



# Review of sustainability and other management controls for 1 October 2013

**Final advice and recommendations for BNS 1,2,3,7 & 8,  
KIN 7, LEA 3, OYS 4, SNA 7, SPE 1, and Deemed Value  
Rates for Inshore and Deepwater stocks**

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# REVIEW OF SUSTAINABILITY MEASURES AND OTHER MANAGEMENT CONTROLS FOR BLUENOSE (BNS 1, 2, 3, 7 & 8)

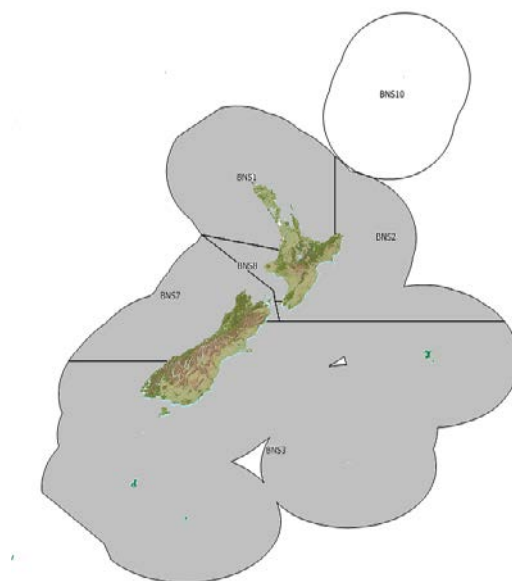


Figure 1: Quota Management Areas (QMAs) for bluenose

## EXECUTIVE SUMMARY

- 1 The Ministry for Primary Industries (MPI) recommends that you either:
  - retain the current combined total allowable catch (TAC) for bluenose (BNS 1, 2, 3, 7 and 8)<sup>1</sup> at 1195 tonnes (t) for the fishing year beginning 1 October 2013 to enable time for further investigation of the current status of the stocks (Option 1 – MPI's preferred option), or
  - complete the planned three-year phased reduction and reduce the combined TAC to 704 t (Option 2).
- 2 To achieve the above combined TAC, MPI recommends that you choose the associated option for TACs, allowances and total allowable commercial catches (TACCs) for BNS 1, 2, 3, 7, and 8 set out in Table 1.
- 3 Information from a bluenose stock assessment in 2011 suggests that current abundance is low. Based on this information, MPI considers that the stocks need to be rebuilt to better ensure sustainable utilisation.
- 4 In 2011, the Minister of Fisheries and Aquaculture agreed to the first stage of a planned three-year phased reduction in bluenose catch limits. The phased reduction is part of a plan aimed at rebuilding bluenose stocks to a level and within a timeframe MPI considers

<sup>1</sup> BNS 10 has a TACC of 10 tonnes and no reported catches.

suitable for stocks with biological characteristics like bluenose while mitigating short-term socio-economic costs. The plan is based on estimates from the stock assessment that combined TACs need to be reduced to between 547 t and 840 t to achieve the rebuild.

Table 1: Final Proposals - TACs, TACCs and allowances for BNS 1, 2, 3, 7 and 8

Stock(s)	Option	TAC (t)	TACC (t)	Recreational allowance (t)	Māori customary allowance (t)	Allowance for other sources of fishing-related mortality (t)
Total combined for BNS 1, 2, 3, 7 and 8	1 (Status quo)	1195	1100	63	9	23
	2	704	620	63	9	12
BNS 1	1 (Status quo)	425	400	15	2	8
	2	251	230	15	2	4
BNS 2	1 (Status quo)	474	438	25	2	9
	2	279	247	25	2	5
BNS 3	1 (Status quo)	194	171	18	2	3
	2	114	93	18	2	1
BNS 7	1 (Status quo)	69	62	3	2	2
	2	40	34	3	2	1
BNS 8	1 (Status quo)	33	29	2	1	1
	2	20	16	2	1	1

5 Accordingly, on 1 October 2011, TACs and TACCs for BNS 1, 2 and 3, and customary allowances for all bluenose stocks were reduced. In addition, recreational bag limits for bluenose were reduced to five for all areas in May 2012. TACs and TACCs for BNS 1, 2, 3, 7 and 8 were further reduced on 1 October 2012.

6 Option 2 represents the third and final stage of the planned, phased reduction to catch limits. Recreational and environmental sector submitters are concerned about the sustainability of bluenose stocks and support Option 2.

7 Option 1 (the status quo) allows more time for investigation of new information which, although not yet peer reviewed, creates some uncertainty about the actual status of the bluenose stocks. Option 1 also further mitigates the short-term economic impacts.

8 Commercial sector submissions support Option 1 and propose a research programme to investigate new information about stock abundance, undertake catch sampling and update the stock assessment for bluenose. It would be completed in 2014 and would be expected to inform future decisions about timing and magnitude of any further changes to catch limits.

9 Information provided by commercial submitters suggests that a delay of a year to any further reductions to TACs, TACCs and allowances will not have a significant adverse effect on the rebuild of bluenose stocks. However, based on the 2011 stock assessment, current catch limits are not yet within the range that would allow for a rebuild to the target level within the recommended timeframe. So, unless the proposed new assessment paints a different picture of stock status, reductions are likely to still be required in the near future (possibly in 2014). Any such reductions will require a new decision at that time.

10 You may make changes to the TACs for BNS 1, 2, 3, 7 and 8 under s13 (4) and s13(2) of the Fisheries Act 1996 (the Act), while you would make changes to TACCs under s 20(2) after making the allowances provided for in s 21 of the Act. Although discussion in this paper sometimes refers to combined TACs, TACCs and allowances, s 13 of the Act requires you to make separate decisions for each bluenose stock.

## KEY CONSIDERATIONS

### Need to Act

11 A bluenose stock assessment in 2011 indicated that the then combined TACs for the five bluenose QMAs were unsustainable. The stock assessment currently provides the best available information on stock status and how future stock size is expected to change under different catch levels.

12 For all bluenose stocks combined, deterministic BMSY<sup>2</sup> is calculated to be 15-25% of the virgin biomass ( $B_0$  - the average biomass of the stock in the years before fishing started). But, MPI does not consider this to be a suitable target for management of bluenose fisheries. First, it assumes a harvest strategy that is unrealistic in that it involves perfect knowledge including catch and biological information, a constant-exploitation management strategy with annual changes in TACs (which are unlikely to happen in New Zealand) and perfect management implementation of the TACs and catch splits with no under- or overruns. Second, it assumes perfect knowledge of the stock-recruit relationship, which is actually not well known. Third, it would be very difficult with such a low biomass target to avoid the biomass falling below the default soft limit reference point. Therefore, the actual target needs to be above this theoretical optimum. So, for bluenose, the Plenary has accepted a higher proxy for  $B_{MSY}$  as the minimum target biomass level.

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<sup>2</sup>  $B_{MSY}$  is the biomass that would support the maximum sustainable yield.

13 The stock assessment, which assumed a single New Zealand biological stock for bluenose, estimated current biomass to be between 14 and 27%  $B_0$ . This indicates current bluenose stock size ( $B_{\text{CURRENT}}$ ) is below the target biomass level accepted by the Plenary (40%  $B_0$ ).

14 There is a 40-60% probability that  $B_{\text{CURRENT}}$  is below the soft limit reference point (20%  $B_0$ ).<sup>3</sup> A stock's soft limit is the biomass limit below which MPI considers the requirement for a formal, time-constrained rebuilding plan is triggered.

15 Model projections from the stock assessment indicated that the TACs prior to October 2010 would cause the stock to continue to decline and that it would fall below the hard limit.<sup>4</sup> A hard limit is the biomass limit below which MPI believes fisheries should be considered for closure because stocks may be at risk of collapse.

## Rebuild Plan

16 The Harvest Strategy Standard for New Zealand's Fisheries<sup>5</sup> (the Harvest Strategy Standard) provides for targets and limits to be set for fisheries and fish stocks. MPI plans to work with stakeholders to develop a harvest strategy for bluenose. This will confirm a minimum target reference level, and hard and soft limits. In the interim, a proxy for  $B_{\text{MSY}} - 40\% B_0$  – has been accepted by the Plenary (and MPI, pending further discussion with stakeholders) as the minimum target reference level. This is consistent with the Harvest Strategy Standard guidance on low productivity stocks, like bluenose.

17 According to the Harvest Strategy Standard, where a stock size is below the soft limit, a formal time-constrained rebuilding plan is required. The Draft Operational Guidelines for New Zealand's Harvest Strategy Standard<sup>6</sup> (the HSS Guidelines) set out the recommended timeframe for such rebuilding plans. This is expressed relative to the time that it would take the stock to return to the target level in the absence of fishing ( $T_{\text{MIN}}$ ). The HSS Guidelines suggest the plan should allow stocks to be rebuilt to the target level between  $T_{\text{MIN}}$  and  $2x T_{\text{MIN}}$ . MPI notes that you are not obliged to follow the Harvest Strategy Standard or the HSS Guidelines, but MPI considers they are consistent with your obligations under the Act.

18 The stock assessment in 2011 estimated that  $T_{\text{MIN}}$  for bluenose is between 10 and 13 years. It estimated the maximum combined catches (TACs) that would allow for a rebuild to 40%  $B_0$  in  $2x T_{\text{MIN}}$  (20 to 26 years) range between 574 and 840 t.

19 In 2011, the Minister of Fisheries and Aquaculture agreed to a plan, based on a single stock model, aimed at rebuilding bluenose stocks to the target<sup>7</sup> within  $2x T_{\text{MIN}}$  (20-26 years).

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<sup>3</sup> The *Harvest Strategy Standard* default soft limit for bluenose.

<sup>4</sup> The *Harvest Strategy Standard* default hard limit for BNS is 10% $B_0$ .

<sup>5</sup> Ministry of Fisheries, 2008.

<sup>6</sup> Ministry of Fisheries, 2008

<sup>7</sup> 40% $B_0$

This involved a three-year phased reduction to catch limits (see Table 2) in order to mitigate short-term socio-economic costs.

20 The first two stages of the rebuild plan have already been carried out, with reductions to TACs, TACCs, some allowances and recreational bag limits<sup>8</sup>, and increases to deemed values to incentivise fishers to balance catch with annual catch entitlement (ACE). However, the plan requires you to make separate decisions in regard to catch limits for 2013.

Table 2: 2011 Rebuild Plan – TACs, TACCs and allowances, by year.

Year	Total combined TAC (t)	Total combined TACC (t)	Recreational allowance (t)	Māori customary allowance (t)	Allowance for other sources of fishing-related mortality (t)
2010/11	2477	2325	63	42	47
2011/12	1685	1580	63	9	33
2012/13 (Current settings)	1195	1100	63	9	22
2013/14	704	620	63	9	12

### Relevant Fishery Information

21 Bluenose is a long-lived species, with an estimated maximum age of 76 years, and has a low natural mortality.<sup>9</sup> These biological characteristics (high longevity and low natural mortality) indicate that bluenose is a low productivity stock. Low productivity stocks are more likely to decline rapidly under high fishing pressure and take a long time to rebuild from low levels of abundance. A more cautious approach to fisheries management is therefore desirable for low productivity stocks relative to more productive species.

22 Biological stock boundaries are not known for New Zealand bluenose, but similarities in catch-per-unit-effort (CPUE) trends between each of the five bluenose QMAs suggests there may be just one biological stock across all these areas, or a strong relationship between the fish in these areas. Tagging studies have shown the species is capable of extensive migration, which suggests the single stock hypothesis is plausible. However, there is no conclusive information available to confirm this hypothesis or alternate hypotheses of stock relationships.

### Commercial

23 The commercial fishing sector harvests the greatest portion of bluenose. The Plenary identified commercial harvest levels as a key driver of the decline in stock abundance. The Plenary noted other drivers such as recruitment and environmental factors may also have

<sup>8</sup> The recreational bag limit reductions mean that limit is now 5 for all areas. The reductions came into effect in May 2012

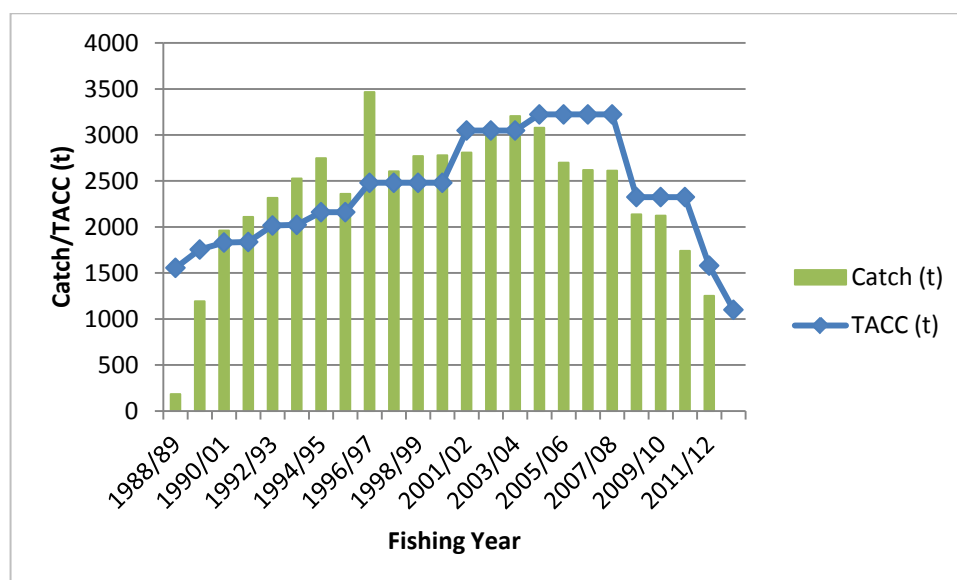
<sup>9</sup> The Plenary considers natural mortality rate, M, is unlikely to be great than 0.1

contributed. Total reported landings of bluenose by the commercial sector are shown below in Figure 2 (and by QMA in Appendix 1, Figure 3).

24 Between 1992 and 2009, all bluenose fishstocks were included, for at least some of the time, in Adaptive Management Programmes (AMPs). The goal of the AMPs was to increase commercial utilisation in low knowledge stocks while providing a cost-effective way of obtaining more information on stock size.

25 Under AMPs, the bluenose combined TACCs increased by over 1000 t (Figure 2). In response to information suggesting declines in abundance in BNS 1, 2, 3, 7 and 8, TACCs in these QMAs were reduced in 2008 to a combined TACC of 2480 t and additional research was initiated. This included the stock assessment, which forms the basis of the management response and rebuild plan.

Figure 2: Combined reported landings (t) of bluenose and total TACCs (t) from 1988/89 to 2011/12 for BNS 1, 2, 3, 7 and 8.



26 BNS 1 and BNS 2 are the largest of the five bluenose fisheries. BNS 2 is primarily taken by target bottom longline fishing. There is also a substantial target line fishery for bluenose in the Bay of Plenty and off Northland (BNS 1). A small amount of target setnet fishing for bluenose occurred in the Bay of Plenty until 1999, and occurs sporadically in BNS 2. Setnet catches off the east coast of the South Island have been a mix of target and bycatch in ling and hapuku target sets.

27 Target line fisheries for bluenose exist off the west coast of the South Island (BNS 7) and the central west coast of the North Island (BNS 8). Bluenose in BNS 7 is also taken as bycatch in the hoki trawl fishery.



28 In BNS 3, although historically a bycatch in ling and hāpuku target fisheries, target bluenose lining has predominated since 2003/04. There has been a consistent bycatch of bluenose in the alfonsino target bottom trawl fishery and bluenose has been targeted in a mid-water trawl fishery since the early 2000s. The bottom trawl fishery in BNS 3 has diminished.

29 Bluenose is often taken in conjunction with commercial fisheries such as midwater trawling for alfonsino and line fishing for ling, hāpuku and bass. Over the ten years to 2011, reported bycatch of bluenose ranged from around 440 tonnes to 1200 tonnes. Industry has suggested that unavoidable bycatch of bluenose is most likely to be an issue for line fisheries targeting species that shoal with bluenose, such as hāpuku and ling. In recent years, approximately 40% of reported bycatch came from line fishing for these species.

30 The proportions of catch and bycatch in BNS 1, 2, 3, 7 and 8 are shown in Appendix 1 (Figure 4).

## Recreational

31 The total combined recreational allowances for all bluenose QMAs is 63 tonnes. This allowance level is based on 2000/01 diary survey estimates of recreational catch. However, information on recreational catch of bluenose is uncertain.<sup>10</sup> Anecdotal information from Recreational Forum members suggests recreational fisher interest in bluenose may have increased in recent years.

32 To obtain better information on recreational harvests for a range of stocks, in 2010, MPI commissioned new recreational research (a national panel survey during 2011-12) to obtain better harvest estimates for a range of stocks. Estimates from the panel survey are available for bluenose, but these are based on a relatively small number of events and fishers, and as a result are subject to a relatively high uncertainty. They also do not include amateur catch taken on charter vessels or by commercial fishers under s111 approvals.<sup>11</sup>

33 The estimated recreational catch for BNS 1, 2, 3, 7 and 8 combined is 34.8 tonnes. This suggests that across these QMAs, the 2011/12 recreational catch was well within the combined allowances set for those areas. However, the estimate for BNS 1 is 28.15 tonnes (CV12 40%) and the s111 reported catch was 1.06 tonnes. If accurate, this would put recreational catch in excess of the recreational allowance for that area.

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<sup>10</sup>The Recreational Technical Working Group has indicated its concerns with telephone/diary surveys. The following summarises that group's views on the estimates:

*"the harvest estimates from the diary surveys should be used only with the following qualifications: a) they may be very inaccurate; b) the 1996 and earlier surveys contain a methodological error; and, c) the 2000 and 2001 harvest estimates are implausibly high for many important fisheries."*

<sup>11</sup> Section 111 of the Act allows for recreational take from commercial vessels with prior approval from MPI's Director General.

<sup>12</sup> Coefficient of variation: a statistic commonly used to represent variability or uncertainty. For example, if a harvest estimate has a CV of 40%, this means that the error in the estimate will typically be about 40% of the estimate. So, the true value in this case will likely be within the range  $28.15 \pm 11.26$  tonnes (11.26 being 40 % of 28.15).

## Māori Customary

34 Information on customary Māori catch of bluenose is incomplete and uncertain. For those tangata whenua groups operating under the customary fishing regulations,<sup>13</sup> Tangata Tiaki/Kaitiaki are required to provide MPI with information on customary harvest of fish. However, for those tangata whenua groups still operating under regulations 27 and 27A of the Fisheries (Amateur Fishing) Regulations 1986, reporting is not mandatory.

35 There is one reported authorisation for BNS 7 in the Cook Strait for the April-June 2011 quarter; the quantity approved was 30 (with no unit of measure given) and no actual quantity harvested was declared. There is also one reported authorisation for BNS 3 for the October-December 2012 quarter; the quantity approved was one (also with no unit of measure) and it was declared as harvested. No other customary authorisations have been reported for bluenose in any QMA since 2007. This may indicate that tangata whenua use of customary Māori harvesting rights for taking bluenose (as opposed to commercial or recreational) is low at this time or it may indicate there is an impediment (eg lack of appropriate vessels or gear) to customary fishers accessing bluenose.

36 Iwi fisheries forums, and the plans they develop, provide for iwi input and participation into fisheries planning processes. Bluenose stocks are part of various iwi fisheries management plans as follows:

- BNS 1 – is included in the Te Hiku o Te Ika Fisheries Management Plan (the Te Hiku Plan). The Te Hiku Plan was ratified in March 2012 by iwi representatives of the Te Hiku Fisheries Forum.<sup>14</sup> For Te Hiku o Te Ika, bluenose is identified as a taonga species.
- BNS 2 – There is currently no iwi forum plan that includes BNS 2. However, MPI invited local iwi to provide information or comments on the proposals in this paper.
- BNS 3 and 7 – are found in the area covered by the Te Waipounamu Iwi Forum Fisheries Plan 2011/16 developed by Te Waka a Māui me Ona Toka Forum.<sup>15</sup> Te Waka a Māui me Ona Toka regard all species as taonga species.<sup>16</sup>
- BNS 8 – Te Tai Hauāuru Fisheries Forum<sup>17</sup> have also finalised an iwi forum plan. BNS 8 fall within the area to be covered by that plan. Te Tai Hauāuru regard all species as taonga species.

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<sup>13</sup> Fisheries (Kaimoana Customary Fishing) Regulations 1998 and Fisheries (South Island Customary Fishing) Regulations 1999

<sup>14</sup> Te Hiku o Te Ika Fisheries Forum comprises mandated representatives from: Ngati Kuri Trust Board Inc., Te Urungi o Ngati Kuri Ltd, Te Runanga Nui o Te Aupouri Trust, Te Aupouri Fisheries Ltd, Nga Taonga o Ngai Takoto Trust, Ngai Takoto Holdings Ltd, Te Runanga o Te Rarawa and Te Waka Pupuri Putea Ltd

<sup>15</sup> Te Waka a Māui me Ōna Toka Forum includes representatives of Ngāti Toa, Te Atiawa, Ngāti Rarua, Ngāti Apa ki Te Ra To, Ngāti Kuia, Rangitane, Ngāti Koata, Ngāti Tama and Ngāi Tahu.

<sup>16</sup> However, bluenose is not specifically identified as such in the Forum's plan.

<sup>17</sup> Te Tai Hauāuru Fisheries Forum is made up of mandated iwi representatives from all of the iwi between the Mokau river and Waikanae. However, some iwi are not currently in a position to engage and have not signed the Forum's plan. Those members of the Forum who signed the Forum's plan include: Ngati Mutunga, Te Ati Awa, Te Ati Haunui a Paparangi, Ngati Apa, Ngati Hauiti, Rangitane o Manawatu, Muaupoko, Ngati Raukawa and Ati Awa Ki Whakarongotai.

37 Species that are priorities for iwi for management action will be identified through ongoing dialogue between iwi and MPI as part of MPI's annual fisheries planning processes. No additional actions have been proposed for bluenose.

## CONSULTATION

38 An initial position paper (IPP) was released on 12 July 2012. The two options proposed in the IPP were the same as set out in Table 1 above.

## SUBMISSIONS

39 MPI received 14 submissions on the IPP from:

- Area 2 Inshore Finfish Management Company Limited (Area 2)
- Environment and Conservation Organisations of NZ Inc. (ECO)
- Fisheries Inshore New Zealand (FINZ)
- FMA 2 & 8 Recreational Forum (the Forum)
- Greg Goodall
- Iwi Collective Partnership (ICP)
- New Zealand Recreational Fishing Council (NZRFC)
- Ngati Porou Seafoods Limited (NPSL)
- Pelorus Boating Club Inc (Pelorus)
- Sanford Limited (Sanford)
- Southern Inshore Fisheries Management Company Limited (SIF)
- Talley's Group Limited<sup>18</sup> (Talley's)
- Tasman and Sounds Recreational Fishers' Association Inc. (TASFISH), and
- Te Ohu Kaimoana (TOKM).

40 Copies of all submissions are attached for your reference.

41 All eight commercial sector submissions support Option 1 (the status quo). The remaining submissions (five recreational sector submissions and one environmental sector submission) support Option 2 (further reductions to catch limits).

### *Option 1*

42 Option 1 is the status quo; TACs, TACCs and allowances would remain unchanged. Information from the 2011 stock assessment suggests current TACs do not allow for a rebuild of bluenose stocks to 40%  $B_0$  in  $2 \times T_{MIN}$ . So, MPI considers further cuts will likely be necessary in the near future, to ensure bluenose stocks return to a level at or above  $B_{MSY}$ . However, Option 1 allows time for investigation of new information that might support an alternative approach to rebuilding bluenose stocks. Option 1 does not appear to adversely

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<sup>18</sup> Talley's provided a second, supplementary submission. MPI has counted this as one submission with Talley's initial submission.

impact the rebuild in the short term. Option 1 also has the lowest short-term socio-economic costs.

43 Area 2, FINZ, ICP, NPSL, Sanford, SIF, Talley's and TOKM all support Option 1. They advocate for maintaining current catch limits whilst the new information is investigated. They consider such a delay will not put the rebuild within  $2 \times T_{\text{MIN}}$  at risk.

#### *New information*

44 In supporting Option 1, commercial sector submitters rely in particular on new CPUE information from the 2012/13 fishing year that suggests abundance may have improved.

45 The new information is standardised CPUE from both bottom longline and bottom trawl fisheries for the first six months of the current (2012/13) fishing year which appears to show an upward trend. CPUE has been the main abundance indicator relied on for monitoring bluenose and was utilised in the 2011 stock assessment. However, FINZ acknowledges that, 'further work is required before the improved catch rates can be confidently interpreted as evidence of stock rebuilding.'

46 FINZ state that they have the commitment from holders of 75% of quota shares to funding a research programme aimed at investigating the current status of bluenose socks including:

- updating the stock assessment
- co-ordinated catch sampling for all bluenose QMAs, and
- further development and evaluation of management procedures.

47 FINZ states industry will undertake the proposed research programme if TACCs are held at current levels. FINZ also proposes working with those involved in the commercial fishery to 'enhance reporting from fishers on factors considered to have an impact on abundance and CPUE.' FINZ proposes presenting the results of the research to the Working Group in early 2014.<sup>19</sup> Commercial submitters argue further cuts should be deferred to enable time for this work to be carried out.

48 To demonstrate the possible impact on the rebuild of any delay to further cuts, FINZ has provided updated projections based on the 2011 stock assessment assumptions and methodology, and adjusted for actual catches in 2010/11 and 2011/12. FINZ submits the projections show the option to delay is a 'no regrets option' as a delay of a 'year or two' would not adversely affect the rebuild.

#### MPI Response

49 MPI notes that the Northern Inshore Science Working Group (the Working Group) has not reviewed the new CPUE information and, accordingly, it should be treated with

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<sup>19</sup> Full details of the proposed research are set out at paragraph 21 of FINZ's submission.

appropriate caution. However, as this trend was not predicted by the 2011 stock assessment, MPI agrees with the industry submission that further investigation is warranted.

50 The Working Group has also not reviewed the updated projections, but MPI agrees they appear to support the industry position that a delay to the planned further cuts would not adversely impact the rebuild in the short term. MPI notes the same projections also illustrate that, if the results of the proposed research are consistent with the 2011 stock assessment findings, further cuts will still be needed.

51 To mitigate any risk posed by deferring the final phase of the rebuild plan, MPI considers it important to review catch limits again as soon as possible. Therefore, MPI considers that under Option 1 it will be crucial that the proposed new research is undertaken and supporting information provided in a timely manner, ideally in time to inform a review in 2014.

#### *Deemed values*

52 Talley's, FINZ and SIF note that a significant amount of bluenose has been landed in the Chatham Islands (part of BNS 3) during the current fishing year. They argue this is due to a few fishers taking advantage of the lower deemed value rates that apply to bluenose landed in the Chatham Islands. They request that the deemed values are reviewed urgently for the 1 October 2013 fishing year and express concern at the impact of such excess catches on the recovery of the bluenose stocks.

#### MPI Response

53 Special, lower deemed value rates apply in the Chatham Islands,<sup>20</sup> partly in recognition of the increased costs involved in transporting fish landed there. It appears that at least one fisher is taking advantage of the lower rate and targeting bluenose, perhaps without the intention to acquire ACE to cover the catches. This appears to have been a significant contributor to reported catches in BNS 3 reaching 127% of the TACC as at the end of July 2013. Almost 80% the interim deemed value bill (to the end of July) is attributable to one company.

54 This issue has arisen for the first time this year and did not come to MPI's attention until after consultation had begun in regard to deemed values to apply from 1 October 2013. However, MPI acknowledges the potential for excess catches to undermine the rebuild. So, MPI has undertaken urgent, targeted consultation in regard to a proposal to address this issue by bringing the maximum payable deemed value in line with mainland rates for BNS 3. MPI will provide advice to you in regard to this in time for any changes to come into effect for the 1 October 2013 fishing year.

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<sup>20</sup> See cl 7 and Schedule 2 of the Fisheries (Interim and Annual Deemed Values) Notice 2003.

### *Other Comments*

55 Area 2 notes it ‘has consistently supported’ the five year staged reduction proposed by industry in 2011. Area 2 considers that five years ‘was the minimum breathing space needed to better understand the many unknowns before reducing such a valuable fishery to bycatch only.’ Therefore, Area 2 ‘would welcome a Ministerial decision to extend the three year limiting window if only on a year by year basis.’

56 Area 2 considers ‘closer scrutiny on an area by area basis’ may be needed as there is uncertainty about the single stock hypothesis. Therefore, Area 2 considers that future management needs to be ‘mindful’ of the possibility that there may not be a single stock.

57 Area 2 suggests that availability of bluenose is naturally variable due to a range of factors and notes fishermen’s opinions that, ‘the fish always come back’. Area 2 and NPSL both advocate that research should take into account factors that might influence the CPUE.

### MPI Response

58 MPI notes these concerns may be able to be addressed as part of the research programme proposed by FINZ and supported by other industry submitters.

### *Option 2*

59 Under Option 2, the TACs, TACCs and allowances for other sources of fishing related mortality for all stocks (BNS 1, 2, 3, 7 and 8) would be reduced. Option 2 has higher short-term economic costs compared with Options 1, but is more likely to allow for a rebuild to the target within  $2 \times T_{\text{MIN}}$ .

60 The Forum submits that the steps already taken, including reductions to recreational bag limits, ‘combined with a reduction in fisheries related mortality will help in the sustainable management of this fishery.’ ECO’s preference is for a rebuild within 10 years. However, ECO supports Option 2 as it ‘is the closest to [their] preferred strategy so as to ensure that rebuilding does actually occur.’

61 NZRFC and TASFISH consider that the phased approach has been a ‘soft option’ for industry. NZRFC and TASFISH also consider that it was the commercial sector that ‘decimated’ bluenose stocks. TASFISH submits that Option 2 ‘must be implemented to ensure the long term sustainability of the BNS 7 stock.’ Greg Goodall and Pelorus submit in support of TASFISH’s submission. During initial discussions about proposals, the FMA 3 & 5 Recreational Forum also indicated support for Option 2.

### *Research needs*

62 NZRFC submit that, ‘More work needs to be done on this species to gather information on the level of catch that can be sustained and support  $B_{\text{MSY}}$ ’.

#### MPI Response

63 MPI notes, other than the research proposed by FINZ, there are no proposals to carry out research into bluenose stocks in the near future. But, research needs are likely to be discussed during conversations with stakeholders about the harvest strategy for bluenose.

#### *Socio-Economic Impacts*

64 Commercial submitters highlight the adverse socio-economic implications of Option 2. FINZ notes that while available information suggests a deferral for a year will not adversely impact the rebuild, Option 2 'is likely to immediately result in loss of some markets', which 'would be very difficult to re-establish and would have reduced earnings'. FINZ submits that the cuts planned under Option 2 will force fishers to leave the industry and is concerned that some would never return. FINZ notes, 'Replacing this capacity and experience will be a very difficult task.' Area 2 states that, 'it would simply be the end of well over half of the inshore longline fleet' in their area. NPSL states submits that Option 2 will 'amplify' the impacts previous cuts have already had on commercial utilisation of bluenose. FINZ notes the potential for fishers to default on loans and mortgages. ICP notes, over a 10 year period, Option 2 will result in losses to it of approximately \$200,000.

65 Commercial submitters highlight the potential impact on the CPUE series if the cuts cause the bluenose fisheries to become bycatch fishery. FINZ states this could impact the ability to monitor the fishery and 'mean industry would be locked out of a recovering or strong fishery as there would be no robust information to demonstrate the state of the fishery and adjust the TACC back up.' FINZ also notes the flow-on impacts to other fisheries.

#### MPI Response

66 MPI notes that socio-economic costs were anticipated by the rebuild plan. The plan was designed to mitigate these impacts and give commercial fishers time to adjust to lower catch limits. MPI also notes that if the cuts are deferred and the research proposed confirms they are still needed, these costs will only be postponed, not avoided entirely.

#### *Distribution of proposed reductions*

67 SIF submits that cuts in 2008, 2011 and 2012 have been disproportionately applied, to the detriment of BNS 3 in particular. SIF advocates a 'more balanced proportionate approach' stating the proposed further reduction is 'completely unwarranted' for BNS 3 when compared with other QMAs and earlier reductions.

#### MPI Response

68 As MPI considers that bluenose is likely to be one biological stock, redistributing any reductions to catch limits should not change the outcome under Options 2 in terms of the rebuild. But, redistributing the reductions would also redistribute the impacts. In some cases, the overall impacts could be increased by doing so (for example, due to differentials in ACE and port prices – see Table 5 in Appendix 2). In other cases, it is not clear what change would occur to overall impacts, including impacts on target fisheries taking bluenose as a bycatch.

69 The proposed TACs and TACCs for all QMAs are consistent with the relative proportions established in 2011. MPI notes SIF has referenced TACCs as of 2004 and argued current proportions are not consistent with those of that year. However, the proportion of total bluenose catch by QMA varied considerably in the years leading up to 2004. There is no information available to suggest that the proportions in 2004 better reflected the distribution of bluenose stocks across the five QMAs than 2011 proportions (or any other year). Based on available information, MPI considers proportionate distribution of any further cuts to be the most equitable.

## FINAL PROPOSALS

70 MPI is proposing the options set out in Table 1 (above) for BNS 1, 2, 3, 7 and 8 for your consideration. These options are unchanged from those consulted on in the IPP.

71 MPI believes adjusting the TACs is the most appropriate tool available to you to ensure sustainability for BNS 1, 2, 3, 7 and 8. Section 13(2) of the Act requires you to set a TAC that maintains a stock at or above a level that can produce the maximum sustainable yield ( $B_{MSY}$ ) or which enables the stock to move towards or above  $B_{MSY}$ , having regard to the interdependence of stocks. The Plenary estimates  $B_{MSY}$  for bluenose (when treated as a single stock) to be 15-25%  $B_0$ . But, as noted above, the Plenary does not consider this to be an appropriate management target for bluenose. Instead, the Plenary has agreed on, and MPI has accepted, 40%  $B_0$  as a minimum target reference level.

72 The best available information to inform TAC setting at this time is the 2011 stock assessment. The stock assessment assumed a single biological stock and assessed bluenose as being below the minimum target reference level of 40%  $B_0$ ; the best estimate of bluenose biomass was 14-27%  $B_0$ .

73 As bluenose is managed as five separate stocks, MPI recommends that the TAC for each QMA should be at a level that ensures that the combined TACs do not exceed the maximum estimated catch that will allow for a rebuild to 40%  $B_0$  within  $2 \times T_{MIN}$  (20-26 years). This timeframe is guided by the Harvest Strategy Standard and HSS Guidelines for rebuilding a stock. MPI notes this guidance does not override the provisions of the Act that you must consider when setting TACs. However, MPI considers that it is consistent with s 13 of the Act.

74 The stock assessment in 2011 estimated the maximum combined catch (TACs) that would allow for a rebuild to 40%  $B_0$  in  $2 \times T_{MIN}$  (20 to 26 years) ranged between 574 and 840 t. Current combined TACs (1100 t) are higher than this range. Option 2 is consistent with the rebuild plan and the objective of moving the BNS 1, 2, 3, 7 and 8 stocks towards, or maintaining them above,  $B_{MSY}$ . Option 1 may require future reductions in TACs in order to ensure consistency with that objective and the rebuild plan.



75 For Option 2, MPI proposes the TAC cuts be borne by the commercial sector via reductions to TACCs. The commercial sector takes the greatest proportion of bluenose overall and has benefitted from TAC increases in the past. In addition, recreational fishers have already had significant cuts to their bluenose bag limits and customary allowances have also been reduced.

76 As bluenose is considered to be one biological stock, Option 2 proposes that the cut is spread proportionally across the TACs (and TACCs) from all the QMAs. However, you could make another choice for how the cut is spread across QMAs.

*Option 1 (status quo – MPI's preferred option)*

77 Under Option 1, the existing TAC would be retained for 2013/14. All industry submitters support Option 1.

78 Option 1 preserves the status quo while the proposed research programme is undertaken. If preliminary information is confirmed and there has been an upturn in CPUE, an updated stock assessment may produce a different rebuild timeframe and/or suggest a different (potentially higher) level of catch needed to ensure the rebuild is able to be completed within  $2 \times T_{\text{MIN}}$ . However, under s 10 of the Act, absence of, or uncertainty in, any information should not be used as a reason for you postponing or failing to take any measure (including reducing TACs) to achieve the purpose of the Act.

79 The Act also requires you to have regard to such social, cultural and economic factors as you consider relevant, when you are considering the way and rate at which a stock is moved towards or above  $B_{\text{MSY}}$  (s 13(3)). This means, you may defer further cuts if you consider the short-term impacts on commercial fishers need to be mitigated, for example. There is no legal requirement that the TAC which is set must deliver a certain rate of rebuild. As long the TAC will ensure that over time the stock size moves towards a biomass level that can produce the maximum sustainable yield, in any particular year a TAC may be set that will not immediately move the stock towards that target stock size.<sup>21</sup>

80 For 2013/14, Option 1 provides for fishers to land an additional 480 t compared to Option 2. Based on 2012/13 port prices, this would be worth approximately an additional \$2.3 million compared to Option 2. MPI notes that this amount may not be realised in reality because TACCs may not be fully caught under either option. However, they do provide a useful relative comparison between the options in terms of potential short-term economic costs and benefits. Further socio-economic information is provided in Appendix 2; including information for each of BNS 1, 2, 3, 7 and 8.

81 Although the information provided by FINZ suggests there should be no adverse effects on the rebuild if cuts are deferred, the sustainability risks to the bluenose stocks are

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<sup>21</sup> *Greenpeace New Zealand Inc v Ministry of Fisheries and Ors* (HC, Wellington, CP 492/93, 27/11/95, Gallen J).

greater under Option 1. This is because, based on the 2011 stock assessment information and the updated projections provided by FINZ, the rebuild may still be contingent on further reductions in the short-term (within the next year or two). So, dependent on the results of the proposed research programme, MPI would very likely seek to review bluenose stocks again in 2014 under this option.

#### *Option 2*

82 Option 2 seeks to reduce catch to 704 t. Six submitters support Option 2: NZRFC, ECO, and the Forum (in regard to all BNS), and TASFISH, Greg Goodall, and Pelorus (in regard to BNS 7). During preliminary discussions, Option 2 was supported by members of the FMA 3 & 5 Recreational Forum (BNS 3).

83 The phased reduction under Option 2 is based on the maximum commercial catch predicted by the stock assessment model that would allow the stocks to rebuild to  $40\%B_0$  within  $2 \times T_{MIN}$ .<sup>22</sup> Compared with Option 1 (under which a rebuild may be contingent on future reductions in TACs), further reductions in stock size may be less likely. So, it has a lower sustainability risk than Option 1. However, it has higher short-term impacts on the commercial sector than the status quo (Option 1).

84 The three year phased reduction was designed to provide quota owners, fishing companies, and ACE holders time to adjust their budgets and activities, including their ACE distribution or harvesting plans. It was also expected to reduce the risk that TACCs would be over-caught, as management of bycatch was thought to be less likely to be an issue in the first few years and the phased approach provided time to plan for the change.

85 However, reducing the combined TACC is likely to reduce target bluenose fishing in most areas and may impact bluenose bycatch fisheries in some areas. In recent years, for some bluenose stocks (notably BNS 2, 3 and 7), bycatch levels were close to or exceeded the proposed TACCs under Option 2 (see Figure 4, Appendix 1). This could mean target fisheries such as hoki, ling, alfonsino and hāpuku are constrained. Alternatively, if bycatch exceeds the TACCs, this could impact the timeframe required for rebuilding bluenose stocks.

86 In 2011, the initial position paper noted the following in regard to potential impacts from bluenose TACC cuts on commercial fishers:

- In 2009/10, 134 fishers landed bluenose. For the majority of these fishers (77%), bluenose made up less than 10% of their total landed catch weight. This suggests the majority of fishers currently taking bluenose are not overly dependent on bluenose landings and may be able to absorb the impact of the proposed reductions.
- For some fishers, bluenose landings represent a significant proportion of their catch and income. The reduction in the availability of ACE is likely to force these fishers to

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<sup>22</sup> Option 2 projects bluenose stocks to rebuild to  $B_{TGT}$  within  $2 \times T_{MIN}$  – 14-28 years. This is based on taking the projections from the 2011 stock assessment of 16-30 years and deducting two years, as the two steps in the phase reduction were taken in 2011 and 2012. MPI considers the most likely actual rebuild timeframe from 2013 will be around 18-24 years.

either target other stocks or stop fishing altogether. In 2009/10, there were 15 fishers for whom bluenose represented over 30% of the weight of their total landed catch. The Seafood Industry Council (SeaFIC) has estimated that around 18 companies are financially dependent on target bluenose bottom-line fishing.

- Many affected fishers may initially transfer effort to other long-line fisheries. SeaFIC noted that, with long-line catches of hāpuku/bass and ling already being a high proportion of the TACCs in these fisheries, there is little capacity in those fisheries to absorb transfer of effort from the bluenose fishery.

87 Industry submissions this year highlight the expected impacts and socio-economic costs of further reductions. In particular, they continue to predict that some fishers will be forced to leave the industry. Further research may show that reductions of the magnitude proposed under Option 2 are unnecessary to ensure the rebuild. If so, some of these impacts are avoidable. On the other hand if that research confirms the result of the 2011 stock assessment, these impacts will still have to be borne by commercial fishers in the near future.

88 Additionally, international markets are becoming increasingly sensitive to sustainable management practices. Over the last seven years, an average of 1120 t of bluenose has been exported annually to Australia and the US, with an approximate annual value of \$12.2 million, though MPI notes the amount has been declining. As Option 2 is the most cautious option, it may be viewed the most favourably by our markets. So, Option 2 may better ensure continued access and have benefits for export price when compared to Option 1.

## ADDITIONAL MANAGEMENT CONTROLS

89 As noted above, a harvest strategy is to be confirmed for bluenose in consultation with stakeholders. This will confirm a target reference level and hard and soft reference points.

90 Deemed value<sup>23</sup> rates were increased and recreational daily bag limits were decreased as a result of decisions made by the Minister of Fisheries and Aquaculture in 2011. MPI did not initially propose any changes to deemed value rates for 2013/14. But, in light of the increase in landings on deemed values in BNS 3 (discussed above), MPI will provide advice to you on an option to change the deemed value rate that applies to BNS 3 landed in the Chatham Islands.

91 Since 1 October 2012, bluenose have been included in catch reporting requirements for charter vessels providing services to recreational fishers. Information from catch reporting may provide an opportunity for monitoring the recovery of bluenose. MPI does not propose any other management measures at present.

