

SNAPPER (SNA 8) – EXECUTIVE SUMMARY

Stock Status and Rebuild Rate

- 1 The Total Allowable Catch (TAC) for SNA 8 is set under s 13 of the Fisheries Act 1996. There is a requirement to maintain the biomass of any fishstock managed under s 13 (2) (a) at a target stock level, being at, or above, a level that can produce the maximum sustainable yield (B_{MSY}). If below B_{MSY} , s 13 (2) (b) requires you to take measures to restore the biomass to, or above, this level.
- 2 In 1998 the Minister of Fisheries set a TAC for SNA 8 that was expected to allow the fishery to exceed B_{MSY} by 2008. The 2005 SNA 8 stock assessment estimates that the current biomass of the stock is approximately 50% of B_{MSY} (range between 39% and 60%) and 8-12% of unfished biomass. As a result, the IPP proposed options to reduce the SNA 8 TAC in order to restore the biomass to B_{MSY} .
- 3 Some submissions received on the IPP consider that biomass in the southern parts of the stock are higher than in the northern parts of the stock. However, localised differences in biomass are expected in a stock this size as a reflection of different patterns and intensities of fishing effort. The Ministry of Fisheries (MFish) considers the current assessment is a good indicator of the status of the SNA 8 stock.
- 4 The IPP set out a twenty year maximum timeframe to rebuild the stock. Submissions were opposed to the timeframe; shorter timeframes were requested by most non-commercial submissions and longer timeframes were requested by most Industry submissions. MFish recommends the twenty year maximum timeframe be upheld for biological and generational reasons, as well as decisions by the previous Minister to rebuild the fishery.
- 5 Concern was raised about the decision not to include the status quo as an option in the IPP. Current stock modelling predicts that biomass is expected to increase slowly under the current TAC, but will not reach B_{MSY} within the next twenty years. There is a 64% chance that biomass will increase in the next five years. While MFish considers this rebuild to be uncertain and slow, the status quo has been included as an option in this advice.

TAC Options

- 6 The three TAC reduction options proposed in the IPP have been retained and assessed for your consideration. Each reduction option results in greater certainty of rebuild at a faster rate than maintaining the status quo. SNA 8 is an important fishery to both recreational and commercial fishers. Accordingly there is benefit in rebuilding the stock at a faster rate than is likely under the current TAC. The short term and long term projections for each option are provided in Table 1 below.
- 7 The key issues that you need to weigh up in considering the different TAC reductions are the benefits associated with the various rates of rebuild, relative to the socio-economic impacts of any catch reduction. Impacts are both positive and

negative depending on which stakeholder group is being considered. MFish considers that it is appropriate that you decide what relative weight to give to the impacts that have been identified in relation to the options, and make the choice of which one best meets the requirements of the Act.

Table 1. Short-term and long-term projections for the SNA 8 stock under different catch reduction options.

TAC Option	Probability that biomass in 2010 is greater than biomass in 2005 (%)	Estimated year to reach B_{MSY}	Probability that biomass at 2025 is greater than B_{MSY} (%)
Option 1 – 2 060 tonnes <i>Status Quo</i>	64	>2025	47
Option 2 – 1 922 tonnes	74	2021	65
Option 3 – 1 785 tonnes	84	2018	81
Option 4 – 1 510 tonnes	94	2014	97

Allowances

- 8 Two approaches to set allowances and the Total Allowable Commercial Catch (TACC) within each TAC reduction option were proposed in the IPP. The first approach is a proportional one where allowances are determined according to current TAC proportions. The second approach is a non-proportional approach that focuses on future management opportunities and relative value to each sector. The proportional approach results in a proportional reduction to the recreational allowance and the TACC. Under the non-proportional option, only the TACC is reduced. The recreational allowance remains unchanged.
- 9 The two approaches were a primary focus in submissions on the IPP. Predictably, non-commercial fishers and environment groups rejected a proportional approach and commercial fishers rejected a non-proportional approach. Both approaches were alternately labelled ‘unfair’ and ‘unjust’.
- 10 MFish has a policy preference for a proportional approach to altering allowances up or down when a TAC is adjusted. However no explicit process has been undertaken in the past to set the proportions of the SNA 8 TAC that are currently allocated to each sector. MFish considers the current allowances reflect current catch levels. To translate the current allowances into a proportional share would create the proportions by default, rather than as a result of an explicit process. As a result, both approaches have been retained in the advice to you.
- 11 Socio-economic impacts of revised allowances and TACCs within each TAC reduction option is discussed in this advice. Industry provided additional economic information in submissions on the IPP (see Table 2 below). MFish is unable to substantiate these calculations of forgone catch earnings. Any reduction in the TACC will have costs for the commercial sector and may have a significant impact on

associated fisheries that catch snapper as a bycatch. Industry submitted that the reductions will also impact on related industries such as processing and transport services, engineering services, supermarkets and restaurants. As expected, the greater the reduction, the more significant the economic impacts.

