is to control charter vessels, then a different process aimed at charter vessels specifically is more appropriate. Two major stakeholders suggest an alternative boat limit of between 10 and 12 blue cod per vessel.
- 91 MFish notes the purpose of this proposal is not to control charter vessels, but to limit impact of concentrated recreational fishing on features such as reefs and pinnacles that could occur if a charter boat or any other vessel with a large number of fishers were to fish that feature. Individual features are susceptible to localised depletion as blue cod are known to be very territorial and seldom travel more than a few kilometres from the area where they were recruited.
- 92 **Prohibit accumulation of more than one day's bag limit on multi-day trips.** Stakeholders do not support this proposal on the grounds that such a measure would create inequities between fishers who sleep on board their boats and do not land their daily catch (and therefore are restricted to a single daily bag limit) and fishers who go ashore at night and can take their limit on consecutive days. A major stakeholder has concerns that this proposal could be applied to other finfish species. A major stakeholder believes that being allowed to accumulate no more than two daily bag limits could be a good compromise.
- 93 **Amateur fishers must retain all blue cod at or above the MLS (30cm) and cease targeting blue cod once they have achieved their daily bag limit.** Stakeholders generally opposed this proposal on the grounds that a more effective way to eliminate high grading is to increase the MLS to 33cm so that those blue cod legally taken are worth retaining. A major stakeholder opposes the proposal because they believe MFish's incidental mortality research is wrong, and it will be unfair for fishers to retain 30cm fish when many recreational fishers would only keep 40cm+ fish. A major stakeholder believes that an MLS of 33cm will remove the need to high grade because there is a substantial difference in fillet size between a 30cm and 33cm blue cod. This submitter agrees in principle that high-grading should be avoided, but that this

practise should be encouraged rather than regulated because it is difficult to enforce.

- 94 MFish modelling suggests that fillets from a 33cm male blue cod are around one third heavier (around 510g) than 30cm blue cod (around 380g). This equates to a skin-on fillet-weight of around 300g compared with 225g, or a skin-off fillet-weight of around 200g compared with 150g<sup>11</sup>. On balance, although there is significantly more utility to be gained from a 33cm than a 30cm blue cod, if fishers are to continue to catch and discard even 33cm blue cod in an attempt to land say a 40cm blue cod, the issue of incidental mortality will remain.
- 95 **Introduce regulations to close areas currently voluntarily closed to commercial fishing.** Several major stakeholder oppose prohibiting commercial targeting of blue cod inside the waters between French Pass - Clay Point - Chetwode Island - Cape Jackson - Cape Koamaru on the grounds that this measure does not go far enough in restricting commercial fishing in the Marlborough Sounds. The main reason for this approach is because the proposed measures will still allow commercial fishers to continue to take blue cod as bycatch. Commercial stakeholders do not support this proposal as they consider the main cause of local depletion is recreational fishing and any commercial bycatch of blue cod is very small.
- 96 **Regulate minimum hook size.** A major stakeholder opposes this proposal on the grounds that it is impractical for transit fishers and impossible to enforce. However, stakeholders do support increased education initiatives by MFish on good fishing practices such as using size 6/0 or larger hooks.
- 97 On balance, MFish agrees that regulating for minimum hook size would be problematic, given the difficulty in determining what the target species is, and also the considerable variation in hook dimensions between different manufacturers. MFish agrees that fisher education is more appropriate than regulation with respect to best hook size.
- 98 **Prohibit more than one hook per line and restrict hooks less than size 10 on longlines.** Submitters generally oppose these measures. A major stakeholder opposes these measures because a one hook per line restriction is both impractical for transit fishers and impossible to enforce.
- 99 **Expand the Marlborough Sounds Boundary (proposed by SoundFish).** Some submitters oppose this measure because there are more effective ways of addressing blue cod depletion, and the perceived issue of boats from Wellington and Mana taking more than three blue cod from the Marlborough Sounds. This is discussed in detail below. Several submitters favour reducing the daily bag limit (dbl) in the Central Areas (FMA 2 and FMA 8) from 20 to three blue cod per person.