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<sup>23</sup> Deemed values apply to commercial fishers that do not hold sufficient annual catch entitlement (ACE) to cover their catches. Deemed value rates are generally set at levels intended to incentivise fishers to balance catch with ACE

## ASSESSMENT AGAINST STATUTORY OBLIGATIONS

### *Purpose of the Act*

92 MPI considers that both options satisfy the purpose of the Act under s 8 of the Act in that they provide for utilisation of bluenose stocks while ensuring sustainability. Option 2 is more cautious in terms of ensuring sustainability but has a greater short-term impact on utilisation than Option 1.

93 Under Option 1, a further review of catch limits may be required as early as 2014 to ensure sustainability. Due to uncertainty about what the new information indicates about abundance, Option 1 has a higher sustainability risk. However, available information suggests that the rebuild is unlikely to be significantly, adversely impacted from a delay of a year. Option 1 also has lesser short-term impacts on utilisation than Option 2.

### *General Obligations*

94 In making your decisions about setting TACs, TACCs and allowances, you must act in a manner consistent with New Zealand's international obligations and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

95 A wide range of international obligations relate to fishing, including use and sustainability of fishstocks, and maintaining biodiversity (s 5(a)). MPI considers that the management options for bluenose are consistent with these international obligations.

96 MPI also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5(b)).

### *TAC*

97 Section 13(2) of the Act requires you to set a TAC that maintains a stock at or above a level that can produce the maximum sustainable yield ( $B_{MSY}$ ) or which enables the stock to move towards or above  $B_{MSY}$ , having regard to the interdependence of stocks. The Plenary estimates  $B_{MSY}$  for bluenose (when treated as a single stock) to be 15-25%  $B_0$ .

98 Best available information to inform TAC setting at this time is the 2011 stock assessment. The Plenary has agreed on, and MPI has accepted, 40%  $B_0$  as a more suitable management target for bluenose (than 15-25%  $B_0$ ), based on its biological characteristics. The stock assessment assumed a single biological stock and assessed bluenose as being below this level; the best estimate of bluenose biomass is 14-27%  $B_0$ . MPI considers that setting TACs for BNS 1, 2, 3, 7 and 8 at levels that will allow the stocks to rebuild to 40%  $B_0$  is consistent with s 13 of the Act.

99 New information about catch rates in the 2012/13 fishing year suggests abundance may be increasing more quickly than the stock assessment predicted and/or that biomass in may have been higher than thought at the time of the stock assessment. This new information

has not yet been reviewed by the Working Group and further work will be needed to determine what impact, if any, it may have on the projected timeframes for the rebuild or on the catch levels that may be required to support the rebuild.

100 MPI considers that both options presented in this paper satisfy your obligations under s 13 of the Act. Option 2 would move the biomass towards the target stock size of 40%  $B_0$  and ensure the long term sustainability of the stock. Option 1 may rely on another review in the near future to ensure bluenose biomass is moved towards the target.

101 Option 1 is open to you if you consider that the available information supports a delay of at least one year to further investigate current stock status and to perhaps establish a new rebuild plan. You may also consider that Option 1 is preferred if you wish to mitigate the short-term economic impacts on fishers. This is because s13(3) requires you to have regard to such social, cultural, and economic factors as you consider relevant, in considering the way in which and rate at which a stock is moved towards or above  $B_{MSY}$ .

102 The options provided in this paper provide you with a choice about the ‘way and the rate’ bluenose stocks are moved towards or above  $B_{MSY}$ . While Option 1 gives industry more time to adjust, Option 2 completes the existing rebuild plan but has greater short-term economic costs.

103 Option 1 gives industry more time to undertake research and gather information that might inform alternative management approaches. However, you must not use the absence of or uncertainty in, information as a reason for postponing or failing to set a TAC for a stock (s 10(d)).

104 In making a TAC decision, you must have regard to interdependence of stocks, the stock’s biological characteristics and any environmental conditions affecting the stock.

105 Setting a TACC below likely bycatch levels is expected to result in negative economic consequences on ACE fishers targeting ling, hāpuku and alfonsino. Bluenose bycatch is likely to be unavoidable in ling and hāpuku fisheries as bluenose are known to shoal with these species.

106 MPI cannot quantify the impact on target fisheries for these and other species where bluenose is taken as bycatch. However, the amount of bycatch has been trending down as bluenose abundance has declined. So, any impact is more likely to be noticed as bluenose stocks begin rebuilding.

107 Bluenose is considered a low productivity species and is likely to take a relatively long time to recover from a low biomass. Under zero fishing pressure, the 2011 stock assessment projected bluenose would take 10-13 years to reach 40%  $B_0$ .

108 Seabirds are a known bycatch of longline fisheries targeting bluenose. However, the two options proposed will either reduce fishing effort (Options 2), and thus reduce the risk to seabirds, or will have a neutral effect (Option 1).

109 MPI is unaware of any environmental conditions affecting bluenose stocks that are of relevance to your decisions.

#### *Input and Participation*

110 You have an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga (under s 12) before setting or varying any TAC. MPI sought input from and provided an opportunity for participation for tangata whenua through MPI's Iwi Forums (see discussion under Customary catch, above). Input from and an opportunity for participation was also provided to iwi listed under Schedule 3 of the Maori Fisheries Act 2004 and tangata whenua groups with a Fisheries Protocol. This opportunity was provided via meetings or in writing prior to the development of the IPP. Input received has been incorporated into this paper.

#### *Environmental Principles*

111 Section 9 of the Act requires that you take into account three environmental principles, namely:

- associated and dependent species should be maintained at or above a level that ensures their long-term viability
- the biological diversity of the aquatic environment should be maintained, and
- habitats of particular significance for fisheries management should be protected.

112 Bluenose is preyed upon by other fish species, such as broadbill swordfish. The significant decline in bluenose biomass may have an impact on predator species like broadbill swordfish, subject to the availability of alternative food sources. A decline in abundance may also affect other complex interactions within the ecosystem. For example, bluenose is likely to be an important predator, feeding on tunicates, fish, squid and crustaceans. A change in predation pressure may alter competitive interactions between these species. MPI cannot quantify the scale of the impact of low abundance of bluenose on species interactions, but rebuilding bluenose stocks should improve any existing imbalance.

#### *Information Principles*

113 Section 10 requires that you take specified information principles into account when making your decisions. These are:

- your decisions should be based on the best available information
- you should consider any uncertainty in the information available in any case
- you should be cautious when information is uncertain, unreliable or inadequate, and
- you should not use the absence of, or any uncertainty in, any information as a reason for postponing or failing to take any measure to achieve the purpose of the Act.

114 The options and analysis presented in this paper reflect the best available information on bluenose and outlines the uncertainty in the information available where it is relevant to your decision making.

### *Section 11 Considerations*

115 Under s 11 of the Act, in making your decision on setting or varying any sustainability measures for BNS 1, 2, 3, 7 and 8, you must:

- a. Section 11(1)(a): take into account any effects of fishing on any stock and the aquatic environment. Bluenose is a bycatch in commercial bottom and mid-trawl fisheries targeting alfonso, and also in longline fisheries targeting hāpuku and ling. As the TAC proposals are less than historical landings of bluenose bycatch, the proposed TAC (and TACC) reductions under Option 2 may result in a change to these fishing operations. Therefore, it is anticipated that there may be an impact on the harvest of other stocks under Option 2.
- b. Section 11(1)(b): take into account any existing controls under the Act that apply to the stocks or areas concerned. Standard management controls apply to the BNS 1, 2, 3, 7 and 8 fisheries, for example deemed value rates, recreational bag limits and general fishing method constraints. The proposed changes to the TACs do not affect these measures.
- c. Section 11(1)(c): take into account the natural variability of the stock. Bluenose stocks are not known to be highly variable.
- d. Sections 11(2)(a) and (b): have regard to any provisions of any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991 and any management strategy or management plan under the Conservation Act 1987 that applies to the coastal marine area and you consider relevant. MPI is not aware of any provisions, management plans or strategies that apply to the coastal marine area that you might consider relevant to any bluenose stock.
- e. Section 11(2)(c): have regard to the provisions of sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 (HGMPA) when dealing with a stock in the area of the Hauraki Gulf. Section 7 of the HGMPA recognises the national significance of the Hauraki Gulf, including its capacity to provide for the relationship of tangata whenua with the Gulf and the social, economic, recreational and cultural well-being of people and communities. Section 8 of the HGMPA sets out objectives for the management of the Hauraki Gulf. Objectives of relevance include: the protection and enhancement of the natural, historic, and physical resources of the Hauraki Gulf; the protection and enhancement of those resources of the Hauraki Gulf with which tangata whenua have an historic, traditional, cultural and spiritual relationship; and the maintenance and enhancement of the contribution of the resources of the Hauraki Gulf to the social and economic well-being of the people and communities of the Hauraki Gulf and New Zealand. Resources of the Hauraki Gulf would include bluenose, specifically BNS 1. So, rebuilding bluenose stocks is consistent with these objectives.

- f. Section 11(2)(d): take into account any planning documents lodged by a customary marine title group under section 91 of the Marine and Coastal Area (Takutai Moana) Act 2011. No customary planning documents that would apply to the BNS 1, 2, 3 7 or 8 QMAs have been lodged.
- g. Section 11(2A)(b): take account of any relevant and approved fisheries plans. There is no approved fisheries plan of which you need to take account.
- h. Sections 11(2A)(a) and (c): take into account any conservation or fisheries services, and any decision not to require such services. No existing or proposed services materially affect the proposals for BNS 1, 2, 3, 7 and 8. MPI has noted (above) the industry proposal to undertake further research if current catch limits are retained for the 2013/14 fishing year. MPI has not made any decision not to require a service in these fisheries at this time.

### *Setting TACC and Allowances*

116 Section 21 of the Act requires you to allow for Māori customary non-commercial interests, recreational fishing interests, and for any other sources of fishing-related mortality, when setting or varying the TACC. The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on the best available information.

117 Customary Māori allowances and recreational bag limits have already been reduced as a result of decisions made by the Minister of Fisheries and Aquaculture in 2011. MPI has no information that suggests further changes are needed for the customary Maori or recreational sectors, either to allowances or bag limits. MPI considers that the new bag limit (of 5 for all QMAs) will constrain overall recreational take within the total of the existing recreational allowances.

118 Section 13 of the HGMPA requires you to have particular regard to sections 7 and 8 of the HGMPA when making TACC decisions for a stock in the area of the Hauraki Gulf. These sections are discussed above under 'Section 11 Considerations'. MPI considers both of the proposed options to the TACC are consistent with the objectives of the HGMPA.

119 Section 21(4) requires that any mātaihai reserve or closures/restrictions under s 186A to facilitate customary Māori fishing be taken into account. MPI is aware there are mātaihai reserves within BNS 1, 2, 3, 7 and 8. There are also s186A closures in some areas. MPI notes that the proposals in this paper will not impact on, or be impacted by, the mātaihai reserves or s186A closures.

120 Quantitative estimates of other sources of fishing-related mortality are not available for bluenose. The combined allowances for other sources of fishing related mortality are currently set at 23 t; around 2% of the combined TACCs. The proposed decreases in allowances for other sources of fishing-related mortality approximately retain this proportion.



121 This allowance covers such things as incidental mortality caused by fishing methods and unreported discarding of unwanted catch. MPI has no information to suggest that the current level (2% of the TACC) needs to be changed.

## CONCLUSIONS

122 Based on the 2011, stock assessment, when assessed as a single biological stock,  $B_{\text{CURRENT}}$  is below the target level, 40%  $B_0$ . Best available information suggests that further reductions to catch limits (TACs and TACCs) are required to ensure the stocks rebuild to 40%  $B_0$  within  $2 \times T_{\text{MIN}}$ . However, new information from the current fishing year suggests an alternative to the current rebuild plan may be appropriate.

123 MPI has provided two options for you to consider; the status quo which will enable further investigation of current stock status (Option 1 – MPI's preferred option) or to proceed with the planned third and final step of the three-year phased reduction on catch limits that was begun in 2011 (Option 2).

124 Although the new information has yet to be assessed by the Working Group, MPI accepts that a delay of one year does not appear likely to have a significant, adverse effect on the rebuild. However, under Option 1, MPI considers it is crucial that the research programme proposed by industry is carried out without delay in order to mitigate any increased risk from postponing the planned further cuts to TACs.

125 MPI considers both options are consistent with your statutory obligations.

126 MPI notes that you have broad discretion in exercising your powers of decision making, and may make your own independent assessment of the information presented to you in making your decision.

## RECOMMENDATIONS

MPI recommends that a consistent option be chosen across the QMAs listed below (BNS 1, 2, 3, 7 and 8).

MPI recommends that for the **BNS 1 fishery**, you choose either

### Option 1

**YES / NO**

**A. Agree to** retain the existing TAC, TACC and allowances for BNS 1 as follows:

- i) **retain** the existing TAC at 425 tonnes
- ii) **retain** the allowance for other sources of fishing-related mortality at 8 tonnes
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 15 tonnes
- v) **retain** the existing TACC at 400 tonnes.

**OR**

### Option 2

**YES/NO**

**B. Agree to** vary the TAC, TACC and allowances for BNS 1 as follows:

- i) **set** the TAC at 251 tonnes
- ii) **set** the allowance for other sources of fishing-related mortality at 4 tonnes
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 15 tonnes
- v) **set** the TACC at 230 tonnes

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

MPI recommends that for the **BNS 2 fishery**, you choose either

**Option 1**

**YES/ NO**

**C. Agree** to retain the existing TAC, TACC and allowances for BNS 2 as follows:

- i) **retain** the existing TAC at 474 tonnes
- ii) **retain** the allowance for other sources of fishing-related mortality at 9 tonnes
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 25 tonnes
- v) **retain** the existing TACC at 438 tonnes.

**OR**

**Option 2**

**YES / NO**

**D. Agree** to vary the TAC, TACC and allowances for BNS 2 as follows:

- i) **set** the TAC at 279 tonnes
- ii) **set** the allowance for other sources of fishing-related mortality at 5 tonnes
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 25 tonnes
- v) **set** the TACC at 247 tonnes.

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

MPI recommends that for the **BNS 3 fishery**, you choose either

**Option 1**

**YES / NO**

**E. Agree** to retain the existing TAC, TACC and allowances for BNS 3 as follows:

- i) **retain** the existing TAC at 194 tonnes
- ii) **retain** the allowance for other sources of fishing-related mortality at 3 tonnes
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 18 tonnes
- v) **retain** the existing TACC at 171 tonnes

**OR**

**Option 2**

**YES/ NO**

**F. Agree** to vary the TAC, TACC and allowances for BNS 3 as follows:

- i) **set** the TAC at 114 tonnes
- ii) **set** the allowance for other sources of fishing-related mortality at 1 tonne
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 18 tonnes
- v) **set** the TACC at 93 tonnes

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

MPI recommends that for the **BNS 7 fishery**, you choose either

**Option 1**

**YES / NO**

**G. Agree** to retain the existing TAC, TACC and allowances for BNS 7 as follows:

- i) **retain** the existing TAC at 69 tonnes
- ii) **retain** the allowance for other sources of fishing-related mortality at 2 tonnes
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 3 tonnes
- v) **retain** the existing TACC at 62 tonnes

**OR**

**Option 2**

**YES / NO**

**H. Agree** to vary the TAC, TACC and allowances for BNS 7 as follows:

- i) **set** the TAC at 40 tonnes
- ii) **set** the allowance for other sources of fishing-related mortality at 1 tonne
- iii) **retain** the allowance for Māori customary fishing at 2 tonnes
- iv) **retain** the allowance for recreational fishing at 3 tonnes
- v) **set** the TACC at 34 tonnes

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

MPI recommends that for the **BNS 8 fishery**, you choose either

**Option 1**

**YES/ NO**

**I. Agree** to retain the existing TAC, TACC and allowances for BNS 8 as follows:

- i) **retain** the existing TAC at 33 tonnes
- ii) **retain** the allowance for other sources of fishing-related mortality at 1 tonne
- iii) **retain** the allowance for Māori customary fishing at 1 tonne
- iv) **retain** the allowance for recreational fishing at 2 tonnes
- v) **retain** the existing TACC at 29 tonnes

**OR**

**Option 2**

**YES/ NO**

**J. Agree** to vary the TAC, TACC and allowances for BNS 8 as follows:

- i) **set** the TAC at 20 tonnes
- ii) **retain** the allowance for other sources of fishing-related mortality at 1 tonne
- iii) **retain** the allowance for Māori customary fishing at 1 tonne
- iv) **retain** the allowance for recreational fishing at 2 tonnes
- v) **set** the TACC at 16 tonnes

**AGREED / AGREED AS AMENDED / NOT AGREED**

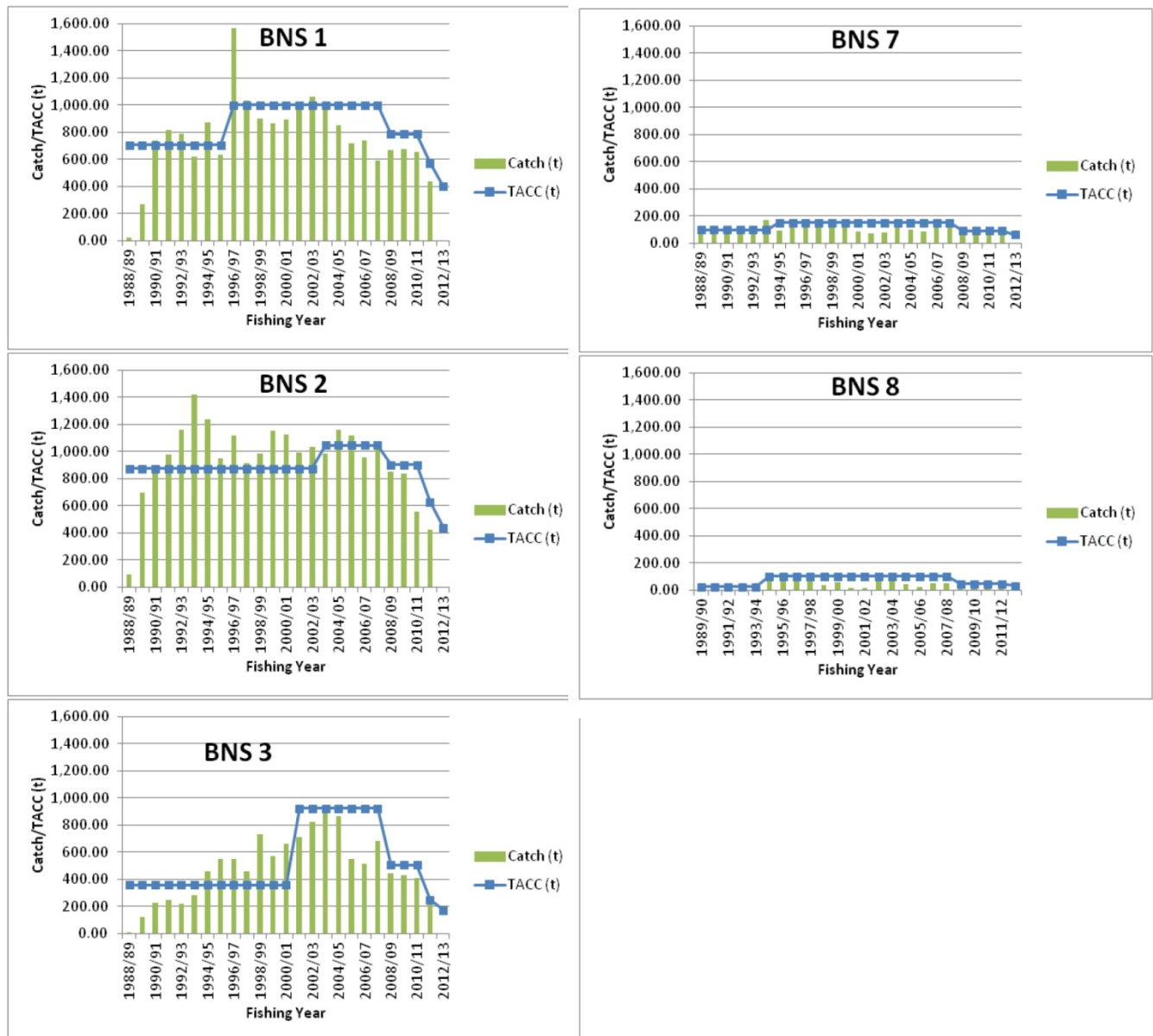
James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

## APPENDIX 1 – CATCH INFORMATION

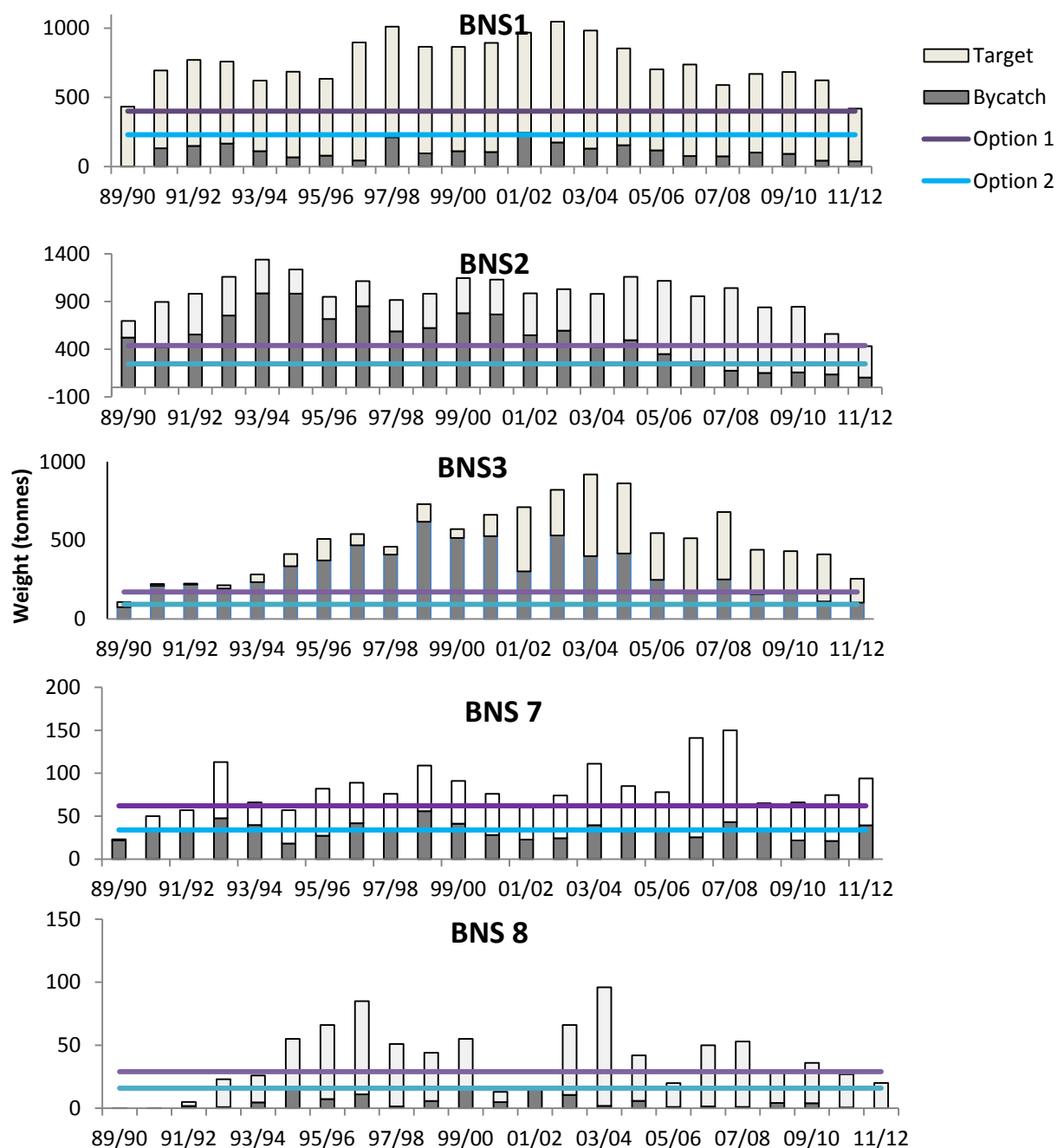
Figure 3: Bluenose catch (tonnes) versus TACC (tonnes) by QMA and fishing



## Bycatch

Figure 4 is based on a figure taken from the bluenose characterisation report. Data has been updated using catch landing data linked to target and bycatch species through the trip key. The bars show the weight of bluenose caught commercially in tonnes as either target (light grey) or bycatch (dark grey). The lines show the TACC (t) under Option 1 (purple) and Option 2 (blue).

Figure 4: Bycatch and target catch (tonnes) by QMA, overlaid by TACCs proposed for each option





## APPENDIX 2 – SOCIO-ECONOMIC INFORMATION

The nature of the economic impact to each BNS fishery can be examined by looking at the current indicators of the value of the fishery (Table 5).

Table 5: Current indicators of the economic value of the BNS fisheries

QMA	2012/13 Port Price (\$/kg)	2012/13 Export Price (\$/kg)*	2012/13 ACE Price (\$/kg)**	2012/13 Quota Price (\$/kg)***
BNS1	\$5.53	\$8.67	\$2.40	\$27.48
BNS2	\$5.12	\$8.67	\$2.31	\$28.57
BNS3	\$3.03	\$8.67	\$1.60	\$10.49
BNS7	\$3.43	\$8.67	\$1.56	\$13.92
BNS8	\$4.75	\$8.67	\$1.13	N/A****

\* Greenweight export price for H&G BNS from October 2012 to March 2013.

\*\* Average price from October 2012 to March 2013.

\*\*\* Average price from October 2001 to March 2013.

\*\*\*\* Not enough quota trades of BNS8 to determine a valid quota price.

Port price is the price that fishers are paid when landing their fish to a Licensed Fish Receiver (LFR). Port prices are calculated by surveying Licensed Fish Receivers (LFRs) annually to see what they are paying for each species of fish landed to them. However, the following limitations are known about port prices:

- Survey replies may be skewed because industry know they are used to set cost recovery levies.
- Does not differentiate harvest method – fish caught by one method over another may command a price premium.
- Ownership structure can influence port price – port prices change depending on whether the LFR is catching and landing the fish themselves, using contract fishers or taking fish from an independent fisher.
- Does not reflect price differential for different grades of fish – fishers receive different landed prices depending on the size of the fish caught.

The 2012/13 port prices were based on a survey carried out during the 2011/12 fishing year so the port prices are out of date by a year. The 2013/14 port prices will be finalised in June 2013. Therefore MPI has included the greenweight export price for headed and gutted (H&G) BNS to provide a picture of what price LFRs are getting from exporting BNS. MPI believes the true landed value of BNS lies somewhere between these two figures so both are used in the analysis of potential changes to landings revenue from the proposed options.

The projected potential changes in landings revenue in 2013/14 is summarised below in Table 6. The values have been calculated based on:

- The change in the TACCs from Option 1 (Status Quo) and those being proposed in Option 2 (this assumes the whole TACC is being caught in each QMA), and
- The 2012/13 port price<sup>24</sup> and the 2012/13 export price.

**Table 6: Summary of potential changes to landings revenue in 2013/14**

QMA	Option 1		Option 2	
	Port Price	Export Price	Port Price	Export Price
BNS 1	\$0	\$0	-\$940,100	-\$1,473,900
BNS 2	\$0	\$0	-\$977,920	-\$1,655,970
BNS 3	\$0	\$0	-\$236,340	-\$676,260
BNS 7	\$0	\$0	-\$96,040	-\$242,760
BNS 8	\$0	\$0	-\$61,750	-\$112,710
TOTAL	\$0	\$0	-\$2,312,150	-\$4,161,600

Option 2 will have an impact on fishers who land BNS. The impact will be felt the hardest in BNS 1, BNS 2 and BNS 3.

MPI has calculated the potential impact on ACE holders and traders from the options in this paper. Some quota holders do not fish their own ACE and generate revenue by selling their ACE to other parties. Any changes to the TACC level for these BNS fisheries will have an impact on the revenue these quota holders can generate from selling their ACE. It should be noted that ACE prices will likely increase due to lower supply of ACE, but MPI does not believe this will offset the loss from the reduction in ACE generated by their quota holdings.

**Table 7: Summary of loss of ACE revenue in 2013/14 – based on 2012/13 ACE price**

QMA	Option 1	Option 2
BNS1	\$0	-\$408,000
BNS2	\$0	-\$441,210
BNS3	\$0	-\$124,800
BNS7	\$0	-\$43,680
BNS8	\$0	-\$14,690
TOTAL	\$0	-\$1,032,380

The impact on quota values will be harder to predict. The TACC reductions proposed in Option 2 will lower the overall quota value of the BNS fisheries in the short-term. However, if the management strategy is viewed as positive and likely to lead to better catches in the

<sup>24</sup> Port price is the surveyed average price paid by licensed fish receivers ('LFRs') to independent fishers for fish landed to those LFRs, as set or updated by rule 12 of the Fisheries (Cost Recovery) Rules 2001 (see rule 3: Interpretation).

future (and possible TACC increases), then quota prices may increase over the medium to long-term.

The obvious trade off in any fisheries management decision involving potential TACC reductions is trading short-term losses in term of forgone catch and ACE revenue for longer-term gains in catch and possible TACC increases. Quota value is the best tool to examine this trade off as quota value reflects the net present value of future earnings from ACE. If fishers believe that the TACC reductions will work, quota trading and quota prices would not be expected to increase over the medium-term. This would mean there will be little quota trading and quota prices available for analysis.

# REVIEW OF SUSTAINABILITY MEASURES AND OTHER MANAGEMENT CONTROLS FOR KINGFISH 7 (KIN 7)



Figure 1: Quota Management Areas (QMAs) for Kingfish

## EXECUTIVE SUMMARY

1 The Ministry for Primary Industries (MPI) proposes the following two options for the total allowable catch (TAC), total allowable commercial catch (TACC) and allowances for KIN 7:

Table 1: Final proposals – TACs, TACCs, and Allowances for KIN 7

Option	TAC (t)	TACC (t)	Allowances		
			Customary Māori (t)	Recreational (t)	Other sources of fishing-related mortality (t)
<b>Option 1</b> (Modified Status Quo TAC) This option could include consideration of decreasing the recreational daily bag limit from 3 to 2 kingfish per day.	21	7	2	10	2
<b>Option 2</b>	41	15	2	20	4

2 Any variation to the TAC for KIN 7 can be done under section 13(4) and section 13(2A) of the Fisheries Act 1996 (the Act). Variations to the TACC can be done under section 20(2) after making the allowances provided for in section 21.

## KEY CONSIDERATIONS

### Need to Act

3 The overall management framework for kingfish is designed to manage commercial catch of kingfish to unavoidable bycatch levels only. Strong incentives to avoid catch and ability to return catch taken alive to the sea mean that any fish landed should be unavoidable bycatch that cannot be returned to the sea because it is dead. If there are no sustainability concerns, the management framework is designed to allow for this level of catch. However it is very difficult to determine true levels of unavoidable bycatch.

4 The KIN 7 TAC is being exceeded in some years. Since the introduction of KIN 7 to the QMS in 2003, the commercial catch of KIN 7 has exceeded the TACC in three of the nine fishing years. This suggests there may be an issue with the current TACC or that the current framework is not providing adequate disincentive for commercial fishers to catch kingfish.

5 In addition, new information is available regarding the recreational catch in KIN 7 indicating that current recreational catch is significantly in excess of the recreational allowance. Recreational fishers are reporting increasing availability of kingfish.

6 Both of these factors provide a good basis to consider the TAC, allowance and other management controls for KIN 7.

7 We have no information as to whether current catch levels are sustainable. Best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last 2 years.

8 Estimates of current and reference biomass are not available.

9 If Option 2 is your preferred option, you must set a TAC in accordance with section 13(2A) of the Act that is not inconsistent with the objective of maintaining the stock at or above  $B_{MSY}$ , or moving the stock towards or above,  $B_{MSY}$ . Kingfish is a productive species and catch has been below historical levels since 2003; hence, there is a reasonable chance that the KIN7 stock has been rebuilding.

### Stock Status

10 No estimates of current and reference biomass levels or relative abundance indicators are available for KIN 7. Catch has fluctuated without trend prior to and since introduction into the Quota Management System (QMS).

## Relevant Fishery Information

11 The KIN 7 stock is on the margins of the distribution of kingfish and landings and catches are small.

12 Kingfish was introduced into the QMS on 1 October 2003. In addition to the TAC, TACC, and allowances, the KIN 7 fishery is managed by way of a recreational maximum daily bag limit of 3 kingfish and a recreational minimum legal size (MLS) of 75cm, and a commercial MLS of 65cm, annual deemed values, and kingfish is on the Sixth Schedule of the Act allowing commercial fishers to release live kingfish back to the sea if they meet certain conditions.

13 Kingfish was placed on the Sixth Schedule of the Act in October 2005, becoming effective from January 2006. Release of live kingfish back to the sea provides another tool to assist commercial fishers in limiting landings. There is evidence from reporting data that fishers do use the provisions of the Sixth Schedule for KIN 7 catch. Over the most recent fishing year, 21 % of all reported KIN 7 was released under the Sixth Schedule. Despite this provision, over-catch has occurred. In light of the high deemed values, this suggests that fishers are complying with the rules for the use of the Sixth Schedule.

14 High deemed value rates are set to incentivise catch within the TACC and to reflect the significance of KIN 7 to non-commercial users. This approach is consistent with the High Value Stocks section of the Deemed Value Standard.

### *Commercial*

15 Figure 2 shows commercial landings of KIN 7 from 2003/04 (the date of introduction to QMS) to 2011/12. The graph shows that KIN 7 has been substantially fished in excess of the TACC in three of the nine fishing years.

16 Between October 2009 and September 2012 (the last three fishing years), commercial fishers reported over 99% of KIN 7 as bycatch (note: this is subject to the accuracy of fishers' recording on the reporting forms). Only 34 kg of KIN 7 was recorded as target catch over this three-year period.

17 The available information shows that kingfish in KIN 7 are taken as bycatch predominantly in the target mid-water trawl fishery for jack mackerel (62%), with some also taken in the bottom trawl fisheries for barracouta, tarakihi and warehou (around 20%), and some in the school shark and rig set net fisheries (around 10%).

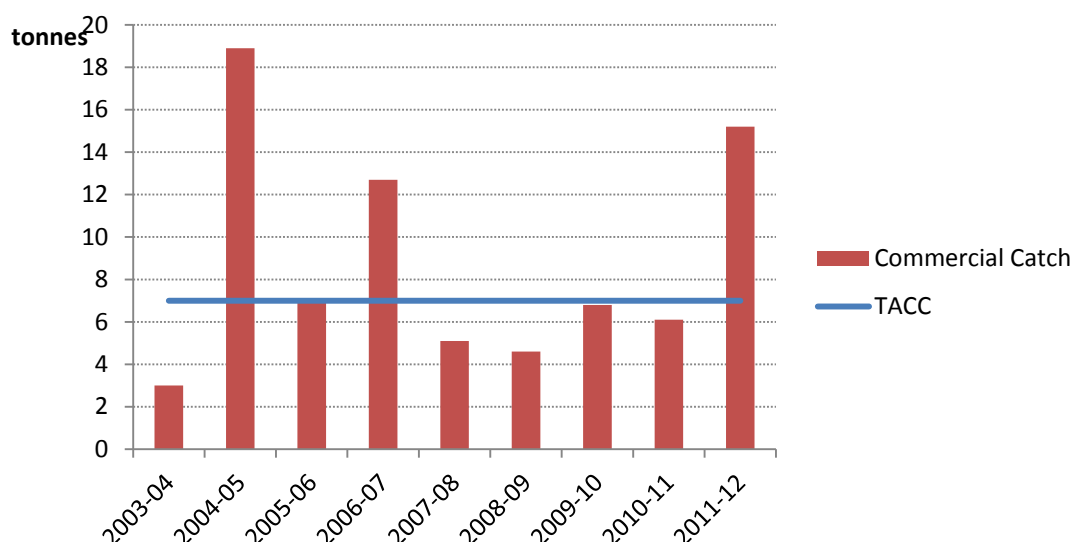


Figure 2: Commercial catch limits (TACC) and landings 2003/04-2011/12

18 Since 2003, management controls to reduce KIN 7 commercial catch have been successful for 6 of the 9 years. Controls include high deemed value rates and the inclusion of KIN 7 on the Sixth Schedule of the Act.

19 Considering the small size of the KIN 7 commercial fishery, payments of deemed values have been substantial in 3 of the 9 years since the introduction of KIN 7 to the QMS - Table 1.2.

Table 2: Commercial catch limits (TACC), catches and deemed value payments 2003/04 to 2009/10

Fishing Year	TACC (t)	Commercial Catch (t)	Deemed Value Payments
2003-2004	7	3.0	\$819
2004-2005	7	18.9	\$192 613
2005-2006	7	7.1	\$10 439
2006-2007	7	12.7	\$71 292
2007-2008	7	5.1	0
2008-2009	7	4.6	\$113
2009-2010	7	6.8	0
2010-2011	7	6.1	\$742
2011-2012	7	15.2	\$110 228

20 Much of the KIN 7 bycatch is taken in large volume trawls targeting jack mackerel. The proportion of kingfish in the catch is relatively small. The opportunity to sort the catch and release any kingfish while alive is limited. Reporting this bycatch of dead kingfish provides important information for management.

## *Recreational*

21 KIN 7 is acknowledged as an important fishery for recreational fishers and the management strategy has attempted to reflect this value.

22 The FMA 7 Recreational Fishing Forum has identified KIN 7 as an important species and one of their most valued fish. In recent consultation with MPI, recreational forum representatives expressed their views that the size and abundance of kingfish in the KIN 7 area has been increasing over recent years.

23 Recreational fishing for kingfish is generally based around the species' value as a sport fish, with large kingfish being a prized trophy catch. Some recreational fishers practice catch and release fishing in KIN 7. The recreational minimum legal size for kingfish is 75cm, and the daily bag limit in KIN 7 is a maximum of 3 kingfish per person per day.

24 The estimated recreational catch of KIN 7 in 2011-12 from the national panel survey is 20.73 tonnes (C.V. of 0.38). The survey also suggests that for those fishers who land kingfish, very few take three fish (4.3%), with most only taking one fish (69.9%). However, these data are based on a small sample size and may not reflect practice across the fishery.

25 Historic information on the level of recreational catch in KIN 7 is very uncertain. Recreational catch in KIN 7 may always have been higher than the recreational allowance as the information used to set the original allowance upon introduction to the QMS was uncertain.

## *Māori Customary*

26 Kingfish (haku) is not identified by Te Waka a Māui me Ōna Toka iwi forum<sup>25</sup> as a tāonga species in the Te Waipounamu Iwi Fisheries Plan. This plan includes objectives relating to supporting and providing for the customary and commercial interests of South Island iwi.

27 For those tangata whenua groups operating under the customary fishing regulations,<sup>26</sup> there is a requirement for Tangata Kaitiaki/Tiaki to provide MPI with information on Māori customary harvest of fish. However, most tangata whenua in KIN 7 are still operating under regulations 27 and 27A of the Fisheries (Amateur Fishing) Regulations 1986 (the Amateur Regulations), and it is not mandatory to report permits that are issued.

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<sup>25</sup> The Te Waka a Māui me ōna toka iwi forum represents the nine iwi of the South Island, each holding mana moana and significant interests (both commercial and non-commercial) in South Island fisheries.

<sup>26</sup> Fisheries (Kaimoana Customary Fishing) Regulations 1998 and/or Fisheries (South Island Customary Fishing) Regulations 1999.



28 Information currently held by MPI on Māori customary catch of KIN 7 is uncertain. MPI has only 2 records of customary catch in KIN 7 from the last 5 years.

## CONSULTATION

29 A decision to vary the TAC is a decision under section 13(4) of the Act. Therefore consultation requirements of section 12(2) apply. A decision to vary the TACC is a decision under section 20(2) of the Act. Therefore consultation requirements under 21(2) of the Act apply. These provisions require consultation on both options outlined in Table 1 with persons or organisations representative of those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Māori, environmental, commercial and recreational interests. The Initial position paper (IPP) was released on 12 July 2013. The options proposed were the same as set out in Table 1.

### Submissions

30 MPI received 18 submissions on the IPP from:

- Bevan Middlebrook – recreational fisher
- Chris McDougall
- Dirk Sieling
- Gavin Williams
- Greg Goodall – member of FMA 7 Recreational Fishers Forum, member of TASFISH
- Jason Manson
- Johnathon Claridge
- New Zealand Recreational Fishing Council (NZRFC)
- New Zealand Sport Fishing Council (NZSFC)
- Pelorus Boating Club Inc
- Sanford Limited
- Southern Inshore Fisheries Management Company Limited (SIF)
- Talley's – commercial fishing company
- Tarakohe Sea Anglers
- Tasman and Sounds Recreational Fishers' Association (Inc) (TASFISH)
- Te Ohu Kaimoana (TOKM)
- Troy Dando – recreational fisher
- Zebbi King Turner – disgruntled recreational fisherman

31 All submissions are attached to this paper for your reference.

## TAC

### *Support for Option 1*

32 TASFISH, NZRFC, and Pelorus Boating Club Inc, and Troy Dando all support Option 1 – the status quo – with no increase in TAC for KIN 7 at this time. Greg Goodall and Pelorus Boating Club Inc endorse for TASFISH’s submission.

33 TASFISH, NZRFC, Pelorus Boating Club Inc, and Chris McDougall submit that kingfish are an important and valuable species for recreational fishers. Given the importance and value of kingfish to recreational fishers, an extremely conservative approach should be taken to setting a TAC. These submitters, as well as Jason Manson, Johnathon Claridge, Tarakohe Sea Anglers and Bevan Middlebrook do not believe there is enough scientific information to support an increase in the KIN 7 TAC. Jonathon Claridge and Troy Dando would support a reduction in commercial and recreational catch until more information is available.

34 TASFISH submits that KIN 7 must be managed at a level significantly above  $B_{MSY}$  if there is to be any chance of access equity. They consider that, given the pivotal importance of this stock to non-commercial interests, it is crucial they continue to be moved to a level above  $B_{MSY}$ .

35 TASFISH and NZRFC note that while recreational fishers have claimed increased catches of KIN 7 in recent years, reports over this last summer and winter indicate catches are down on previous years. Jason Manson submits that the state of their local area has just started to show signs of recovery and by no way would he like to see the proposed changes.

