Coromandel Scallop Fishery (SCA CS) In-season TAC Review: Final Advice



Figure 1: Quota Management Areas (QMA) for the Coromandel Scallop fishery (SCA CS)

Summary

- 7. The Ministry recommends you set a Total Allowable Catch (TAC) of 370 tonnes as an in-season adjustment under s 13(7) of the Fisheries Act 1996 (the Act) for the Coromandel Scallop Fishery (SCA CS).
- 8. For the current (2012-13) fishing year, information on the abundance of scallops suggests an in-season increase to the TAC can be considered. An in-season increase would generate additional benefits from the commercial fishery.

| Table 1: Proposed Man | agement Option | s for SCA CS | (expressed) | as meat weight) |
|-----------------------|----------------|--------------|-------------|-----------------|
| | | | V. 1 | |

| Option | TAC | ACE (TACC) | Māori customary allowance | Other sources of mortality | Recreational Allowance |
|----------------------|------------|------------|------------------------------|----------------------------|---------------------------|
| 1 (Current Settings) | 48 tonnes | 22 tonnes | 7.5 tonnes | 11 tonnes | 7.5 tonnes |
| 2 (Preferred Option) | 370 tonnes | 325 tonnes | 10 tonnes | 25 tonnes | 10 tonnes |

- 9. No changes to any other management settings for SCA CS are proposed.
- 10. Option 1 represents the current (baseline) TAC and carries the least sustainability risk. Both Option 1 and Option 2 are consistent with s 13 of the Act, and with MPI's Harvest Strategy Standard (HSS). Option 2 takes account of survey information showing an increased abundance of scallops within the fishery this season.
- 11. Seven submissions were received on the Initial Position Paper (IPP), three from commercial, two from recreational and two from Māori customary interests. Six

submissions support Option 2. One submission supports a lower TAC than Option 2.

Key Considerations

Need to Act

- 12. The SCA CS fishery is on Schedule 2 of the Act and, therefore, managed by way of in-season TAC and annual catch entitlement (ACE) increases under s 13(7) and s 68 of the Act. In-season ACE and TAC increases revert to the 'baseline' TAC, at the end of the fishing year (30 March), as do any in-season changes to non-commercial allowances.
- For the current (2012-13) fishing year, survey information on the abundance of scallops shows an increase to the TAC can be considered. The proposed inseason increase would generate significant additional benefits from the commercial fishery.

SCA CS Assessments

- 14. Information on this year's abundance of scallops is available from a biomass survey, conducted by NIWA under MPI project (SCA 2010/01B)) in April-May 2012, and reviewed by MPI's Shellfish Working Group in May 2012.
- 15. The survey was the most extensive to-date, and included a significant area, new to the fishery. The area is located in relatively deep water in the Hauraki Gulf.
- 16. The survey estimates (in meat-weight) are as follows:
 - 1380 tonnes start of season biomass¹.
 - 439 tonnes Current Annual Yield (CAY) (49% confidence fishing mortality < F_{0.1}²).
 - 370 tonnes CAY (82% confidence fishing mortality $< F_{0.1}$).
 - 300 tonnes CAY (considering both direct and indirect fishing effects there is 49% confidence fishing mortality $< F_{0.1}$).
- 17. These estimates are for the surveyed beds-only. There is additional biomass in those areas not surveyed, including areas where commercial scallop fishing is prohibited.
- 18. The CAY estimate of 370 tonnes considers the direct incidental effects of fishing on the mortality of adult scallops (some scallops are killed but not caught during dredging), whereas the CAY of 300 tonnes considers both the direct and indirect incidental effects on adult and juvenile scallops. MPI accepts that indirect effects (for example on habitat) will reduce yield. However, the magnitude of the effects is uncertain. Therefore, it is not used to set the inseason TAC.

¹ 95% confidence interval of 976–1913 tonnes, coefficient of variation (CV) of 18%. The CV is a measure of data variability e.g., the higher the CV the more variability in the data.

 $^{^{2}}$ F_{0.1} is the reference fishing mortality (unofficial target) used in several scallop fisheries in New Zealand.