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<sup>11</sup> Weight of fillet (kg) = a (length in cm)<sup>b</sup> (weight in kg, length in cm) where a = 0.00001 and b = 3.10 (Plenary, May 2007), and using a commercial conversion factor of 1.70 for FIL (fillet, skin on) product state

- 100 Submissions did not provide any new information to suggest that recreational fishers from Wellington or Mana are a significant factor to the decline of blue cod in the Marlborough Sounds. Furthermore, reducing the Central Area daily bag limit to meet the management objectives in the Challenger Area will create a potential grievance for Central fishers since the Central area daily bag limit is set at what is considered a sustainable daily bag limit for the Central area: from the Central area's perspective, there is no sustainability reason to reduce the daily bag limit at this time.

### *Voluntary measures*

#### Commercial voluntary agreements

- 101 There are no regulations in the Marlborough Sounds that prohibit or restrict commercial fishing in preference to recreational fishing arising from decisions taken by the Minister under s 311 of the Fisheries Act 1996 that would otherwise need to be taken into account when determining the allowance for recreational fishing. However, there are substantial areas within the BCO7 quota management area previously established under the Fisheries Act 1983 that are effectively set aside for recreational fishing interests. This situation means that the Marlborough Sounds Area in particular is effectively a non-commercial fishery, with a comparatively small amount of commercial harvest.
- 102 There is an existing voluntary code that restricts the commercial targeting (potting) of blue cod inside the areas between French Pass-Clay Point-Chetwode Island-Cape Jackson-Cape Koamaru. Recreational fishers are concerned that a voluntary agreement does not go far enough to secure any gains made to blue cod populations from a recreational 'no-take' closure. The majority of stakeholder submitters from the consultation (excluding those expressing solely commercial viewpoints) believe an exclusion of all commercial finfishing is required from the 'no-take' areas.
- 103 In 2003, Talley's Fisheries and Challenger Finfisheries Company Ltd implemented a voluntary 'catch-spread' regime as an alternative approach to reducing the TACC of blue cod from 70 tonnes to 47 tonnes. The intention of the regime was to prevent further increases in commercial catches in the outer Marlborough Sounds by placing a limit on the quantity of blue cod on those that target (potting) blue cod. Other quota holders gave their assurance that their effort would be spread throughout Tasman & Golden Bays or the West Coast.
- 104 The voluntary 'catch-spread' regime set the limit of available catch of blue cod for the combined statistical areas of 17 (Marlborough Sounds) and 038 (Tasman and Golden Bays) to 25 tonnes. This agreement worked for the first two years with catches constrained below 25 tonnes. For the two most recent years 2005-06 and 2006-07, the catch has been exceeded by 2 tonnes and 12.7 tonnes respectively. Table 3 details the reported catches for statistical areas 17 and 38.

**Table 3. Reported catches (kg) from Statistical areas 17 and 38**

Fishing Year	Marlborough Sounds & Cloudy Bay Statistical area 17	Tasman & Golden Bays Statistical area 38	Total
2001/02	7,318	4,009	11,327
2002/03	9,898	2,555	12,453
2003/04	8,600	4,172	12,772
2004/05	17,607	2,965	20,572
2005/06	23,235	3,875	<b>27,110</b>
2006/07	<b>25,582</b>	12,192	<b>37,774</b>

- 105 The most recent survey data for blue cod has shown a marked decrease (43% of long-term average) of recruited blue cod greater than or equal to 30cm in the area of East D'Urville Island. Both recreational and commercial fishers take blue cod from this area, whilst it is not possible to apportion catches to any sector, it is important that the commercial fishers closely monitor their catches against the voluntary code. MFish intends to ensure this agreement is monitored and adhered to and will review the agreement within the CIFF plan.

#### Best fishing practices

- 106 Since 1993, voluntary measures have been promoted by MFish and SoundFish through pamphlets and notices at fishing locations and boat ramps to reduce the incidental mortality of blue cod. The best fishing practices include guidance on a range of issues that include using only one hook per line, keeping tension in fishing lines, use of size 6/0 or larger and wide gape hooks, use of barbless hooks, fish handling and release methods. MFish proposes to update these guidelines and work with the recreational stakeholder groups to improve the uptake of 'best fishing practices', such as 'circle hooks' and release tubes. MFish supports increased application of best fishing practices and a system to monitor the adoption of these methods by fishers.
- 107 This existing guidance for fishers to adopt best fishing practices has a key role in minimising the incidental mortality of blue cod, assisting rebuilding of populations, and improving the sustainability of the recreational fishery. However, fisheries compliance reports that adherence to this guidance is low particularly among visiting fishers.
- 108 The low adherence to voluntary guidance gave rise to some of the proposed measures described in the IPP. Subsequent feedback from the IPP consultation shows that recreational fisher stakeholder groups do not want MFish to regulate for hook sizes and numbers.
- 109 MFish believes that to improve the uptake of 'best fishing practices' an enduring information campaign targeted at recreational fishers and tackle retailers will be necessary. Furthermore, stakeholder representatives for

recreational fishers need to ensure they are proactive in improving both the uptake of existing best practices and through innovation.