36 TASFISH and NZRFC submit that improved technologies, improved levels of reporting and increased observer levels have contributed to increased by-catch of kingfish, not increased abundance.

37 Gavin Williams voices his strong objection to the proposed new fishing quotas.

#### *Support for Option 2*

38 TOKM, Sanford Limited, SIF and Talley’s support Option 2 – an increase in the TAC so that fishers are able to take advantage of the present strong biomass.

#### *Alternative Stakeholder Proposals*

39 SIF and Talley’s also believe that Option 2 is too conservative and say that there would be no sustainability issues if the TAC was increased significantly above the proposed level as kingfish are a very productive species.

40 NZSFC suggests alternative management settings, including a TAC of 36 tonnes based on the average of the last 8 year’s reported landings.

## MPI Discussion

41 There is little information available upon which to base a TAC decision for KIN 7. Estimates of current and reference biomass are not available. We have no information as to whether current catch levels are sustainable and information on increasing abundance is largely anecdotal.

42 The best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last year.

43 When kingfish were introduced to the QMS, the Ministry of Fisheries (MFish) noted that kingfish could be managed above  $B_{MSY}$  to provide benefit to recreational fishers via increased abundance and greater range of size classes. However, there was no information to assess where the stocks were in relation to  $B_{MSY}$  so MFish advised the then minister that it did not regard the setting of a target level above  $B_{MSY}$  to be a critical issue at that time when setting the TAC for kingfish stocks.

44 The KIN 7 commercial catch (which is greater than 99% bycatch) has exceeded the TACC in three of the past nine fishing years by approximately 171%, 78%, and 85%. However, this does not necessarily indicate an increase in biomass. If biomass was increasing, we would expect to see an increasing commercial bycatch in consecutive years. There is some anecdotal information from recreational fishers that KIN 7 abundance is increasing, but some recreational fishers have also submitted that catches have declined somewhat in the last year.

45 MPI notes that increased bycatch could be due to changes in fishing practices and/or fishing gear – although we would also expect this to be a constant increase, not a sporadic effect. There is no catch per unit effort information and no size frequency information available.

46 Under Option 1, the existing TAC for KIN 7 would be retained. This option reflects a cautious approach to change, reflecting the uncertainty in information about the KIN 7 stock status relative to target levels and the uncertain level of any increase in biomass.

47 TASFISH and the NZRFC support Option 1. This option reflects the importance and value of kingfish to recreational fishers and would maintain the management objective of constraining commercial catch of kingfish in KIN 7 to a bycatch-only fishery.

48 Option 1 may be the appropriate option if further efforts to constrain catches to the TAC are considered necessary or desirable for sustainability reasons.

49 Under Option 2, the proposed increase to the TAC reflects what is already being caught in some years and does not provide for any increased harvest by recreational fishers.

50 TOKM and Sanford Limited support Option 2. SIF and Talley's support an increase in TAC, but consider that Option 2 is too conservative and that the KIN 7 TAC should be set at a level that will allow further development.

51 NZSFC proposes an alternative TAC option of 36 tonnes, based on the average of the last 8 year's landings. This option falls between the two MPI options and MPI does not consider it is significantly different to those options.

52 It is unlikely that either Option 1 or Option 2 would be inconsistent with enabling you to set a TAC that is not inconsistent with the objective of maintaining the stock at or above  $B_{MSY}$ , or moving the stock towards or above,  $B_{MSY}$ . Kingfish is a productive species. Kingfish are fast growing, medium-lived, and known to be robust when handled appropriately. Kingfish are likely to recover quickly from reductions in abundance and catch has been below historical levels since 2003. There is a reasonable chance that the KIN 7 stock is increasing.

## Allocation

### *Stakeholder Views*

53 TOKM reminds MPI of the concerns they expressed in 2003 about the primacy given to recreational fishing over ITQ when kingfish were introduced into the QMS, meaning that kingfish is now managed as a bycatch fishery.

54 Dirk Sieling submits that kingfish should not be allowed to be targeted by commercial fishers or sold commercially. He believes that kingfish are our best non-pelagic fighting fish and a larger sport-fishing industry could be based around this species if numbers increased.

55 Tarakohe Sea Anglers feel that the kingfish is now a fish sought after by the amateur fishers and is worth more to the amateur fishers than the commercial take.

### MPI Discussion

56 When KIN 7 was introduced into the QMS, an objective was to manage the commercial KIN 7 fishery as bycatch-only fishery and to increase benefits to recreational fishers. At the time of QMS introduction, the then Minister believed that the available information suggested an overall increase in utility would result from providing greater opportunity for recreational catch of kingfish. However, the Minister also recognised the competing demands for the use of kingfish and did not support fully allocating the fishery to

recreational fishers or endeavouring to provide for the needs of recreational fishers in full. Such a situation would have ignored the inevitable bycatch of kingfish in associated target commercial fisheries and would have potentially lead to excessive waste of catch and other socio-economic impacts.

## TACC and Allowances

### *Support for Option 1*

57 Tarakohe Sea Anglers, Johnathon Claridge, Zebbi King-Turner, and Bevan Middlebrook submit that there should not be any increase to the commercial quota for kingfish. Bevan Middlebrook submits that over the previous five years, only once (last season) was the KIN 7 TACC exceeded, and that this is hardly supporting data for lifting the TACC. Zebbi King-Turner cannot see any proof that KIN 7 can sustain an increase in TACC.

58 TASFISH and NZRFC submit that increasing levels of observer coverage are causing increased reporting of kingfish catches by industry and that technological advances that have had an effect on the “twine surface area” of the jack mackerel trawlers, and new lighter net materials mean that trawlers can tow faster and kingfish can no longer out-swim the nets. Commercial fishers are also now surface trawling at night time. They submit that improved technologies, improved levels of reporting and increased observer levels have contributed to increased bycatch of kingfish, not increased abundance.

### *Support for Option 2*

59 Sanford Limited and TOKM support Option 2 – an increase in the TACC to 15 tonnes – so that fishers are able to take advantage of the present strong biomass.

60 SIF and Talley’s support an increase in the KIN 7 TACC. However, they consider that the proposal for an 8 tonne increase is too conservative and that the TACC should be set at a level that would allow for further development of the KIN 7 fishery.

61 NZSFC suggests alternative management settings, including TACC of 10 tonnes (the average of the last 8 year’s reported landings, to provide incentives to avoid or release kingfish alive), adjusting the recreational allowance to 20 tonnes (the average of the last 8 year’s harvest estimates), allowing 2 tonnes for Maori customary interests, and allow 4 tonnes for other fishing related mortality.

62 TOKM support for the increase in recreational allowance is conditional on a commitment from the sector to report their catch.

## *MPI Discussion*

63 Option 1 is supported by recreational fishers. They believe that there is insufficient information to support an increase to the KIN 7 TACC and allowances, and propose a decrease in the recreational bag limit to maintain recreational catch within the current recreational allowance.

64 The economic implications of choosing Option 1 are to impose a cost on commercial fishers for the excess catch taken in target fisheries for other species. The current KIN 7 TACC is resulting in deemed value costs to commercial fishers targeting other species and taking kingfish as bycatch. Since the KIN 7 TACC was introduced in 2003, commercial stakeholders have paid total annual deemed values ranging from nil to \$192 613, or an average of \$21 401 per fishing year.

65 Maintaining the KIN 7 catch within the TACC would require further constraints to be introduced. These include a review of deemed value rates with a view to further increasing incentives for commercial fishers to avoid kingfish bycatch.

66 Much of the KIN 7 bycatch is taken in trawls targeting jack mackerel (62%), it is likely that many kingfish in those catches will be dead by the time they are sorted from large volume catches of mackerel. As large predatory fish, kingfish are likely to be feeding on the jack mackerel schools and hence taken incidentally to the target species. This supports the view that kingfish bycatch is difficult to avoid in those fisheries.

67 Industry could make changes to their fishing gear and/or fishing practices to minimise kingfish bycatch. However, the relatively small amount of kingfish bycatch would likely mean that fishers choose to pay deemed values rather than invest in new gear and fishing practices, in this instance.

68 Option 2 is supported by commercial fishers. The proposed increase TACC and recreational allowance reflect what is already being caught in some years and does not provide for significant increased harvest by commercial or recreational fishers.

69 The current KIN 7 TACC is resulting in deemed value costs to commercial fishers targeting other species and taking kingfish as bycatch. Given that much of the KIN 7 bycatch is taken in trawls targeting jack mackerel (62%), it is likely that many kingfish in those catches will be dead by the time they are sorted from large volume catches of mackerel. As large predatory fish, kingfish are likely to be feeding on the jack mackerel schools and hence taken incidentally to the target species. This supports the view that kingfish bycatch is difficult to avoid in those fisheries.

70 The alternative TACC suggested by NZSFC sits between Option 1 and Option 2, proposing a 3 tonne increase in TACC. This option proposes a greater proportion of the TAC be allocated to recreational fishers and less to the TACC. In MPI's view, the allocations recommended in this paper in relation to each option are the appropriate ones.

71 The current recreational allowance for KIN 7 is 10 tonnes. Kingfish is an important target species for recreational fishers and the recent national panel survey indicates that the recreational catch is significantly greater than this current recreational allowance. Under Option 2, the recreational allowance would be increased by 100% to cover current recreational catch.

72 The extremely small amount of kingfish reported as targeted leads us to believe a proposed increase to the TACC will not have an adverse or significant effect on associated fisheries. As long as the fishery remains a bycatch fishery, as it has since 1992, there is no information that would suggest associated target species will be adversely affected by the proposal.

73 Option 2 may be the appropriate option if you consider that sufficient incentives have been applied to reduce commercial catch of KIN 7 to a bycatch-only fishery and you do not consider current commercial and recreational catch levels to pose a sustainability issue.

74 Because commercial kingfish targeting has effectively ceased and the KIN 7 TACC is significantly below the pre-QMS average commercial catch. It is not anticipated that the proposed TAC options would result in a significant change to fishing operations.

75 Current information does not suggest a need to change the customary Māori allowance.

### Recreational Daily Bag Limits

76 TASFISH, NZRFC and Pelorus Boating Club acknowledge that the retention of the status quo could include a daily bag limit reduction from 3 to 2 kingfish in KIN 7 in order for recreational fishers to remain within the current recreational allowance. TASFISH and NZRFC support such a reduction in bag limit only if the status quo for the TAC/TACC is retained.

77 Bevan Middlebrook submits that the kingfish in KIN7 have a very high value to recreational fishers, particularly around Tasman & Golden Bays, D'Urville & Stephens Islands & the Marlborough Sounds. Recreational targeting of kingfish is increasing with the progress of modern boats and more accurate weather forecasting, and Bevan would be in support of reducing recreational bag limit from 3 to 1 kingfish per person, per day to protect the fishery, but only if the TACC was not to be increased. Troy Dando also proposes a 1 fish per person bag limit – but not if the TACC is increased.

### MPI Discussion

78 If Option 1 – the status quo – is chosen, the recreational catch will need to be constrained within the current recreational allowance.

79 Recreational submitters have proposed a reduction in bag limit for KIN 7 from 3 down to 2 kingfish per person per day. MPI notes that the FMA 7 Recreational Forum also supports and shares the views of TASFISH and NZRFC with respect to a possible decrease in recreational bag limits. It is not possible to anticipate what effect decreasing the KIN 7 bag limit from 3 to 2 would have on the amount of recreational catch.

80 You could choose a reduction to bag limits if you have a sustainability concern and consider that catch should be managed at current levels or if you want to protect against future catch increases.

81 Such a reduction would be implemented by way of a separate regulatory process during 2014.

### **Economic Considerations**

82 TASFISH and NZRFC submit that recreational fishers make a significant contribution to the local economy. They travel large distances to enjoy this fishery and spend significant amounts on gear – with reels costing up to \$1500 and lures \$30 to \$50 each. Local fishing stores report “noticing these purchases”.

83 Talley’s considers that kingfish is an unavoidable bycatch of the jack mackerel fishery, and that a more in-depth study of the economic impact of imposing a potential cap on both the jack mackerel and kingfish fisheries should have been carried out. Talley’s point out that there is 15 tonne reported kingfish catch, but the actual catch could be more in the range of 50 tonnes. The high deemed value of kingfish provides no incentive to report kingfish catch and Talley’s cite numerous instances where large trawlers in the jack mackerel fishery have caught catches of 5 tonnes in a single tow.

### *MPI Discussion*

84 MPI notes the contribution that recreational fishers make to the Nelson/Marlborough area. The KIN 7 fishery is already managed to recognise recreational value – refer paragraph 50.

85 MPI recognises the impact of kingfish bycatch on commercial fishers, but notes the Sixth Schedule is intended as a backstop.



86 MPI does not hold the necessary information for an in-depth study of the economic impact of imposing a potential cap on the jack mackerel fishery. The submission process provides an opportunity for stakeholders to supply this information.

87 However, MPI also notes that the KIN 7 TACC does not necessarily impose a cap on the jack mackerel fishery. Fishers can return live kingfish to the sea and so have the opportunity to adjust their fishing practices to mitigate mortality of kingfish. For example – adjusting tow length, avoiding time periods and depths where kingfish are likely to be caught, modifying gear, etc.

88 Another option open for industry is to explore gear modifications to reduce bycatch of large predatory fish like kingfish. Much work has been done internationally on this approach to reducing bycatch.

89 The deemed value for KIN 7 is set through a process separate to this KIN 7 TAC review (note deemed value section of this paper). Information provided by industry is incorporated into setting the deemed value.

#### Stakeholder Views: Other Submissions

90 TASFISH and NZRFC both submit that the consultation process with recreational fishers has not been meaningful.

91 NZSFC supports an alternative management option based on average catch to provide incentives for commercial fishers to avoid kingfish, release them alive, and also better cover expected bycatch of dead fish. This includes:

- 100% observer coverage on chartered factory trawlers while in New Zealand waters.
- Sixth Schedule releases to be monitored and information collected on the survivability of trawl-caught kingfish.
- Considering the impact of an increase in current catch and sixth schedule releases, and an appropriate allowance for other sources of fishing mortality made.
- Monitor kingfish abundance in KIN 7
- Identify kingfish “hot spots” to provide vessels with information on how to avoid excessive kingfish catch.

92 TASFISH also submits that finer scale management within FMA 7 needs to be implemented to allow for increased utilisation and higher value. The TACC should be broken down to be management by statistical reporting areas that better reflect the geographical nature and varying abundance levels within FMA 7 and to avoid localised depletion and provide for all sectors equally.

93 Troy Dando considers that the commercial fleet should change the way that they target mackerel to reduce the amount of kingfish bycatch. Bevan Middlebrook believes that, for the 2012-13 year-to-date, 70% of the Jack Mackerel (JMA7) quota has been caught with only 4 tonnes of kingfish landed in KIN7. Bevan encourages increasing incentives to avoid bycatch.

94 Troy Dando submits on the interdependence of the kingfish and mackerel fishstocks. He questions whether the amount of pressure on the mackerel fishery is reducing the main food source for kingfish.

95 Troy Dando also considers that a kingfish tagging programme is necessary to gain information about this fishstock.

96 TOKM submits that more needs to be done to improve management in the recreational sector by developing clearer means of restraining catch where needed and a better means of obtaining catch information.

#### MPI Discussion

97 MPI has established regionally-based Recreational Fishers Forums as the primary engagement point between MPI and recreational stakeholders. The FMA 7 Recreational Fishers' Forum was notified at the end of May 2013 that commercial stakeholders had requested a review of KIN 7 management controls. Two meetings of the FMA 7 Recreational Forum have been held to discuss this proposal, and the formal submission process undertaken, with a period of 4 weeks to make submissions.

98 KIN 7 is a Fisheries plan Group 6 stock. The management approach for Group 6 stocks is to provide opportunities for stakeholders to develop the potential of these fisheries, while minimising costs. Monitoring kingfish abundance by any method other than commercial catch would be technically challenging and very expensive and is not an economically viable option for such a small fishery.

99 MPI notes that there is already 100% observer coverage on foreign charter vessels such as those in the jack mackerel fishery.

100 MPI notes that an appropriate allowance for other sources of fishing-related mortality is being proposed under option 2.

101 Alternative management options, finer scale management, tagging programmes, and improving the management of the recreational sector are outside the scope of this KIN 7 TAC review. These proposals would be appropriately progressed through the MPI Fisheries Planning and harvest strategy development processes.

## **Additional management controls**

102 If you choose Option 1, maintaining the KIN 7 catch within the TAC and existing allowances would require further constraints to be introduced. These include a review of deemed value rates with a view to further increasing incentives to avoid kingfish bycatch (refer separate “Deemed Values” paper) and recreational fishers have proposed a reduction in bag limit for KIN 7 from 3 down to 2 kingfish per person per day.

103 Based on available data, it is likely that the recreational bag limit would need to be reduced from 3 down to 1 kingfish per person per day to constrain the catch below the current level and move it closer to the current allowance.

104 Any bag limit change would be implemented by way of a separate regulatory process, probably during 2014.

105 Talley’s also note that use of the Sixth Schedule is not a realistic solution as almost all kingfish entrapped in the cod-end are dead when retrieved.

106 Fishers can return live kingfish to the sea and so have the opportunity to adjust their fishing practices to mitigate mortality of kingfish. For example – adjusting tow length, avoiding time periods and depths where kingfish are likely to be caught, modifying gear, etc.

107 Another option open for industry is to explore gear modifications to reduce bycatch of large predatory fish like kingfish. Much work has been done internationally on this approach to reducing bycatch.

## **ASSESSMENT AGAINST STATUTORY OBLIGATIONS**

### **Purpose of the Act**

108 Section 8 of the Act says that the purpose of the Act is to provide for the utilisation of fisheries resources while ensuring sustainability. [Ensuring sustainability means maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment. Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being].

109 MPI considers that all options presented in this paper satisfy the purpose of the Act in that they provide for utilisation in the KIN 7 fishery while ensuring sustainability.

110 Both management options will ensure the long term sustainability of the stock. Option 1 is more cautious and reflects the uncertainty in information (see “Information Principles” below) about the KIN 7 stock status relative to target levels and the uncertain level of the increase in biomass. In contrast, increasing the TAC from 21 t to 41 t under Option 2 will allow for increased utilisation of the KIN 7 stock.

## General Obligations

111 In setting or varying sustainability measures, you must also act in a manner consistent with New Zealand’s international obligations to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

112 A wide range of international obligations relate to fishing, including use and sustainability of fishstocks; and maintaining biodiversity (s 5(a)). MPI considers that the management options for KIN 7 are consistent with these international obligations.

113 MPI also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5 (b)). Ongoing work is being done within the area covered by KIN 7 to promote policies that help to recognise customary use and management practices.

114 Section 12(1)(b) requires that you provide for the input and participation of tangata whenua and have particular regard to kaitiakitanga before setting or varying a TAC. Te Waka a Māui me na Toka iwi forum was approached for their collective view on LEA 3. No collective view was provided by Te Waka a Māui me Ōna Toka.

## Information Principles

115 Under section 10 of the Act, you must take into account the information principles of the Act, these being that:

- decisions should be based on the best available information,
- decision makers should take into account any uncertainty in the available information,
- decision makers should be cautious when information is uncertain, unreliable, or inadequate, 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 the Act.
- The best available information on the stock status of KIN 7 is insufficient to enable reliable estimates of  $B_{CURRENT}$  and  $B_{MSY}$ . No estimates of current and reference biomass levels or relative abundance indicators are available for KIN 7. Catch has fluctuated without trend prior to and since introduction into the Quota Management System (QMS).

## TAC

116 The TAC for KIN 7 is set under section 13 of the Fisheries Act 1996 (the Act).

117 Before a TAC can be set under section 13(2) of the Act, an assessment of  $B_{\text{CURRENT}}$  and  $B_{\text{MSY}}$  is required. The best available information that MPI currently has on KIN 7 is insufficient to enable reliable estimates of  $B_{\text{CURRENT}}$  and  $B_{\text{MSY}}$ .

118 Where estimates of  $B_{\text{CURRENT}}$  and  $B_{\text{MSY}}$  are not available, section 13(2A) of the Act provides for the Minister to use the best available information to set a TAC that is not inconsistent with the objective of maintaining the stock at or above  $B_{\text{MSY}}$ , or moving the stock towards or above,  $B_{\text{MSY}}$ .

119 Under the Act there is a requirement to act on the best available information and not postpone or fail to set a TAC due to the absence of, or uncertainty in, information.

120 Best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last year.

121 Estimates of current and reference biomass are not available. But, kingfish is a productive species and the KIN 7 catch is below historical levels. There is a reasonable chance that the KIN 7 stock is rebuilding.

122 It is unlikely that either option would be inconsistent with enabling the Minister to set a TAC that is not inconsistent with the objective of maintaining the stock at or above  $B_{\text{MSY}}$ , or moving the stock towards or above,  $B_{\text{MSY}}$ .

## Environmental Principles

123 Section 9 requires you to take into account the following environmental principles:

- associated or dependent species be maintained at or above a level that ensures their long-term viability
- the biological diversity of the aquatic environment should be maintained
- habitat of particular significance for fisheries management should be protected.

124 Key environmental issues associated with the KIN 7 fishery and how they will be affected by an increase to the TAC are discussed below:

- Incidental captures of seabirds do occur in this fishery. The number of such seabird captures has not been quantified. However, MPI considers the number of incidental seabird captures is unlikely to increase under either option because we do not expect the amount of trawling to increase significantly (see below).
- Increasing the TACC of KIN 7 will not necessarily increase the amount of trawling undertaken because the increase in TACC proposed is only at the level to cover current by-catch.
- As long as the fishery remains a bycatch fishery, as it has since 1992, there is no information that would suggest associated target species will be adversely affected by Option 2 – increasing the KIN 7 TAC and TACC.

## Section 10 - Information principles

125 Section 10 says you must take into account the following information principles when exercising or performing functions, duties or powers under the Act in relation to the utilisation of fisheries resources or ensuring sustainability:

- decisions should be based on the best available information
- decision makers should take into account any uncertainty in the available information,
- decision makers should be cautious when information is uncertain, unreliable, or inadequate, 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 the Act.

126 There is little information available upon which to base a TAC decision for KIN 7. We have no information as to whether current catch levels are sustainable and information on increasing abundance is largely anecdotal.

127 The best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last year.

## Section 11 Considerations

128 Before setting or varying any sustainability measure for any stock, you must, under Section 11:

- a) Section 11(1)(a): take into account any effects of fishing on any stock and the aquatic environment. KIN 7 is a bycatch fishery. The proposed increase in TAC under Option 2 is to current catch levels and it is not anticipated that the proposed TAC (and TACC) options would result in a significant change to fishing

operations. Therefore, it is not anticipated there will be an increase in impacts on the marine environment or on the harvest of other stocks.

- b) Section 11(1)(b): take into account any existing controls under the Act that apply to the stock or area concerned. Standard management controls apply to the KIN 7 fishery, for example deemed values, amateur bag limits, amateur and commercial minimum size limits, and fishing method constraints. The proposed changes to the TAC do not affect these measures.
- c) Section 11(1)(c): take into account the natural variability of the stock. This has been discussed above in relation to the biological characteristics of KIN 7.
- d) Sections 11(2)(a) and (b): have regard to any provisions of any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991 and any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and that you consider relevant. MPI considers that both options proposed are consistent with the Hector's Dolphin Threat Management Plan. MPI is not aware of any other policy statements, plans or strategies are required to be taken into account for the KIN 7 stock.
- e) Section 11(2)(c): have regard to any provisions of s 7 and s 8 of the Hauraki Gulf Marine Park Act 2000 that apply to the coastal marine area and that you consider relevant. You must have particular regard to these provisions when setting or varying the TACC. The boundaries of the quota management area for the KIN 7 stock do not intersect with the Park boundaries, therefore this criterion is not relevant to your assessment.
- f) Section 11(2A)(b): take into account any relevant fisheries plans approved under s 11A. There are no such relevant fisheries plans you need consider.
- g) Sections 11(2A)(a) and (c): take into account any relevant conservation or fisheries services, or any decision not to require such services. MPI does not consider that existing or proposed services materially affect the proposals for this stock. No decision has been made to not require a service in this fishery at this time; therefore, this criterion is not relevant to your assessment.

## TACC and Allowances

129 When setting or varying a TACC for a stock under section 20 of the Act, you must, under section 21 of the Act, have regard to the TAC for that stock and allow for Māori customary non-commercial fishing interests, recreational fishing interests, and for any other sources of fishing-related mortality.

130 When allowing for Māori customary fishing interests, you must take into account any mātaihai reserve or closures/restrictions under s 186A in the relevant quota management area (s21(4)).

131 When allowing for recreational interests, you must take into account any regulations in place following a recommendation made by you the Minister under s 311 of the Act that prohibit or restrict fishing (s21(5)).

132 The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on the best available information. In the event of imperfect information, you are entitled to be cautious.

133 There is no proposal to increase the Māori customary allowance for KIN 7. The KIN 7 TAC was last reviewed in 2003 when KIN7 was introduced to the QMS. Information on Māori customary catch is uncertain but MPI has no information to indicate that Māori customary catch has changed significantly over the last 10 years.

134 The Whakapuaka (Delaware Bay) Taiapure, and the Te Tai Tapu, Manakiaua/Hunts Beach, Mahitahi/Bruce Bay, Tauperikaka, and Okura/Mussel Point mātaihai reserves are all within the KIN 7 quota management area. MPI notes that the proposals in this paper will not impact on, or be impacted by, these taiapure and mātaihai reserves. The boundaries of the quota management area for the KIN 7 stock do not intersect with the fisheries waters covered by s 186A of the Act; therefore this criterion is not relevant to your assessment.

135 New recreational fishing information has become available in the form of the national panel survey results, indicating that recreational snapper catch in KIN 7 is currently around 20 tonnes; double the current allowance of 10 t. Option 2 proposes to increase the recreational allowance by 10 tonnes (100%) to cover this current recreational catch. Under Option 1, recreational fishers have proposed that the recreational bag limit for KIN 7 be reduced from 3 to 2 kingfish per person per day to constrain recreational catch within the current recreational allowance. (MPI notes that such a regulation change would not be able to be implemented until 2014 because of the timeframes required by the regulatory process.)

136 There are no areas closed to commercial fishing methods made under s 311 of the Act in place in the KIN 7 quota management area; therefore this criterion is not relevant to your assessment when allowing for recreational interests.

## CONCLUSIONS

137 Since the introduction of KIN 7 to the QMS in 2003, the commercial catch of KIN 7 has exceeded the TACC for three of the nine fishing years. This has occurred despite high deemed values and the ability to use the Sixth Schedule of the Act to return live kingfish to the sea. KIN 7 is not a target fishery and the majority of this over-catch is bycatch of the jack mackerel mid-water trawl fishery.



138 New information is available regarding the recreational catch in KIN 7 indicating that current recreational catch is significantly in excess of the recreational allowance.

139 We have no information as to whether current catch levels are sustainable. However, commercial kingfish targeting effectively ceased during the mid 1990s and the KIN 7 TACC is significantly below the pre-QMS average.

140 Kingfish has traditionally been managed as a commercial bycatch fishery (by policy rather than by law) because of its value to the recreational sector.

141 Option 1 (the status quo) reflects a cautious approach, reflecting the uncertainty in information about the KIN 7 stock status relative to target levels and the uncertain level of any increase in biomass. This option proposes retaining the current TAC, TACC and allowances.

142 Maintaining the KIN 7 catch within the TAC and existing allowances would require further constraints to be introduced. These could include a review of deemed value rates with a view to further increasing incentives to avoid kingfish bycatch; amendments to the TACs and TACCs of one or more of the associated target fisheries to reduce total kingfish bycatch; review of the recreational daily bag limit, from 3 kingfish per day to 2 kingfish per day, with a view to restraining recreational catch within the recreational allowance. (MPI notes that alteration of the recreational bag limit would require an additional regulatory process and changes would not be implemented until 2014.)

143 Option 2 proposes changes to the TAC that are intended to accommodate what is currently taken as commercial bycatch and recreational catch. To support this option, MPI proposes introducing a revised differential deemed value rates schedule for KIN 7 (refer separate “Deemed Values” paper) to further encourage fishers to remain within the proposed new TACC limits (refer to Deemed Value IPP) (kingfish is on the Sixth Schedule and live fish may be returned to the sea).

144 Option 2 is unlikely to encourage development of a KIN 7 target fishery, consistent with the decisions made on introduction of the stock into the QMS in 2003.

## RECOMMENDATIONS

MPI recommends that, for the KIN 7 fishery, you choose either

### Option 1

YES / NO

**Agree** to retain the existing TAC, TACC, and allowances for KIN 7 as follows:

- i) **retain** the existing TAC at 21 tonnes,
- ii) **retain** the Māori customary fishing allowance at 2 tonnes,
- iii) **retain** the recreational fishing allowance at 10 tonnes,
- iv) **retain** the other sources of fishing-related mortality allowance at 2 tonnes,
- v) **retain** the existing TACC at 7 tonnes.

**Note that** recreational fishers have proposed a reduction in bag limit for KIN 7 from 3 down to 2 kingfish per person per day. Such a reduction would be implemented by way of a separate regulatory process during 2014.

**OR**

### Option 2

YES / NO

*(MPI preferred)*

**Agree to** vary the TAC, TACC, and allowances for KIN 7 as follows:

- i) **set** the TAC at 41 tonnes,
- ii) **retain** the Māori customary fishing allowance at 2 tonnes,
- iii) **set** the recreational fishing allowance at 20 tonnes,
- iv) **set** the other sources of fishing-related mortality allowance at 4 tonnes,
- v) **set** the TACC at 15 tonnes.

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

# REVIEW OF SUSTAINABILITY MEASURES AND OTHER MANAGEMENT CONTROLS FOR LEATHERJACKET (LEA 3)

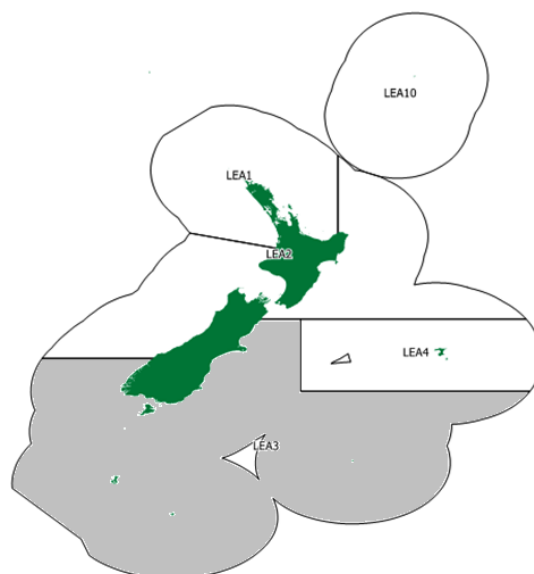


Figure 1: Quota Management Area (QMA) boundaries for Leatherjacket

## EXECUTIVE SUMMARY

1 The Ministry for Primary Industries (MPI) is providing the following options for your consideration and decision for the management settings of the Total Allowable Catch (TAC) for Leatherjacket in Quota Management Area 3 (LEA 3), see figure 1, that would take effect from 1 October 2013.

Table 1: Final proposals – TACs, TACCs, and Allowances for LEA 3

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status Quo)	108	100	1	2	5
Option 2	140	130	1	2	7

2 The available information to inform TAC setting for LEA 3 is insufficient to enable reliable estimates of  $B_{MSY}$ . Where reliable estimates of  $B_{MSY}$  are not available, s 13(2A) of the Fisheries Act 1996 (the Act) requires you to use best available information to set a TAC that is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce the maximum sustainable yield.

3 The best available information on stock status for LEA 3 is a recent characterisation and CPUE analysis. There was an indication that CPUE from the Canterbury Bight fishery has increased since the early 2000s.

4 The large extent of the LEA 3 quota management area and the relatively low volume of catch in LEA 3 in the past, suggest based on distribution of leatherjackets that there be may an opportunity to provide for a modest increase in utilisation over the medium term and that this may have a limited impact on the stock. The proposed TAC increase option makes allowance for the reported landings over the last four years, with limited additional utilisation.

5 Because of the distribution of leather jacket over a large management area, and the low volume of previous catches, MPI considers both the options proposed are not inconsistent with the objective of maintaining the LEA 3 stock at or above, or moving the stock towards or above, a level that can produce the maximum sustainable yield.

6 Option 1 is the status quo and the existing TAC would be retained at 108 t. This option reflects a cautious approach to sustainability and there is potential for economic growth that will not be realised under Option 1.

7 MPI recommends Option 2, which would result in an increase in the TAC to 140 t and the TACC to 130 t (slightly above the actual catch over the last four years). Option 2 would provide the commercial sector with an opportunity to increase utilisation. Based on the 2012/13 port price of \$0.67 per kilogram, commercial catch of 30 t would be worth approximately \$20,100 annually.

8 There is no current biomass estimate for LEA 3. It is not known what stock size would produce the maximum sustainable yield ( $B_{MSY}$ )

9 Both options retain the current Māori customary and recreational allowances. Catch from these sectors makes up a relatively small component of overall catch.

10 MPI received four submissions that responded to the proposals for LEA 3 in the Initial Position Paper (IPP).

11 South East Finfish Management Company Ltd (South East Finfish), Te Ohu Kaimoana Trustee Limited (Te Ohu) and Sanford Limited (Sanford) all support option 2, an increase to the TAC and TACC.

12 The New Zealand Recreational Fishing Council (NZRFC), support the retention of the status quo.

## KEY CONSIDERATIONS

### Need to Act

13 The Management settings for LEA 3 have not been reviewed since leatherjacket was introduced into the Quota Management System (QMS) on 1 October 2003. Catch figures from combined monthly harvest returns (MHR) have exceeded the current TACC of 100 tonnes in the last four years.

14 The TAC for LEA 3 is set by you under section 13 of the Fisheries Act 1996 (the Act). Section 13 requires you, as the Minister for Primary Industries<sup>27</sup> (the Minister), to set a TAC that enables the stock to be maintained at, or move towards, a level at or above the level that will produce the maximum sustainable yield ( $B_{MSY}$ ).

15 Where estimates of  $B_{CURRENT}$  and  $B_{MSY}$  are not available, s 13(2A) of the Act provides for you to use the best available information to set a TAC that is not inconsistent with the objective of maintaining the stock at or above  $B_{MSY}$ , or moving the stock towards or above,  $B_{MSY}$ .

### Stock status

16 The best available information that MPI currently has on LEA 3 is insufficient to enable reliable estimates of  $B_{CURRENT}$  and  $B_{MSY}$ .

17 In a recent characterisation and CPUE analysis there was an indication that CPUE from the Canterbury Bight fishery has increased since the early 2000s. The index showed that the CPUE remained low at the start of the series and then began to increase from 2007/08 to 2011/12. However there are a low number of vessels included in this analysis, and changes in market preferences have increased retention of bycatch, and increased targeting these two factors are likely to have increased the CPUE. This leads to the conclusion that the index may not be reliable as an index of relative abundance and has limited value as an indicator of stock status.

18 In a recent characterisation and CPUE analysis there was an indication that CPUE from the Canterbury Bight fishery has increased since the early 2000s. The index showed that the CPUE remained low at the start of the series and then began to increase from 2007/08 to 2011/12. However there are a low number of vessels included in this analysis, and changes in

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<sup>27</sup> The Minister for Primary Industries now exercises the powers and duties of the Minister of Fisheries under the Act.

market preferences have increased retention of bycatch, and increased targeting these two factors are likely to have increased the CPUE. This leads to the conclusion that the index may not be reliable as an index of relative abundance and has limited value as an indicator of stock status.

19 The Southern Inshore Fisheries Assessment Working Group (the Working Group) concluded that this analysis only pertains to the stock unit for the East Coast of the South Island; and although unreliable is the best available information on the stock abundance at this stage, but trawl survey data may provide better information in the future.

20 The East Coast Trawl survey is monitoring both pre-recruited groups of fish and fish in the catchable size range. The total trawl survey biomass estimates for the entire survey area (10-400m) have large confidence intervals (errors), and there are only 2 years of useful information for the 10-400m depth range, there is some indication that the 30-400m depth have shown an increase in recent years. Further developments resulting from proposed enhanced design of the survey will result in better and more robust information on leatherjacket biomass in future. This will provide a much better independent estimate of the leatherjacket populations.

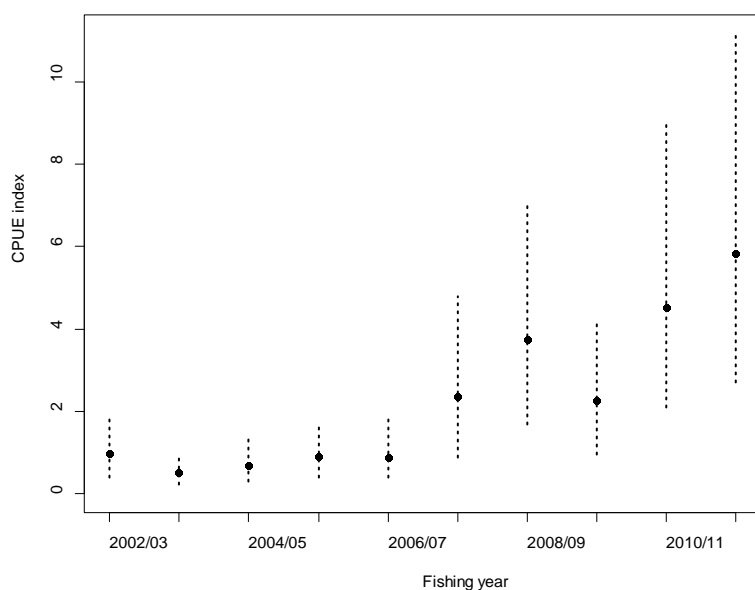


Figure 2: 2013 standardised CPUE index for Leatherjacket on the East Coast South Island

21 The CPUE index should be treated with caution as it is based on a very small dataset and, is confounded by changes to the market for leatherjacket, consequently, these data are very uncertain (as can be seen by the large confidence intervals in Figure 1.2). It is also likely that discarding and management changes in this fishery have biased the CPUE trends for this fishery. In particular, it is likely that actual catch is higher than reported. If discarding practices have changed with changes in stock abundance or market trends, the real CPUE trend could change. However, MPI is not able to quantify the extent of this bias. Prior to

introduction into the QMS landings in FMA 3 were consistent, and were thought to be 70-80% of catch.

### Relevant Fishery Information

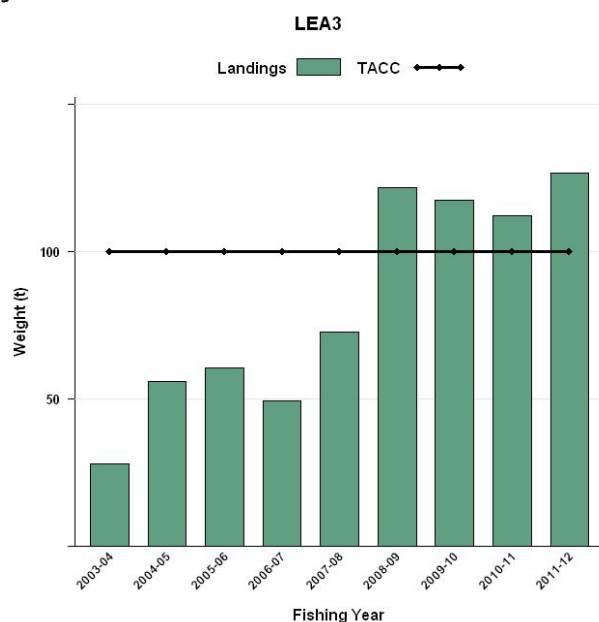
22 Leatherjacket is currently a low value commercial fishery. The Fish Monetary Stock Account: 1996–2009 published by Statistics New Zealand in 2010 estimated the 2009 asset value of all stocks of leatherjacket at \$1.9million

23 Leatherjacket is usually described as being most common near reefs and over rough seafloor, but it also occurs over sand, and it may at times be found some distance above the bottom. It is not a schooling species, but may occur in small groups. It is not a strong swimmer, and movements are likely to be localised.

24 Bottom trawl accounts for 98% of the LEA 3 catch and 80% of the total catch is caught by eight vessels. A recent development is the greater proportion of catch that is taken by trawl fishery targeting spiny dog fish in statistical area 025. The main other catches of LEA 3 are bycatch associated with the targeting of flatfish.

25 Reported commercial landings from LEA 3 have consistently exceeded the TACC since the 2008/09 fishing year (see Figure 3). Landings in 2011-12 exceeded the TACC by 26%. The deemed value charges in that year were approximately \$21,000. The TACC was again exceeded in 2010/11 to a lesser extent however, deemed value payment was \$4500. Landings to date indicate that the TACC may be exceeded again in this 2012/13 fishing year.

Figure 3: Reported Catch Landings and TACC (t) for LEA 3 from 2003/04 to the 2011/12 fishing year



## Recreational Fishery

26 Available information is not sufficient to provide an estimate of recreational catch for LEA 3.

## Customary Māori Fishery

27 Customary catch data available for most of the LEA 3 QMA does not show any catch of LEA 3.

## CONSULTATION

28 An IPP was released on 12 July 2013 and contained the same options as set out in Table 1. MPI consulted with tangata whenua and stakeholders.

### Submissions

29 MPI received 4 submissions on the IPP from:

- New Zealand Recreational Fishing Council (NZRFC)
- South East Finfish Management Company Ltd (South East Finfish)
- Sanford Limited (Sanford)
- Te Ohu Kaimoana Trustee Limited (Te Ohu)
- All submissions are attached to this paper for your reference

30 South East Finfish, Sanford, Te Ohu support Option 2 – increase the TAC to 140 t and increase the TACC by 30%.

### TAC

31 Two options were consulted on; Option one - status quo and Option two - an increase to the TAC from 108 to 140 tonnes

### *Support for option 1*

32 NZRFC supports Option 1 the status quo and states that the option of an increase is too large for a fishery where estimates of current and reference biomass are not available for any leatherjacket stocks.



## *Support for option 2*

33 South East Finfish welcomes an increase and notes that it believes the fishery is appropriately monitored by the East Coast Trawl survey and commercial CPUE analysis. South East Finfish have agreed to include LEA 3 in their commercial finfish plan for regular analysis.

34 Sanford submits that it supports the increased capacity for commercial catch which provides flexibility for fishers, but also states that fishers require workable catch plans and any suspected incidents of fish discarding should be actively investigated.