- 19. Previous in-season increases have used CAYs with an 82 percent or greater confidence that fishing mortality will be below F0.1 (rather than 49 percent) to set the TAC. This higher level of confidence allows both the direct and indirect effects of fishing on adults and juveniles to be taken into consideration and MPI proposes to continue this approach. MPI, therefore, recommends the in-season TAC for the 2012/13 year be set at 370 tonnes.
- 20. The 2012 survey takes into account new estimates of dredge efficiency available as a result of a new study reviewed by MPI in 2011. The results suggest that dredge efficiency is likely to have been underestimated in the past, resulting in CAYs being overestimated in some years. The new dredge efficiency estimates also affect the estimates of F0.1. New estimates of F0.1 have not been calculated as yet.

Relevant Fishery Information

21. Scallops are highly productive, relatively short-lived (six to seven years maximum age) and able to move short distances (usually in the direction of prevailing currents). As a result, stock levels can vary considerably year to year. The placement of SCA CS on Schedule 2 to the Act, and operation of inseason increases under s 13(7), is a reflection of these characteristics.

Commercial

- 22. The SCA CS commercial season runs from 15 July to 21 December. About seven commercial vessels operate in the fishery. Harvest from the fishery is measured as meatweight, and there is a commercial minimum legal size limit of 90mm.
- 23. Commercial fishers typically use self-tipping "box" dredges. The efficiency of these dredges is difficult to estimate and is affected by substrate type, current direction and weather conditions. Dredges cause incidental mortality of scallops and can impact on the seabed. However, the substrate in the areas commercially fished is predominantly sand, which may be less vulnerable to habitat modification than stable substrates.
- 24. Dredge efficiency and some of the indirect effects of dredging are taken into account in the CAY estimates used, and in the "other sources of fishing-related mortality" allowance set for the fishery.
- 25. A voluntary 'catch per unit effort (CPUE) limit rule' management scheme has been implemented by quota holders in conjunction with SeaFIC for the past two years and operates across all vessels in the fishery. Once a specified lower CPUE limit of scallops has been reached, fishing within that area of the fishery ceases for the remainder of the season.



Figure 2: SCA CS commercial landings and the in-season ACE (TACC) from 2002/03 to 2011/12

26. Figure 2 shows commercial landings matched the in-season ACE increase (based on CAY estimates derived from pre-season surveys) until the 2007-08 fishing year. Since then there has been a significant gap between the inseason increase and recorded landings. This disparity is largely a result of fishery economics and practices; specifically, a minimum economic catch rate during periods of lower scallop density and operation of the 'CPUE limit' rule. Recent research also suggests survey dredge efficiency may have been underestimated, resulting in overestimated CAYs in some years.

Recreational

- 27. There is a strong recreational interest in scallops in SCA CS, mostly in enclosed bays and harbours. The recreational and commercial fisheries are, in part, spatially separated with much of the near shore closed to commercial scallop fishing (refer Figure 1). Scallops are usually taken recreationally by diving using snorkel or scuba, although small dredges are also used.
- 28. There are three recreational harvest controls. These are:
 - Open season from 1 September to 31 March;
 - A 100 mm minimum recreational size limit; and
 - A maximum daily bag limit of 20 scallops per person. A diver may take an additional daily bag limit for each of up to two boat safety people.
- 29. There are no reporting requirements for recreational fishers and scallop catch cannot be reliably determined. Estimates of recreational catch are available from telephone and diary surveys but are considered unreliable as they contain a methodological error and high variability. The estimates range from 3 tonnes to around 9 tonnes meat weight.
- 30. Commercial fishers can also take scallops (as recreational fishers) if granted an approval issued under section 111 of the Act (in accordance with the conditions imposed on such approval). In the 2011-12 fishing year, approximately 36 600 scallops (500 kg meat weight) were taken under section 111 approvals.

Maori Customary

31. Scallops are an important kaimoana for tangata whenua. Some customary harvest information is available from reporting of customary harvest authorisations. Thirteen customary permits have been issued for 5 300 scallops with 1 400 scallops reported taken. This relatively low number may, however, not represent total customary catch as customary fishers in much of the fishery are operating under regulation 27 and 27A of the Fisheries (Recreational Fishing) Regulations 1986, in which reporting is non-mandatory.