## Other Management Issues

### *SoundFish Proposed Boundary*

- 110 The IPP included a proposal to change the Marlborough Sounds Area as requested by the community group SoundFish. This proposal aligned the new boundary with the existing Marlborough District Council (MDC) coastal boundary and extended it a further two nautical miles seaward. The intention was a holistic approach to improve management of the wider Marlborough Sounds. The proposed boundary extends from Cape Soucis in the west to Whites Bay in the east and out to two nautical miles from shore. A small majority of submitters did not support the boundary proposal
- 111 MFish believes there are some management gains for blue cod in the Marlborough Sounds under this proposal. In particular, the inclusion of Port Underwood and Croisilles Harbour would allow consistent management of blue cod within these adjacent areas. However, the proposed changes have implications for:
- The higher bag limit for snapper on the western boundary of the Marlborough Sounds - this was not an intention of the IPP;
  - The proposal to include the boundary 2nm off the eastern side overlaps Fisheries Management Area (FMA8). This is beyond the scope of the consultation and would require further consultation.
- 112 MFish recommends that discussions and future changes to the Marlborough Sounds Boundary are included as part of the wider work of the CIFF plan.

### *Mataitai Reserve application*

- 113 Te Atiawa Manawhenua ki te Tau Ihu Trust applied for a Mataitai reserve for the Tory Channel in 2005. This application remained dormant until recently when the applicants indicated some amendments were to be made to the application and that it should proceed. MFish is waiting for the amendment for this application.

### *Research needs*

- 114 To guide management and improve understanding of the fishery by both MFish and stakeholders there is a need to determine the information requirements and prioritise the corresponding research.
- 115 The next blue cod abundance survey is scheduled for 2011. The duration of three years until the next survey may be sufficient to detect a change. Several submissions requested annual surveys for the duration of the closure. MFish does not believe higher frequencies of surveys are necessary to determine the success of the proposed 'no-take' areas. Previous surveys undertaken within



the Marlborough Sounds already provide a baseline for the proposed ‘no-take’ areas.

- 116 Several submitters have requested expansion of the Marlborough Sounds blue cod abundance surveys to include the areas around Croisilles Harbour and Port Underwood. Currently there is no baseline information on blue cod abundance for these areas, which are vulnerable to a transfer of fishing pressure because of the proposed closures. MFish agrees that it is appropriate to survey Croisilles Harbour and Port Underwood as soon as practicable.
- 117 MFish recognises there are extensive research requirements for the Marlborough Sounds. These requirements will need prioritisation against a limited research budget. The following research has been identified as priority needs for blue cod:
- Determine baseline relative abundance estimates for blue cod in Croisilles Harbour and Port Underwood;
  - Quantify recreational landings from the Marlborough Sounds;
  - Evaluate recreational incidental fishing-related mortality for hook-related and predation;
  - Determine an estimate of the total mortality for the fishery and accumulated mortality;
  - Determine the uptake by recreational fishers of ‘best fishing practices’.
- 118 Management consideration for risks and mitigation measures for the final proposals are summarised in Table 4.