35 Te Ohu supports option 2, they agree that this will provide for current catch levels. Te Ohu is of the opinion that this increase is unlikely to result in greater fishing effort but will mean the commercial sector can gain greater value from the fishery.

## MPI Discussion

36 The Act contains a number of specific provisions to ensure a stock is managed sustainably. A key measure is the setting of a TAC for a QMS stock.

37 For LEA 3, Section 13 of the Act applies. Under s 13, there is a requirement to maintain the biomass of a fishstock at or above a level that can produce the maximum sustainable yield (MSY), having regard to the interdependence of stocks.

38 MSY is defined, in relation to any fishstock, as being the greatest yield that can be achieved over time while maintaining the stock's productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock.

39 The obligation to have regard to the interdependence of stocks when setting a TAC requires consideration of the effects of fishing on associated stocks harvested with the target stock, and the role of the target stock in the food chain. In particular, it involves a direct trophic (ie, one stock is likely to be directly affected through a predator or prey relationship by the abundance of another stock) or symbiotic (ie, a close and often long-term interaction between two or more different biological species) relationship between stocks.

40 MPI considers both the options proposed are not inconsistent with the objective of maintaining the LEA 3 stock at or above the level that can produce the maximum sustainable yield in the medium-term. This is primarily a bycatch fishery and current target fisheries in which LEA 3 is caught have stable fishing effort.

41 MPI agrees with South-East Finfish, Sanfords and Te Ohu that the CPUE data is indicating a relatively abundant fishery and the best available information suggests that

catches at current levels would be unlikely to cause the stock to decline. MPI also strongly endorses the continued research and monitoring as this will pick up any changes in abundance.

42 MPI agrees with caution being applied as the CPUE index is based on a relatively small dataset and, consequently, contains some uncertainty, as can be seen by the large confidence intervals (in Figure 2.2). It is also likely that discarding in this fishery may have biased the CPUE trends. In particular, it is likely that actual catch is higher than reported. Given this uncertainty, and the biological characteristics of the stock, Option 2 involves a slightly higher risk to the sustainability of the stock. Given the associated uncertainty with using catch as monitoring tool for stock status, a relatively cautious approach should be taken to adjusting catch limits, particularly for species with biological characteristics that make them vulnerable to fishing, like leatherjacket. Additional information or monitoring could support a less cautious approach for these low knowledge stocks such as LEA 3.

### *Option 1*

43 Under option 1, the existing TAC would be retained. The current TAC is consistent with the objective of maintaining the stock at, or moving it towards or above,  $B_{MSY}$ .

44 Option 1 presents a cautious approach to sustainability of LEA 3.

45 Retaining the current TAC could result in opportunity loss for the commercial sector. Option 1 is not reflecting actual commercial utilisation trends of the last four years that have averaged 120 t. Option 1 requires the on-going cost to fishers of covering over-catch of LEA 3 with deemed value payments.

46 The current TAC for LEA 3 may be constraining both the leatherjacket fishery and associated target fisheries. In mixed fisheries, fishers have to change fishing practices and behaviours as they manage annual catch entitlement (ACE) constraints in bycatch species, such as leatherjackets.

### *Option 2 (MPI preferred option)*

47 Under option 2 the TAC would increase to 140 t with a 30 t increase in the TACC, to 130 t. The allowance for other sources of fishing related mortality would be increased from 5 t to 7 t (maintaining its level at approx 5% of the TACC).

48 Option 2 presents a slightly higher risk to the long-term sustainability of the LEA 3 stock relative to Option 1. However, MPI considers this risk is still low and Option 2 provides for some growth opportunities.

49 Commercial fishers support this option.

#### *TACC and Allowances*

50 MPI proposed the TACC allowances remained unchanged under Option one (status quo) or that the TACC is increased from 100t to 130 t under Option 2, the recreational and customary allowances also remain unchanged in Option 2 , the other sources of fishing related mortality is increased to 7t (approx 5% of the TACC).

#### *Customary Allowance*

51 No submissions were received on the customary allowance therefore the existing allowance is considered appropriate.

#### *Recreational Allowance*

52 No submissions were received on the recreational allowance therefore the existing allowance is considered appropriate.

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

53 The standard allocation has been applied at approx 5% of the TACC in this case 7 t.

### **TACC**

#### *Support for Option 1*

54 NZRFC supports Option 1 the status quo and states that the option of an increase is too large for a fishery where estimates of current and reference biomass are not available for any leatherjacket stocks.

#### *Support for Option 2*

55 South East Finfish, Sanford, and Te Ohu support Option 2 – increase the TACC to 130 t.

#### *MPI Discussion*

56 Increasing the TACC would provide the commercial sector with an opportunity to increase utilisation. Based on the 2012 port price of \$0.67 per kilogram, an additional 30 t would be worth approximately \$20 100 annually.

57 MPI suggests that a 30 t increase in the TACC is a measured response to the current catch levels in LEA 3. With continued monitoring through the trawl survey and analysis of commercial CPUE, it will be possible for MPI to respond swiftly to any changes in stock abundance.

### **Additional Management Controls**

58 MPI has proposed minor changes to the deemed value settings for LEA 3 to complement the TAC increase, details of this are included in the Deemed Value FAP that you are also considering.

## **ASSESSMENT AGAINST STATUTORY OBLIGATIONS**

### **General Obligations**

59 MPI considers that all options presented in this paper satisfy your obligations under s 8 of the Act in that they provide for utilisation in the LEA 3 fishery while ensuring sustainability. Each management option proposed will ensure the long term sustainability of the stock. Option 1 is more cautious but is likely to limit utilisation opportunities. In contrast, increasing the TACC to 130 t under Option 2 will allow for increased utilisation.

60 In setting or varying sustainability measures, you must also act in a manner consistent with New Zealand's international obligations to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

61 A wide range of international obligations relate to fishing, including use and sustainability of fishstocks; and maintaining biodiversity (s 5(a)). MPI considers that the management options for LEA 3 are consistent with these international obligations.

62 MPI also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5 (b)). Ongoing work is being done within the area covered by LEA 3 to promote policies that help to recognise customary use and management practices.

63 There is also an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga (under s 12). Te Waka a Māui me na Toka iwi forum was approached for their collective view on LEA 3. No collective view was provided by Te Waka a Māui me Ōna Toka.

### **TAC**

64 Where  $B_{MSY}$  cannot be estimated reliably using the best available information, then section 13(2A) of the Act requires you to set a TAC that is “not inconsistent” with the objective of maintaining the stock at or above, or moving the stock to a level at or above  $B_{MSY}$ , in a way and rate considered appropriate for the stock. In doing so you must have regard to the interdependence of stocks, the biological characteristics of the stock, and any environmental conditions affecting the stock. You must not use the absence of or uncertainty in, the best available information as a reason for postponing or failing to set a TAC.

65 LEA 3 is a bycatch of the East Coast South Island bottom trawl fisheries, which primarily target flatfish or red cod. There are a number of other species caught in these fisheries, for example barracouta, gurnard, stargazer, tarakihi, skate and spiny dogfish.

66 The New Zealand leatherjacket (*Parika scaber*) is present around much of New Zealand, but is most common in the north. Trawl survey records show it to be widespread over the inner shelf of the South Canterbury Bight, extending to depths beyond 100 m, but with greatest abundance at 40–60m.

67 In considering the way in which and rate at which a stock is moved towards or above  $B_{MSY}$ , you must have regard to such social, cultural, and economic factors as you consider relevant.

## Environmental Considerations

68 The Act requires that when any effect of fishing is adverse this effect should be avoided, remedied or mitigated. More specifically, s 9 requires you to take into account that associated or dependent species be maintained at or above a level that ensures their long-term viability, that the biological diversity of the aquatic environment should be maintained, and habitat of particular significance for fisheries management should be protected.

69 Key environmental issues associated with the LEA 3 fishery and how they will be affected by an increase to the TAC are discussed below:

- There are measures in place in the LEA 3 fishery to mitigate the impacts of fishing on Hector’s dolphins. Any TAC and TACC increase for LEA 3 will not affect these measures and they will continue to be just as effective. However, there remains a risk of incidental capture of Hector's dolphins under both options.
- Incidental captures of seabirds do occur in this fishery. The number of such seabird captures has not been quantified. However, MPI considers the number of incidental seabird captures is unlikely to increase under any of the options because we do not expect the amount of trawling to increase significantly.
- LEA 3 is mainly a bycatch of the ECSI bottom trawl fishery. Increasing the TACC of LEA 3 will not necessarily increase the amount of bottom trawling

undertaken. Option 2 would only increase the TACC to slightly above the level of current catch.

- Some concerns have been raised about catch being taken in “hay paddocks”; these are polychaete worm beds that are biologically sensitive, habitat forming areas, which appear to be diminishing in aerial extent as a consequence of disturbance from bottom trawling, as above under option 2 MPI does not expect increases to the amount or location of bottom trawling. MPI will closely monitor any increase in targeted fishing, by activity and location, and if an increase in fishing activity does occur MPI can look at appropriate measures to manage any issue that may arise.

## Section 10 Information Principles

70 Section 10 says you must take into account the following information principles when exercising or performing functions, duties or powers under the Act in relation to the utilisation of fisheries resources or ensuring sustainability:

- decisions should be based on the best available information
- decisions makers should take into account any uncertainty in the available information
- decision makers should be cautious when information is uncertain, unreliable or inadequate; 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 the Act.

71 The best available information on stock status for LEA 3 is insufficient to enable reliable estimates of  $B_{CURRENT}$  and  $B_{MSY}$ . Trends in stock status for LEA 3 were assessed through: CPUE analysis to assess trends in the catch rates.

## Section 11 Considerations

72 In making your decisions on sustainability measures for LEA 3, you must also have regard to the requirements of s 11 of the Act as follows:

- a) Section 11(1)(a): Before setting or varying any sustainability measure for any stock, you must take into account any effects of fishing on any stock and the aquatic environment. The majority of LEA 3 commercial take is as bycatch in bottom-trawl fisheries targeting flatfish and spiny dogfish, targeted fishing for leatherjackets accounts for approx 10% of the annual catch. As the TAC proposals do not affect catch limits for the key species targeted when LEA 3 is taken, it is not anticipated that the proposed TAC (and TACC) options would result in a significant change to fishing operations. Therefore, it is not anticipated there will

be an increase in impacts on the marine environment or on the harvest of other stocks.

- b) Section 11(1)(b): Before setting or varying any sustainability measure for any stock, you must take into account any existing controls under the Act that apply to the stock or area concerned. Standard management controls apply to the LEA 3 fishery, for example deemed values, amateur bag limits, amateur minimum size limits, and fishing method constraints. The proposed changes to the TAC do not affect these measures.
- c) Section 11(1)(c): Before setting or varying any sustainability measure for this stock, you must take into account the natural variability of the stock. This has been discussed above in relation to the biological characteristics of LEA 3.
- d) Sections 11(2)(a) and (b): Before setting or varying any sustainability measure for any stock, you must have regard to any provisions of any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991 and any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and you consider relevant. MPI considers that both options proposed are consistent with the Hector's Dolphin Threat Management Plan. MPI is not aware of any other policy statements, plans or strategies that should be taken into account for the LEA 3 stock.
- e) Section 11(2)(c): Before setting or varying any sustainability measure for any stock, you must have regard to any provisions of s 7 and s 8 of the Hauraki Gulf Marine Park Act 2000 that apply to the coastal marine area and that you consider relevant. The boundaries of the quota management area for this stock do not intersect with the Park boundaries.
- f) Section 11(2A)(b): Before setting or varying any sustainability measure for any stock, you must take account of any relevant and approved fisheries plans. There is no approved fisheries plan in place for any inshore stock at this time.
- g) Sections 11(2A)(a) and (c): Before setting or varying any sustainability measure for any stock, you must take into account any conservation or fisheries services, or any decision not to require such services. MPI does not consider that existing or proposed services materially affect the proposals for this stock. No decision has been made to not require a service in this fishery at this time.

## TACC and Allowances

73 Section 21 of the Act requires you to allow for Māori customary non-commercial interests, recreational fishing interests, and for any other sources of fishing-related mortality, when setting or varying the TACC. The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or

prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on the best available information.

74 There is no proposal to increase either the customary or recreational allowances for LEA 3. The LEA 3 TAC was set in 2003, when allowances for Māori customary and recreational were also set. Information on Māori customary catch and recreational catch is uncertain. However, MPI considers that neither Māori customary nor recreational catch have changed significantly over the last ten years. No submissions identified any new information that would support a change to the current non-commercial allowances.

75 Section 21(4) requires you to take into account any mātaitai reserve or closures/restrictions under s 186A to facilitate customary Māori fishing. MPI is aware of the Koukourarata, Te Kaio, Moeraki, East Otago Taiapure, Puna-wai-Toriki (Hayes Gap), Oreti, Waikawa Harbour, Te Whaka a Te Werea, Horomamae, Pikomamaku, and Kaihuka Mātaitai Reserves. MPI notes that the proposals in this paper will not impact on, or be impacted by, these taiapure or mātaitai reserves, as no leatherjacket fishing occurs in these.

## CONCLUSIONS

76 LEA 3 catch has been in excess of the TACC for the last four years. The information available supports an increase in catch to this level (slightly above the average catch over the last four years) for the short term. Ongoing monitoring through the east coast South Island trawl survey and the existing CPUE analysis, with a view to review the TAC again in two or three years, will ensure that the population response to the management change can be detected.

77 A TACC of 130 t would enable increased utilisation and economic benefit for the commercial sector.

78 The Ministry considers both options are consistent with your statutory obligations.

79 MPI notes that you have broad discretion in exercising your powers of decision making, and may make your own independent assessment of the information presented to you in making your decision.



## RECOMMENDATIONS

MPI recommends that, for the LEA 3 fishery, you choose either:

### Option 1

YES/ NO

**Agree to** retain the existing TAC, TACC, and allowances for LEA 3 as follows:

- i) **retain** the existing TAC at 108 tonnes,
- ii) **retain** the Māori customary fishing allowance at 1 tonnes,
- iii) **retain** the recreational fishing allowance at 2 tonnes,
- iv) **retain** the other sources of fishing-related mortality allowance at 5 tonnes,
- v) **retain** the existing TACC at 100 tonnes.

**OR**

### Option 2

YES / NO

*(MPI preferred)*

**Agree to** vary the TAC, TACC and allowances for LEA 3 as follows:

- i) **set** the TAC at 140 tonnes,
- ii) **retain** the Māori customary fishing allowance at 1 tonnes,
- iii) **retain** the recreational fishing allowance at 2 tonnes,
- iv) **set** the other sources of fishing-related mortality allowance at 7 tonnes,
- v) **set** the TACC at 130 tonnes.

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

# REVIEW OF SUSTAINABILITY MEASURES AND OTHER MANAGEMENT CONTROLS FOR CHATHAM ISLAND DREDGE OYSTERS (OYS 4)

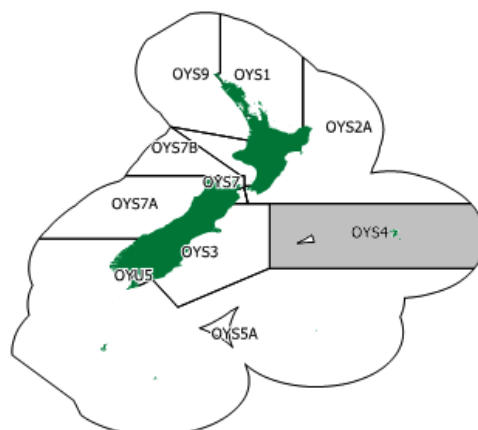


Figure 1: Quota Management Area (QMA) boundaries for dredge oysters showing OYS 4 in grey

## SUMMARY

1 The Ministry for Primary Industries (MPI) proposes the following options outlined in Table 1 for the total allowable catch (TAC), total allowable commercial catch (TACC), and allowances for OYS 4.

Table 1: Proposed TACs, TACCs and allowances for OYS 4

Option	Allowances				TACC (t)
	TAC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing-related mortality (t)	
Option 1 ( <i>Status quo</i> )	20	2	2	1	15
Option 2	50	2	2	2.5	43.5

2 Any variation to the TAC for OYS 4 can be done under section 13(4) and section 13(2A) of the Fisheries Act 1996 (the Act). Variations to the TACC can be done under section 20(2) after making the allowances provided for in section 21.

3 Currently, the OYS 4 fishery is not being utilised. Following a recent biomass survey, MPI considers that there is an opportunity to increase the TAC and promote utilisation of the OYS 4 fishery.

4 MPI received three submissions in response to the proposals for OYS 4. Two submitters supported Option 2 to increase the TAC, while one submitter supported the retention of the status quo (Option 1).

5 While Option 2 carries more of a sustainability risk than Option 1, MPI considers both options are “not inconsistent” with the objective of maintaining the OYS 4 stock at or above  $B_{MSY}$  or moving the stock towards or above  $B_{MSY}$ . Option 2 is more likely to promote utilisation and development of this fishery, and has the potential to generate revenue of over \$500,000.

## KEY CONSIDERATIONS

### Need to Act

6 The OYS 4 fishery is not currently being utilised. MPI understands that this is primarily due to ongoing costs associated with sanitation and biotoxin requirements, which have dampened interest in investing in the OYS 4 fishery at the level of the current TAC and TACC.

7 New information suggests that the OYS 4 fishery could sustain an increase in TAC. Following the results of a recent biomass survey by NIWA, the MPI Shellfish Working Group recommended a TAC for OYS 4 of between 40 t and 60 t greenweight, contingent upon a credible harvest strategy being developed in conjunction with any increases in TAC.

8 A credible harvest strategy will involve annual monitoring of catch trends and conducting another biomass survey in 3 – 5 years, depending on the nature of the catch trends. MPI may also propose biological studies or estimates of dredge efficiency.

### Biological Characteristics of Chatham Island Dredge Oysters

9 There are no available data on the growth and age characteristics of Chatham Island dredge oysters. The available habitat in the Chatham Islands and the morphology of the oyster shells suggest that growth may be fast in this area. Evidence also suggests that recruitment of dredge oysters can be widely variable in the Chatham Islands.

10 Dredge oysters are widely distributed in New Zealand waters from the intertidal to depths of 100m. Information on the same species in Foveaux Strait indicates that growth can differ considerably between areas, seasons, and years. Oyster spat generally recruit to the legal sized population between 4 and 8 years of age in Foveaux Strait. Mortality is also variable. It is thought that 2% of oyster spat will survive the first winter in Foveaux Strait, but that natural mortality is low for adult individuals.

## Stock Status

11 Reliable estimates of  $B_{MSY}$  are not available for Chatham Island dredge oysters. The best available information on stock status for OYS 4 comes from a biomass survey conducted in March 2013 by NIWA scientists. Estimates of 'maximum constant yield' and 'current annual yield' calculated from the survey data were considered to be unreliable by the MPI Shellfish Working Group because of uncertainty in the parameters used to calculate these values.

12 The biomass survey produced an estimate for current recruited biomass (at or above minimum legal size) of 427 t greenweight for dredge oysters within an area approved for sanitation clearance.

13 This biomass estimate is likely to be conservative. The NIWA survey assumed 100% dredge efficiency, which assumes that 100% of oysters that exist in the path of the dredge are captured by the dredge. For comparison, dredge efficiency is assumed to be 17% in Foveaux Strait, indicating that only 17% of oysters inhabiting the area targeted by a dredge are thought to be captured by the dredge.

14 Given this conservative biomass estimate, and that fishing has been limited in the past ten years, it is likely that OYS 4 is above  $B_{MSY}$ .

## Relevant Fishery Information

15 Chatham Island dredge oysters were introduced into the Quota Management System in 2005. They are currently unexploited as a commercial fishery in the Chatham Islands. Small levels of catch were reported prior to the 2003/04 fishing year, with no catch reported since then (Figure 2).

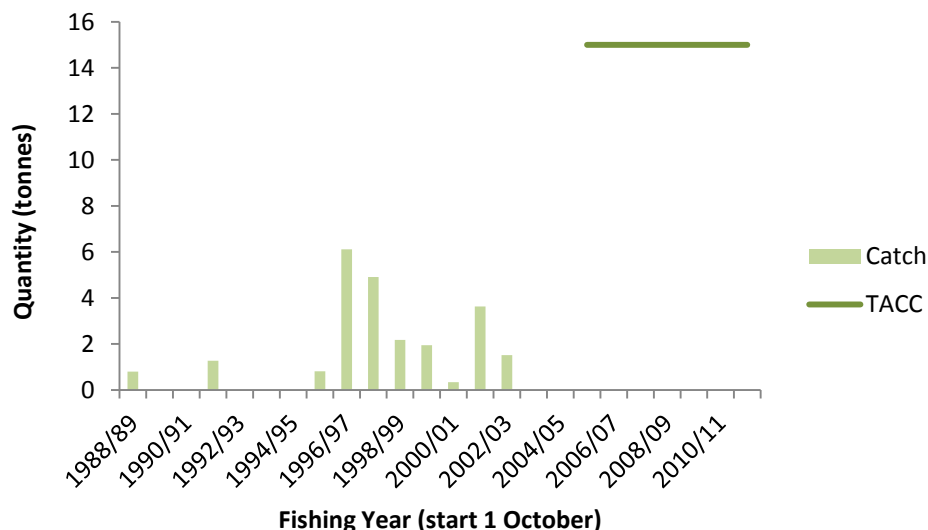
16 Shellfish fisheries are subject to sanitation and biotoxin requirements, overseen by MPI verification services. Before harvesting can begin, each harvest area must meet specific sanitation requirements. Applications further require ongoing monthly and annual testing, as well as annual reporting.

17 MPI understands that two areas have had sanitation clearance confirmed in the Chatham Islands; however, that logistics and ongoing costs of sanitation requirements are limiting factors in the development of this fishery at the level of the current TAC and TACC.

18 The best available information indicates that there is currently no recreational fishing occurring for OYS 4. There are no available estimates of Māori customary use, or records of harvest, for Chatham Island dredge oysters. No further information was acquired during the

consultation process. Māori customary fisheries on the Chatham Islands are currently managed under Fisheries (Kaimoana Customary Fishing) Regulations 1998.

Figure 2: Reported Catch Landings and TACC (tonnes) for OYS4 from 1988/89 to the 2011/12 fishing year (no TACC set before the 2005/06 fishing year)



## Other Key Considerations

19 Section 13(2)(b) requires that you have regard to the interdependence of stocks when considering the way and rate that a stock will be restored to or above a level that will produce the maximum sustainable yield. You must also have regard to the biological characteristics (outlined above), and any relevant environmental conditions affecting the stock. MPI is unaware of any relevant environmental conditions affecting OYS 4.

20 MPI recognises that oysters can influence a number of important ecosystem functions, including water filtration, nutrient cycling, sediment stabilisation, and habitat availability, which may be altered with the removal of oysters from this system. However, any impacts on the ecosystem are expected to be minimal as they will only be realised locally across a specific and limited scale where oyster dredging has received sanitation clearance.

## CONSULTATION

21 A decision to vary the TAC is a decision under section 13(4) of the Act. Therefore, consultation requirements of section 12(2) apply. Decisions to vary TACCs are decisions under section 20(2) of the Act. Therefore consultation requirements under 21(2) of the Act apply. These provisions require consultation on both options outlined in Table 1 with persons or organisations representative of those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Māori, environmental, commercial and recreational interests.

### Submissions

22 MPI received three submissions that responded to the proposals for OYS 4 in the IPP. These are attached for your reference.

23 The submissions were from:

- Te Ohu Kaimoana (TOKM)
- Sanford Limited (Sanford)
- New Zealand Recreational Fishing Council (NZRFC)

### Stakeholder Views

24 Option 1 (no change to the status quo) is supported by NZRFC. NZRFC feel that it is too hard to assess if an unfished population can sustain fishing pressure, and suggest that quota owners fish the current TACC and see how the fishery responds.

25 Option 2 is supported by Sanford and TOKM. Option 2 proposes an increase in the TAC to 50 t. The IPP proposed an allowance of 2.5 t for other sources of fishing-related mortality, and a TACC of 43.5 t. No changes were proposed to recreational and customary Māori allowances.

26 Sanford made no further response other than their support. TOKM responded that they would have preferred to support a TAC increase to 60 t. Furthermore, TOKM expressed that they would like to see systems put in place now that ensure good catch and gear information is collected by fishers, including information on bycatch of scallops.

27 TOKM praised MPI's approach to working with the Chatham Island community to develop the OYS 4 proposal. They noted the commercial value of the fishery for iwi and the Chatham Islands Trust, and express their encouragement in the continued development of fisheries in the Chatham Islands.

## MPI Response

### *Stakeholder Views*

28 MPI recognises the concern of NZRFC, but emphasises that the fishery does not seem to be economically viable at the level of the current TACC. Option 1 is unlikely to provide incentive to fishers to utilise this quota.

29 Furthermore, MPI notes that the response of the oyster population to fishing pressure will be closely monitored if the TAC is increased. As recommended by the MPI Shellfish Working Group, a credible harvest strategy will involve monitoring of catch trends and a further biomass survey in 3 – 5 years, depending on the level of catch. These efforts will act to ensure that the OYS 4 stock is maintained at or above a level that can produce the maximum sustainable yield, in accordance with s 13 (2A) of the Act.

30 MPI appreciates that TOKM retains interest in further developing the OYS 4 fishery. However, a cautious TAC proposal is preferable in the short term given the lack of biological information that is available for Chatham Island dredge oysters. TOKM noted the need to collect biological information to inform management, and supported this approach.

31 MPI notes that collecting information on targeted catch, bycatch, and gear is already provided for by catch effort forms. These forms require skippers to report fishing method (gear), position (statistical area or latitude and longitude), and quantity of target and bycatch species (including scallops). Therefore, MPI considers that comments made by TOKM are already addressed. Additionally, MPI is supportive of industry implementing any further measures to augment the current catch and gear information collected through catch effort forms.

32 The final options for OYS 4 remain unchanged following consultation and consideration of submissions (Table 1).

### *Option 1*

33 Option 1 proposes to retain the current management settings for OYS 4. This option would keep the TACC at 15 t.

34 Retaining the current TAC and TACC may continue to hinder development of the OYS 4 fishery, due to the logistics and ongoing costs of sanitation requirements.

35 Option 1 is likely to maintain the stock at or above  $B_{MSY}$ , particularly as the stock incurs no fishing pressure at the current level of the TAC and TACC.

### *Option 2 (MPI preferred)*

36 Option 2 would increase the TAC from 20 t to 50 t, and the TACC from 15 t to 43.5 t.

37 Raising the TAC will provide incentive for quota owners to invest in this fishery and offset costs associated with sanitation and biotoxin requirements. This will promote utilisation of a fishery that is currently not being utilised. This could potentially generate revenue of more than \$500,000.

38 MPI considers that Option 2 is likely to maintain the stock at BMSY, or move the stock towards B<sub>MSY</sub> in the short term, given the conclusions of the MPI Shellfish Working Group.

39 If you decide to increase the TAC, MPI suggests you maintain the recreational and customary Māori catch at 2 t each. MPI has no information about recreational and customary Māori catch. No further information was offered in submissions.

40 In addition, MPI recommends you allocate 2.5 t to other sources of fishing-related mortality. This allowance is important as dredging adult oysters can remove newly settled oyster spat from the population.

41 Lastly, MPI recommends you allocate 43.5 t to the commercial sector. Initial consultation with industry indicates that this is more than enough to offset costs associated with sanitation and biotoxin requirements.

### **Additional Management Controls**

42 Dredge oysters are subject to a minimum legal size of 58 mm. For dredge oysters, this means that commercial fishers may not take or possess any oysters for which the shell, whether entire, clipped, or broken, may be passed through a rigid circular metal ring with clear inside and diameter of 58 mm.

43 Dredge oysters are included on schedule 6 of the Act. This allows a commercial fisher to return a dredge oyster of legal size to the waters from which it was taken if the oyster is likely to survive on return.

44 Chatham Island dredge oysters are closed to commercial fishing between 1 January and 31 August (both days inclusive) under section 11(F) of the Fisheries (South-East Area Commercial Fishing) Regulations 1986.

45 Annual deemed values for Chatham Island dredge oysters are set at \$8.00/kg.



46 No changes to additional management controls are proposed.

## ASSESSMENT AGAINST STATUTORY OBLIGATIONS

### Purpose of the Act

47 Section 8 of the Act states that the purpose of the Act is to provide for utilisation of fisheries resources while ensuring sustainability. Ensuring sustainability means maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations, and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment. Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being.

48 MPI considers that both options presented in this paper satisfy the purpose of the Act, by providing for utilisation of the OYS 4 fishery while ensuring sustainability. However, the utilisation potential of this fishery has not been realised under the status quo. Under Option 1, this is not likely to change, as no incentives have been created for fishers to invest in this fishery. Option 2 will offset the expense of sanitation and biotoxin requirements and promote utilisation of this fishery.

49 Both options are intended to ensure the long term sustainability of the stock. Option 2 carries more of a sustainability risk than Option 1. Sustainability would be ensured under Option 2 by monitoring catch trends and following up with a further biomass survey in 3 – 5 years, depending on the nature of the catch trends. MPI may also propose biological studies or estimates of dredge efficiency.

50 In setting or varying sustainability measures, you must act in a manner consistent with New Zealand's international obligations to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

51 A wide range of international obligations relate to fishing, including use and sustainability of fishstocks, and maintaining biodiversity (section 5(a) of the Act). MPI considers that the management options for OYS 4 are consistent with these international obligations.

52 MPI also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (section 5 (b) of the Act).

53 There is an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga (section 12 of the Act, or if a decision under section 20, section 21 (2) of the Act). MPI provided the opportunity for tangata whenua to provide input into the options proposed through the Chatham Island's fisheries forum (CIFF@44). Opportunities for iwi participation were also provided in writing to iwi listed under Schedule 3 of the Māori Fisheries Act 2004 and tangata whenua groups with a Fisheries Protocol, prior to the development of the IPP. Input received has been incorporated into this paper.

## Setting the TAC

54 Section 13(2A) requires you to set a TAC that is “not inconsistent” with the objective of maintaining the stock at, or moving it towards or above, in a way and rate considered appropriate for the stock. In doing so, you must have regard to the interdependence of stocks, the biological characteristics of the stock, and any environmental conditions affecting the stock, and set a TAC using the best available information. You must not use the absence of or any uncertainty in, the best available information as a reason for postponing or failing to set a TAC.

55 In considering the way in which, and the rate at which, a stock is moved towards or above  $B_{MSY}$ , you must have regard to such social, cultural, and economic factors that you consider relevant (section 13 (3)). There is no statutory guidance on what an appropriate ‘way and rate’ might be in any given case – it is a matter for you to determine having regard to social, cultural and economic factors. Relevant social, economic and cultural information is set out in the paper.

56 As discussed above, the TAC options presented in this final advice take into account the requirements of section 13 of the Act. MPI considers that both options presented in this paper are not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce the maximum sustainable yield.

## Environmental Principles

57 Section 9 of the Act requires you to take into account the following environmental principles:

- a) associated or dependent species be maintained at or above a level that ensures their long term viability;
- b) the biological diversity of the aquatic environment should be maintained; and
- c) habitat of particular significance for fisheries management should be protected.

58 The primary bycatch species that could be associated with oyster dredges is Chatham Island scallop (*Pecten novaezelandiae*). There is currently a TAC in place for Chatham Island

scallop (SCA 4) to ensure sustainability of this stock. Scallops were taken during the NIWA survey in March in low proportions relative to oysters. It is unlikely that taking 50 t of oysters will incur scallop bycatch in excess of the scallop TAC. MPI considers that all options presented in this paper have taken into account the matters under section 9 of the Act.

## Information Principles

59 Section 10 requires that you take the following information principles into account when exercising or performing functions, duties, or powers under the Act in relation to the utilisation of fisheries resources or ensuring sustainability:

- decisions should be based on the best available information;
- decisions makers should take into account any uncertainty in the available information;
- decision makers should be cautious when information is uncertain, unreliable or inadequate; 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 the Act.

60 The options and analysis presented in this paper reflect the best available information on OYS4 and outline the uncertainty in the information available where it is relevant to your decision making.

## Section 11 Considerations

61 When setting a TAC for OYS4 (a sustainability measure) you must also satisfy the requirements of section 11 of the Act.

- a) Section 11(1) (a) requires you to take into account any effects of fishing on any stock and aquatic environment. Under Option 1, it is unlikely that fishing pressure will increase. Under Option 2, however, it is likely to increase substantially. MPI considers that impacts from fishing will be limited to areas that have received sanitation clearance.
- b) Section 11(1) (b) requires that you take into account any existing controls that apply to the stock or area concerned. For OYS4, the current TAC of 20 t is the key control under consideration for change. Other existing controls include a minimum legal size of 58 mm, inclusion on schedule 6 of the Act, a closed commercial season between 1 January and 31 August inclusive, and deemed values. These controls are discussed and taken into account in this final advice.
- c) Section 11(1) (c) requires you to take into account the natural variability of the stock. The MPI Shellfish Working Group recommends a credible harvest strategy be developed to monitor the OYS4 stock and account for natural variability in recruitment.

- d) Section 11(2)(a) and (b) require you to have regard to any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991, and any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and which you consider relevant, before setting or varying any sustainability measure. There are no such relevant provisions applicable to the varying of the TAC for the OYS4 stock.
- e) Section 11(2)(c) requires you to have regard to sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 that apply to the coastal marine area and which you consider relevant, before setting or varying the TAC. You must have particular regard to these provisions when setting or varying the TACC. The boundaries of the quota management area for the OYS4 stock do not intersect with the Hauraki Gulf boundaries therefore, this criterion is not relevant to your assessment.
- f) Section 11(2)(d) requires you to have regard to any planning document lodged by a customary marine title group under section 91 of the Marine and Coastal Area (Takutai Moana) Act 2011. There are no planning documents that apply to the quota management area for OYS4; therefore, this criterion is not relevant to your assessment.
- g) Section 11(2A)(b) requires you to take into account any relevant fisheries plan approved under section 11A before setting or varying any sustainability measure. No fisheries plan for OYS4 has been approved under section 11(2A)(b); therefore this criterion is not relevant to your assessment.
- h) Section 11(2A)(a and c) require you to take into account any relevant conservation services or fisheries services or decisions not to require such services. There are no such relevant services.

## SETTING THE TACC AND ALLOWANCES

62 When setting or varying any TACC for a stock under section 20 of the Act, you must under section 21 of the Act have regard to the TAC for that stock and allow for Māori customary non-commercial fishing interests, recreational fishing interests, and for any other sources of fishing-related mortality (under section 21(1)).

63 When allowing for Māori customary non-commercial fishing interests, you must take into account any mātaihai reserve or closures/restrictions under section 186A in place in the relevant QMA (section 21 (4)). There are no mātaihai reserves or closures/restrictions under section 186A within the OYS 4 quota management area, therefore this criterion is not relevant to your assessment.

64 The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on the best available information.

65 Option 2 proposes an allowance for recreational interests of 2 t. This reflects that dredge oysters are a popular species, but that MPI has no current knowledge about the level of recreational catch taken in OYS 4.

66 Option 2 proposes an allowance for other sources of fishing-related mortality of 2.5 t. Evidence suggests that newly settled oyster spat live on shells of adult oysters, and therefore the juvenile population can suffer increased mortality as a result of taking adult oysters.

67 Option 2 proposes an increase in the TACC, which will promote development of this fishery by offsetting ongoing costs associated with sanitation and biotoxin requirements.

68 Option 2 proposes an allowance for customary Māori catch of 2 t. This reflects that dredge oysters can be an opportunity species for customary catch. MPI has no information about the level of customary Māori catch occurring in OYS 4.

## CONCLUSIONS

69 There has been no commercial catch of dredge oysters in OYS4 since the 2002/03 fishing year. MPI understands that this is primarily because costs associated with sanitation and biotoxin requirements have dampened interest in investing in this fishery at the level of the current TAC.

70 Option 1 is not likely to promote development of the OYS4 fishery. Under Option 1, the TAC would remain unchanged, and fishers would be given little incentive to invest in this fishery.

71 Option 2 proposes to increase the TAC to 50 t and the TACC to 43.5 t. Consultation with stakeholders indicates that this is sufficient to offset the cost of sanitation, and will allow an opportunity for this fishery to develop.

72 The Ministry considers both options are consistent with your statutory obligations.

73 MPI notes that you have broad discretion in exercising your powers of decision making, and may make your own independent assessment of the information presented to you in making your decision.

## RECOMMENDATIONS

MPI recommends that for the OYS 4 fishery you choose either:

### **Option 1**

**YES/ NO**

*(Status quo)*

**Agree to** retain the existing TAC, TACC, and allowances for OYS 4 as follows:

- i) **retain** the existing TAC at 20 tonnes,
- ii) **retain** the Māori customary fishing allowance at 2 tonnes,
- iii) **retain** the recreational fishing allowance at 2 tonnes,
- iv) **retain** the other sources of fishing-related mortality allowance at 1 tonne,
- v) **retain** the existing TACC at 15 tonnes.

**OR**

### **Option 2**

**YES/ NO**

*(MPI preferred option)*

**Agree to** vary the TAC, TACC and allowances for OYS 4 as follows:

- vi) **set** the TAC at 50 tonnes,
- vii) **retain** the customary Māori fishing allowance at 2 tonnes,
- viii) **retain** the recreational fishing allowance at 2 tonnes,
- ix) **set** the other sources of fishing-related mortality allowance at 2.5 tonnes,
- x) **set** the TACC at 43.5 tonnes.

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

# REVIEW OF SUSTAINABILITY MEASURES AND OTHER MANAGEMENT CONTROLS FOR SNAPPER 7 (SNA 7)



Figure 1: Quota Management Areas (QMAs) for Snapper

## EXECUTIVE SUMMARY

1 The Ministry for Primary Industries (MPI) proposes the following two options for the total allowable catch (TAC), total allowable commercial catch (TACC) and allowances for SNA 7 (Table 1).

Table 1: Final proposals – TACs, TACCs, and allowances for SNA 7

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing-related mortality (t)
Option 1 (Status Quo)	306	200	16	90	0
Option 2 (MPI Preferred Option)	357	220	16	99	22

2 Any variation to the TAC for SNA 7 can be done under section 13(4) and section 13(2A) of the Fisheries Act 1996 (the Act). Variations to the TACC can be done under section 20(2) after making the allowances provided for in section 21.

3 Scientific information suggests that there has been an increase in abundance of SNA 7 in recent years but the stock biomass is still considered to be at a low level and in a rebuilding phase. Industry has agreed to fund a catch sampling project to collect commercial catch-at-age data. This will provide information on whether the increase in abundance is due to one or more age classes in the fishery, giving an indication of how long the increased abundance can be expected to persist.

4 There is an opportunity to allow for an increase in utilisation and, therefore, in the benefit obtained from the fishery now. The cost of this increase would be a slower timeframe for the rebuild of the SNA 7 stock to the desired target level.

5 If you decide to increase the TAC, then MPI believes that an increase to Total Allowable Commercial Catch and the recreational allowance is justified given the shared nature of this fishery. An increase in the allowance would reflect the fact that recreational catch has, and will continue to, increase as the fishery rebuilds and provides the opportunity for the recreational sector to share in the benefit from a rebuilding stock. An increase to the TACC reflects the fact that the commercial sector has constrained catch considerably in recent years and that this sector should also share in benefits from a rebuilding fishery.

## KEY CONSIDERATIONS

### Need to Act

6 The TAC for SNA 7 is 306 tonnes. It was last reviewed in 1997. We have insufficient information to determine current biomass or status of the stock relative to  $B_{MSY}$ . Scientific information suggests that there has been an increase in abundance in recent years but the SNA 7 stock biomass is still low. Snapper is a constraining species in the mixed species trawl fishery around Golden and Tasman Bay. Recreational fishers are likely benefiting from increased abundance through increasing catch levels. These factors provide a basis for you to consider the appropriateness of current management measures.

7 The TAC for SNA 7 is set by you under s 13 of the Fisheries Act 1996 (the Act). Section 13 requires you, as the Minister for Primary Industries<sup>28</sup> (the Minister) to set a TAC that enables the stock to be maintained at, or moved towards or above, a level that will produce the maximum sustainable yield ( $B_{MSY}$ ). Where the current level of a stock

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<sup>28</sup> The Minister for Primary Industries now exercises the powers and duties of the minister of Fisheries under the Act.



( $B_{\text{CURRENT}}$ ) or  $B_{\text{MSY}}$  are not able to be reliably estimated, s 13(2A) requires the Minister to set TACs at levels that are not inconsistent with this objective.

## Stock Status

8 The best available information that MPI currently has on SNA 7 is insufficient to enable reliable estimates of  $B_{\text{CURRENT}}$  and  $B_{\text{MSY}}$ .

9 Trends in stock status for SNA 7 were assessed through: CPUE analysis to assess trends in the catch rates; size frequency analysis (from fish processing sheds); West Coast South Island trawl survey size data; and a population simulation model. All of these indicators suggest increasing SNA 7 biomass but the SNA 7 stock is believed to still be at a low level and in a rebuilding phase. It is unknown how long the pulse in recruitment will persist.

10 The Southern Inshore Finfish Management Company Ltd (SIF) has agreed to fund a catch sampling project to collect commercial catch-at-age data. This will provide information on whether this increase in abundance is due to one or more age classes in the fishery, giving us an indication of how long the increase can be expected to persist.

11 In 2009, the West Coast South Island trawl survey caught a large number of small snapper from the 2007 year class. It was suggested at the time that this was an indication of a large recruitment event, and that it was likely that this high recruitment would enter the fishery in the next few years. As predicted, these fish entered the fishery over the next few years and were particularly noticeable in the fish processing shed data in 2010/11 and 2011/12. The CPUE declined up to 2001, after which it fluctuated without trend but increased markedly in 2010/11 and 2011/12 (Figure 2).

12 However, the magnitude of the increase in SNA 7 biomass is uncertain. While the trawl survey identified a large recruitment pulse in Tasman and Golden Bays, this marked increase in CPUE is too steep for it to be a result of growth and recruitment alone. Catchability (availability of the fish to the fishery) increased at the same time. Catchability has increased because changing environmental conditions have resulted in a greater proportion of the SNA 7 stock overlapping with target fisheries for other species, resulting in increased snapper bycatch. These two things combined have resulted in the CPUE index increasing, but also suggest that the increase in CPUE overestimates changes in biomass.