Table 2. Assessment of potential loss of economic return for all TACC options

	Allowance Option	TACC (tonnes)	TACC reduction (tonnes)	Foregone catch earning (\$) SNA 8 only	Foregone catch earnings (\$) Incl. bycatch
Option 1 Status Quo	N/A	2 060	0	0	0
Option 2	Proportional	1 398	102	561 000.00	777 483.98
	Non-proportional	1 375	125	687 500.00	952 799.00
Option 3	Proportional	1 295	205	1 127 500.00	1 562 590.36
	Non-proportional	1 250	250	1 375 000.00	1 905 598.00
Option 4	Proportional	1 090	410	2 255 000.00	3 125 180.72
	Non-proportional	1 000	500	2 750 000.00	3 811 196.00

- 12 The social impact of the options on non-commercial sectors is difficult to measure. Non-commercial fishing interests have emphasised the importance of social and cultural values that they hold in relation to snapper. However, the value of a stock to non-commercial fishers is largely intrinsic and cannot be quantified easily. Non-commercial fishers are unhappy with the size and availability of snapper on the west coast, which they say are being adversely affected by the low stock biomass. The higher the TAC reduction option, the faster the stock will reach B_{MSY} and the sooner non-commercial sectors will benefit from the improved biomass.

Management Measures to Support Allowances

- 13 A proportional approach to setting allowances will require a reduction in the recreational allowance. A decrease in the daily bag limit will be required in order to ensure that recreational catch does not exceed the allowance. If this option is preferred, MFish proposes to decrease the daily bag limit in the northern part of the stock¹ from 15 to 10. This is in line with the current bag limit of 10 for the southern part of the stock².
- 14 No reduction in recreational allowance is proposed under the non-proportional approach. However, as there is uncertainty in the recreational catch estimates, MFish will review recreational catch information when new survey results are available, to ensure recreational catch is constrained within the allowance set.
- 15 The SNA 8 TACC has been overcaught by approximately 10% in 14 of the 18 years since introduction into the QMS. To discourage fishers from fishing beyond their

¹ The “northern part” refers to the area within SNA 8 north of Tirau Point to North Cape, where the current daily limit is 15.

² The “southern part” refers to the area within SNA 8 south of Tirau Point, where the daily limit is already 10.

ACE, the IPP proposed to increase the deemed value. However, commercial fishers provided information showing that in some areas, most snapper is caught as bycatch. In the current market, ACE can be extremely difficult to source to cover this bycatch. Should the TACC be reduced, ACE will be more difficult to source and the proposed deemed value increase could be a severe financial impact, and may encourage illegal activity such as dumping.

- 16 The deemed value proposed in the IPP of \$8.68 (GST excl.) may be high when considering the bycatch fishery. You may consider an alternative deemed value of \$4.25 (GST excl.) to be more appropriate, set marginally higher than the current port price and ACE transactions. This will encourage fishers to balance their catch, but will not be so prohibitive to encourage dumping or have significant adverse economic effects.

Summary of Options

- 17 MFish presents the following TAC and allowances options, as outlined in Table 3.

Table 3. Revised Options for TACs, allowances and TACCs for SNA 8

	Allowance Approach	TAC (tonnes)	Customary Allowance (tonnes)	Recreational Allowance (tonnes)	Other fishing mortality (tonnes)	TACC (tonnes)
Option 1. Status quo	N/A	2 060	50	360	150	1 500
Option 2. TAC reduction of 138 tonnes	Proportional	1 922	50	335	139	1 398
	Non-proportional	1 922	50	360	137	1 375
Option 3. TAC reduction of 275 tonnes	Proportional	1 785	50	311	129	1 295
	Non-proportional	1 785	50	360	125	1 250
Option 4. TAC reduction of 550 tonnes	Proportional	1 510	50	261	109	1 090
	Non-proportional	1 510	50	360	100	1 000

- 18 MFish provides you with to options to manage recreational catches to either:
- Reduce the amateur bag limit in the northern part of the stock from 15 to 10, in line with bag limits for the southern part of the stock; or,
 - Review the effect of increasing recreational catches on rebuild rates of the stock when better recreational catch estimates are available.
- 19 MFish provides you with the options of increasing the annual deemed value of SNA 8 to either:
- \$8.68 (GST excl.), 200% of the 2004 port price; or

- \$4.25 (GST excl.), which is marginally higher than the 2005 port price and the 90th percentile value of ACE trades.