**Table 4. Identification of risks and mitigating measures for Option 2 and 3**

<b>Risk</b>	<b>Mitigating measure(s)</b>
<p>Closed areas increase migration and concentration of fishing pressure in open areas causing depletion impacts to these areas.</p>	<p>Ensure temporary closures are only closed for as long as necessary.</p> <p>Monitor impact to vulnerable areas using compliance and recreational fishing network via the TOS Recreational Forum.</p> <p>Discuss measures to reduce harvest levels in adjacent areas through CIFF.</p> <p>Commence an information campaign to improve fisher awareness of best ‘fishing practices’ to reduce incidental mortality of released blue cod such as no high-grading.</p> <p>Review available data from fishing sectors and consider appropriate actions for stakeholder groups through Challenger Finfish Plan.</p> <p>Complete a baseline survey of Port Underwood and Croisilles Harbour, and include these areas in 2011 abundance survey.</p>

<p>Fishers' compliance with new measures is low.</p>	<p>Base measures on feedback from consultation, which should improve the community buy-in and improve compliance rates.</p> <p>MFish compliance will be required to actively inform fishers of changes to regulations and provide information pamphlets. Compliance will monitor fishers' conformity to new regulations as part of existing work in the Marlborough Sounds. In addition, compliance will utilise existing intelligence networks to assist detection of infringements.</p> <p>Implementing a communication plan will improve understanding of changes to regulations, improve awareness of issues facing the fishery, and identify differences in daily bag limit and minimum legal size between areas. Inform key stakeholders such as fishers, tackle retailers and the tourist sector.</p> <p>Update notice boards, website and pamphlets with changes to regulations. Include signage at ports (including Wellington) and headlands showing no take blue cod areas.</p>
<p>Review of survey data for ending or continuing closure leads to disagreement between stakeholders for which action is appropriate.</p>	<p>Through the CIFF plan set clear criteria for opening closed areas based upon science advice and community wishes.</p> <p>Ensure review of data is part of a transparent process managed through the CIFF plan.</p>
<p>Blue cod populations rebuild but are quickly re-depleted in a 'gold rush' soon after fishery is re-opened.</p>	<p>Part of the process to reopen the fishery should review the success of proposed measures, and consider whether they are sufficient to ensure sustainable harvest levels.</p>
<p>Blue cod populations do not rebuild in the inner areas by 2011.</p>	<p>Review survey data in 2011 and consider longer closure period.</p> <p>It may be necessary to decrease the periodicity of the relative biomass survey from four years and increase review period.</p> <p>Stakeholder groups and CIFF to undertake longer-term management measures.</p>

## Statutory Considerations

119 Central to the proposed options are the legal requirements of the Fisheries Act 1996.

### *Purpose- Section 8*

120 Section 8 of the Act describes the purpose of the Act as being “*to provide for the utilisation of fisheries resources while ensuring sustainability*”; this is the core obligation to heed when considering the management options.

### *Environmental Principles-Section 9*

121 Section 9(a) requires that: “associated or dependant species should be maintained above a level that ensures their long-term viability” Associated or dependent species are defined by the Fisheries Act 1996 as any non-harvest species taken or otherwise affected by the taking of any harvested species. The main methods of harvesting blue cod by recreational fishers are rod fishing, handlining, and longlining. These fishing methods are likely to catch a range of other finfish species and sometimes benthic material when targeting blue cod. The effects of recreational fishing for blue cod on non-target species have not been quantified, but are likely to be minor.

122 There is no targeting of blue cod by commercial trawling in the Marlborough Sounds. In addition, trawling is prohibited in most areas of the Marlborough Sounds, particular those areas identified as ecologically significant. The effects of trawling in the outer Marlborough Sounds are mitigated through gear restrictions. The main method used to target blue cod is cod-potting. This method has a relatively benign impact on the marine environment and is restricted to the outer Marlborough Sounds and Cook Strait. Catches of non-target species by cod-potting are minor and are generally restricted to octopus and conger eel.

### *Maintaining Biodiversity*

123 Section 9(b) requires that “biological diversity of the aquatic life should be maintained.” Maintaining current fishing pressure within the depleted areas of the Marlborough Sounds threatens the viability of local blue cod populations. There is one marine reserve within the Marlborough Sounds fishery; Long Island-Kokomohua, which incorporates known blue cod habitat. This area acts to protect biodiversity for the purposes of scientific study. Studies of blue cod in the Long Island-Kokomohua marine reserve suggest that closing off areas to fishing can increase biomass within that area, thereby increasing the resident population size.

### *Habitats of Significance*

124 Section 9(c) requires that “a habitat of particular significance for fisheries management should be protected”. The Marlborough Sounds coastal plan identifies a number of areas of ecological significance. These areas lie within areas protected from active fishing methods. MFish has an obligation to avoid

undue adverse effects from marine farming on habitats of significance for fisheries management, and this includes important blue cod habitats.