13 Further scientific modelling work<sup>29</sup> supports the view that CPUE is overstating the increase in biomass.

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<sup>29</sup> An age structured population simulation model for SNA 7 was developed for the evaluation of potential management procedures for the fishery. The model incorporates the CPUE index and SNA 7 size grade data from fish processing sheds. This model integrates these data within the framework of snapper population dynamics. It is not intended for the results of

## Relevant Fishery Information

### Commercial Fishery

14 The SNA 7 fishery is relatively small and is at the southern limit of the distribution of snapper in New Zealand. Historical TACCs and catches are shown in Figure 2.

15 Commercial fishing for snapper in SNA 7 is 48% targeted by bottom trawl and bottom-pair trawl. Around 52% of the catch is caught as bycatch of the flatfish, red cod, school shark, baracoutta, gurnard, jack mackerel and tarakihi bottom and mid-water trawl target fisheries.

16 The target commercial fishery is largely an early summer fishery with 80-90% of the targeted catch being caught by the end of December each year. Port price for SNA 7 is \$5.70/kg and with a TACC of 200 tonnes, that equates to a value to fishers of \$1,140,000 per annum. Quota value for the 2011-12 fishing year was approximately \$19,410 per tonne and the average ACE price was around \$2,427 per tonne.

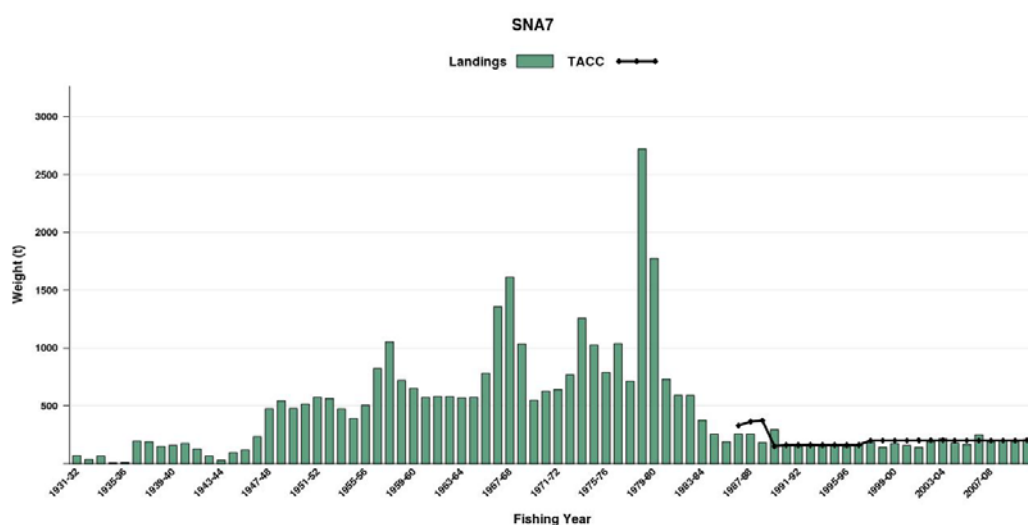


Figure 2: Reported Catch Landings and TACC (t) for SNA 7 from the 1931/32 fishing year to the 2011/12 fishing year

### Recreational Fishery

17 Snapper is a popular target species for recreational fishers and is mainly taken by line fishing. SNA 7 can only be taken recreationally above a minimum legal size of 25cm. There

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the population modelling to be considered as a formal stock assessment of SNA 7. However, this model places the current trends in an historical context and indicates that the recent increase in biomass was substantially lower than the CPUE index suggests.

is a daily bag limit of 10 snapper per person per day, except in the Marlborough Sounds, where the daily bag limit is 3 snapper per person per day.

18 In 2005-06, an aerial access survey estimated the SNA 7 recreational catch at 42.6 tonnes (CV of 0.17). The estimate did not include amateur catch taken on charter vessels or by commercial fishers under s111 approvals (under s111 recreational catch using amateur-fishing methods is allowed under certain circumstances on commercial vessels).

19 To obtain better information on recreational harvests for a range of stocks, in 2010 MPI commissioned new recreational research (a national panel survey during 2011-12). Relative to areas with a large population, the estimates are based on a smaller number of events and fishers and, as a result, are subject to greater uncertainty. They also do not include amateur catch taken on charter vessels or by commercial fishers under s111 approvals.

20 The estimated recreational catch of SNA 7 in 2012 from the 2011-12 national panel survey is 88 tonnes (CV of 0.17). Recreational catch throughout SNA 7 is likely to fluctuate depending on availability, and availability was considered to be high during the survey period – meaning that the estimate may be marginally overestimated.

### *Customary Māori Fishery*

21 Snapper (tāmure) is an important kaimoana species for tangata whenua. It is identified by Te Waka a Māui me Ōna Toka iwi forum<sup>30</sup> as a taonga species in the Te Waipounamu Iwi Fisheries Plan. This plan also includes objectives relating to supporting and providing for the customary and commercial interests of South Island iwi.

22 Information currently held by MPI on Māori customary catch of SNA 7 is uncertain. For those tangata whenua groups operating under the customary fishing regulations,<sup>31</sup> there is a requirement for Tangata Kaitiaki/Tiaki to provide MPI with information on Māori customary harvest of fish. However, for those tangata whenua groups still operating under regulations 27 and 27A of the Fisheries (Amateur Fishing) Regulations 1986 (the Amateur Regulations), it is not mandatory to report permits that are issued.

23 There have been very few customary authorisations for SNA 7 reported to MPI at this time. This may be a reflection that tangata whenua in the Tasman/Golden Bay and Marlborough Sounds area are still operating under the Amateur Regulations and/or it may suggest that tangata whenua use of the customary fishing regulations to harvest SNA 7 is low at this time.

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<sup>30</sup> The Te Waka a Māui me ōna toka iwi forum represents the nine iwi of the South Island, each holding mana moana and significant interests (both commercial and non-commercial) in South Island fisheries.

<sup>31</sup> Fisheries (Kaimoana Customary Fishing) Regulations 1998 and/or Fisheries (South Island Customary Fishing) Regulations 1999.

## CONSULTATION

24 Your decision to adjust the TAC for SPE1 is a decision under section 13 of the Act and therefore the consultation requirements of section 12 and section 21(2) apply.

Consultation on the initial position paper (IPP) was undertaken with such persons or organisations representative of those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Māori, environmental, commercial and recreational interests.

25 The Ministry followed its standard consultation process for IPPs; this involved posting all IPPs on the Ministry website and alerting stakeholders to this through a letter sent to approximately 200 companies, organisations and individuals.

26 There is also an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga. The Ministry recognises that information on customary harvest is uncertain and invited iwi, Tangata Tiaki/Kaitiaki, and customary permit holders to submit information. However, no additional information was submitted during the consultation process. The Ministry will continue to work with tangata whenua to improve reporting and information on customary non-commercial catches.

### Submissions

27 MPI received 34 submissions on the IPP from:

- AG & KE Wells – Rycari Fishing Ltd
- Bevan Middlebrook – recreational fisher
- Bruce Reid
- Chris McDougall
- Council of Outdoor Recreation Associations NZ (CORANZ)
- Craig McBride – commercial fisher
- Domjan Talijancich - Dante Fishing
- Gavin Williams
- Geoff Thompson – commercial fisher
- Greg Goodall – member of FMA 7 Recreational Fishers Forum, member of TASFISH
- Jason Manson
- Johnathon Claridge
- Mark Roach – Pursuit Fishing
- Marion Holt
- Mike Trounsen – Trounsen Fishing Co Ltd
- Murray Brown – McDonald & Brown Ltd
- New Zealand Recreational Fishing Council (NZRFC)
- New Zealand Sports Fishing Council (NZSFC)

- Pelorus Boating Club Inc
- Peter Watson (member of the FMA 7 Recreational Fishers Forum and committee member Marlborough Recreational Fishers Association)
- Reice Piggott – recreational fisher
- Richard Pollock - Richardson Fishing Co Ltd (RFCL)
- Sanford Limited
- Southern Inshore Finfisheries Management Company Limited (SIF)
- Talley's – commercial fishing company
- Tarakohe Sea-Anglers
- Tasman and Sounds Recreational Fishers' Association (Inc) (TASFISH)
- Te Ohu Kaimoana (TOKM)
- Thomas Walsh - recreational fisher
- Tony Orman – recreational fisher
- Tony Philipson – Alfred Fishing Ltd
- Tony Roach – Crusader Holdings Ltd
- Troy Dando – recreational fisher
- Zebbi King-Turner - recreational fisherman

28 Pelorus Boating Club Inc fully endorses the submission of TASFISH.

29 Greg Goodall submits his support and endorsement for TASFISH's conclusions.

30 Copies of all submission s are contained as an attachment to this paper.

## TAC

31 Two options were consulted on; Option one - status quo and Option two - an increase to the TAC from 306 to 357 tonnes.

### *Support for Option 1*

32 TASFISH, NZRFC, Thomas Walsh, Bevan Middlebrook, Reice Piggott support Option 1 – the status quo.

33 TASFISH and NZRFC submit that there is no new scientific information to support an increase in the SNA 7 TAC and that the fishstock should be managed conservatively. TASFISH is concerned that the proposed increase to the TAC will 'hammer' a newly emergent year class that should be left alone given that the stock biomass is low. They consider that the current biomass of SNA 7 is relatively low and any TAC increase will slow the rate of rebuild.

34 TASFISH understands from MPI science that there was a large and successful spawning event in 2006-07. While it is probable that this year class of fish is providing the

present 'blip' in abundance, TASFISH also point out that it is highly probable that the snapper enhancement carried out in 2005-06 has also contributed. In 2005-06, 160,000 to 150,000 juvenile snapper were released into Tasman and Golden Bays, and the Marlborough Sounds, by Crop and Food Research.

35 TASFISH submits that SNA 7 must be managed at a level significantly above  $B_{MSY}$  if there is to be any chance of access equity. Given the pivotal importance of this stock to non-commercial interests, it is crucial they continue to be moved to a level above  $B_{MSY}$ .

36 Tarakohe Sea-Anglers object to the proposed increase of 20 tons for SNA 7. While they admit that the snapper have increased in the last 8 years, they have noticed that there has been a decrease in the takeable fish from close in to the shore in the last 4 to 5 years.

37 Chris McDougall strongly disagrees with the proposal to increase the SNA 7 TACC. Mr McDougall submits that snapper stocks in Tasman Bay have been severely depleted in the past and it has taken decades for them to recover to a minimal level. He does not believe that the scientific information is strong enough to signal an increase in TACC. Chris also believes that increasing the TACC would reduce the amount of fish available to recreational fishers.

38 Thomas Walsh does not consider it appropriate to increase the SNA 7 TAC because there are some areas where snapper were historically abundant and they remain a very unusual catch (Port Underwood, Cloudy Bay, and Clifford Bay). The return of snapper to these marginal areas would be an indication that the stock is recovering. While Mr Walsh has noticed an increase in the number of small snapper, the number of large fish remains unchanged. He believes that there should also be some mechanism to protect large snapper before an increase in the TAC/TACC is considered.

39 Bevan Middlebrook is strongly opposed to increasing the SNA 7 TAC. Bevan believes that we need to allow longer for the genetic diversity to recover and obtain a healthy breeding stock. (Mr Middlebrook refers to <http://www.niwa.co.nz/sites/default/files/import/attachments/overfishing.pdf> to better understand his concerns.). He believes we have a fragile fishery that is recovering and increasing the TAC may very much threaten that recovery.

40 Troy Dando has fished in Tasman Bay as a commercial fisher in the 1980s and as a recreational fisher all his life. He has witnessed the slow rebuild of the SNA 7 stock over the last 30+ years and believes that they have a long way to go before we should relax the catch limits for either commercial or recreational fishers. Mr Dando bases this view on his catch rates over the years and his observations as to how climate patterns affect snapper abundance. He points out that at present we are in a period of warm water currents flowing into Tasman Bay and that in the past this has coincided with increased amounts of snapper. Mr Dando

submits that it would be irresponsible to change catch limits based on a couple of reasonable years, and so supports Option 1.

41 Reice Piggott and Zebbi King-Turner strongly disagree with any TAC changes. They report it has taken 20 -40 years for snapper in SNA 7 to recover from overfishing in the 1970s and the last 2 years show the first signs of recovery. “This proposed increase seems very careless and counter-productive for a sustainable future.”

42 Jason Manson submits that the state of their local area has just started to show signs of recovery and by no way would he like to see the proposed changes. Mr Manson does not believe there is enough science to support an increase.

43 Johnathon Claridge and Marion Holt acknowledge that snapper in the Bay does, on the face of it, look like it is increasing but feel it’s too early to increase the TAC based on 2-3 seasons that have been OK.

44 Bruce Reid states his opposition to any increase in both the commercial or recreational ‘allocation’ of snapper in the SNA 7 area. Mr Reid does not consider the biomass to be improving.

45 Gavin Williams voices his strong objection to the proposed new fishing quotas.

#### *Support for Option 2*

46 SIF, TOKM and Sanford Limited support Option 2, the proposed increase in TAC. SIF notes that this is the minimum increase in TAC that they support.

47 Tony Roach (Crusader Holdings Ltd) submits that the anecdotal evidence gained from at-sea observations and discussions with fishermen indicates a huge increase in the SNA 7 stock and a corresponding large increase in CPUE.

#### *Submitters Alternative Options*

48 NZSFC submits an alternative option for the SNA 7 TAC, TACC and allowances. NZSFC proposes increasing the TAC from 306 to 356 tonnes, with different allocation between the sectors than that proposed by MPI (explored in paragraph 234).

49 SIF asks that the TACC be increased from 200 to 250 tonnes. SIF does not accept that a 50 tonne increase in the TACC would unduly impact the rebuilding phase of the commercial SNA 7 fishery at the lower biomass estimates. SIF requests that the TACC be increased to 250 tonnes at the same time implementing a management plan (with SIF) to ensure appropriate sampling and research analyses are committed to for the next five years.

50 AG & KE Wells (Rycari Fishing Ltd), Mark Roach (Pursuit Fishing) and Mike Trounsen (Trounsen Fishing Co Ltd) all submit their disappointment that the proposed increase in the SNA 7 TACC is only for 20 tonnes. Owing to increased snapper biomass, they submit it is now virtually impossible to operate their vessels in Tasman and Golden Bays for the summer months and that the restriction on snapper bycatch is having a severe economic impact on their ability to harvest their quota of flatfish, gurnard, and tarakihi. AG & KE Wells and Mike Trounsen believe that an increase of 100 tonnes is realistic.

51 Talley's supports an increase in the SNA 7 TACC. However, Talley's does not support the proposed amount of only 20 tonnes and does not accept that such an increase will slow the timeframe for rebuilding the SNA 7 stock to the desired level. Talley's believes that the increased SNA 7 catches are the direct result of consistent recruitment periods and an increase in the stock size. The increased abundance of the SNA 7 stock and the resulting increases in catchability is making it extremely difficult to avoid it when fishing for other species. Talley's report that the increased bycatch of SNA 7 has forced many of the inshore fleet to change their port of domicile from Motueka and Nelson to other regional fishing ports.

## MPI Discussion

52 The Act contains a number of specific provisions to ensure a stock is managed sustainably. A key measure is the setting of a TAC for a QMS stock.

53 For SNA 7, Section 13 of the Act applies. Under s 13, there is a requirement to maintain the biomass of a fish stock at or above a level that can produce the maximum sustainable yield (MSY), having regard to the interdependence of stocks.

54 MSY is defined, in relation to any fish stock, as being the greatest yield that can be achieved over time while maintaining the stock's productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock.

55 The obligation to have regard to the interdependence of stocks when setting a TAC requires consideration of the effects of fishing on associated stocks harvested with the target stock, and the role of the target stock in the food chain. In particular, it involves a direct trophic (i.e. one stock is likely to be directly affected through a predator or prey relationship by the abundance of another stock) or symbiotic (i.e. a close and often long-term interaction between two or more different biological species) relationship between stocks.

56 The best available information that MPI currently has on SNA 7 is insufficient to enable reliable estimates of  $B_{\text{CURRENT}}$  and  $B_{\text{MSY}}$ . However we consider that the fishery is



below optimal levels. Section 13 requires you, as the Minister for Primary Industries<sup>32</sup> (the Minister) to set a TAC that enables the stock to be maintained at, or moved towards or above, a level that will produce the maximum sustainable yield ( $B_{MSY}$ ). Where the current level of a stock ( $B_{CURRENT}$ ) or  $B_{MSY}$  are not able to be reliably estimated, s 13(2A) requires you to set TACs at levels that are not inconsistent with this objective in a way and rate which has regard to the interdependence of stocks and within a period appropriate to the stock. Before determining the period within which the target stock level is to be achieved, you are to have regard to the biological characteristics (including longevity and productivity) and environmental conditions (such as the effect of temperature on stock recruitment) affecting the stock.

57 The most rapid rebuild possible is one with no fishing mortality, and therefore rebuild is constrained only by the biological capacity of the species and any environmental conditions that affect stock size. At the other end of the spectrum, the TAC may be set at a level that ensures that a depleted stock biomass is at least trending over time towards the target level.

58 In determining the way and rate of rebuild, you must regard to relevant social, cultural and economic factors. The immediate status of the stock will also influence the short-term rate of rebuild. Where there is an immediate risk of stock collapse, a high rebuild rate may be adopted as a short-term management strategy. Thereafter, the rate of rebuild may be decreased as greater weight is given to social, economic and cultural factors.

59 Under the Act, there is no set rate, or timeframe, within which a rebuild of a stock must be achieved. However, the progress of moving towards the target stock level must be suitable to the fishery in question; it must be within a reasonable time.

60 Under the Act, 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 the Act.

61 It is likely that SNA 7 biomass has increased with a recent pulse in recruitment, but the magnitude of the increase in SNA 7 biomass is uncertain, as is the period that this recruitment pulse is likely to persist for. MPI believes that the biomass of the SNA 7 stock is still very low.

62 Trends in stock status for SNA 7 were assessed through: CPUE analysis to assess trends in the catch rates; size frequency analysis (from fish processing sheds); West Coast South Island trawl survey size data; and a population simulation model. All of these indicators suggest increasing SNA 7 biomass. (CPUE is a relative index only and only indicates an increase in abundance. It does not indicate where the stock is relative to  $B_{MSY}$ .) However, TASFISH and NZRFC are correct in that it is not known how many year classes

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<sup>32</sup> The Minister for Primary Industries now exercises the powers and duties of the Minister of Fisheries under the Act.

are represented in this recruitment pulse. The proposed catch-at-age project will provide information to determine this.

63 The catch-at-age project may also help to elucidate the fate of those fingerlings released by Crop and Food Research in 2006. There is considerable international literature on enhancement of wild fisheries and, in general, survival of hatchery-reared juveniles is extremely low in the wild. Hatchery-reared juvenile fish are not used to foraging for themselves; nor do they have good predator evasion ability. MPI does not consider it likely that the release of fingerlings by Crop and Food Research has had a significant effect on SNA 7 abundance.

64 The options provide the opportunity to consider whether you wish to actively manage this stock (i.e. allow for small incremental changes to the TAC as stock abundance changes) or to take a more passive approach and allow the stock to rebuild under a longer term TAC without more frequent adjustment.

65 The increase proposed is relatively small which reflects uncertainty in current stock status and the size and longevity of the rebuild occurring in the fishery.

66 Industry has proposed larger increases to the TAC and TACC. If the TAC is increased there is opportunity to provide an increase to the TACC depending on the proportions of the increase you want to provide to recreational and commercial fishers. There are benefits in increasing the TACC to the commercial sector. An extra 20 tonnes of commercial catch is worth approximately \$114,000, annually. It is also likely that snapper carries an increased or shadow value given the low TACC because commercial fishers advise it is acting as a constraining species for other commercial fisheries, most notably flatfish, gurnard, and tarakihi.

67 MPI does not support a larger increase given the level of information available on stock status. A 10% increase represents a careful response to the increased SNA 7 biomass. MPI does not consider an increase above this level would be appropriate at this time.

68 Industry has proposed a new research programme which will provide better information on the fishery. Results of this programme will be available in 2016. This information will enable consideration to be given to changes in catch limits in the future.

69 MPI notes the suggestion from TASFISH that the fishery be managed above  $B_{MSY}$  in order to provide greatest benefit to the recreational sector. There are a number of costs associated with management above  $B_{MSY}$ . Work on a harvest strategy for SNA 7 will be undertaken with stakeholders over the next 2 years. This process will allow discussion on optimum management targets for this fishery.

70 Bevan Middlebrook believes that we need to allow longer for the genetic diversity to recover and obtain a healthy breeding stock before increasing the TAC for SNA 7. MPI has no information regarding the genetic diversity of the SNA 7 stock.

### *Option 1*

71 Under Option 1, the existing TAC would be retained. The current TAC is consistent with the objective of maintaining the stock at, or moving it towards or above,  $B_{MSY}$ .

72 This option reflects a cautious approach to change placing greatest weight on the uncertainty in information on the extent of the current rebuild in the SNA 7 fishery. This option would result in a faster rebuild of the stock than under Option 2, with more fish available to the fishery, overall, and more certainty of future catch levels.

73 The cost of this option is that it would not provide the opportunity to make some of the rebuild available for utilisation now. This particularly affects the commercial sector as recreational fishers will benefit from any rebuild through increased catch rates as a result of increased abundance regardless of any change to the TAC.

74 Commercial fishers have previously expressed a desire that TACs are gradually increased during rebuilding of stocks so that they can best manage market development as opposed to large changes in catch levels. Small, more frequent changes to the TACs in high value fisheries also provide the opportunity for value to be increased from fisheries sooner and explicit decisions made about how those benefits should be distributed.

75 Under this option there will be a need to monitor catch of all sectors to ensure they stay within their allowance and to manage at, or around, the TAC in the future. Industry has the ability to modify fishing behaviour to reduce targeting.

### *Option 2 (MPI Preferred)*

76 Under this option the TAC would be increased from 306 to 357 tonnes.

77 Although the fishery is still considered to be depleted and in a rebuilding phase, there is an opportunity to allow for an increase in utilisation and, therefore, in the benefit obtained from the fishery now.

78 Commercial fishers support this option.

79 The impact of this increase would be a slower timeframe for the rebuild of the SNA 7 stock to the desired target level. There is no quantitative information to assess any change in rebuild timeframe. However, the size of increase proposed is small and consequently we would not expect there to be a significant impact on the stock rebuild.

80 SIF submits that the abundance of SNA 7 is at an all-time high. SNA 7 abundance does appear to be higher than it has been for several decades, but is still at a very low level compared with pre-1970 levels.

81 Given the SNA 7 stock is still rebuilding, a 10% increase in the TACC represents a significant response to the increased SNA 7 biomass. MPI does not consider an increase above this level would be appropriate. The magnitude of the increase in SNA 7 biomass is uncertain. While the trawl survey identified a large recruitment pulse in Tasman and Golden Bays, and commercial fishery data show increase in CPUE, the scale of the increase in CPUE is too steep for it to be a result of growth and recruitment alone. Catchability (availability of the fish to the fishery) increased at the same time. Catchability has increased because changing environmental conditions have resulted in a greater proportion of the SNA 7 stock overlapping with target fisheries for other species, resulting in increased snapper bycatch. These two things combined have resulted in the CPUE index increasing, but also suggest that the increase in CPUE overestimates changes in biomass. Further scientific modelling work supports the view that CPUE is overstating the increase in biomass and that the biomass is still very low.

#### TACC and Allowances

82 MPI proposed the TACC allowances remained unchanged under Option one (status quo) or that the recreational allowance is increased from 90 to 100 tonnes and TACC increased from 200 to 220 tonnes under Option 2. Both of these numbers represent the current catch for each sector.

83 This is a small fishery in relation to SNA1 but like SNA1 the fishery has value to all sectors and is currently fully allocated.

84 The legislative framework section of this paper outlines the legal matters around allocation. For each of the TAC options referred to above, there are different allocation options open to you. The Act is largely silent on how the TAC is to be allocated. Allocation can be considered from the perspective of a long term objective that you have in mind. This would provide a lens for your consideration of the relevant information and steps to be taken to implement this objective. A long term objective would also provide certainty for tangata whenua and stakeholders (to the extent that subsequent Ministers are not bound by any such objective).

85 The options have been developed on the basis of ratio of the current settings for the two sectors. However it is important to note that the Fisheries Act does not provide for shares in the TAC (fixed or otherwise). A proportional approach may ignore the growing demand for catch or changes over time of the relative value of the catch between the sectors.

86 You are free to choose a different set of allocative options. However, if you do decide to take an alternative approach there is benefit in providing clear rationale to stakeholders around the decision and implications for future management to provide certainty in approach which helps to maintain long term management incentives, particularly for the commercial sector.

87 It is important to recognise that the allocations made under section 21 of the Fisheries Act do not act as a cap on catch. It is not unlawful for a sector to exceed the collective allowance or the TACC. For commercial fishers, catch in excess of ACE holdings held by the individual fisher (not the TACC) incurs a civil sanction – a payment of a deemed value. Relevant management controls, including size limits, bag limits and deemed values, are used as a means of minimising the extent to which the allowance or TACC is exceeded to ensure that overall mortality remains within the TAC.

### Customary Allowance

88 TOKM notes that the retention of the customary allowance is based on lack of information but that better information could lead to an increase.

### Recreational Allowance

89 TASFISH submits that an increase in recreational allowance has merit in that it would acknowledge that the recreational sector has been allocated a higher share of the TAC than they actually catch. This would show they are keeping some of the fish ‘in the bank’ and, hence, manage above  $B_{MSY}$  over time.

90 TOKM supports the proposed increase in recreational allowance.

91 NZSFC recommends that the recreational allowance increase from 90 to 120 t based on the number of snapper that may be taken with the revised bag limit in the popular Marlborough Sounds fishery. The estimated mean weight of recreationally caught snapper in SNA 7 is 800g. At this mean weight 90 t equals 112,500 fish. At 120 t this equals 150,000 fish. Recreational fishers have demonstrated a clear willingness to conserve fish, so people who do not need 6 fish will not likely take their bag limit, if the bag limit is increased.

92 Bruce Middlebrook does not believe the recreational allowance reflects the requirements of this sector. Mr Middlebrook cites a recent survey (2013 Auckland University) of recreational fishing conducted on behalf of the New Zealand Recreational

Fishing Council showing 26% of New Zealand's population fished at least three times in the past summer season. The Nelson-Marlborough population was represented in this survey.

## MPI Discussion

93 If you decide to increase the TAC, then MPI believes that an increase to the recreational allowance is justified given the shared nature of this fishery. An increase in the allowance would reflect the fact that recreational catch has, and will continue to, increase as the fishery rebuilds and provides the opportunity for the recreational sector to share in the benefit from a rebuilding stock.

94 MPI has proposed that the allowance be increased by 10 tonnes which reflects a proportional share of the increase to the TAC. There is uncertainty around the historic and current levels of recreational catch in SNA 7. The latest recreational catch estimate is 88 tonnes (2012) but does not include catch from charter vessels. However, as for SNA1, recreational catch is potentially significantly influenced by availability of snapper which varies depending on environmental factors. The year of the survey is considered a year of high availability which means recreational catch may be marginally overestimated. However unlike SNA1, estimates of average recreational catch by year are not available. Overall, MPI considers the proposed allowance of 100 tonnes will cover current catch and would provide a small level of growth in recreational catch as abundance increases.

95 You could decide to provide a greater increase to recreational fishers out of the proposed increase to the TAC. A greater increase could be provided on the basis of increased demand for snapper from recreational fishers, increased population numbers in the Nelson region and a rebalancing of proportions of the TAC to reflect roughly equivalent values as noted in the SNA1 paper (although you should note that comparison between commercial and recreational values is highly uncertain).

96 A larger allocation to the recreational sector will come at the expense of benefits to other sectors that also value this fishery. The benefits to the commercial sector are discussed in detail in the section below.

97 MPI notes that there will be further opportunity to consider development of this fishery and long term shares of the resource as part of development of a harvest strategy which is due for development over the next two years.

## TACC

*Support for Option 1 (Status Quo)*

98 TASFISH submits that one of the main reasons commercial fishers do not have ACE to cover SNA 7 landings is the increased targeting of snapper by some inshore trawlers in November and December when snapper school prior to breeding in Tasman and Golden Bays. One of the problems with the QMS and ACE is that there is no requirement to spread catch/effort on a seasonal basis.

99 The NZSFC strongly objects to any TACC increase based on over-catch of existing levels. Moreover, the NZSFC does not accept a TACC increase based on this “bycatch” issue. They suggest that it is not “bycatch”, but rather it may be classed as unintended, discarded or unmanaged catch. These operators know the waters they fish and they generally claim to know when and where they catch different species throughout the year, therefore to suggest this is “bycatch” and they need an increased TACC to cover it is not reasonable. What they seem to need is a better catch portfolio to cover what they are likely to catch in Area 7.

*Support for Option 2 (Increase to TAC)*

100 TOKM and Sanford Limited support Option 2 – increase the TACC to 220 tonnes. Sanford Limited agrees that there is an opportunity for increased commercial and recreational utilisation without putting at risk the long-term sustainability of the stock.

101 SIF supports Option 2, noting that this increase is the absolute minimum they support.

102 SIF submits that a number of fishers have expressed concern as to the impact the low SNA 7 TACC is having on their businesses. Most of these fishers have very little snapper ACE as it is (appropriately) spread across the fleet to keep them all operating. The continued claims of the fishermen in the region are that:

- a) Snapper abundance in the region is at an all-time high.
- b) The fish is impossible to avoid and forces fishermen to run away from other productive fisheries.
- c) Snapper is noticeably around all year. It has eased slightly during winter but can still be caught.
- d) The range of the fishery has increased.
- e) For every man on our boats, there are seven more on shore that benefit economically.

103 Richardson Fishing Co Ltd, Donjan Talijancich (Dante Fishing), Geoff Thompson and Murray Brown (McDonald & Brown Ltd), Tony Philipson, and Craig McBride submit that their fishing operations are severely restricted because of the lack of SNA 7 ACE to cover bycatch of snapper.

104 For example, Richardson Fishing Co Ltd has had to re-position both of their vessels to fishing grounds south of Tasman and Golden Bays during the summer months to avoid snapper bycatch. To avoid snapper bycatch, they have:

- a) Relocated their vessels out of Port Nelson for 5 months each year.
- b) Constructed special bottom trawl nets with reduced headline height.
- c) Virtually ceased targeting flatfish, which used to contribute 15% of their annual revenue.

105 Murray Brown (McDonald & Brown Ltd) reports that 100% of their SNA 7 Ace is dedicated to bycatchbycatch. Murray Brown considers the restrictive TACC for SNA 7 is currently the biggest hindrance to their fishing business.

#### MPI Discussion

106 TASFISH is correct in that there is no requirement for industry to spread catch and/or effort on a seasonal basis – nor is there any requirement for them to use ACE for bycatch before targeting. It is up to industry to decide how they wish to manage their catch, so long as it is within the TAC.

107 Similarly, the TAC and TACC apply to the whole of a quota management area and commercial fishers can expect to take their catch over the whole of a QMA rather than just outside their home ports.

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

108 NZSFC also submits that Option 1 is not a viable or lawful option given the obligation to set aside an allowance for fishing-related mortality.

#### MPI Discussion

109 Under Option 1 you would not be “setting” or “varying” the TACC for the purposes of section 21 of the Act, and so there would be no requirement to set an allowance for other sources of fishing-related mortality under this option.

#### **Other management controls**

110 In the Challenger Fishery Management Area, fishers can take a maximum of 10 snapper per person per day. Within the bag limit of 10 snapper, there is a sub-limit of 3 that can be taken from the Marlborough Sounds Area. MPI proposed in the IPP that the sub-limit of 3 snapper that can be taken from the Marlborough Sounds Area be increased to 5.



111 Other management controls are used to manage catch of sectors to ensure that the TAC is not exceeded. In general, recreational bag limits and minimum legal sizes are the primary tools used to manage recreational catch. Deemed values are the primary tools used to manage commercial catch. Decreases to recreational bag limits or minimum legal sizes would be suggested when recreational catch needs to be restrained. Increases to bag limits are provided to allow recreational fishers to benefit from increased biomass through not just the overall number of fish caught but also the number that can be taken per day per person. Any change to bag limits needs to be considered in the context of the corresponding change to the number of fish taken and therefore the ability to maintain recreational around the level of the allowance on average.

#### *Recreational Bag Limits*

112 TASFISH does not support an increase in recreational bag limit from 3 to 5 in the Marlborough Sounds. They point out that historical tagging work showed the Marlborough Sounds snapper fishery is distinct from the Tasman/Golden Bay fishery, and it is, therefore, important to look at the two areas separately. There is no CPUE or any other indices for the Marlborough Sounds – so no basis for changing management controls for this area. TASFISH submits that a daily bag limit of 3 snapper reflects the desire for a quality fishery rather than maximising catch.

113 Bevan Middlebrook proposes leaving the recreational bag limit at 3 snapper for Marlborough Sounds Area as all reports from fellow recreational fisherman conclude that last season was terribly hard snapper fishing within the Sounds.

114 Johnathon Claridge and Marion Holt do not support an increase to 5 snapper in the Marlborough Sounds as this is a prime breeding area and over the past few years the fish have been harder to catch.

115 Reice Piggott does not support increasing the recreational bag limits in the Marlborough Sounds, either, as he doesn't believe that the number of fish in that area has not increased as they have in Tasman and Golden Bays.

116 Thomas Walsh also submits on the proposed increase in bag limit in the Marlborough Sounds. Mr Walsh believes that snapper school in age groups and a bag limit of 5 could have a disproportionate effect on schools of large snapper. Therefore, he does not support an increase in bag limit.

117 Peter Watson supports increasing the SNA 7 recreational bag limit from 3 to 5. He submits that the Marlborough Sounds snapper stocks have been rebuilding nicely for the last 10 years or more and urges that Marlborough recreational fishermen be given back something that they have played a major role in rebuilding.

118 Tony Orman supports raising the recreational bag limit for snapper in the Marlborough Sounds, and would support raising the bag limit to 6 instead of 5.

119 CORANZ applauds and fully supports the recommendation to increase the recreational bag limit to five (5). CORANZ suggests to right the injustice of the 1990s when the recreational bag limit was slashed, the recreational bag limit should be higher, perhaps 6 at this stage. There needs to be some coordination between the snapper limit (10) west of French Pass and Marlborough Sounds.

120 TOKM submits that any increase in daily bag limit should be subject to greater reporting requirements – including charter boats.

#### MPI Discussion

121 If you decide to increase the allowance for recreational fishers you could also decide to increase the recreational bag limit for Marlborough Sounds from 3-5.

122 Recreational fishers have varying views pertaining to an increase in bag limit for snapper in the Marlborough Sounds area. Many recreational fishers are of the opinion that the Marlborough Sounds is a special area and that fishstocks should be managed conservatively in this area. They believe that the Marlborough Sounds fishery should be managed in a way that encourages a “quality fishery” rather than one that maximises catch.

123 On the other hand, some recreational fishers submit that the snapper fishery in the Marlborough Sounds has been increasing and that an increase in bag limit would be appropriate.

124 If you choose Option 1 – status quo – there is no scope for increasing the recreational bag limit within the current recreational allowance. Alternatively, if you choose Option 2 – an increase in TAC – there is scope for you to signal that an increase in recreational bag limit for the Marlborough Sounds should be progressed through the regulatory process.

125 One of the benefits of signalling a bag limit increase for SNA 7 is that it would signal that recreational bag limits will be increased when the status of a fishery improves. There is a risk that increased catch may mean the recreational allowance is exceeded, but catch from this area is likely to be relatively small. Recreational catch throughout SNA 7 is likely to fluctuate depending on availability, and availability was considered to be high during the survey period – meaning that the allowance likely has some headroom.

## Other Submissions

126 TASFISH and NZRFC both submit that the consultation process with recreational fishers has not been meaningful.

127 SIF wishes to work with MPI to develop a management and research plan that provides for SNA 7 stock sampling and analyses from 2013-14 to 2018-19 and beyond.

128 TASFISH also submit that finer scale management within FMA 7 needs to be implemented to allow for increased utilisation and higher value. The TACC should be broken down to be management by statistical reporting areas that better reflect the geographical nature and varying abundance levels within FMA 7 and to avoid localised depletion and provide for all sectors equally.

129 TASFISH submit that bottom trawling is the single most destructive force in the marine environment and that bottom trawling must be removed from key breeding areas such as Tasman and Golden Bays and the Marlborough Sounds. TASFISH submit that it cannot support any increases in TACCs until inter sector spatial separation is achieved through the removal of bottom impacting fishing methods and creation of no trawl areas 3 miles from mean low water springs.

130 Bevan Middlebrook suggests raising the minimum size limit for commercial and recreational snapper from 25cm to 30cm in the interests of better using the resource. Johnathon Claridge and Marion Holt propose lifting the minimum size to 35cm. Thomas Walsh further submits that a split bag/size limit be introduced for SNA 7 – for example, allow the taking of 5 fish over 25 cm, but only 1 or 2 over 60 cm.

131 Johnathon Claridge favours a limit of one fish over 50cm.

132 Bevan Middlebrook proposes a trawl net fishing ban or restriction within Tasman and Golden Bays, and Marion Holt and Johnathon Claridge suggest closing some areas during spawning.

133 Bruce Reid also submits that it is time that the commercial snapper must be harvested only using long lines. Net fishing is known to be wasteful as fish that are undersized are often crushed. Such mortality is unacceptable. Long lines would ensure that mortality of undersized fish is minimised and the quality of snapper caught would be enhanced.

134 Troy Dando also makes further suggestions regarding potential no trawl zones, restricted seasons, longline hook limits, and split size and bag limit restrictions

## MPI Discussion

135 The FMA 7 Recreational Fishers' Forum was notified at the end of May 2013 that commercial stakeholders had requested a review of SNA 7 management controls. Two meetings of the FMA 7 Recreational Forum have been held to discuss this proposal, and the formal submission process undertaken, with a period of 4 weeks to make submissions.

136 MPI acknowledges that SIF proposes developing a management and research plan for SNA 7. MPI notes that this should be progressed through the fisheries planning process.

137 Fine scale management, no-trawl areas, size limits, split bag limits, trawl restrictions, hook restrictions, etc, have not been consulted on and are outside the scope of this SNA 7 TAC review. These proposals would be appropriately progressed through the MPI Fisheries Planning Process and the development of a management strategy.

## ASSESSMENT AGAINST STATUTORY OBLIGATIONS

### Purpose of the Act

138 Section 8 of the Act says that the purpose of the Act is to provide for the utilisation of fisheries resources while ensuring sustainability. [*Ensuring sustainability* means maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment. *Utilisation* means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being].

139 MPI considers that all options presented in this paper satisfy the purpose of the Act in that they provide for utilisation in the SNA 7 fishery while ensuring sustainability.

140 Both management options will ensure the long term sustainability of the stock. Option 1 is more cautious and reflects the uncertainty in information (see "Information Principles" below) about the SNA 7 stock status relative to target levels and the uncertain level of the increase in biomass. In contrast, increasing the TAC from 306 t to 357 t under Option 2 will allow for increased commercial utilisation, but likely slow the rebuild of the SNA 7 stock and reduce the long-term yield.

### General Obligations

141 In setting or varying sustainability measures, you must also act in a manner consistent with New Zealand's international obligations to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

142 A wide range of international obligations relate to fishing, including use and sustainability of fish stocks; and maintaining biodiversity (s 5(a)). MPI considers that the management options for SNA.

143 MPI also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5 (b)). Ongoing work is being done within the area covered by SNA 7 to promote policies that help to recognise customary use and management practices.

144 Section 12(1)(b) requires that you provide for the input and participation of tangata whenua and have particular regard to kaitiakitanga before setting or varying a TAC. Te Waka a Māui me Ōna Toka iwi forum was approached for their collective view on SNA 7. No collective views were provided by Te Waka a Māui me Ōna Toka.

### Information Principles

145 Under section 10 of the Act, you must take into account the information principles of the Act, these being that:

- a) decisions should be based on the best available information,
- b) decision makers should take into account any uncertainty in the available information,
- c) decision makers should be cautious when information is uncertain, unreliable, or inadequate, and
- d) 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 the Act.

146 The best available information on the stock status of SNA 7 is insufficient to enable reliable estimates of  $B_{CURRENT}$  and  $B_{MSY}$ . Trends in stock status for SNA 7 were assessed through: CPUE analysis to assess trends in the catch rates; size frequency analysis (from fish processing sheds); West Coast South Island trawl survey size data; and a population simulation model. All of these indicators suggest increasing SNA 7 biomass.

147 However, the magnitude of the increase in SNA 7 biomass is uncertain. While the trawl survey identified a large recruitment pulse in Tasman and Golden Bays, this marked increase in CPUE is too steep for it to be a result of growth and recruitment alone. Catchability (availability of the fish to the fishery) increased at the same time. Catchability has increased because changing environmental conditions have resulted in a greater proportion of the SNA 7 stock overlapping with target fisheries for other species, resulting in increased snapper bycatch. These two things combined have resulted in the CPUE index increasing, but also suggest that the increase in CPUE overestimates changes in biomass.

Further scientific modelling work<sup>33</sup> supports the view that CPUE is overstating the increase in biomass.

## Setting the TAC

148 The TAC for SNA 7 is set under section 13 of the Fisheries Act 1996 (the Act). Section 13(2A) requires you to set a TAC that is “not inconsistent” with the objective of maintaining the stock at, or moving it towards or above,  $B_{MSY}$ , in a way and rate considered appropriate for the stock.

149 Before a TAC can be set under section 13(2) of the Act an assessment of  $B_{CURRENT}$ <sup>34</sup> and  $B_{MSY}$ <sup>35</sup> is required. The best available information that MPI currently has on SNA 7 is insufficient to enable reliable estimates of  $B_{CURRENT}$  and  $B_{MSY}$ .

150 Where estimates of  $B_{CURRENT}$  and  $B_{MSY}$  are not available, section 13(2A) of the Act provides for the Minister to use the best available information to set a TAC that is not inconsistent with the objective of maintaining the stock at or above  $B_{MSY}$ , or moving the stock towards or above,  $B_{MSY}$ .

151 MPI believes that the biomass of the SNA 7 stock is still very low, and that the stock is in a rebuilding phase – moving towards  $B_{MSY}$ . While increasing the TAC and TACC will likely slow the rate of movement towards  $B_{MSY}$ , it is likely that both Options 1 and 2 will enable the Minister to set a TAC that is not inconsistent with the objective of moving the stock towards  $B_{MSY}$ .

