

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 Industries²⁸ (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

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

($B_{CURRENT}$) or B_{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 $B_{CURRENT}$ and B_{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 work²⁹ supports the view that CPUE is overstating the increase in biomass.

²⁹ 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.

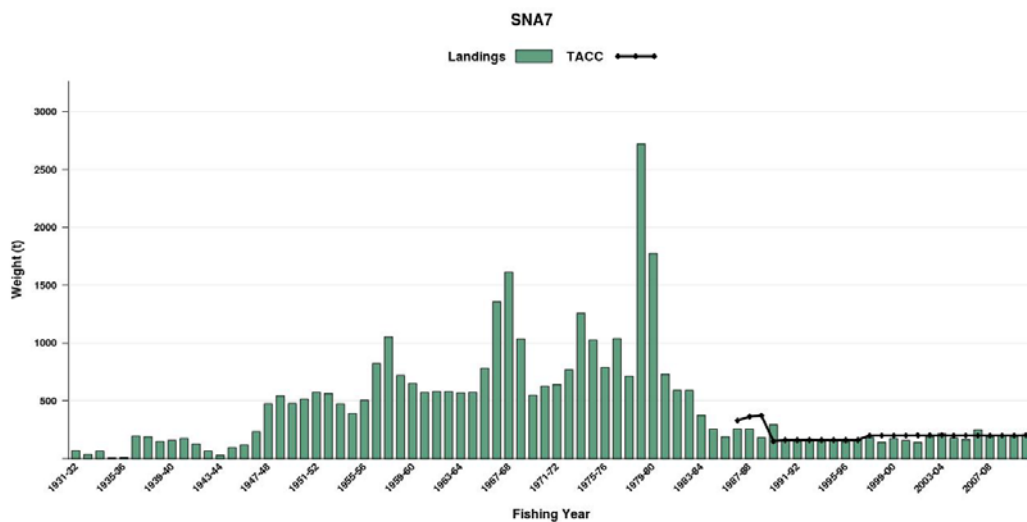


Figure 2: Reported Catch Landings and TACC (t) for SNA 7 from the 1931/32 fishing year to the 2011/12 fishing year

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

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 forum³⁰ 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,³¹ 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.

³⁰ 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.

³¹ 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 $B_{CURRENT}$ and B_{MSY} . However we consider that the fishery is

below optimal levels. Section 13 requires you, as the Minister for Primary Industries³² (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

³² 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 work³³ 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 $B_{CURRENT}$ ³⁴ and B_{MSY} ³⁵ 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.

³³ 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.

³⁴ Current biomass. Biomass refers to the size of the stock in units of weight.

³⁵ 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 $B_{CURRENT}$ 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.

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 mātaitai 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 mātaitai 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 mātaitai 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 $B_{CURRENT}$ and B_{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