#### *Information Principles-Section 10*

- 125 Section 10 requires that “decisions should be based on best available information; decision makers should consider any uncertainty in the information available” and “the absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act.”
- 126 MFish has based the assessment of the Marlborough Sounds blue cod fishery on the review of data from the relative abundance surveys conducted by NIWA. This data is the “best *available information*” used to base assessment of the status of blue cod abundance. This information is reliable and subject to peer review. Observations by MFish compliance staff and many recreational fishers support the findings of the surveys.
- 127 When considering the principle causes of the decline the relative biomass surveys, recreational fishing surveys, commercial catch returns and anecdotal returns from fishers and MFish staff all indicate that recreational fishing pressure is the single biggest and immediate impact affecting the fishery.

#### *Consultation-Section 12*

- 128 MFish consulted with all key stakeholder groups across the Top of the South Island. This included meetings with the representatives from following groups: SoundFish, Te Tau Ihu Forum, Pelorus Boat Club, TasFish, the TOS Recreational Forum, and Challenger Finfisheries Management Company Ltd. In addition, MFish attended two public meetings convened by the Marlborough Recreational Fishers Association.
- 129 The consultation document was widely reported across local and national media including newspapers, radio and television. Copies of the consultation document were available for download by the MFish website, distributed from MFish local offices and sent out by post upon request.

#### *Relevant Plans and Strategies-section 11*

- 130 The Fisheries Act 1996 requires consideration of the implications of any proposed sustainability measure on the management strategy for the coastal area in general. Before setting or varying any sustainability measure, the Minister must, under section 11(2) have regard to:
- Any regional policy statement, regional plan or proposed regional plan under the Resource Management Act 1991 and
  - Any management strategy or plan under the Conservation Act 1987 that applies to the coastal marine area.
- 131 The Marlborough Sounds Area falls within the jurisdiction of MDC. MDC is responsible for preparing regional policy statements and proposed resource management plans that relate to the coastal area. Additionally, the Department

of Conservation has a conservation management strategy that applies across the fishery. MFish is not aware of any relevant provisions in these plans or statements that are contravened by current blue cod fishing practices.

## Appendices

### *Further Statutory Considerations*

- 132 **Sections 5(a) and 5(b) – Application of international obligations and Treaty of Waitangi (Fisheries Claims) Settlement Act 1992:** There is a wide range of international obligations relating to fishing (including sustainability and utilisation of fishstocks and maintaining biodiversity). MFish considers issues arising under international obligations and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 are adequately addressed in the management options for this stock.
- 133 **Section 11(2A)-** Before setting or varying any sustainability measure under this Part or making any decision or recommendation under this Act to regulate or control fishing, the Minister must take into account—
- (a) Any conservation services or fisheries services; and
  - (b) Any relevant fisheries plan approved under this Part; and
  - (c) Any decisions not to require conservation services or fisheries services.
- Conservation and fisheries services and any decisions to not require such services are adequately dealt with in the body of this paper. There are no fish plans in force yet for this fishery.
- 134 **Section 297 –General Regulations-**Section 297(1)(a) of the Fisheries Act 1996 allows the making of regulations
- ii) regulating, authorising or prohibiting the taking or possession of fish, aquatic life, or seaweed from any area;
  - iii) regulating or prohibiting the taking or possession of fish, aquatic life, or seaweed at any time, or for any period;
  - vi) regulating or prohibiting the return of fish, aquatic life, or seaweed to any waters;
  - viii) regulating or prohibiting the possession or use of any kind of gear, equipment, or device used for, or related to fishing;
  - x) regulating the number or weight of any fish, aquatic life, or seaweed that may be taken or possessed, whether by reference to any period or on any other basis whatever; and prohibiting the taking or possession of any number or weight of fish, aquatic life, or seaweed that exceeds the specified maximum number or weight;
  - xiii) regulating the methods by, or the circumstances under which, fish, aquatic life, or seaweed may be held, stored, conveyed, or identified, including the use of any containers, marks, or labels;
- 135 **Fisheries (Challenger Area Amateur Fishing) Regulations 1986.** These are the main regulations that control amateur fishing in the Marlborough Sounds.

Any new measures you decide upon will be put in place by amendments to these regulations.

- 136 **Fisheries (Infringement Offences) Regulations 2001**-These regulations specify Infringement Offences and penalties.