152 When setting a TAC for SNA 7, you must have regard to the interdependence of stocks, the biological characteristics of the stock, and any environmental conditions affecting the stock, and set a TAC using the best available information. You must not use the absence of, or uncertainty in, the best available information as a reason for postponing or failing to set a TAC. With respect to the SNA 7 stock:

- a) 48% of the SNA 7 commercial fishery is targeted and around 52% of the catch is caught as bycatch of the flatfish, red cod, school shark, baracoutta, gurnard, jack mackerel and tarakihi target fisheries.

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<sup>33</sup> An age structured population simulation model for SNA 7 was developed for the evaluation of potential management procedures for the fishery. The model incorporates the CPUE index and SNA 7 size grade data from fish processing sheds. This model integrates these data within the framework of snapper population dynamics. It is not intended for the results of the population modelling to be considered as a formal stock assessment of SNA 7. However, this model places the current trends in an historical context and indicates that the recent increase in biomass was substantially lower than the CPUE index suggests.

<sup>34</sup> Current biomass. Biomass refers to the size of the stock in units of weight.

<sup>35</sup> The average stock biomass that results from taking an average catch of maximum sustainable yield (MSY). Maximum sustainable yield is defined in s 2 of the Act as: ‘...the greatest yield that can be achieved over time while maintaining the stock’s productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock’.

- b) Snapper are a slow-growing species and individuals may live up to 60 years, or more. Snapper reach maturity from 3-4 years of age. Snapper are serial spawners, releasing many batches of eggs during spring and summer.
- c) Water temperature appears to play an important part in the success of recruitment. Generally, strong year classes correspond to warm years and weak classes correspond to cold years.

153 In considering the way in which and rate at which a stock is moved towards or above  $B_{MSY}$ , you must have regard to such social, cultural, and economic factors as you consider relevant (section 13(3)). There is no statutory guidance on what an appropriate ‘way and rate’ might be in any given case – it is a matter for you to determine having regard to social, cultural and economic factors. Relevant social, economic and cultural information is set out in the paper.

154 As discussed above, the TAC options presented in this FAP take into account the requirements listed in s 13(2A) and 13(3) of the Act, and offer differing approaches to managing the potential risk to sustainability of the fishery that reflect the uncertainty in available information.

## Environmental Principles

155 Section 9 requires you to take into account the following environmental principles:

- a) associated or dependent species should be maintained above a level that ensures their long-term viability,
- b) biological diversity of the aquatic environment should be maintained
- c) habitat of particular significance for fisheries management should be protected.

156 Key environmental issues associated with the SNA 7 fishery and how they will be affected by an increase to the TAC are:

- a) Incidental captures of seabirds do occur in this fishery. The number of such seabird captures has not been quantified. However, MPI considers the number of incidental seabird captures is unlikely to increase under either option because we do not expect the amount of trawling to increase significantly (see below).
- b) Increasing the TACC of SNA 7 will not necessarily increase the amount of trawling undertaken because the increase in biomass of the SNA 7 stock should mean an increase in catch per unit effort.

157 However, the FLA 7 target fishery has been more than 50% under-caught in recent years. It is possible that increasing the TACC for a bycatch species, such as SNA 7, will allow an increase in the amount of bottom trawling – depending on the ACE available for other bycatch species, and on market demand.

## Section 10 - Information principles

158 Section 10 says you must take into account the following information principles when exercising or performing functions, duties or powers under the Act in relation to the utilisation of fisheries resources or ensuring sustainability:

- a) decisions should be based on the best available information
- b) decision makers should take into account any uncertainty in the available information,
- c) decision makers should be cautious when information is uncertain, unreliable, or inadequate, and
- d) 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 the Act.

159 The best available information on stock status for SNA 7 is insufficient to enable reliable estimates of  $B_{\text{CURRENT}}$  and  $B_{\text{MSY}}$ . Trends in stock status for SNA 7 were assessed through: CPUE analysis to assess trends in the catch rates; size frequency analysis (from fish processing sheds); West Coast South Island trawl survey size data; and a population simulation model.

160 The CPUE for SNA 7 has increased, indicating there has most likely been a recent increase in stock abundance. The CPUE index, however, is likely to be over-optimistic. Recruitment into the fishery seems to have coincided with increased catchability of SNA 7 due to changes in environmental conditions in recent years making snapper in Tasman and Golden Bays more accessible to fishing gear. The SNA 7 CPUE index is, therefore, likely to exaggerate the scale of the increase in stock biomass.

161 The WCSI Trawl Survey that detected the pulse in recruitment of SNA 7 and predicted that SNA 7 catch was likely to increase in following years was accepted by the MPI Science Working Group.

162 The age structured population simulation model for SNA 7 was developed for the evaluation of potential management procedures for the fishery. The model incorporates the CPUE index and SNA 7 size grade data from fish processing sheds. This model integrates these data within the framework of snapper population dynamics. It is not intended for the results of the population modelling to be considered as a formal stock assessment of SNA 7. However, this model places the current trends in an historical context and indicates that the recent increase in biomass was substantially lower than the CPUE index suggests.

163 The population simulation model estimates that the SNA 7 stock is still well below the historical levels.



## Section 11 Considerations

164 Before setting or varying any sustainability measure for any stock, you must, under s  
11 :

- a) Section 11(1)(a): take into account any effects of fishing on any stock and the aquatic environment. SNA 7 commercial take is approximately 48% target and 52% bycatch. As the abundance of SNA 7 is increasing, this should cause an increase in catch per unit effort. Therefore, it is not anticipated that any increase in TAC (and TACC) would result in a significant change to fishing operations. Therefore, it is not anticipated there will be an increase in impacts on the marine environment or on the harvest of other stocks.
- b) Section 11(1)(b): take into account any existing controls under the Act that apply to the stock or area concerned. Standard management controls apply to the SNA 7 fishery, for example deemed values, amateur bag limits, amateur minimum size limits, and fishing method constraints. The proposed changes to the TAC do not affect these measures.
- c) Section 11(1)(c): take into account the natural variability of the stock. This has been discussed above in relation to the biological characteristics of SNA 7.
- d) Sections 11(2)(a) and (b): have regard to any provisions of any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991 and any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and that you consider relevant. MPI considers that both options proposed are consistent with the Hector's Dolphin Threat Management Plan. MPI is not aware of any other policy statements, plans or strategies are required to be taken into account for the SNA 7 stock.
- e) Section 11(2)(c): have regard to any provisions of s 7 and s 8 of the Hauraki Gulf Marine Park Act 2000 that apply to the coastal marine area and that you consider relevant. You must have particular regard to these provisions when setting or varying the TACC. The boundaries of the quota management area for the SNA 7 stock do not intersect with the Hauraki Gulf, therefore this criterion is not relevant to your assessment.
- f) Section 11(2A)(b): take into account any relevant fisheries plans approved under s 11A. There are no such relevant plans you need consider.
- g) Sections 11(2A)(a) and (c): take into account any relevant conservation or fisheries services, or any decision not to require such services. MPI does not consider that existing or proposed services materially affect the proposals for this stock. No decision has been made to not require a service in this fishery at this time; therefore, this criterion is not relevant to your assessment.

## TACC and Allowances

165 When setting or varying a TACC for a stock under section 20 of the Act, you must, under section 21 of the Act, have regard to the TAC for that stock and allow for Māori customary non-commercial fishing interests, recreational fishing interests, and for any other sources of fishing-related mortality.

166 When allowing for Māori customary fishing interests, you must take into account any mātaihai reserve or closures/restrictions under s 186A in the relevant quota management area (s21(4)).

167 When allowing for recreational interests, you must take into account any regulations in place following a recommendation made by you the Minister under s 311 of the Act that prohibit or restrict fishing (s21(5)).

168 The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on the best available information. In the event of imperfect information, you are entitled to be cautious.

169 There is no proposal to increase the Māori customary allowance for SNA 7. The SNA 7 TAC was last reviewed in 1997. Information on Māori customary catch is uncertain but MPI has no information to indicate that Māori customary catch has changed significantly over the last 16 years.

170 The Whakapuaka (Delaware Bay) Taiapure, and the Te Tai Tapu, Manakiaua/Hunts Beach, Mahitahi/Bruce Bay, Tauperikaka, and Okura/Mussel Point mātaihai reserves are all within the SNA 7 quota management area. MPI notes that the proposals in this paper will not impact on, or be impacted by, these taiapure and mātaihai reserves. The boundaries of the quota management area for the SNA 7 stock do not intersect with the fisheries waters covered by s 186A of the Act; therefore this criterion is not relevant to your assessment.

171 New recreational fishing information has become available in the form of the 2011-12 national panel survey, indicating that recreational snapper catch in SNA 7 is currently around 89.5 tonnes, falling just within the current allowance of 90 t. Option 2 proposes to increase the recreational allowance by 10 tonnes (10%) and to increase the recreational bag limit from 3 to 5 snapper per person per day in the Marlborough Sounds Area. (MPI notes that such a regulation change would not be able to be implemented until 2014 because of the timeframes required by the regulatory process.) Both of these measures reflect the increasing abundance of snapper in SNA 7 and the increasing catchability for recreational fishers.

172 There are no areas closed to commercial fishing methods made under s 311 of the Act in place in the SNA 7 quota management area; therefore this criterion is not relevant to your assessment when allowing for recreational interests.

## CONCLUSIONS

173 The best available information that MPI currently has on SNA 7 is insufficient to enable reliable estimates of  $B_{\text{CURRENT}}$  and  $B_{\text{MSY}}$ . Trends in stock status for SNA 7 suggest increasing biomass but the stock is likely still at a low level.

174 Although the fishery is still considered to be depleted and in a rebuilding phase, there is an opportunity to allow for an increase in utilisation and, therefore, in the benefit obtained from the fishery now.

175 The cost of a TAC increase would be a slower timeframe for the rebuild of the SNA 7 stock to the desired target level. It is not possible to quantify the effect of a TAC increase on the rebuild of the SNA 7 stock without catch-at-age information.

176 Option 1 is the status quo and reflects a cautious approach to change, reflecting the uncertainty in information about the SNA 7 stock status relative to target levels and the uncertain level of the increase in biomass. Benefits of Option 1 could include improvement of the recreational fishing experience as the SNA 7 stock rebuilds and possible benefit to commercial fishers in a faster rebuild of the SNA 7 stock.

177 However, retaining the current TAC may result in a short term opportunity loss for the commercial and recreational sector. This is because this option does not enable industry to respond to elevated biomass in a way that could allow them to maximise value.

178 Option 2 provides for an approximately 10% increase in TACC and a 10% increase in the recreational allowance.

179 Increasing the TAC and TACC during periods of abundance creates opportunities for the fishing industry to increase the economic benefits that can be obtained from the fishery in the short term. Increasing the recreational bag limit and recreational allowance will also provide opportunities for increased benefits from the fishery.

180 An increase in the recreational allowance would reflect the new information available from the 2011-12 national panel survey and the increased availability of snapper to non-commercial recreational fishers. An increase in the recreational bag limit in the Marlborough Sounds could be appropriate given the increasing abundance of snapper in SNA 7 and that the bag limit in the Marlborough Sounds is considerably less than in the rest of SNA 7.

181 Option 2 provides for the greatest short term economic return from SNA 7 during this period of increasing abundance. Under this option, MPI would recommend continued

monitoring of the fishery and, possibly, a future stock assessment. To ensure the sustainability of the stock, MPI stresses the need to obtain the catch-at-age information from the commercial catch.

## RECOMMENDATIONS

MPI recommends that, for the SNA 7 fishery, you choose either

### Option 1

YES / NO

Agree to retain the existing TAC, TACC, and allowances for SNA 7 as follows:

- i) **retain** the existing TAC at 306 tonnes,
- ii) **retain** the Māori customary fishing allowance at 16 tonnes,
- iii) **retain** the recreational fishing allowance at 90 tonnes,
- iv) **retain** the other sources of fishing-related mortality allowance at 0 tonnes,
- v) **retain** the existing TACC at 200 tonnes.

**OR**

### Option 2

YES / NO

*(MPI Preferred Option)*

Agree to vary the TAC, TACC, and allowances for SNA 7 as follows:

- i) **set** the TAC at 357 tonnes,
- ii) **retain** the Māori customary fishing allowance at 16 tonnes,
- iii) **set** the recreational fishing allowance at 100 tonnes,
- iv) **set** the other sources of fishing-related mortality allowance at 22 tonnes,
- v) **set** the TACC at 220 tonnes.

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

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



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

## EXECUTIVE SUMMARY

74 The Ministry for Primary Industries (MPI) proposes the following two options for the total allowable catch (TAC), total allowable commercial catch (TACC) and allowances for SPE 1:

Table 1: Final Proposals - TACs, TACCs and allowances for SPE 1

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational(t)	Other sources of fishing related mortality (t)
Option 1 (Modified Status Quo)	37	33	1	1	2
Option 2	58	53	1	1	3

75 Any variation to the TAC for SPE1 can be done under section 13(4) and section 13(2A) of the Fisheries Act 1996 (the Act). Variations to the TACC can be done under section 20(2) after making the allowances provided for in section 21.

## KEY CONSIDERATIONS

### Need to Act

76 The SPE 1 TAC is small – only 35 tonnes – with a TACC of 33 tonnes. Since the introduction of SPE 1 to the Quota Management System (QMS) in 1998, the fishery has developed further (or is better reported) and the commercial catch has substantially exceeded the TACC for 11 of the 14 fishing years. This has occurred despite increased deemed values and an increase to the TAC in 2006.

77 As fishing pressure on SPE 1 is relatively low, the general approach is to minimise management costs by using catch trends as the key monitoring tool for the stock. Catches have fluctuated around an increasing trend and landings have been often in excess of the TACC. These factors have been used to trigger further investigation and consideration of review.

78 Although there is uncertainty (stock status is unknown) available information suggests that neither management option proposed is likely to affect the long term sustainability of the stock. If current catch is sustainable, then the current TAC is imposing unnecessary costs on the commercial sector.

### Relevant Fishery Information

79 Sea Perch was introduced into the QMS on 1 October 1998. At that time, no specific management target was set.

80 In addition to the TAC, TACC, and allowances, sea perch are subject to the catch balancing regime supported by differential deemed values. SPE 1 is not subject to a recreational daily bag limit or a minimum legal size.

81 The current TAC and TACC for SPE 1 were reviewed last in 2006. Commercial landings had exceeded the TACC apart from one year and the TACC was increased to the average of the previous 7 years plus an additional 10%.

82 Sea perch are managed as an assemblage of species in one genus (*Helicolenus* spp). A recent characterisation has found evidence of three species of sea perch within this genus in NZ waters.<sup>36</sup>

83 Sea Perch are bottom dwelling fish that occur on the continental shelf, seamounts and ridges. The depth distribution of sea perch catches suggests that these species are separated by depth and/or geography.

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<sup>36</sup> Bentley, N., Kendrick, T.H. MacGibbon, D.J. (2013), Fishery characterisation and catch-per-unit-effort analyses for sea perch (*Helicolenus* spp.) in New Zealand 1989/90 to 2009/10. NZ Fisheries Assessment Report 2013

84 SPE 1 most likely is the 'H sp. A' species because depths from 250-700 with a peak abundance around 300m are preferred and these depths coincide with the fishery.

85 While little is known of the specific biology of H sp. A, sea perch growth in general is relatively slow with a maximum age of 59 years and maximum sizes of 56 cm. Sea perch are viviparous, extruding small larvae in floating jelly-masses during an extended spawning season. They are opportunistic feeders and prey on a variety of animals close to the sea floor.

### SPE 1 Stock Status

86 SPE 1 is a low knowledge stock. There is limited information available to monitor the fishery and assess fishery performance. The best available information on stock status for SPE 1 is trends in catch. Reported landings from SPE 1 have not exceeded 53 tonnes since reliable records have been available (1983-84). Since introduction into the QMS, landings per fishing year have ranged from 19 to 53 tonnes. Given the wide distribution of SPE 1, the absence of target fishing, the low volume of previous catches and assuming a low exploitation rate it is likely that the SPE 1 biomass is currently at or above that required to support the MSY. MPI acknowledges that the assumption of low exploitation rate is highly uncertain in the absence of an index of abundance.

### Commercial

87 Figure 2 shows commercial landings of SPE 1 from 1996 to 2012.

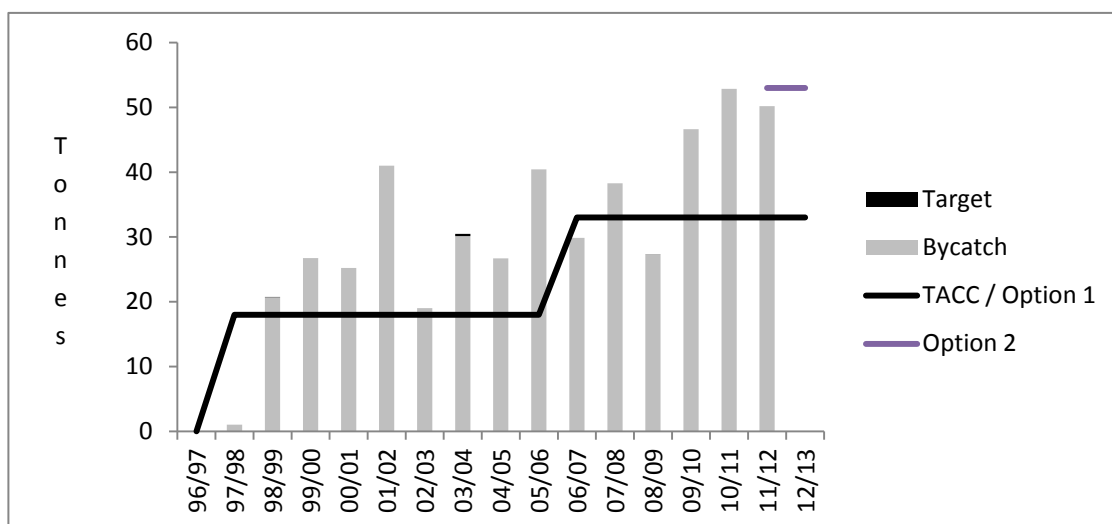


Figure 2: Commercial catch limits (TACC), proposed TACC options, and landings for SPE 1 1996-2012

88 Sea perch is currently a low value commercial fishery and little target fishing is reported. Despite this the fishery has fluctuated around an increasing trend over the past 14 years.



89 Since the introduction of sea perch into the QMS, almost 100% of SPE 1 taken commercially has been reported as by catch. Bottom trawl accounts for 85% of the SPE 1 catch and 80% of the total catch comes from the Bay of Plenty – fisheries statistical area 8, and 9. Sea perch in SPE 1 are taken predominantly when trawl fishing for scampi. Because scampi trawl nets have fine mesh bycatch such as sea perch is difficult to avoid. Lesser amounts of sea perch are taken in the ling, bluenose and snapper longline fisheries.

90 Table 2 shows payments of deemed values.

Table 2: Commercial catch limits (TACC), deemed value rate and deemed value payments from 2001/02 to 2011/12.

Fishing Year	TACC (t)	DV rate	Deemed Value Payments
2001-02	18	\$0.10	\$2,694
2002-03	18	\$0.10	\$661
2003-04	18	\$0.10	1,530
2004-05	18	\$0.10	\$1,062
2005-2006	33	\$0.10	\$2,333
2006-2007	33	\$0.45	\$346
2007-2008	33	\$0.45	\$3,118
2008-2009	33	\$0.45	\$214
2009-2010	33	\$0.45	\$5,743
2010-2011	33	\$0.45	\$10,043
2011-2012	33	\$1.25-\$2.50*	\$32,559

\* *Differential deemed value payments introduced*<sup>37</sup>

## Recreational

91 Sea perch is not an important recreational target fishery in SPE 1 probably because H spp A occurs only in deep water. The FMA 1 & 9 Recreational Forum characterised sea perch as a welcome bycatch for recreational fishers and was concerned that catches may be exceeding the recreational allowance.

92 The 2011-12 national panel survey has provided a clearer picture of the magnitude of recreational fishing. The estimated recreational catch of SPE 1 in 2011-2012 from the national panel survey is less than one tonne and hence recent recreational catches are probably well within the current allowance.

## Māori Customary

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

<sup>37</sup> Deemed values may be placed on a ramped differential deemed values schedule. Under this schedule, fishers face higher deemed value rates the further they exceed their ACE holdings.

## Other Sources of Fishing Related Mortality

94 Discards reported for SPE 1 range from 6–26% of the catch. Reported discards are accounted for in landings however, unreported fishing related mortality of unwanted and unmarketable sea perch may also be occurring. Likewise a small amount of other sources of fishing related mortality of sea perch might be attributed to recreational fishers.

## CONSULTATION

95 Your decision to adjust the TAC for SPE1 is a decision under section 13 of the Act and therefore the consultation requirements of section 12 and section 21(2) apply. Consultation on the initial position paper (IPP) was undertaken with such persons or organisations representative of those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Māori, environmental, commercial and recreational interests.

96 The Ministry followed its standard consultation process for IPPs; this involved posting all IPPs on the Ministry website and alerting stakeholders to this through a letter sent to approximately 200 companies, organisations and individuals.

97 There is also an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga. The Ministry recognises that information on customary harvest is uncertain and invited iwi, Tangata Tiaki/Kaitiaki, and customary permit holders to submit information. However, no additional information was submitted during the consultation process. The Ministry will continue to work with tangata whenua to improve reporting and information on customary non-commercial catches.

98 The Ministry consulted on the two options that are set out in Table 1.

## Submissions

99 Stakeholders submitted four submissions on proposed measures in the SPE 1 IPP:

- Sanford Limited (Sanford)
- Iwi Collective Partnership (ICP) - a collective of 12 central North Island Iwi
- NZ Recreational Fishing Council (NZRFC)
- NZ Sport Fishing Council (NZSFC)

100 Two submissions support Option 2: to increase the TAC and TACC. Two submitters support the status quo or a slightly modified version of that option (Option 1).

## Stakeholder Views

101 The NZRFC supports maintaining the current TAC (Option 1). It submits additional utilisation only be considered when the stock is known to be at or above BMSY. The NZRFC is concerned that greater utilisation will lead to additional benthic impacts since 85% of the catch is taken by trawl.

102 The NZSFC support maintaining the current TACC (Option 1) but submits increasing both the recreational and fishing related mortality allowances by setting each at 3 tonnes. It submits additional utilisation be considered only when supported by scientific rationale. The NZSFC is also concerned that greater utilisation will lead to additional benthic impacts and also draws your attention to other statutory considerations. It submits support for the proposal to set an allowance for other sources of fishing related mortality but requests greater observer coverage to monitor catch against this allowance. It submits an identification guide is required to monitor species specific landings.

103 Sanford and the ICP support an increase to the TACC (Option 2). They submit the proposed increase reflects better the level of incidental bycatch. Further the ICP submits that the SPE 1 fishery is healthy.

104 Copies of all submissions are bundled together in a separate attachment for your reference.

## MPI response

105 Although there is uncertainty (stock status is unknown) available information suggests that neither management option proposed is likely to affect the long term sustainability of the stock. The proposed increase to the TAC as proposed by Option 2 reflects current commercial catch levels. There is no independent information to indicate that these catch levels are impacting on the sustainability of the fishery. Given the wide distribution of SPE 1, the absence of target fishing, the low volume of previous catches and assuming a low exploitation rate it is likely that the SPE 1 biomass is currently at or above that required to support the MSY. MPI acknowledges that the assumption of low exploitation rate is highly uncertain in the absence of an index of abundance.

106 Sea perch stocks are managed under the Draft National Fisheries Plan for Inshore Finfish (the Finfish Plan)<sup>38</sup>. It sets out management objectives for inshore finfish stocks, including SPE 1. Within the Finfish Plan stocks are grouped, with management approaches and objectives tailored accordingly for each group.

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<sup>38</sup> The Fisheries Plan has not been formally approved under the Act.

107 SPE 1 is in Group 6 in the Finfish Plan. The management approach for SPE 1 is to ensure that costs reflect benefits. It recognises this stock is subject to less fishing pressure than some other stocks and that less comprehensive information for management is therefore required. The general approach is to minimise management costs by using catch trends as the key monitoring tool for each stock. As for SPE 1, landings in excess of the TACC are used as a trigger for further investigation and consideration of review.

108 You could take a cautious approach and maintain the current TAC and TACC (Option 1) and take further steps to try and constrain commercial catches within the TACC. Regardless of the decision made on catch limits, MPI is also reviewing SPE 1 deemed value rates to provide further incentive for fishers to manage catch within the TAC. However if this catch is unavoidable, then a decision not to increase the TAC will simply increase industry costs and incentives to discard.

109 MPI proposes that under Option 2 any increase of the TAC is allocated to the TACC. You have considerable discretion under section 21 of the Act to allocate the catch as you consider reasonable to achieve the purpose of the Act. The intention of the proposed increase is to reflect current catch levels and that provides greatest overall economic, social and cultural benefits to commercial users. Without allocating this increase to the commercial sector there is a likelihood, if the current level of catch is unavoidable, that fishers will continue to catch in excess of the TACC and pay deemed values.

110 There is no information to suggest that the recreational catch is exceeding the allowance or any other information to suggest that the recreational allowance should be adjusted as proposed in submissions. The 2011-12 national panel survey harvest estimate of 0.67 tonne is well within the current recreational allowance of one tonne.

111 Information on Māori customary catch levels is limited and uncertain. Most customary fishing is likely to be undertaken under amateur fishing rules. MPI received no submissions to indicate the catch of this sector has increased above the current allowance.

112 MPI agrees with the NZSFC of the need to clarify speciation and to develop and distribute a species guides to fishers. Also in terms of fishery performance, an improved understanding of discarding would be beneficial.

113 The concerns expressed in submissions about environment impacts and other statutory considerations are addressed below in the section on assessment against statutory obligations.

## OPTIONS

114 MPI proposes a slight change to Option 1 from that proposed in the IPP for your consideration. The revised Option 1 increases the TAC from 35 to 37 tonnes and includes an allowance for other sources of fishing related mortality of two tonnes (see Table 1).

115 Before a TAC can be varied having regard to the matters specified in section 13(2) of the Act an assessment of  $B_{\text{CURRENT}}$ <sup>39</sup> and  $B_{\text{MSY}}$ <sup>40</sup> is required. The available information on SPE 1 is insufficient to enable estimates of  $B_{\text{CURRENT}}$  or  $B_{\text{MSY}}$ .

116 Where estimates of  $B_{\text{CURRENT}}$  or  $B_{\text{MSY}}$  cannot be reliably estimated, section 13(2A) of the Act enables you to use the best available information to set a TAC that is not inconsistent with maintaining the stock at or above  $B_{\text{MSY}}$ , or moving the stock towards or above,  $B_{\text{MSY}}$ .

117 Although there is uncertainty (stock status is unknown) available information suggests that neither management option proposed is likely to affect the long term sustainability of the stock. Option 1 can be interpreted as being more cautious but will limit utilisation. In contrast, increasing the TAC under Option 2, will allow for more value to be achieved from existing levels of utilisation.

## ADDITIONAL MANAGEMENT CONTROLS

118 MPI is reviewing the schedule of differential deemed value rates for SPE 1. The proposals are evaluated in a separate paper Final Advice Paper - Review of Deemed Value Rates for Inshore and Deepwater Stocks – 1 October 2013.

119 SPE 1 is not sought by recreational fishers and the catch is negligible, hence MPI assesses there is no need to consider management controls on recreational fishing such as a daily bag limit.

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<sup>39</sup>  $B_{\text{CURRENT}}$  is the current biomass (usually a mid-year biomass)

<sup>40</sup>  $B_{\text{MSY}}$  is the average stock biomass that results from taking an average catch of the maximum sustainable yield (MSY) under various types of harvest strategies.

## ASSESSMENT AGAINST STATUTORY OBLIGATIONS

### Purpose of the Act

120 Section 8 of the Act says that the purpose of the Act is to provide for the utilisation of fisheries resources while ensuring sustainability. Ensuring sustainability means maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment. Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being.

121 MPI considers that all options presented in this paper satisfy the purpose of the Act in that they provide for utilisation in the SPE 1 fishery while ensuring sustainability. Available information suggests neither management option proposed is likely to affect the long term sustainability of the stock. Option 1 is more cautious but is likely to limit utilisation opportunities. In contrast, increasing the TACC from 33 tonnes to 53 tonnes under Option 2, will allow for increased value to be obtained from existing utilisation levels.

### General Obligations

122 In setting or varying sustainability measures, you must also act in a manner consistent with New Zealand's international obligations to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

123 A wide range of international obligations relate to fishing, including use and sustainability of fish stocks; and maintaining biodiversity (s 5(a)). MPI considers that the management options for SPE 1 are consistent with these international obligations.

124 MPI also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5 (b)). Ongoing work is being done within the area covered by SPE 1 to promote policies that help to recognise customary use and management practices including, but not limited to, supporting tangata whenua to gazette their rohe moana, to establish iwi forums and to develop Iwi Fisheries Plans.

125 MPI has an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga (under s 12). MPI sought input from and provided an opportunity for participation from iwi listed under schedule 3 of the Māori Fisheries Act 2004, MPI's Iwi Forums (via the forum chairs) and tangata whenua groups with a Fisheries Protocol. This opportunity was provided in writing prior to the development of the IPP. MPI

did not receive any input on kaitiakitanga and customary interest in SPE 1 during this time although MPI acknowledges timeframes for input were short due to the development process. MPI is looking at ways to provide for more effective input and participation by tangata whenua in the future.

126 In addition to an opportunity to input and participate in the development of the IPP MPI also consulted (as defined in section 12 of the Act) with the above tangata whenua groups and with tangata whenua who have registered an interest in SPE 1, on the options developed through the IPP. In particular, due to the uncertainty of the information MPI currently holds on customary permit fulfilment, MPI sought information from tangata whenua on levels of customary harvest. No additional information was received by this initiative regarding the current utilisation of sea perch for customary purposes. MPI will continue to work with tangata whenua to improve reporting and information on customary non-commercial catches.

## TAC

127 Section 13(2A) requires you must set a TAC that is “not inconsistent” with the objective of maintaining the stock at or above, or moving the stock to a level at or above  $B_{MSY}$ , in a way and rate considered appropriate for the stock. In doing so, you must have regard to the interdependence of stocks, the biological characteristics of the stock, and any environmental conditions affecting the stock, and set a TAC using the best available information. You must not use the absence of, or uncertainty in, the best available information as a reason for postponing or failing to take action necessary to achieve the purpose of the Act.

128 In considering the way in which and rate at which a stock is moved towards or above  $B_{MSY}$ , you must have regard to such social, cultural, and economic factors that you consider relevant. There is no statutory guidance on what an appropriate ‘way and rate’ might be in any given case – it is a matter for you to determine having regard to social, cultural and economic factors. Relevant social, economic and cultural information is set out in the paper.

129 The TAC options presented in this FAP take into account the requirements of section 13, and offer differing approaches to managing the fishery that reflect the uncertainty in available information-see “Section 10-Information principles” below.

## Environmental Principles

130 Section 9 requires you to take into account the following environmental principles: associated or dependent species be maintained at or above a level that ensures their long-term viability the biological diversity of the aquatic environment should be maintained habitat of particular significance for fisheries management should be protected.

131 As SPE 1 is almost exclusively a bycatch fishery, MPI does not have any information on key environmental issues associated specifically with the SPE 1 fishery. The proposed changes to the SPE 1 TAC reflect existing catch levels. There is no information to indicate there will be impacts upon the matters noted in section 9 of the Act.

MPI considers that all options presented in this paper satisfy your obligations under section 9 of the Act.

## Section 10 - Information principles

132 Section 10 says you must take into account the following information principles when exercising or performing functions, duties or powers under the Act in relation to the utilisation of fisheries resources or ensuring sustainability:

- decisions should be based on the best available information
- decision makers should take into account any uncertainty in the available information,
- decision makers should be cautious when information is uncertain, unreliable, or inadequate, 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 the Act.



## Section 11 considerations

133 In making your decision on sustainability measures for SPE 1 you must also satisfy the requirements of section 11 of the Act.

134 Section 11(1) (a) requires you to take into account the effects of fishing on the stock and aquatic environment. A significant amount of SPE 1 is caught by bottom trawl, which does impact on the benthic environment. These effects have been taken into account for current management measures (Option 1). The effects are unlikely to change under Option 2 on account of SPE 1 being almost exclusively a bycatch fishery, and fishing operations not being expected to change because of the increase in the TACC. As a result, MPI does not consider that fishing for SPE 1 has any additional impact on biological diversity of the aquatic environment. The proposed catch limits reflect the existing catch levels for the SPE 1 fishery.

135 Section 11(1) (b) requires that you take into account any existing controls that apply to the stock or area concerned. For SPE 1, the current TAC of 33 tonnes is the key control under consideration for change. MPI considers that other existing controls are being applied appropriately.

136 MPI has previously reviewed the deemed value rates for SPE 1, and has increased them in order to better achieve the objectives for the SPE 1 fishery, and the purpose of the Act. MPI also proposes that you review the current deemed values for SPE 1. This approach creates further economic incentives for fishers to act appropriately and balance any catch against ACE, if ACE is available.

137 Section 11(1) (c) requires you to take into account the natural variability of the stock before setting or varying any sustainability measure. Both of the options presented in this paper take into account the natural variability of the stock.

138 Section 11(2)(a and b) require you to have regard to any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991, and any management strategy or management plan under the Conservation Act 1987 that applies to the coastal marine area and which you consider relevant, before setting or varying any sustainability measure. There are no such relevant provisions applicable to the varying of the TAC for the SPE 1 stock.

139 Section 11(2)(c) requires you to have regard to the provisions of sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 when dealing with a stock in the area of the Hauraki Gulf Marine Park (HGMP). Section 7 recognises the national significance of the Hauraki Gulf, including its capacity to provide for the relationship of tangata whenua with the Gulf and the social, economic, recreational and cultural well-being of people and communities. Section 8 sets out objectives for the management of the Hauraki Gulf. Objectives of relevance include; the protection and enhancement of the natural, historic, and physical resources of the

Hauraki Gulf; the protection and enhancement of those resources of the Hauraki Gulf with which tangata whenua have an historic, traditional, cultural and spiritual relationship; and the maintenance and enhancement of the contribution of the resources of the Hauraki Gulf to the social and economic well-being of the people and communities of the Hauraki Gulf and New Zealand. Resources of the Hauraki Gulf would include sea perch although very little catch of sea perch is reported from the Hauraki Gulf. Providing for a small increase in utilisation of SPE 1 is consistent with these objectives.

140 Section 11(2) (d) requires you to have regard to any planning document lodged by a customary marine title group under section 91 of the Marine and Coastal Area (Takutai Moana) Act 2011. No planning documents applicable to SPE 1 have been lodged.

141 Section 11(2A)(b) requires you to take into account any relevant fisheries plan approved under section 11A before setting or varying any sustainability measure. There is no relevant plan that has been approved under section 11(2A)(b) that you need to take into account.

142 Section 11(2A)(a and c) require you to take into account any relevant conservation services or fisheries services or decisions not to require such services. There are no-such relevant services.

### Setting Allowances

143 When setting any TACC, section 21 of the Act requires you to allow for Māori customary non-commercial interests, recreational fishing interests, and for any other sources of fishing related mortality, when setting or varying the TACC. The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on the best available information.

144 Option 2 proposes an increase to the TACC from 33 to 53 tonnes, which more closely reflects the current commercial catch levels. By increasing the TACC, fishers are more likely to be able to cover any catch with ACE and, therefore, will less likely incur deemed value payments. MPI considers it reasonable to consider increasing the TACC for the SPE 1 fishery because fishing information since 1997 indicates that almost all the reported catch is unavoidable bycatch.

145 MPI has no new information on customary or recreational fishing interests that would change the current allowances for these sectors. No submissions identified any new information that would support a change to the current non-commercial allowances.

146 MPI considers the Māori customary and recreational allowances are appropriate, and do not recommend any changes to the current provisions.

147 Section 13 of the HGMPA requires you to have particular regard to sections 7 and 8 of the HGMP Act when making TACC decisions for a stock in the area of the Hauraki Gulf. These sections are discussed above under “Section 11 considerations”. In MPI’s view providing for a small increase in the TACC is consistent with the objectives of the HGMP Act.

148 Discards reported for SPE 1 range from 6–26% of the commercial catch. This suggests a high quality of reporting because reported discards are counted against ACE (or deemed value payments made). However, some additional fishing related mortality of unwanted/unmarketable sea perch may be occurring. Likewise a small amount of other sources of fishing related mortality of sea perch might be attributed to recreational fishers. MPI considers it prudent to set an allowance for other sources of fishing related mortality; however, only at the nominal level of 2 tonnes for Option 1 or 3 tonnes for Option 2 (based on 5% of the TAC).

## CONCLUSIONS

149 MPI considers that either option could be adopted without impacting on sustainability. There has been no apparent adverse change to the performance of the fishery as a result of current catches. The status quo TACC is constraining catches and in some years fishers are incurring substantial deemed value payments.

150 Management settings for SPE 1 have already been altered since sea perch was introduced into the Quota Management System (QMS) on 1 October 1998. In 2006 the TACC was increased from the initial level of 18 tonnes to 33 tonnes. In 2006 and in 2011, deemed value rates were increased. Despite these adjustments to management settings the reported annual commercial catch has continued to exceed the TACC.

151 MPI received four submissions on the IPP, including one from the commercial sector, one from the customary sector, and two from recreational groups. Stakeholder support for the options is mixed. Two submissions support an increase to the TACC (Option 2), and two submission support the status quo (Option 1) or a slightly modified version.

152 Option 1 is the cautious approach, reflecting the uncertainty in information about the SPE 1 stock status. This option proposes retaining the current TAC, TACC and allowances apart from setting a new allowance of two tonnes for fishing-related incidental mortality. Maintaining the SPE 1 catch within the TAC and existing allowances would require more

stringent constraints to be introduced. These include reviewing deemed value rates with a view to further increasing incentives to avoid sea perch commercial over catch.

153 Option 2 proposes changes to the TAC to accommodate what is currently taken as commercial bycatch. This approach reflects current catch levels and provides greatest overall economic, social and cultural benefits to commercial users.

## RECOMMENDATIONS

MPI recommends that for the SPE 1 fishery you either:

### Option 1

YES / NO

**Agree** to vary the TAC, TACC and allowances for SPE 1 as follows:

- i) **set** the TAC at 37 t,
- ii) **retain** an allowance for customary fishing of 1 tonne,
- iii) **retain** an allowance for recreational fishing of 1 tonne,
- iv) **set** an allowance for other sources of fishing related mortality of 2 tonnes,
- v) **retain** the TACC of 33 tonnes.

**OR**

### Option 2

YES / NO

*(MPI preferred)*

**Agree** to vary the TAC, TACC and allowances for SPE 1 as follows:

- i) **set** the TAC at 58t,
- ii) **retain** an allowance for customary fishing of 1 tonne,
- iii) **retain** an allowance for recreational fishing of 1 tonne,
- iv) **set** an allowance for other sources of fishing related mortality of 3 tonnes,
- v) **increase** the TACC from 33 tonnes to 53 tonnes.

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

# REVIEW OF DEEMED VALUE RATES FOR INSHORE AND DEEPWATER STOCKS – 1 OCTOBER 2013

## SUMMARY

1 MPI recommends that you review deemed value rates for fish stocks effective from 1 October 2012.

2 The proposals have been assessed in terms of the relevant statutory requirements and the best available information, and tangata whenua and stakeholder input.

## CONTEXT

### The deemed value framework

3 The requirement for commercial fishers to balance catch with Annual Catch Entitlement (ACE) is a fundamental principle of the Quota Management System (QMS), contributing to both sustainability and utilisation objectives under the Fisheries Act 1996 (the Act). The deemed value framework is an economic tool that incentivises commercial fishers to balance their catch with ACE while not discouraging them from landing and reporting catch they are unable to balance with ACE. The intent is to protect the long term value of stocks and to support kaitiakitanga by encouraging the overall commercial catch for each QMS stock not to exceed the available ACE and/or the Total Allowable Commercial Catch (TACC).

4 Under the deemed value framework, commercial fishers are charged for every kilogram of fish landed in excess of the ACE that they hold or can obtain by the end of the fishing year<sup>41</sup>. In most stocks, deemed values follow a ramped differential deemed values schedule<sup>42</sup>. Under this schedule, fishers face higher deemed value rates the further they exceed their ACE holdings.

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<sup>41</sup> Interim deemed value rates are charged each month to commercial fishers for every kilogram of fish landed in excess of ACE they hold. If the fisher sources enough ACE to cover his or her catch, the interim rates paid are reimbursed. If the fisher does not source enough ACE by the end of the fishing year, the difference between the interim and annual deemed value rates is charged for all catch in excess of ACE. Therefore, the annual rate applies at the end of the fishing year only.

<sup>42</sup> Differential deemed value rates, if applicable, are also charged at the end of the fishing year if the fisher harvested well in excess of his or her ACE holdings. The table below outlines the standard differential deemed value rate schedule (standard schedule), applicable to most stocks. Differential rates reflect the increasingly detrimental impact of higher levels of over catch on sustainability and on the long term value of the resource, providing stronger incentives to avoid over catch. For vulnerable or rebuilding stocks, a more stringent differential deemed value schedule (e.g. applying from 5% or 10% over catch) may be more appropriate than the standard schedule.

Catch in excess of ACE holdings	0 - 20%	>20%	>40%	>60%	>80%	>100%
Differential deemed value rate as a percentage of the annual deemed value rate	100%	120%	140%	160%	180%	200%

5 The level at which annual deemed values are set is directly related to economic variables such as operating costs, ACE prices, transaction costs of acquiring ACE, and landed fish prices. When any of these factors change, so do the incentives created by the deemed values. Accordingly, deemed values are reviewed annually and assessed against economic changes to ensure incentives remain effective.

6 The setting of deemed values are critical for ensuring that the correct incentives are in place. Deemed value rates that are set too low may lead to catches in excess of the TACC, which may have negative implications for sustainability and the long-term value of the resource. Conversely, deemed value rates that are set too high may discourage landing and accurate reporting. These types of behaviour undermine sustainability and utilisation objectives.

7 The effectiveness of these incentives is dependent on individual fishers' compliance with landing and reporting requirements, their responses to the incentives provided and on the impact of other incentives such as those created by market conditions.

8 When commercial fishers are unable to source enough ACE to cover their catch for a particular stock, the deemed value framework provides the flexibility for fishers to either alter their behaviour and fishing practices to reduce the catch of that stock or to pay the deemed value.

9 The deemed value framework does not address the mismatch between ACE availability of target and bycatch species for which TACCs are set incorrectly. MPI recognises that in such situations, deemed values may create incentives to illegally discard fish.

10 Nonetheless, setting of deemed value rates is a separate process from setting TACCs and the adequacy of the TACC is not a matter to be considered when setting deemed value rates.<sup>43</sup> Every year MPI identifies and prioritises sustainability concerns and use opportunities or constraints, at address issues with TACCs, through MPI's annual fisheries planning process.

11 The deemed value rate changes proposed in this paper are aimed at protecting the TACC, regardless of the level at which it is set, by encouraging balancing of catch with ACE while avoiding creating incentives to discard and misreport. Furthermore, the proposed changes to deemed value rates are intended to provide stronger incentives for fishers to report catch correctly.

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<sup>43</sup> *Pacific Trawling Limited & Independent Fisheries Limited v Minister of Fisheries*, High Court, Napier Registry, 29 August 2008, CIV 2007-441-1016, Priestley J.

12 The deemed value framework is designed to provide industry with the ability to maximise the value of their fishing quota by providing flexibility to adjust fishing activity to reflect sustainable catch limits. Where adjustment of fishing activity is not possible, the alternative is for catch limits of associated target species to be reduced.

## STATUTORY CONSIDERATIONS

13 Section 10 says you must take into account the following information principles when exercising or performing functions, duties or powers under the Act (such as setting deemed values):

- a) decisions should be based on the best available information
- b) decision makers should take into account any uncertainty in the available information,
- c) decision makers should be cautious when information is uncertain, unreliable, or inadequate, and
- d) 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 the Act.

14 Section 75(1) of the Act requires you to set annual and interim deemed value rates for all stocks managed under the QMS. When setting these rates, you are required under section 75(2)(a) to take into account the need to provide an incentive for every commercial fisher to acquire or maintain sufficient ACE each fishing year that is not less than the total catch of the stock taken by that commercial fisher.

15 Section 75(2)(b) specifies the matters that you may have regard to when setting deemed value rates for a stock. These are:

- the desirability of commercial fishers landing catch for which they do not have ACE;
- the market value of ACE for the stock;
- the market value of the stock;
- the economic benefits obtained by the most efficient commercial fisher, licensed fish receiver, retailer, or any other person from the taking, processing, or sale of fish, aquatic life or seaweed;
- the extent to which catch of that stock has exceeded or is likely to exceed the TACC for the stock in any year; and
- any other matters that you consider relevant.

16 Section 75(3) specifies that the annual deemed value rate must be greater than the interim deemed value rate. Furthermore, you may choose to set, under section 75(4), differential deemed value rates for specific stocks. Section 75(5) allows you to set different deemed value rates for fish landed in the Chatham Islands, reflecting the unique marketing conditions of those landings. Section 75(6) requires that you should not have regard to



personal circumstances or set separate deemed value rates in individual cases. Under section 75(7) you may vary deemed value rates to take effect at the start of the next fishing year. Before setting deemed value rates, you must consult with stakeholders and tangata whenua that have an interest in the stock, as required by section 75A.

## DEEMED VALUE GUIDELINES

17 The practical application of these statutory criteria is developed in the Deemed Value Guidelines (the Guidelines), which are summarised below (see appendix 1 for full guidelines):

- deemed value rates should generally be set between the ACE price and the port price;
- deemed value rates should generally exceed the ACE price by transaction costs;
- deemed value rates should avoid creating incentives to misreport;
- deemed value rates for constraining bycatch species may be higher;
- deemed value rates should generally be set at twice the port price for high value single species fisheries and species subject to international catch limits;
- deemed value rates for Chatham Island landings may be lower;
- interim deemed value rates should generally be set at 90% of the annual deemed value rate;
- differential deemed value rates should generally be set.

18 MPI has adopted the approach of reviewing deemed value rates of all stocks of a particular species at the same time to ensure consistent and proactive incentives are provided, while taking into account regional differences. Furthermore, the Guidelines outline that MPI will generally propose to set deemed value rates for stocks in Fisheries Management Area 10 (Kermadec) at the higher of the rates applicable in Fisheries Management Area 1 or 2 (Auckland East and Central).

## SUMMARY OF RECOMMENDED CHANGES

19 MPI recommends that you approve changes to deemed value rates for inshore and deepwater stocks from 1 October 2013, as outlined in Table 1.

Table 1: Current and recommended deemed value rates for inshore and deepwater stocks

Species	Stock	Current deemed value rates /kg			Proposed deemed value rates /kg		
		Interim	Annual	Differential <sup>44</sup>	Interim	Annual	Differential
Elephant fish	ELE1	\$ 0.24	\$ 0.48	Standard schedule	\$ 1.35	\$ 1.50	Standard schedule
	ELE2	\$ 0.84	\$ 1.67		\$ 1.35	\$ 1.50	
	ELE3	\$ 1.40	\$ 1.65		\$ 1.50	\$ 1.65	
	ELE5	\$ 1.40	\$ 1.65		\$ 1.50	\$ 1.65	
	ELE7	\$ 0.58	\$ 1.16		\$ 1.50	\$ 1.65	

<sup>44</sup> Under a standard differential deemed value rate schedule (standard schedule) the applicable deemed value rate increases by 20% for every 20% of catch in excess of ACE holdings, up to a maximum 100% increase for all catch 100% or more in excess of ACE holdings.

Species	Stock	Current deemed value rates /kg			Proposed deemed value rates /kg		
		Interim	Annual	Differential <sup>44</sup>	Interim	Annual	Differential
Kingfish	KIN1	\$ 4.45	\$ 8.90	Standard schedule	\$ 8.00	\$ 8.90	Standard schedule
	KIN2	\$ 2.46	\$ 4.92		\$ 8.00	\$ 8.90	
	KIN3	\$ 4.45	\$ 8.90		\$ 8.00	\$ 8.90	
	KIN4	\$ 4.45	\$ 8.90		\$ 8.00	\$ 8.90	
	KIN7	\$ 4.45	\$ 8.90		\$ 8.00	\$ 8.90	
	KIN8	\$ 4.45	\$ 8.90	Starting at 20% over catch but steeper	\$ 8.00	\$ 8.90	Starting at 20% over catch but steeper
Leatherjacket	LEA1	\$ 0.12	\$ 0.23	Do not apply	\$ 0.40	\$ 0.45	Standard schedule
	LEA2	\$ 0.12	\$ 0.23		\$ 0.40	\$ 0.45	
	LEA3	\$ 0.23	\$ 0.45	Standard schedule	\$ 0.40	\$ 0.45	Starting at 20% over catch but flatter
	LEA4	\$ 0.12	\$ 0.23	Do not apply	\$ 0.40	\$ 0.45	Standard schedule
Skate (rough and smooth)	RSK1	\$ 0.22	\$ 0.44	Standard schedule	\$ 0.32	\$ 0.35	Standard schedule
	RSK3	\$ 0.15	\$ 0.30		\$ 0.32	\$ 0.35	
	RSK7	\$ 0.22	\$ 0.44		\$ 0.32	\$ 0.35	
	RSK8	\$ 0.22	\$ 0.44		\$ 0.32	\$ 0.35	
	SSK1	\$ 0.22	\$ 0.44		\$ 0.32	\$ 0.35	
	SSK3	\$ 0.15	\$ 0.30		\$ 0.32	\$ 0.35	
	SSK7	\$ 0.22	\$ 0.44		\$ 0.32	\$ 0.35	
	SSK8	\$ 0.22	\$ 0.44		\$ 0.32	\$ 0.35	
Sea perch	SPE1	\$ 0.63	\$ 1.25	Standard schedule	\$ 0.50	\$ 0.55	Standard schedule
	SPE2	\$ 0.08	\$ 0.15		\$ 0.50	\$ 0.55	
	SPE3	\$ 0.08	\$ 0.15		\$ 0.50	\$ 0.55	
	SPE4	\$ 0.08	\$ 0.15		\$ 0.36	\$ 0.40	
	SPE4 (CI)	\$ 0.04	\$ 0.08	Removed – see SPE4			
	SPE5	\$ 0.12	\$ 0.24	Do not apply	\$ 0.36	\$ 0.40	
	SPE6	\$ 0.12	\$ 0.24	\$ 0.36	\$ 0.40		
	SPE7	\$0.13	\$ 0.25	Standard Schedule	\$ 0.50	\$ 0.55	
	SPE8	\$ 0.12	\$ 0.24	Do not apply	\$ 0.50	\$ 0.55	
	SPE9	\$ 0.12	\$ 0.24		\$ 0.50	\$ 0.55	
Stargazer	STA1	\$ 0.28	\$ 0.56	Standard schedule	\$ 0.90	\$ 1.00	Standard schedule
	STA2	\$ 0.34	\$ 0.68		\$ 0.90	\$ 1.00	
	STA3	\$ 0.45	\$ 0.90		\$ 0.90	\$ 1.00	
	STA4	\$ 0.51	\$ 1.01		\$ 0.90	\$ 1.00	
	STA4 (CI)	\$ 0.36	\$ 0.72		Removed – see STA4		
	STA5	\$ 0.51	\$ 1.01		\$ 0.90	\$ 1.00	
	STA7	\$ 1.31	\$ 1.45		\$ 0.90	\$ 1.00	
	STA8	\$ 1.21	\$ 1.22		\$ 0.90	\$ 1.00	

## NEED TO ACT

### Review of deemed value rates

20 Deemed value rates are reviewed on an annual basis. MPI determined stocks to review deemed value rates for, as summarised in Table 2, after:

- assessing relevant information (summarised in Table 3) against the Guidelines (appendix 1) and the need to provide effective incentives for fishers to balance catch with ACE; and

- Inviting tangata whenua, the fishing industry and other stakeholders to nominate stocks for deemed value rate reviews, in the context of discussions as part of the fisheries planning process for fisheries management.

Table 2: Species for which deemed value rates are being reviewed

Species	Rationale for review
<b>Elephant fish</b>	<ul style="list-style-type: none"> <li>- Current deemed value rate higher than reported port price (ELE2)</li> <li>- 7% over catch in 2011/12 (ELE3)</li> <li>- 13% over catch in 2011/12 (ELE5)</li> <li>- 28% over catch in 2011/12 (ELE7)</li> </ul>
<b>Kingfish</b>	<ul style="list-style-type: none"> <li>- 117% over catch in 2011/12 and concurrent TAC review (KIN7)</li> <li>- 60% over catch in 2011/12 (KIN8)</li> <li>- 43% over catch already reported for 2012/13 (KIN3), although current TACC is 1 tonne</li> </ul>
<b>Leatherjacket</b>	<ul style="list-style-type: none"> <li>- 27% over catch in 2011/12 and concurrent TAC review (LEA3)</li> </ul>
<b>Skate (rough and smooth)</b>	<ul style="list-style-type: none"> <li>- 96% over catch in 2011/12 and current deemed value rate higher than port price (RSK8)</li> <li>- 25% over catch in 2011/12 (SSK8)</li> </ul>
<b>Sea perch</b>	<ul style="list-style-type: none"> <li>- 50% over catch in 2011/12, concurrent TAC review and current deemed value rate higher than port price (SPE1)</li> <li>- Recent over catches (SPE7)</li> <li>- Current deemed value rates relatively low in comparison to port price (SPE2,3, 4, 8,9)</li> </ul>
<b>Stargazer</b>	<ul style="list-style-type: none"> <li>- 27% over catch in 2011/12 (STA1), which may be influenced by misreporting of non-QMS stargazer species as the giant stargazer, which is in the QMS</li> <li>- Current deemed value rate is higher than port price (STA7)</li> </ul>

21 The over catch seen in LEA 3, SPE 1, and KIN 7 may be addressed by TACC increases currently proposed for those stocks. However, that is not a relevant matter to be taken into account in reviewing deemed value rates for these stocks

## Analysis

22 The review of deemed value rates is informed by the Guidelines (appendix 1) and the information summarised in Table 3. The following sections outline the analysis and recommended deemed value rate changes for each stock reviewed, including tangata whenua and stakeholders' views raised in submissions.

Table 3: Information that informed the recommended deemed value rates

Species	Stock	Catch > TACC 11/12	Catch > Total ACE 11/12	2013 reported port price/kg <sup>45</sup>	11/12 ACE price/kg	11/12 deemed value invoices
<b>Elephant fish</b>	ELE1			\$ 2.40	\$ 0.12	-
	ELE2			\$ 1.54	\$ 0.53	\$ 59.54
	ELE3	7.4%	5.7%	\$ 2.26	\$ 0.77	\$ 156,587.62
	ELE5	12.5%	12.3%	\$ 2.00	\$ 0.71	\$ 55,874.24
	ELE7	27.5%	20.9%	\$ 2.08	\$ 0.61	\$ 39,103.06
<b>Kingfish</b>	KIN1			\$ 5.82	\$ 2.01	\$ 1,268.32

<sup>45</sup> Reported port prices are the average price for green weight fish of each stock reported to be paid to independent fishers by licensed fish receivers (LFRs). These values ignore differences in size, quality and state of fish landed (i.e. fishing method), location of landings, seasonal price variations, deductions that fishers may pay to LFRs from time to time and price differentials for vertically integrated fishing companies. Reported port prices are therefore an indicator of limited reliability. In general, real port prices for average size and quality fish landed in the main ports by independent fishers would tend to be higher than the average prices reported by LFRs.

Species	Stock	Catch > TACC 11/12	Catch > Total ACE 11/12	2013 reported port price/kg <sup>45</sup>	11/12 ACE price/kg	11/12 deemed value invoices
Leatherjacket	KIN2			\$ 3.74	\$ 1.24	\$ 155.03
	KIN3			\$ 2.26	-	\$ 21.29
	KIN4			\$ 5.10	-	-
	KIN7	116.5%	101.0%	\$ 2.11	\$ 3.84	\$ 126,762.52
	KIN8	59.2%	58.2%	\$ 5.32	\$ 4.84	\$ 452,404.81
	LEA1			\$ 0.57	\$ 0.13	\$ 201.28
	LEA2			\$ 0.74	\$ 0.07	\$ 0.53
	LEA3	26.7%	22.3%	\$ 0.72	\$ 0.16	\$ 24,934.95
	LEA4			\$ 0.74	-	-
	RSK1			\$ 0.60	\$ 0.12	\$ 1,024.18
Skate (rough and smooth)	RSK3			\$ 0.48	\$ 0.14	\$ 418.29
	RSK7			\$ 0.51	\$ 0.17	\$ 639.42
	RSK8	96.0%	95.9%	\$ 0.39	\$ 0.24	\$ 15,494.93
	SSK1			\$ 0.48	\$ 0.16	\$ 1,729.31
	SSK3			\$ 0.45	\$ 0.15	\$ 3.45
	SSK7			\$ 0.58	\$ 0.18	\$ 1,895.84
	SSK8	35.5%	25.2%	\$ 0.47	\$ 0.16	\$ 5,793.32
Sea perch	SPE1	52.1%	49.9%	\$ 0.65	\$ 0.46	\$ 37,428.48
	SPE2			\$ 0.76	\$ 0.07	\$ 220.73
	SPE3			\$ 0.65	\$ 0.08	\$ 1,431.20
	SPE4			\$ 0.59	\$ 0.07	\$ 24.84
	SPE5			\$ 0.43	\$ 0.08	\$ 36.16
	SPE6			\$ 0.65	\$ 0.08	\$ 10.76
	SPE7	0.3%		\$ 0.76	\$ 0.09	\$ 499.71
	SPE8			\$ 0.68	\$ 0.10	\$ 6.07
	SPE9			\$ 1.55	\$ 0.09	\$ 67.07
Stargazer	STA1	33.6%	26.5%	\$ 1.24	\$ 0.33	\$ 4,347.44
	STA2			\$ 1.45	\$ 0.35	\$ 76.95
	STA3			\$ 1.22	\$ 0.27	\$ 114.89
	STA4			\$ 1.21	\$ 0.43	-
	STA5	1.9%		\$ 1.30	\$ 0.48	\$ 7,396.57
	STA7	1.4%		\$ 1.21	\$ 0.61	\$ 10,069.30
	STA8			\$ 1.53	\$ 0.44	\$ 441.61

## CONSULTATION

23 MPI consulted on your behalf on the proposed changes with tangata whenua and stakeholders during July and August 2013. Initial proposals were the same as those outlined in Table 1. MPI received 7 submissions relating to the proposed changes. Submissions were received from:

- Sanford Limited
- Talley's Group Limited
- Southern Inshore Fisheries Management Company Limited (SIFMC)
- Tasman and Sounds Recreational Fishers' Association (TASFISH)
- New Zealand Recreational Fishing Council (NZRFC)
- New Zealand Sports Fishing Council (NZSFC)
- Greg Goodall

24 The submissions are attached for your information.

25 Submitter's comments on rate changes for specific stocks are addressed in the analysis of each species below.

26 Other issues raised in the submissions centre around the deemed value frame work itself. Though not within the scope of this deemed value review and an issue that will not be dealt with here in detail, these views are summarised below for your information.

27 Submissions from the recreational sector (TASFISH, NZRFC and Greg Goodall) call for changes to the catch balancing regime and the deemed value framework with all annual deemed value rates set at 3 times the current port price.

28 Similarly, submissions from industry stakeholders suggest changes to the fundamental deemed value framework. SIFMC consider that any deemed value system that requires fishers to pay up to 200% the value of catch can only incentivise misreporting and a loss of fisheries value. SIFMC propose that economic disincentives be capped at no more than the price received by fishers, and in this way removing any extra economic incentive for fishers to misreport catch over their ACE holding whilst still eliminating the benefit gained from such catch.

29 Though beyond the scope of this paper, MPI consider that such proposals in altering the deemed value rates would go against the guiding principles in the setting of rates as they would fail to balance the need to balance catch with ACE while avoiding incentives to misreport.

30 Similarly, submissions from industry stakeholders suggest changes to the fundamental deemed value framework. SIFMC consider that any deemed value system that requires fishers to pay up to 200% the value of catch can only incentivise misreporting and a loss of fisheries value. SIFMC propose that deemed values are set at between 60% and 100% of port price, depending of stock significance and other considerations, while differential deemed value rates be removed.

31 While such an approach would decrease incentives for fishers to misreport over catch, MPI believes this approach would incentivise catch in excess of the TACC and thus not meet sustainability objectives because the price fishers may receive for a fish does not reflect its actual value to the fisher. Fishers can subsidise the cost of landings one species against the value obtained from another.

32 SIFMC believe the main issue undermining the current deemed value regime is that no one who holds ACE is compelled to release uncaught ACE to cover the over catch of the fishery as a whole. This may lead to fishers paying deemed values while there is still unutilised ACE at the end of a fishing year. This may occur for reasons of poor communications, but also may also arise due to competitive tactics.

33 MPI acknowledges that there is no compulsion for ACE holders to release unused ACE to other fishers. ACE is a traded commodity on an open market (willing seller, willing

buyer). It is a fisher's responsibility to obtain the required ACE on this market or face a penalty for not doing so. Regulating the trade of ACE would both erode the value of the ACE and shift the responsibility from fishers to MPI and reduce the flexibility of fishers to trade ACE to match fishing harvests.

34 A recurrent issue raised in industry submissions is that TACCs for many stocks, particularly bycatch species, are set too low and do not reflect the abundance of the stocks. Though submitters recognise that for some of the most over caught stocks covered in this review, there are proposed TACC increases.

35 As mentioned previously, the setting of deemed value rates is a separate process from setting TACCs. Your decision to set a deemed value rate cannot be influenced by whether or not submitters consider the TACC for a stock to be set correctly. This is reinforced by case law which indicates that the adequateness of the TACC is not a relevant consideration when setting deemed value rates<sup>46</sup>.

36 In the consultation document, MPI also requested information from stakeholders on current port prices for the SNA 8 fisheries. There has been an unconfirmed suggestion that port prices for this stock may have fallen to a point whereby the higher deemed values set last year may be incentivising misreporting. However, MPI received no submissions regarding this request for information and does not recommend any changes to SNA 8 deemed values within this paper.

## Elephant Fish

Table 4: Current and recommended deemed value rates/kg for elephant fish stocks

	Stock	Interim	Annual		Differential (standard schedule)			
		Over catch	0 - 20%	>20%	>40%	>60%	>80%	>100%
Current	ELE1	\$ 0.24	\$ 0.48	\$ 0.58	\$ 0.67	\$ 0.77	\$ 0.86	\$ 0.96
	ELE2	\$ 0.84	\$ 1.67	\$ 2.00	\$ 2.34	\$ 2.67	\$ 3.01	\$ 3.34
	ELE3	\$ 1.40	\$ 1.65	\$ 1.98	\$ 2.31	\$ 2.64	\$ 2.97	\$ 3.30
	ELE5	\$ 1.40	\$ 1.65	\$ 1.98	\$ 2.31	\$ 2.64	\$ 2.97	\$ 3.30
	ELE7	\$ 0.58	\$ 1.16	\$ 1.39	\$ 1.62	\$ 1.86	\$ 2.09	\$ 2.32
Proposed	ELE1	\$ 1.35	\$ 1.50	\$ 1.80	\$ 2.10	\$ 2.40	\$ 2.70	\$ 3.00
	ELE2	\$ 1.35	\$ 1.50	\$ 1.80	\$ 2.10	\$ 2.40	\$ 2.70	\$ 3.00
	ELE3	\$ 1.50	\$ 1.65	\$ 1.98	\$ 2.31	\$ 2.64	\$ 2.97	\$ 3.30
	ELE5	\$ 1.50	\$ 1.65	\$ 1.98	\$ 2.31	\$ 2.64	\$ 2.97	\$ 3.30
	ELE7	\$ 1.50	\$ 1.65	\$ 1.98	\$ 2.31	\$ 2.64	\$ 2.97	\$ 3.30

37 Elephant fish is mainly caught by bottom trawl, set net and Danish seine, as both bycatch and a target species.

<sup>46</sup> *Pacific Trawling Limited & Independent Fisheries Limited v Minister of Fisheries*, High Court, Napier Registry, 29 August 2008, CIV 2007-441-1016, Priestley J.

38 MPI recommends that you adjust deemed value rates for elephant fish as outlined in Table 4.

39 The recommended rate for ELE 2 is more consistent with recent port prices and would provide a stronger incentive for fishers to balance their catch with ACE. In addition, increased deemed value rates are proposed for ELE 7, for which there has been over catch.

40 Adjustments to the interim deemed value rates for all ELE stocks bring them into line with the general principle that interim DVs be set at 90% of the annual deemed value.

41 SIFMC considers that the proposed deemed value rate for ELE 7 is in excess of the actual port price received by fishers. Greater than 90% of ELE 7 catch is taken as bycatch with SIFMC attributing the increase in incidental catches to a large increase in stock biomass. SIFMC considers that this over catch should be addressed by an increase in the TACC rather than deemed value changes, as they believe the proposed increase will serve only to promote misreporting and discarding within this fishery.

42 MPI considers the recommended deemed value rate increase for ELE 7 reflects the increase in port prices, for which MPI has received no compelling contradictory information. In general, we know that port prices for average size and quality fish landed in the main ports by independent fishers tend to be higher than the average port prices reported to MPI by LFRs. MPI considers the proposed rate will encourage the balancing of catch with ACE while avoiding the creation of incentives to discard and misreport.

## Kingfish

Table 5: Current and recommended deemed value rates/kg for kingfish stocks

	Stock	Interim	Annual	Differential (standard schedule, except KIN7 and KIN8)				
		<i>Over catch</i>	<i>0 - 20%</i>	<i>&gt;20%</i>	<i>&gt;40%</i>	<i>&gt;60%</i>	<i>&gt;80%</i>	<i>&gt;100%</i>
Current	KIN1	\$ 4.45	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	KIN2	\$ 2.46	\$ 4.92	\$ 5.90	\$ 6.89	\$ 7.87	\$ 8.86	\$ 9.84
	KIN3	\$ 4.45	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	KIN4	\$ 4.45	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	KIN7	\$ 4.45	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
		<i>Over catch</i>	<i>0 - 20%</i>	<i>&gt;20%</i>	<i>&gt;40%</i>	<i>&gt;50%</i>	<i>&gt;60%</i>	<i>&gt;70%</i>
	KIN8	\$ 4.45	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
		<i>Over catch</i>	<i>0 - 20%</i>	<i>&gt;20%</i>	<i>&gt;40%</i>	<i>&gt;60%</i>	<i>&gt;80%</i>	<i>&gt;100%</i>
Proposed	KIN1	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	KIN2	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	KIN3	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	KIN4	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
		<i>Over catch</i>	<i>0 - 20%</i>	<i>&gt;20%</i>	<i>&gt;40%</i>	<i>&gt;50%</i>	<i>&gt;60%</i>	<i>&gt;70%</i>
	KIN7	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	KIN8	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
		<i>Over catch</i>	<i>0 - 20%</i>	<i>&gt;20%</i>	<i>&gt;40%</i>	<i>&gt;60%</i>	<i>&gt;80%</i>	<i>&gt;100%</i>

43 Kingfish is primarily taken as a bycatch species and is caught most frequently by bottom trawl, set net, bottom longline, and mid-water trawl. It is also taken as a target species in set net fisheries, although in considerably smaller numbers.

44 MPI recommend that you adjust deemed value rates for kingfish as outlined in Table 5.

45 High over catch of kingfish is reported in some areas. This may be influenced by high port prices as anecdotal evidence suggests that real port prices for kingfish are higher than those reported to MPI. High port prices may provide incentives for fishers to over catch despite payment of deemed values.

46 Overcatch is mitigated by inclusion of kingfish on Schedule 6 of the Act that allows the return of live kingfish to the water. Under this circumstance catches are not counted against ACE. Kingfish taken by set net may not be returned to the water under this provision.

47 Adjustment to the KIN 2 annual deemed value would raise it in line with other kingfish stocks. Consequently, all stocks annual deemed values would be above the reported port price in response to anecdotal information that indicates these reported port prices may be low. This is also consistent with previous deemed value rates for kingfish that were set above the reported port price, recognising the significance of the stock to the recreational sector. MPI recommends you to maintain this approach.

48 Adjustments to the interim deemed value rates for all KIN stocks bring them into line with the general principle that these be set at 90% of the annual deemed value. These changes are intended to encourage fishers to balance catch with ACE or return live kingfish to the water when possible.

49 Steeper differential rates for KIN 7 are recommended due to the considerable amount of over catch in this stock. Despite the TACC for KIN 7 being reviewed, an adjustment to the differential deemed value rates rather than just increasing the base rate will help to encourage fishers to balance catch with ACE and avoid creating incentives to discard and misreport.

50 Both Sanford and Talley's are concerned the deemed values rates set for KIN stocks are set too high and do not reflect regional differences in port price. They believe this may incentivise misreporting of KIN by fishers that cannot cover catch with ACE and who are in areas with lower port price. For example, Sanford suggests fishers in KIN 3 receive only \$3-\$4/kg while the DV rate is set at \$8.90.

51 MPI recognises that there are regional differences in the prices received for landed catch between regions, as reflected in Table 2 (the port price quoted in Sanford's submission



is similar to the information we have assessed). However, MPI considers the recommended rates will encourage fishers to balance catch with ACE, return live kingfish to the water when possible, and account for the higher significance of this species to the recreational sector.

## Leatherjacket

**Table 6: Current and recommended deemed value rates/kg for leatherjacket stocks**

	Stock	Interim	Annual	Differential (standard schedule, except proposed LEA3)				
		Over catch	0 - 20%	>20%	>40%	>60%	>80%	>100%
Current	LEA1	\$ 0.12	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23
	LEA2	\$ 0.12	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23
	LEA3	\$ 0.23	\$ 0.45	\$ 0.54	\$ 0.63	\$ 0.72	\$ 0.81	\$ 0.90
	LEA4	\$ 0.12	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23
Proposed	LEA1	\$ 0.40	\$ 0.45	\$ 0.54	\$ 0.63	\$ 0.72	\$ 0.81	\$ 0.90
	LEA2	\$ 0.40	\$ 0.45	\$ 0.54	\$ 0.63	\$ 0.72	\$ 0.81	\$ 0.90
	LEA3	\$ 0.40	\$ 0.45	\$ 0.50	\$ 0.55	\$ 0.60	\$ 0.65	\$ 0.70
	LEA4	\$ 0.40	\$ 0.45	\$ 0.54	\$ 0.63	\$ 0.72	\$ 0.81	\$ 0.90

52 Leatherjacket is mainly caught by bottom trawl, Danish seine, and bottom pair trawl as bycatch and as a target species.

53 MPI recommends you adjust deemed value rates for leatherjacket as outlined in Table 6.

54 Adjustments to LEA 1, 2, and 4, would bring deemed value rates to an equal value between adjacent stocks. These changes would encourage the balancing of catch with ACE while avoiding the creation of incentives to discard and misreport.

55 Flatter differential rates for LEA 3 are recommended to reduce incentives to discard or misreport and to further encourage fishers to land and balance catch with ACE. This would provide better incentive for fishers to report fish caught in LEA 3 correctly. MPI believes that discarding and non-reporting of leatherjacket in LEA 3 taken as bycatch in the East Coast South Island (ECS I) bottom trawl fishery is a relatively common occurrence.

56 This is due to:

- reported increasing abundance of the stock;
- being largely unavoidable bycatch in a mixed-species fishery (targeting red cod, flatfish, stargazer and spiny dogfish); and
- current differential deemed value rates exceeding port prices

57 MPI acknowledges that this approach differs from that taken for most other stocks. However, LEA3 stock is information limited, and continued misreporting of leatherjacket bycatch may be a risk to stock sustainability. Creating better incentives for the accurate reporting and landing of catch in LEA 3 will improve the information needed for stock

assessment (catch levels, catch per unit of effort and biological data collection). Current discarding in LEA 3 is also a lost utilisation opportunity, given that there would be a market for this fish if landed. The economic and sustainable health of LEA 3 is of significant interest to stakeholders of the ECS I bottom trawl fishery as this stock is a major bycatch in this fishery.

58 One potential risk of the proposed approach is that some fishers may deliberately increase catch of leatherjacket by fishing areas where catches are higher in relation to the target species. This risk would be monitored and further adjustments to deemed value rates proposed if necessary.

59 The only submission on the proposed changes in the deemed value rates for LEA was from SIFMC, who were supportive of the reduction in the differential rate for LEA 3.

### Skate (rough and smooth)

Table 7: Current and recommended deemed value rates/kg for skate stocks (rough and smooth)

	Stock	Interim	Annual		Differential (standard schedule)			
		Over catch	0 - 20%	>20%	>40%	>60%	>80%	>100%
Current	RSK1	\$ 0.22	\$ 0.44	\$ 0.44	\$ 0.53	\$ 0.62	\$ 0.70	\$ 0.79
	RSK3	\$ 0.15	\$ 0.30	\$ 0.30	\$ 0.36	\$ 0.42	\$ 0.48	\$ 0.54
	RSK7	\$ 0.22	\$ 0.44	\$ 0.44	\$ 0.53	\$ 0.62	\$ 0.70	\$ 0.79
	RSK8	\$ 0.22	\$ 0.44	\$ 0.44	\$ 0.53	\$ 0.62	\$ 0.70	\$ 0.79
	SSK1	\$ 0.22	\$ 0.44	\$ 0.44	\$ 9.90	\$ 0.62	\$ 0.70	\$ 0.79
	SSK3	\$ 0.15	\$ 0.30	\$ 0.30	\$ 0.36	\$ 0.42	\$ 0.48	\$ 0.54
	SSK7	\$ 0.22	\$ 0.44	\$ 0.44	\$ 0.53	\$ 0.62	\$ 0.70	\$ 0.79
	SSK8	\$ 0.22	\$ 0.44	\$ 0.44	\$ 0.53	\$ 0.62	\$ 0.70	\$ 0.79
Proposed	RSK1	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70
	RSK3	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70
	RSK7	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70
	RSK8	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70
	SSK1	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70
	SSK3	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70
	SSK7	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70
	SSK8	\$ 0.32	\$ 0.35	\$ 0.42	\$ 0.49	\$ 0.56	\$ 0.63	\$ 0.70

60 Rough skate is mainly taken as bycatch by bottom trawl, Danish seine, and bottom longline. Smooth skate is primarily a bycatch species caught by bottom trawl and bottom longline.

61 Schedule 6 of the Act allows the return of live smooth and rough skate to the water as long as skates are likely to survive and are returned as soon as practicably possible after they are taken. Despite this, over catch is still reported.

62 MPI understands that there may be frequent misreporting of skate species. As such, MPI recommends that you lower the deemed value rate for RSK 8 and SSK 8, as out lined in Table 7, to encourage fishers to return live skate where possible and balance catch with ACE.

63 MPI further recommends that you reduce deemed value rates for RSK 8 as they are currently higher than the reported port price. These changes are aimed at providing better incentive for fishers to identify species correctly. Additionally, the proposed adjustments outlined in Table 7 would align deemed value rates in different management areas and reduce incentive to misreport the catch area.

64 Over-catch is mitigated by the inclusion of skates on Schedule 6 of the Act that allows the return of live smooth and rough skate to the water. Despite this, over catch is still reported.

## Sea perch

65 Sea perch is mainly caught by bottom trawl and bottom longline as a bycatch species and as a target species.

66 MPI recommends that you adjust deemed value rates for sea perch as outlined in Table 8.

67 These adjustments would bring the deemed value rates in line with reported port prices. The annual deemed value rate for SPE 1 is currently higher than the reported port price, whereas deemed value rates for SPE 2, 3, 4, 8, and 9 are relatively low compared to their reported port prices. In addition, there has been high over catch for SPE 1 and the TACC is currently up for review. In previous years, there has been over catch for SPE 7 too. The changes to the deemed value rates are expected to reduce incentives to discard or misreport and encourage fishers to balance their catch with ACE.

68 There currently are Chatham Island-specific deemed value rates for landings of SPE 4. However, very few landings have occurred in recent years. Instead of proposing an increase to these rates, MPI recommends you remove the Chatham Island-specific deemed value rates and apply the normal proposed rates for STA 4 to Chatham Island landings.

69 Adjustments to the interim deemed value rates for all SPE stocks bring them into line with the general principle that these be set at 90% of the annual deemed value.

70 NZSFC agrees that a reduction of the deemed value rate in SPE 1 in line with port prices, as proposed by MPI, will help incentivise more accurate catch reporting.

Table 8: Current and recommended deemed value rates/kg for sea perch stocks

Stock	Interim	Annual	Differential (standard schedule)
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		<i>Over catch</i>	<i>0 - 20%</i>	<i>&gt;20%</i>	<i>&gt;40%</i>	<i>&gt;60%</i>	<i>&gt;80%</i>	<i>&gt;100%</i>
Current	SPE1	\$ 0.63	\$ 1.25	\$ 1.50	\$ 1.75	\$ 2.00	\$ 2.25	\$ 2.50
	SPE2	\$ 0.08	\$ 0.15	\$ 0.18	\$ 0.21	\$ 0.24	\$ 0.27	\$ 0.30
	SPE3	\$ 0.08	\$ 0.15	\$ 0.18	\$ 0.21	\$ 0.24	\$ 0.27	\$ 0.30
	SPE4	\$ 0.08	\$ 0.15	\$ 0.18	\$ 0.21	\$ 0.24	\$ 0.27	\$ 0.30
	SPE4 (Chatham's)	\$ 0.04	\$ 0.08	<i>Do not apply (i.e. same rate as annual rate)</i>				
	SPE5	\$ 0.12	\$ 0.24					
	SPE6	\$ 0.12	\$ 0.24					
	SPE7	\$ 0.13	\$ 0.25	\$ 0.30	\$ 0.35	\$ 0.40	\$ 0.45	\$ 0.50
	SPE8	\$ 0.12	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24
	SPE9	\$ 0.12	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24
Proposed	SPE1	\$ 0.50	\$ 0.55	\$ 0.66	\$ 0.77	\$ 0.88	\$ 0.99	\$ 1.10
	SPE2	\$ 0.50	\$ 0.55	\$ 0.66	\$ 0.77	\$ 0.88	\$ 0.99	\$ 1.10
	SPE3	\$ 0.50	\$ 0.55	\$ 0.66	\$ 0.77	\$ 0.88	\$ 0.99	\$ 1.10
	SPE4	\$ 0.36	\$ 0.40	\$ 0.48	\$ 0.56	\$ 0.64	\$ 0.72	\$ 0.80
	SPE5	\$ 0.36	\$ 0.40	\$ 0.48	\$ 0.56	\$ 0.64	\$ 0.72	\$ 0.80
	SPE6	\$ 0.36	\$ 0.40	\$ 0.48	\$ 0.56	\$ 0.64	\$ 0.72	\$ 0.80
	SPE7	\$ 0.50	\$ 0.55	\$ 0.66	\$ 0.77	\$ 0.88	\$ 0.99	\$ 1.10
	SPE8	\$ 0.50	\$ 0.55	\$ 0.66	\$ 0.77	\$ 0.88	\$ 0.99	\$ 1.10
	SPE9	\$ 0.50	\$ 0.55	\$ 0.66	\$ 0.77	\$ 0.88	\$ 0.99	\$ 1.10

## Stargazer

71 Stargazer is mainly caught by bottom trawl and set net as a bycatch species and as a target species.

72 MPI recommends that you adjust deemed value rates for stargazer as outlined in Table 9.

73 The recommended rate for STA 7 is more consistent with current port prices and would provide a stronger incentive for fishers to balance their catch with ACE.

74 MPI understands that over catch reported for STA 1 may be influenced by species misreporting (e.g. incorrectly reporting brown and spotted stargazer, which are not in the QMS, as *Kathetostoma* spp., which are in the QMS). The adjustments to deemed value rates outlined in Table 9 would provide better incentives for fishers to identify species correctly and balance their catch with ACE, while bringing interim deemed value rates to 90% of the annual deemed value rate in accordance with the Guidelines.

75 Additionally, the proposed adjustments outlined in Table 9 would align deemed value rates in different management areas to an equal value between adjacent stocks. These changes

would encourage the balancing of catch with ACE while avoiding the creation of incentives to discard and misreport.

76 There currently are Chatham Island-specific deemed value rates for landings of STA 4. However, very few landings have occurred in recent years. Instead of proposing an increase to these rates, MPI recommends you remove the Chatham Island-specific deemed value rates and apply the normal proposed rates for STA 4 to Chatham Island landings

77 The only submission received on the proposed changes to STA rates was received from SIFMC. They consider that the annual deemed value rate of \$1.00 is a good starting level. However, they believe the standardisation of this rate across all stocks may not account for regional differences.

78 MPI recognises the concerns around regional differences. However, regional differences in STA port prices are minimal (variation of 22 cents across all stocks). MPI considers the deemed value rates changes reflect current port prices across all stocks and are set at a level that will encourage the balancing of catch with ACE while avoiding the creation of incentives to discard and misreport.

**Table 9: Current and recommended deemed value rates/kg for stargazer stocks**

	Stock	Interim	Annual		Differential (standard schedule)				
		Over catch	0 - 20%	>20%	>40%	>60%	>80%	>100%	
Current	STA1	\$ 0.28	\$ 0.56	\$ 0.67	\$ 0.78	\$ 0.90	\$ 1.01	\$ 1.12	
	STA2	\$ 0.34	\$ 0.68	\$ 0.82	\$ 0.95	\$ 1.09	\$ 1.22	\$ 1.36	
	STA3	\$ 0.45	\$ 0.90	\$ 1.08	\$ 1.26	\$ 1.44	\$ 1.62	\$ 1.80	
	STA4	\$ 0.51	\$ 1.01	\$ 1.21	\$ 1.41	\$ 1.62	\$ 1.82	\$ 2.02	
	STA4 (Chatham's)	\$ 0.36	\$ 0.72	\$ 0.86	\$ 1.01	\$ 1.15	\$ 1.30	\$ 1.44	
	STA5	\$ 0.51	\$ 1.01	\$ 1.21	\$ 1.41	\$ 1.62	\$ 1.82	\$ 2.02	
	STA7	\$ 1.31	\$ 1.45	\$ 1.74	\$ 2.03	\$ 2.32	\$ 2.61	\$ 2.90	
	STA8	\$ 1.21	\$ 1.22	\$ 1.46	\$ 1.71	\$ 1.95	\$ 2.20	\$ 2.44	
Proposed	STA1	\$ 0.90	\$ 1.00	\$ 1.20	\$ 1.40	\$ 1.60	\$ 1.80	\$ 2.00	
	STA2	\$ 0.90	\$ 1.00	\$ 1.20	\$ 1.40	\$ 1.60	\$ 1.80	\$ 2.00	
	STA3	\$ 0.90	\$ 1.00	\$ 1.20	\$ 1.40	\$ 1.60	\$ 1.80	\$ 2.00	
	STA4	\$ 0.90	\$ 1.00	\$ 1.20	\$ 1.40	\$ 1.60	\$ 1.80	\$ 2.00	
	STA5	\$ 0.90	\$ 1.00	\$ 1.20	\$ 1.40	\$ 1.60	\$ 1.80	\$ 2.00	
	STA7	\$ 0.90	\$ 1.00	\$ 1.20	\$ 1.40	\$ 1.60	\$ 1.80	\$ 2.00	
	STA8	\$ 0.90	\$ 1.00	\$ 1.20	\$ 1.40	\$ 1.60	\$ 1.80	\$ 2.00	

## RECOMMENDED OPTIONS

MPI recommends that you:

<b>Agree</b> to change the deemed value rates for elephant fish stocks as outlined in Table 4;	<b>YES/ NO</b>
<b>Agree</b> to change the deemed value rates for kingfish stocks as outlined in Table 5;	<b>YES/ NO</b>
<b>Agree</b> to change the deemed value rates for leatherjacket stocks as outlined in Table 6;	<b>YES/ NO</b>
<b>Agree</b> to change the deemed value rates for skate (rough and smooth) stocks as outlined in Table 7;	<b>YES/ NO</b>
<b>Agree</b> to change the deemed value rates for sea perch stocks as outlined in Table 8;	<b>YES/ NO</b>
<b>Agree</b> to change the deemed value rates for stargazer stocks as outlined in Table 9;	<b>YES/ NO</b>
<b>Note</b> that you may choose to set deemed value rates other than those recommended in this paper.	<b>NOTED</b>

**AGREED / AGREED AS AMENDED / NOT AGREED**

James Stevenson-Wallace  
Director Fisheries Management

Hon Nathan Guy  
Minister for Primary Industries

/ / 2013

## APPENDIX 1: DEEMED VALUE GUIDELINES

### SUMMARY

Goal	<i>To set deemed value rates that create an effective incentive for individual commercial fishers to balance catch with Annual Catch Entitlement and for the overall catch to remain at or below the total available Annual Catch Entitlement in any one year.</i> <sup>47</sup>
Performance Measures	<ul style="list-style-type: none"><li>• The number of stocks over-caught and the level of over-catch per stock per fishing year.</li><li>• The percentage of catch for each stock for which catch is not balanced with Annual Catch Entitlement (ACE).</li><li>• The ratio of the total deemed value payments to the value of quota (at a general and stock level) – the target in relation to this indicator is less than 0.1% of the value of quota in any fishing year.</li></ul>
Principle 1	Deemed value rates must generally be set between the ACE price and the landed price: <ul style="list-style-type: none"><li>• when deemed value rates are below the ACE price: increase deemed value rates to a level above the ACE price and below landed price to provide an incentive to balance catch with ACE; and</li><li>• when deemed value rates are above the landed price: decrease deemed value rates to a level between ACE price and landed price to provide an incentive not to discard illegally.</li></ul>
Principle 2	Deemed value rates must generally exceed the ACE price by transactions costs.  Deemed value rates must be generally set at least at the greater of: <ul style="list-style-type: none"><li>• 20% above the 90th percentile ACE price; or</li><li>• \$0.10 per kg above the 90th percentile ACE price.</li></ul>
Principle 3	Deemed value rates must avoid creating incentives to misreport.
Principle 4	Deemed value rates for constraining bycatch species may be higher.
Principle 5	Deemed value rates must generally be set at twice the landed price for high value single species fisheries and species subject to international catch limits.
Principle 6	Deemed value rates for Chatham Island landings may be lower.
Principle 7	Interim deemed value rates must generally be set at 90% of the annual deemed value rate.

<sup>47</sup> For the majority of stocks, the total available Annual Catch Entitlement (ACE) may exceed the Total Allowable Commercial Catch (TACC) in any one year due to under-fishing entitlements, where 10% of the un-fished ACE from one year is carried forward to the following year. Furthermore, for some stocks, in-season increases to the catch limit generate additional ACE in a particular year while the TACC remains unchanged. This is why the goal is for landed catch to remain within the total available ACE rather than within the TACC.

**Principle 8** Differential deemed value rates must generally be set:

- Standard differential deemed value rate schedule for most stocks

Catch in excess of ACE holdings	Differential deemed value rate as a percentage of the annual deemed value rate
0–20%	100%
> 20%	120%
> 40%	140%
> 60%	160%
> 80%	180%
> 100%	200%

- Differential deemed value rate schedule for low value, low TACC stocks

Catch in excess of ACE holdings	Differential deemed value rate as a percentage of the annual deemed value rate
0–100%	100%
>100%	150%
>200%	200%

- Stringent differential deemed value rate schedules for highly vulnerable stocks or rebuilding stocks.

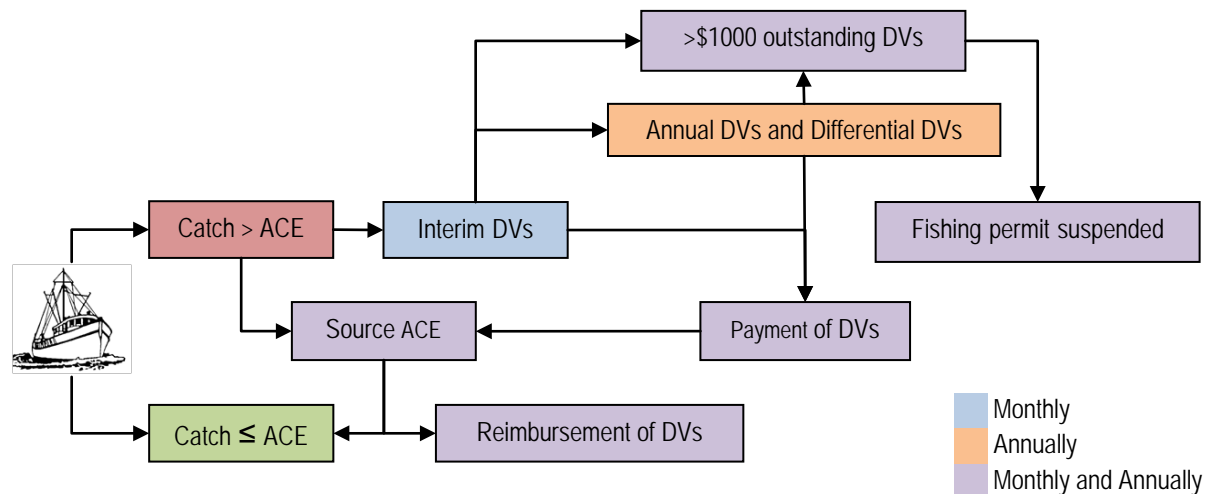


# INTRODUCTION

## THE DEEMED VALUE FRAMEWORK AND THE ROLE OF THESE *GUIDELINES*

The catch-balancing regime and deemed value framework are key fisheries management tools contributing to both sustainability and utilisation objectives, for stocks managed under the Quota Management System (QMS). The deemed value framework is a key mechanism to protect the integrity of the QMS, providing incentives for commercial catch to not exceed catch limits. Deemed values are supposed to encourage commercial fishers to balance their catch with Annual Catch Entitlement (ACE), while not discouraging them from landing and accurately reporting catch.

Sustainability objectives are achieved when deemed value rates encourage fishers to balance catch with available ACE and in doing so, seek to constrain harvesting to the Total Allowable Commercial Catch (TACC), or, where applicable, the total available ACE. Catches in excess of TACCs/total available ACE may affect the sustainability of stocks and may undermine the long-term value of the resource and kaitiakitanga. The deemed value framework is illustrated in the figure below.<sup>48</sup>



Utilisation objectives are achieved by providing flexibility for commercial operators to manage unexpected and small overruns in ACE holdings by allowing periodic catch-balancing. In the long-term, over-catching of a TACC could result in TACC reductions, if it leads to a reduction in stock size, and to impacts on resource use by others sectors. This undermines utilisation objectives.

The *Deemed Value Guidelines* set out an operational policy to inform the advice that the Ministry for Primary Industries (MPI) provides to the Minister for Primary Industries (the Minister) on setting deemed value rates.

<sup>48</sup> Interim deemed value rates are charged each month to fishers for every kilogram of fish landed in excess of their ACE holdings. If the fisher sources enough ACE to cover his or her catch by the end of the fishing year, the interim rates paid are reimbursed. If the fisher does not source enough ACE by the end of the fishing year, the difference between the interim and annual deemed value rates is charged for all catch in excess of ACE; the annual rate applies at the end of the fishing year. Differential deemed value rates, if applicable, are also charged at the end of the fishing year if the fisher harvested well in excess of his or her ACE holdings. For example, differential deemed value rates are charged for catch more than 20% in excess of ACE, when the standard differential deemed value rate schedule applies. Differential rates reflect the increasingly detrimental impact of higher levels of over-catch on sustainability and utilisation objectives.

## THE LEGAL CONTEXT

Section 75 of the Fisheries Act 1996 (the Act), provides the statutory framework for setting deemed values. That section requires the Minister to set deemed value rates for QMS stocks and sets out the matters the Minister must consider when doing so.

Within the statutory framework, the Minister has considerable discretion when setting deemed value rates. The *Guidelines* are a statement of how MPI will use the criteria in the statute to develop its advice to the Minister on deemed value rates. The *Guidelines* do not bind the Minister. When making decisions on deemed value rates, the Minister uses the statutory criteria in making decisions and can act within the bounds of the statute, notwithstanding the *Guidelines*.

Under section 75(2)(a), the Minister must consider whether deemed value rates are set at levels that provide an incentive to balance catch with ACE. Once the Minister has considered the issues that arise as mandatory considerations, she/he may also consider the discretionary criteria under section 75(2)(b):

- a) the desirability of commercial fishers landing catch for which they do not have ACE;
- b) the market value of ACE for the stock;
- c) the market value of the stock;
- d) the economic benefits obtained by the most efficient commercial fisher, licensed fish receiver, retailer, or any other person from the taking, processing, or sale of fish, aquatic life or seaweed;
- e) the extent to which catch of that stock has exceeded or is likely to exceed the TACC for the stock in any year; and
- f) any other matters that the Minister considers relevant.

## GOAL AND MEASURES OF PERFORMANCE

### GOAL

The goal of the *Guidelines* is to outline principles to *set deemed value rates that create an effective incentive for individual fishers to balance catch with Annual Catch Entitlement and for the overall catch to remain at or below the total Annual Catch Entitlement available in any one year.*<sup>49</sup>

### MEASURING PERFORMANCE

In light of this goal, the performance of the deemed value framework will be measured using the following indicators:

- the number of stocks over-caught and the level of over-catch per stock per fishing year;
- the percentage of catch for each stock for which catch is not balanced with ACE; and
- the ratio of the total deemed value payments to the value of quota (at a general and stock level) – the target in relation to this indicator is less than 0.1% of the value of quota in any fishing year.

MPI will also use these performance indicators where applicable, in addition to other relevant information such as landed price changes, to identify stocks for which a deemed value rate review may be necessary. Which stocks to review deemed value rates for will be determined in discussion with tangata whenua, industry representatives and other stakeholders within the fisheries planning processes for inshore, deepwater and highly migratory species fisheries.

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<sup>49</sup> For the majority of stocks, the total available ACE may exceed the TACC in any one year due to under-fishing entitlements, where 10% of the un-fished ACE from one year is carried forward to the following year. Furthermore, for some stocks, in-season increases to the catch limit generate additional ACE in a particular year while the TACC remains unchanged. This is why the goal is for landed catch to remain within the total available ACE rather than within the TACC.

## PRINCIPLES FOR SETTING DEEMED VALUE RATES

Deemed values are economic tools; they provide economic incentives and disincentives which are directly related to other economic variables such as operating costs, ACE prices, transaction costs of acquiring ACE, and landed fish prices. When any of these factors change the incentives created by deemed values also change. Accordingly, deemed value rate changes will generally be small, relatively frequent adjustments consistent with economic changes rather than significant occasional changes. The effectiveness of deemed values is dependent on individual commercial fishers' compliance with landing and reporting requirements, their responses to the incentives provided and on the impact of other incentives such as those created by market conditions.

MPI will use the following principles to assess stocks for which to review deemed value rates and to guide the development of its advice to the Minister on deemed value rates. These principles recognise the various economic incentives that commercial fishers face and give effect to the Minister's obligations under section 75 of the Act.

### PRINCIPLE 1: DEEMED VALUE RATES MUST GENERALLY BE SET BETWEEN THE ACE PRICE AND THE LANDED PRICE

A deemed value rate above the ACE price and below landed price generally provides the correct incentives. The following actions will create the correct incentives for commercial fishers to acquire ACE to cover their catch:

- when deemed value rates are below the ACE price: increase deemed value rates to a level above the ACE price and below landed price to provide an incentive to balance catch with ACE; and
- when deemed value rates are above the landed price: decrease deemed value rates to a level between ACE price and landed price to provide an incentive not to discard illegally.

Because ACE for some stocks is traded infrequently, the available information on ACE price may be inadequate. When there is evidence of intentional fishing on deemed values, MPI will assume that the fisher could not acquire ACE at less than the deemed value rate and that the price of ACE should be assumed to be above the deemed value rate. MPI will generally recommend increases in the deemed value rate in this circumstance.

In certain circumstances (including some described below) it may be appropriate to depart from this principle. MPI will outline this to the Minister on a case-by-case basis.

### PRINCIPLE 2: DEEMED VALUE RATES MUST GENERALLY EXCEED THE ACE PRICE BY TRANSACTION COSTS

If ACE price is close to the deemed value rate there may be an incentive for fishers to pay the deemed value instead of acquiring ACE to balance their catch to avoid the transaction costs involved in making an ACE trade (for example, transfer registration fee, time, brokerage fees).

ACE prices vary as other economic factors, such as the price of fish, exchange rates, and fuel prices, vary. Deemed value rates should generally be set at least 20 percent above the 90th percentile ACE price. This is to ensure that the ACE price used is representative of the majority of market trades and that the difference between the deemed value rate and the ACE

price is sufficient to create an effective incentive. This reference point should be used for setting deemed value rates for most stocks.

However, for relatively low value species (for example, where the ACE price is less than \$0.15 per kilogram) 20 percent above the ACE price will not cover transaction costs for most trades. A second reference point that is a minimum amount per kilogram above the ACE price should be used. It is assumed that total transaction costs are approximately \$100.00 per ACE transaction and that fishers would source ACE instead of paying deemed values for landings greater than 1 tonne. Therefore, the transaction cost would be \$0.10 per kg, if the \$100.00 transaction costs are spread over 1 tonne.

Therefore, deemed value rates should be generally set at least at the greater of:

- 20 percent above the 90th percentile ACE price; or
- \$0.10 per kg above the 90th percentile ACE price.

In certain circumstances it may be appropriate to depart from this principle. MPI will outline this to the Minister on a case-by-case basis.

### **PRINCIPLE 3: DEEMED VALUE RATES MUST AVOID CREATING INCENTIVES TO MISREPORT**

When two adjacent Quota Management Areas (QMAs) for the same species have substantially different deemed value rates, there may be an incentive to misreport the QMA in which the fish was taken in order to benefit from a lower deemed value rate. The impact of differences in deemed value rates across QMAs are important considerations. For most species, prices across adjacent QMAs are likely to be similar, because arbitrage in markets will result in movements of fish to equalise prices. Because the upper bound on deemed value rates in most circumstances is landed price, the upper bound for adjacent QMAs will often be similar. Thus, setting the same or very similar deemed value rates across different QMAs is often likely to be feasible.

There are reasons to consider more uniform deemed value rates across QMAs, but these reasons must be weighed against other considerations on a case-by-case basis. There are regional differences in the prices of some species and these differences must also be considered when setting deemed value rates.

For the avoidance of doubt, in the case of the Kermadec Fishery Management Area (FMA10), deemed value rates should be set at the highest annual deemed value rate applicable in the Auckland and Central Fishery Management Areas (FMA1 or FMA2) for the relevant species.

Likewise, for very similar yet different species, it may be appropriate to consider setting the same or very similar deemed value rates to avoid creating any incentives for species misreporting.

### **PRINCIPLE 4: DEEMED VALUE RATES FOR CONSTRAINING BYCATCH SPECIES MAY BE HIGHER**

An important exception to Principle 1 occurs in some cases when a relatively low value species is taken as bycatch in a multi-species fishery. In such cases, the catch of that bycatch species may constrain the ability to catch the target species.

In this case, the bycatch species is said to have a “shadow value” greater than landed price, reflecting its value in allowing greater catches of target species in the overall fisheries

complex. When the shadow value is high, the deemed value rate that will encourage catch to remain within the total available ACE/TACC may exceed the landed price.

When the ACE price and the deemed value rate are above the landed price, incentives to illegally discard are created. This may be an inevitable result of providing appropriate incentives under section 75(2)(a) for fishers to acquire ACE to cover their catches. It may be necessary to rely on compliance and enforcement tools to prevent illegal discarding when this occurs. The application of this principle will be considered on a case-by-case basis.

## **PRINCIPLE 5: DEEMED VALUE RATES MUST GENERALLY BE SET AT TWICE THE LANDED PRICE FOR HIGH VALUE SINGLE SPECIES FISHERIES AND FOR SPECIES SUBJECT TO INTERNATIONAL CATCH LIMITS**

The appropriate incentive for high value single species fisheries (that is, with no or minimal bycatch) is to provide a very strong incentive to catch only the amount for which fishers have ACE. This has been accomplished by setting the annual deemed value rate at approximately twice the landed price. This principle has also been applied to southern bluefin tuna, which is subject to an international catch allocation.

Under such a deemed value rate, a fisher would suffer a large loss on any catches in excess of ACE. By setting the deemed value rate at twice the landed price, it is very unlikely that any incentive would arise to land catch in excess of ACE, even if landed prices increase significantly during a fishing year. This is consistent with section 75(2)(a) as it provides a strong disincentive against catches in excess of ACE. In addition to southern bluefin tuna, this setting has been applied to all rock lobster stocks, to all paua stocks and to all deepwater clam stocks. The application of this principle to other stocks needs to be considered on a case-by-case basis.

## **PRINCIPLE 6: DEEMED VALUE RATES FOR CHATHAM ISLAND LANDINGS MAY BE LOWER**

Under section 75(5), the Minister may set deemed value rates for Chatham Islands-based commercial fishers for fish landed to a licensed fish receiver in the Chatham Islands that are different from deemed value rates applicable to fish from the same stock landed elsewhere. The price for fish landed in the Chatham Islands is generally lower than the price for the same species landed elsewhere because of the higher cost of transporting fish to markets. Therefore, there may be reasons to set different deemed value rates for the Chatham Islands.

For many stocks, the deemed value rates for the Chatham Islands has been set at about 50 percent of the deemed value rate applicable elsewhere in the same QMA. No strict procedures are appropriate. Instead deemed value rates applicable to Chatham Islands-based fishers need to be considered on a case by case basis, in light of the relevant economic conditions of each fishery.

## **PRINCIPLE 7: INTERIM DEEMED VALUE RATES MUST GENERALLY BE SET AT 90% OF THE ANNUAL DEEMED VALUE RATE**

Interim deemed value rates should usually be set at 90 percent of the annual rate. If the interim deemed value is below the ACE price, fishers have an incentive to delay acquiring ACE. The result can be to delay the balancing of catch until the end of the fishing year. This may lead to a race for ACE and insufficient ACE to cover all catch and thereby potentially contribute to the TACC/total available ACE being exceeded.

There may be stock-specific reasons to set interim deemed value rates at some percentage other than 90 percent of the annual rate in some cases. These will be considered when appropriate.

## PRINCIPLE 8: DIFFERENTIAL DEEMED VALUE RATES MUST GENERALLY BE SET

Differential deemed value rates reflect the increasingly detrimental impact of higher levels of over-catch on sustainability and utilisation objectives. Therefore, differential deemed value rates should generally apply to all stocks, although exceptions to this principle will be considered on a case by case basis. In developing its advice, MPI will propose to use differential deemed value rates flexibly to achieve the management goals for different fisheries.

Different differential deemed value rate settings are appropriate for different fisheries. This will be considered on a case by case basis, but for most stocks MPI will advise the Minister to set differential deemed value rates according to the following schedules:

### Standard differential deemed value rate schedule for most stocks

For most stocks, MPI will recommend the use of a standard differential deemed value rate schedule (standard schedule), as set out in Table 1.

Table 1: Standard differential deemed value rate schedule

Catch in excess of ACE holdings	Differential deemed value rate as a percentage of the annual deemed value rate
0 - 20 %	100 %
> 20 %	120 %
> 40 %	140 %
> 60 %	160 %
> 80 %	180 %
> 100 %	200 %

### Differential deemed value rates for low value, low TACC stocks

The QMS provides for a number of stocks for which targeted fishing does not occur and low TACCs are set to account for occasional, small unintended bycatch. The standard differential deemed value schedule is not appropriate for these stocks. However, deliberate over-catching of these stocks on deemed values is not appropriate either.

The general principle for these stocks is unchanged: differential deemed values should reflect a qualitative assessment of the sustainability risk of over-catching. Higher levels of over-catch may be less of a concern for these stocks than similar levels of over-catch for larger and more valuable stocks. The low TACC and relatively high variability mean that high levels of over-catch will frequently occur as a matter of chance. As a starting point, MPI will consider recommending the following differential deemed value structure for these stocks:

Table 2: Differential deemed value rate schedule for low value, low TACC stocks

Catch in excess of ACE holdings	Differential deemed value rate as a percentage of the annual deemed value rate
0-100%	100%
>100%	150%
>200%	200%

MPI may recommend alternative schedules for low value, low TACC stocks in some circumstances.

#### Stringent differential deemed value rate schedules for highly vulnerable or rebuilding stocks

Stringent differential deemed value rate schedules are applied to some stocks where utilisation and sustainability objectives are best met by providing very strong incentives for catch to not exceed ACE. This may be the case when the TACC is set very close to the sustainable limit or for highly vulnerable or rebuilding stocks. The exact structure of the schedule will be tailored to the stock in question. For example, the first differential step may reflect an assessment of how much a fisher acting with ordinary care might exceed his or her ACE holdings in their last tow of the season.



# STATUTORY CONSIDERATIONS

1 This section provides guidance on legal obligations under the Fisheries Act 1996 relating to your decisions about the review of sustainability and other management controls contained in this paper. Relevant judicial findings, which provide guidance on interpretation and application of the Act, are provided.

## PURPOSE OF THE FISHERIES ACT 1996 (S 8)

2 The purpose of the Fisheries Act 1996 (the Act) is to provide for the utilisation of fisheries resources while ensuring sustainability. The purpose statement incorporates “the two competing social policies reflected in the Act”<sup>50</sup>. “Ensuring sustainability” is defined as: “maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment”. “Utilisation” of fisheries resources is defined as “conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural wellbeing.”

3 The Supreme Court stated that “both policies are to be accommodated as far as is practicable in the administration of fisheries under the quota management system....[I]n the attribution of due weight to each policy that given to utilisation must not be such as to jeopardise sustainability”.<sup>51</sup>

4 Utilisation may be provided for at different levels, and the extent of such use should be considered on a case-by-case basis. Where there is a significant threat to the sustainability of a fish stock, the measures adopted to achieve sustainability are likely to be more stringent than where there is a lesser threat.

5 Consideration of social, economic, and cultural wellbeing (in conjunction with other considerations consistent with the purpose and principles of the Act) may influence how measures to ensure sustainability are implemented. Hence, providing for utilisation while ensuring sustainability may be achieved in different ways and the objective may be reached over time.

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<sup>50</sup> New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors (Supreme Court, SC 40/2008, 29 May 2009), at para 39.

<sup>51</sup> Ibid.

## ENVIRONMENTAL PRINCIPLES (S 9)

6 The Act prescribes three environmental principles that you must take into account when exercising powers in relation to utilising fisheries resources and ensuring sustainability.

**Principle 1: Associated or dependent species should be maintained above a level that ensures their long-term viability.**

7 The Act defines “associated and dependent species” as any non-harvested species taken or otherwise affected by the taking of a harvested species. An example is benthic species impacted by trawl gear. The term “long-term viability” (in relation to a biomass level of a stock or species) is defined in the Act as a low risk of collapse of the stock or species, and the stock or species has the potential to recover to a higher biomass level. This principle therefore requires the continuing existence of species by maintaining populations in a condition that ensures a particular level of reproductive success.

8 Long-term viability could be achieved at very low levels of population size, depending on associated risks, such as recruitment failure at low population sizes. Where fishing is affecting the viability of associated and dependent species, there is an obligation to take appropriate measures, such as method restrictions, area closures, and potentially adjustments to the TAC of the target stock.

**Principle 2: Biological diversity of the aquatic environment should be maintained.**

9 “Biological diversity” means the variability among living organisms, including diversity within species, between species, and of ecosystems.

10 Determining the level of fishing or the impacts of fishing that can occur requires an assessment of the risk that fishing might cause catastrophic decline in species abundance or cause biodiversity to be reduced to an unacceptable level.

**Principle 3: Habitat of particular significance for fisheries management should be protected.**

11 Habitat is not defined in the Fisheries Act. The Magnuson-Stevens Fishery Conservation and Management Act (USA) defines “essential fish habitat” as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity”. The maintenance of healthy fish stocks requires the mitigation of threats to fish habitat. However, fishing may not be the sole source of the threat; a range of terrestrial activities may impact on fisheries habitats. Habitats of special significance, such as those that assist in the reproductive and productive process of a fishery, should be protected. Adverse effects on such areas must be avoided, remedied, or mitigated.

## INFORMATION PRINCIPLES (S 10)

12 The nature of the data and assumptions used to generate fisheries assessments and the results produced contain inherent variation and uncertainty. The Act specifies the information principles that must be taken in account when information is uncertain:

- a) Decisions should be based on the best available information – that is the best information that, in the particular circumstances, is available without incurring unreasonable cost, effort, or time;
- b) Decision makers should consider any uncertainty in the information available in any case;
- c) Decision makers should be cautious when information is uncertain, unreliable, or inadequate; and.
- d) 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 the Act.

13 Less than full information suggests caution in decision-making, not deferral of a decision completely if information standards are not met. “The fact that a dispute exists as to the basic material upon which the decision must rest, does not mean that necessarily the most conservative approach must be adopted. The obligation is to consider the material and decide upon the weight which can be given it with such care as the situation requires.”<sup>52</sup>

14 Both scientific and anecdotal information need to be considered and weighed accordingly when making management decisions. The weighting assigned to particular information is subject to the certainty, reliability, and adequacy of that information. As a general principle, information on stock status outlined in the MPI Fishery Assessment Plenary Report is best available information and should be given significant weighting. The information presented in the Report is subject to a robust process of scientific peer review. Corroborated anecdotal information also has a useful role to play in the stock assessment process and in the management process.

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<sup>52</sup> *Greenpeace NZ Inc v Minister of Fisheries* (HC, Wellington CP 492/93, 27/11/95, Gallen J) p 32.

## INTERNATIONAL OBLIGATIONS (S 5(A))

15 The Act is to be interpreted, and all persons exercising or performing functions, duties, or powers under it are required to act, in a manner consistent with New Zealand's international obligations relating to fishing (s 5(a)). As a general principle, where there is a choice in the interpretation of the Act or the exercise of discretion, the decision maker must choose the option that is consistent with New Zealand's international obligations relating to fishing.

16 The two key pieces of international law relating to fishing, and to which New Zealand is a party, are the United Nations Convention on the Law of the Sea, 1982 (UNCLOS) and the United Nations Convention on Biological Diversity 1992 (the Biodiversity Convention). The provisions of the Act and the proposed exercise of powers under the legislation are consistent with New Zealand's international obligations.

## TREATY OF WAITANGI (FISHERIES CLAIMS) SETTLEMENT ACT 1992 (S 5(B))

17 The Act is to be interpreted, and all persons exercising or performing functions, duties, or powers under it are required to act, in a manner consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5(b)). This requirement furthers the agreements expressed in the Deed of Settlement referred to in the Preamble to the Settlement Act. In particular, Māori non-commercial fishing rights continue to give rise to Treaty obligations on the Crown.

- 18 To give effect to the obligations arising from the Treaty, the Crown:
- a) Acknowledges it has an obligation to act in an informed manner when it forms policy or acts in a way that affects Māori interests;
  - b) Acknowledges that it has a duty of active protection in relation to Māori rights and interests guaranteed pursuant to Article II of the Treaty subject to the Settlement Act;
  - c) Recognises that the Crown and Māori both have an obligation to act in good faith, fairly, reasonably and honourably towards the other; and
  - d) Recognises that central to the Treaty relationship and implementation of Treaty principles in respect of the rights of tangata whenua is a common understanding that tangata whenua will have an important role in the development of policies and processes that affect their interests and rights.

## CONSULTATION (S 12)

19 Before setting or varying any sustainability measure under the Act you are required to consult with those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including, but not limited to, Māori, environmental, commercial and recreational interest.

20 You are also required to provide for the input and participation of tangata whenua having a non-commercial interest in the stock concerned or an interest in the effects of fishing on the aquatic environment in the area concerned; and have particular regard to kaitiakitanga. This requirement reflects the provisions of the Settlement Act, and the Crown's commitment to its treaty partner.

21 This paper explains the consultation undertaken for each fishstock and provides advice to you, including the results of consultation involving stakeholders and engagement with tangata whenua.

## SETTING A TOTAL ALLOWABLE CATCH

22 The Act contains a number of specific provisions to ensure a stock is managed sustainably. A key measure is the setting of a TAC for a Quota Management System (QMS) stock.

23 Under s 13 there is a requirement to maintain the biomass of a fishstock at or above a level that can produce the maximum sustainable yield (MSY), having regard to the interdependence of stocks.

24 MSY is defined, in relation to any fish stock, as being the greatest yield that can be achieved over time while maintaining the stock's productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock.

25 Where the current level of a stock ( $B_{\text{CURRENT}}$ ) or  $B_{\text{MSY}}$  are not able to be reliably estimated, s 13(2A) requires you to set the TAC at levels that are not inconsistent with this objective in a way and rate which has regard to the interdependence of stocks and within a period appropriate to the stock.

26 The obligation to have regard to the interdependence of stocks when setting a TAC requires consideration of the effects of fishing on associated stocks harvested with the target stock, and the role of the target stock in the food chain. In particular, it involves a direct trophic (i.e. one stock is likely to be directly affected through a predator or prey relationship

by the abundance of another stock) or symbiotic (i.e. a close and often long-term interaction between two or more different biological species) relationship between stocks.

27 Where a stock is assessed to be below the target stock level, section 13(2)(b) of the Act requires a TAC be set that will result in the stock being restored to the target stock level (i.e. at or above a biomass that will support MSY) in a way and rate which has regard to the interdependence of stocks and within a period appropriate to the stock. Before determining the period within which the target stock level is to be achieved, you are to have regard to the biological characteristics (including longevity and productivity) and environmental conditions (such as the effect of temperature on stock recruitment) affecting the stock.

28 The most rapid rebuild possible is one with no fishing mortality, and therefore rebuild is constrained only by the biological capacity of the species and any environmental conditions that affect stock size. At the other end of the spectrum, the TAC may be set at a level that ensures that a depleted stock biomass is at least trending towards the target level.

29 In determining the way and rate of rebuild, you must regard to relevant social, cultural and economic factors. The immediate status of the stock will also influence the short-term rate of rebuild. Where there is an immediate risk of stock collapse, a high rebuild rate may be adopted as a short-term management strategy. Thereafter, the rate of rebuild may be decreased as greater weight is given to social, economic and cultural factors.

30 Where a decision with major economic impact is considered immediately necessary the rationale for that decision should be clearly transparent. The Court of Appeal stated that “[t]hose affected should be able to see, first, that all other reasonable possibilities have been carefully analysed, and, second, why the decision adopted was considered to be the preferable option”.<sup>53</sup>

31 Social, cultural and economic factors are relevant in the determination of the way and rate of progress to the target level, rather than in the determination of the target stock level itself. Under the Act, there is no set rate, or timeframe, within which a rebuild of a stock must be achieved. However, the progress of moving towards the target stock level must be suitable to the fishery in question; it must be within a reasonable time. A fisheries management standard (the Harvest Strategy Standard) has been developed which provides best practice policy guidance as to the rate of rebuild.

32 Measures designed to ensure sustainability at a QMA level may not be effective at providing desired levels of access to fisheries on a localised basis. The Act provides for a range of measures, both regulatory and voluntary, that may be applied at the stock or local level to address sustainability issues, including catch spreading arrangements; area specific

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<sup>53</sup> *New Zealand Fishing Industry Association (Inc) and Ors v Minister of Fisheries and Ors* (CA82/97, 22/7/97) at p 23.

catch limits and bag limits; closed areas; controls on methods, size, and season; plus allocative measures such as customary Māori spatial tools.

## ADDITIONAL FACTORS TO BE TAKEN INTO ACCOUNT (S 11)

33 Section 11 requires that the following factors must be taken in account before setting or varying a TAC:

- a) Any effects of fishing on the stock and the aquatic environment
- b) Any existing controls that apply to the stock or area concerned
- c) The natural variability of the stock concerned
- d) Any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991.
- e) Any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and which the Minister considers to be relevant
- f) Sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000: Section 7 recognises the national significance of the Hauraki Gulf, including its capacity to provide for the relationship of tangata whenua with the Gulf and the social, economic, recreational and cultural well-being of people and communities. Section 8 sets out objectives for the management of the Gulf. Objectives of relevance include:
  - i. the protection and enhancement of the natural resources of the Gulf;
  - ii. the protection of historic associations of people and communities in and around the Hauraki Gulf with its natural resources;
  - iii. the maintenance and, where appropriate, the enhancement of the contribution of the natural resources of the Hauraki Gulf to the social and economic well-being of the people and communities of the Hauraki Gulf and New Zealand; and
  - iv. the maintenance and, where appropriate, the enhancement of the natural resources of the Hauraki Gulf which contribute to the recreation and enjoyment of the Gulf
- g) Any conservation services or fisheries services
- h) Any relevant fisheries plan approved under this Part: No plans have been approved.
- i) Any decisions not to require conservation services or fisheries services.

## ALLOCATION OF TAC

### Legal requirements

34 After setting the TAC, a separate decision arises in respect of allocating the TAC. Section 21 of the Act states that in setting or varying the Total Allowable Commercial Catch, the Minister must have regard to the TAC and allow for:

- a) Māori customary non-commercial fishing interests;
- b) Recreational interests; and
- c) All other mortality to that stock caused by fishing.

35 The customary fishing regulations (Fisheries (South Island Customary Fishing) Regulations 1999 and the Fisheries (Kaimoana Customary Fishing) Regulations 1998) do not provide for the Crown to place limitations on customary fishing, apart from ensuring the sustainability of a particular stock. Customary take is regulated through the authorisation system in the customary regulations, which requires that all customary fishing is to be undertaken in accordance with tikanga and the overall sustainability of the fishery. This framework was put in place to give effect to legal obligations in the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

36 When allowing for Māori customary non-commercial interests, you must take into account:

- a) Any mataitai reserve in the relevant quota management area; and
- b) Any temporary area closure or temporary fishing method restriction or prohibition imposed in the area for the purposes of improving the availability of size of a species for customary fishing purposes or recognising a customary fishing practice in the area.

37 The intent is that measures enacted for purposes of customary fishing purposes are not rendered nugatory or reasons for limited customary take are ignored when setting the customary allowance.

38 When allowing for recreational interests, you must take into account regulations that prohibit or restrict fishing in any area closed to commercial fishing to recognise recreational fishing interests. These recreational-only areas are able to be created following the exercise of a formal dispute resolution process, which is set out in the Act, between recreational and commercial fishing interests. No recreational-only areas have been created under this process.

39 An allowance is to be made for all other mortality to a stock that results from fishing by all fishing interests. This includes illegal catch, discards, and incidental mortality from fishing gear.



40 In terms of the total allowable commercial catch, the Act states that it can be set at zero (section 20). This would occur in situations where the TAC was set at zero for sustainability reasons (i.e. the fishery was closed) or allocative reasons (i.e. the species was recognised as non-commercial only).

41 There is also a requirement to have particular regard to sections 7 and 8 of the Hauraki Gulf Marine Park Act when making decisions under s 21 of the Fisheries Act. The requirement to have particular regard requires the decision-maker to satisfy himself or herself that the decision meets those of the purposes which are of most relevance, to the extent that that can be achieved in harmony with other relevant considerations applying to the decision.<sup>54</sup> Details of these matters are set out earlier in the paper.

## Judicial Guidance

42 Relevant judicial findings provide useful guidance in terms of your allocation decisions under section 21 of the Act.

43 The wording of the Act sets out a particular order of decisions – after allowing for Māori customary non commercial fishing interest, recreational fishing interests, and all other sources of fishing-related mortality, the remainder constitutes the TACC. On their ordinary meaning the words “allow for” require the Minister both to take into account those interests and to make provision for them in the calculation of the total allowable commercial catch.<sup>55</sup> That does not, however, mandate any particular outcome.<sup>56</sup>

44 Importantly, the Act does not confer priority for any interest over the other<sup>57</sup> and does not limit the relative weight which the Minister may give to the interests of competing sectors<sup>58</sup>. It leaves that judgment to the Minister.

45 The Courts do not accept that the question of common law rights is relevant to the decisions regarding the allocation of the TAC. The Act covers the entire ground that would be occupied by such rights. In this respect the legislation accordingly governs all aspects of the rights of the various fishing sectors to the exclusion of the common law.<sup>59</sup>

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<sup>54</sup> *Sanford Limited and Ors v New Zealand Recreational Fishing Council Inc and Anor* (Court of Appeal, CA 163/07, 11 June 2008), para 99.

<sup>55</sup> *New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors* (Supreme Court, SC 40/2008, 29 May 2009), para 55.

<sup>56</sup> *Sanford Limited and Ors v New Zealand Recreational Fishing Council Inc and Anor* (Court of Appeal, CA 163/07, 11 June 2008), para 57.

<sup>57</sup> *New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors* (Supreme Court, SC 40/2008, 29 May 2009), para 65.

<sup>58</sup> *Sanford Limited and Ors v New Zealand Recreational Fishing Council Inc and Anor* (Court of Appeal, CA 163/07, 11 June 2008), para 61.

<sup>59</sup> *New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors* (Supreme Court, SC 40/2008, 29 May 2009), para 63.

46 The Courts have also provided guidance as to the nature of the allowances to be provided. Where there are competing demands exceeding an available resource it could perhaps be said the Minister can “allow for” use by dispensing a lesser allotment than complete satisfaction, creating not a full priority but some degree of shared pain.<sup>60</sup> The requirement to “allow for” the recreational interest can be construed as meaning to “allow for in whole or part”.<sup>61</sup> The Supreme Court stated that the Act envisages that the allowance for recreational interest, as well Māori customary fishing interest and the TACC, will be a reasonable one in all the circumstances.<sup>62</sup>

47 Section 21 is concerned with allocation of a limited resource and that what is allowed for non-commercial fishing interests will impact on the total allowable commercial catch.<sup>63</sup>

48 The consideration of the wellbeing factor (as expressed in section 8 of the Act) requires a balance of competing interests, especially in the case of a shared fishery.<sup>64</sup>

49 In terms of recreational interests, the Supreme Court stated that “[A]lthough what the Minister allows for is an estimate of what recreational interests will catch, it is an estimate of a catch which the Minister is able to control. The Minister is, for example, able to impose bag and fish length limits. The allowance accordingly represents what the Minister considers recreational interests should be able to catch but also all that they will be able to catch. The Act envisages that the relevant powers will be exercised as necessary to achieve that goal”.<sup>65</sup>

50 In terms of commercial interests, the TACC creates a form of property right for individuals who hold individual transferable quota in a QMS stock. That right is not absolute in that it is expressly subservient to the exercise of your powers as Minister under the Act. A decision you make which impacts adversely on holders of Individual Transferrable Quota (ITQ) which advantaged—deliberately or incidentally—non-commercial interests, does not in itself imply an improper purpose.<sup>66</sup> It is an inherent element of the QMS that the TACC can be reduced, with a consequential reduction in quota. In considering a reduction of the TACC, you must weigh the economic impact of your proposed course of action on individual quota holders and on the QMS generally.<sup>67</sup>

51 The interests of commercial fishers are not just the economic interests of the proprietors of the fishing businesses, but also include those of employees, consumers who are

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<sup>60</sup> *Roach v Minister of Fisheries* (HC, Wellington CP715/91, 12/10/92, McGechan J), p 16

<sup>61</sup> *New Zealand Federation of Commercial Fishermen (Inc) & Ors v Minister of Fisheries & Ors* (HC, Wellington CP237/95, 24/4/97), p 150.

<sup>62</sup> *New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors* (Supreme Court, SC 40/2008, 29 May 2009), para 65.

<sup>63</sup> *Ibid*, para 53

<sup>64</sup> *Sanford Limited and Ors v New Zealand Recreational Fishing Council Inc and Anor* (Court of Appeal, CA 163/07, 11 June 2008), para 61.

<sup>65</sup> *New Zealand Recreational Fishing Council Inc v Sanford Limited and Ors* (Supreme Court, SC 40/2008, 29 May 2009), para 39.

<sup>66</sup> *New Zealand Federation of Commercial Fishermen (Inc) & Ors v Minister of Fisheries & Ors* (HC, Wellington CP237/95, 24/4/97, McGechan J) p 89

<sup>67</sup> *New Zealand Fishing Industry Association (Inc) and Ors v Minister of Fisheries and Ors* (Court of Appeal, CA82/97, 22/7/97, at p 16

able to purchase the fish as a result of the commercial catch being sold at retail, fish merchants, suppliers to the commercial fishers and others affected by any relevant downstream effects of the location of fishing businesses, such as processing businesses in particular geographical locations.<sup>68</sup>

52 No implied obligation to attain proportionality between commercial and recreational catch arises from the legislation. The imprecise [estimation] of the recreational catch precludes strict proportionality.<sup>69</sup> Further, in respect of earlier litigation relating to management of SNA1, the Courts have stated that:

*“We can see no reason why either as his primary purpose or as a consequence of some other purpose the Minister should not be able to vary the ratio between commercial and recreational interests.”*<sup>70</sup>

*“If over time a greater recreational demand arises it would be strange if the Minister was precluded by some proportional rule from giving some extra allowance to cover it, subject always to his obligation to carefully weigh all the competing demands on the TAC before deciding how much should be allocated to each interest group.”*<sup>71</sup>

*“It is not outside or against the purposes of the Act to allow a preference to non-commercials to the disadvantage in fact of commercials and their valued ITQ rights, even to the extent of the industry’s worst case of a decision designed solely to give recreationalists greater satisfaction. Both are within the Act.”*<sup>72</sup>

The Courts have also emphasised the importance of decisions undertaken for sustainability purposes not being undermined by increased fishing by one or other of the fishing sectors. *“[W]hen Parliament empowered the Minister to reduce the TACC for conservation purposes—not to improve recreational catch rate—it expected the Minister to take any concurrent steps necessary to minimise sabotage by recreational fishing. . . . The significant point is that both law and common sense dictate that a Minister should not reduce the TACC for conservation reasons unless able to take, and taking, reasonable steps to avoid the reduction being rendered futile through increased recreational fishing.”*<sup>73</sup>

53 While this statement relates to reduction of the TACC, the principle equally applies in situations where measures are enacted to rebuild a fishery.

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<sup>68</sup> *Sanford Limited and Ors v New Zealand Recreational Fishing Council Inc and Anor* (Court of Appeal, CA 163/07, 11 June 2008), para 61.

<sup>69</sup> *New Zealand Federation of Commercial Fishermen (Inc) & Ors v Minister of Fisheries & Ors* (HC, Wellington CP237/95, 24/4/97, McGechan J) p 18

<sup>70</sup> *New Zealand Fishing Industry Association (Inc) and Ors v Minister of Fisheries and Ors* (Court of Appeal, CA82/97, 22/7/97, at p 17-18

<sup>71</sup> *Ibid*, p 18.

<sup>72</sup> *New Zealand Federation of Commercial Fishermen (Inc) & Ors v Minister of Fisheries & Ors* (HC, Wellington CP237/95, 24/4/97, McGechan J) at p 89.

<sup>73</sup> *New Zealand Federation of Commercial Fishermen (Inc) & Ors v Minister of Fisheries & Ors* (HC, Wellington CP237/95, 24/4/97, McGechan J) p 102.