Other Sources of Fishing Related Mortality

- 32. Incidental damage to uncaught or undersize scallops can occur during commercial dredging. The level of incidental mortality expected in the commercial dredge fishery has been previously estimated to be 34% of the ACE level when fishing close to the CAY estimates. Since 2005, however, catch has been well below CAY estimates. Recent studies (not yet finalised) also indicate dredge efficiency may have been underestimated in the past. In which case incidental mortality from commercial dredging may have been overestimated.
- 33. Other sources of fisheries related mortality are likely to be from recreational dredging and illegal take of scallops. The Ministry does not have reliable estimates of these sources of mortality.

Proposals Consulted On

 MPI proposed the following in-season management options for of SCA CS for 2012-13 in its Initial Position Paper released for consultation in June (Table 3). MPI also sought specific input from tangata whenua.

| Option | TAC | ACE (TACC) | Māori customary allowance | Other sources of mortality | Recreational Allowance |
|----------------------|------------|------------|-------------------------------------|----------------------------|---------------------------|
| 1 (Current Settings) | 48 tonnes | 22 tonnes | 7.5 tonnes | 11 tonnes | 7.5 tonnes |
| 2 (Preferred Option) | 370 tonnes | 315 tonnes | 15 tonnes | 25 tonnes | 15 tonnes |

Table 2: Proposed Management Options for SCA CS (expressed as meat weight)

35. Option 1 represents the current (baseline) TAC. Option 2 takes into account information on increased abundance of scallops within the fishery this season.

Submissions

36. The Ministry received seven submissions on the IPP:

- Coromandel Scallop Fishermen's Association (CSFA);
- Marty Bowers (recreational fisher);
- New Zealand Seafood Industry Council Limited (SeaFIC);
- Te Ohu Kaimoana (TOKM);
- Te Runanga o Ngai Te Rangi Iwi Trust;
- Talley's Group Limited; and
- Piako Underwater Club (recreational fisher).
- 37. Copies of the submissions are attached.

ТАС

- 38. All submissions support a TAC of 370 tonnes except that from the Piako.Underwater Club which supports an increase in the TAC to 200 tonnes. SeaFIC, CSFA and TOKM note that the TAC is inherently conservative as the biomass survey and yield estimates are based on:
 - Only a part of the biomass within the SCA CS QMA has been assessed in the survey;
 - New estimates of F0.1 have not been calculated to reflect the changed estimate of dredge efficiency;
 - Indirect effects of fishing have been double counted; and
 - The CPUE limit approach implemented by CSFA aims to ensure that the Harvest Strategy Standard is met even at higher TACs.
- 39. Piako Underwater Club submits a TAC of 200 tonnes better reflects the probable "actual harvest" from the fishery. They propose a TAC based on what is considered will be caught, rather than what the pre-season biomass survey shows is present. MPI notes that this proposal does not represent the surveyed biomass and yield estimates available within the fishery. SeaFIC, CSFA and TOKM submit they have opted not to seek a more conservative TACC based on their estimates, but prefer a TACC that gives the flexibility to utilize the fishery within the constraints of the CPUE limit approach.

Non commercial Allowances

- 40. All submitters, except Talley's Group Limited, submitted for a reduction in the proposed 15 tonnes allowed for recreational interests. These submitters note that, with the exception of the new Hauraki bed, scallop abundance in all other areas in the fishery is similar to the last three years. They also note that the Hauraki bed is a deepwater bed and not accessible to recreational fishers. MPI agrees with this rationale, and has amended its recommendation to allow the same increase to recreational allowance as in previous years, 10 tonnes.
- 41. MPI also notes that, on the same reasoning, 10 tonnes should be allowed for Maori customary non-commercial fishing interests.

Other Sources of Fishing Related Mortality

42. SeaFIC, CSFA and TOKM submit the rational for the proposed allowances for other sources of fishing mortality is not clear. They submit that the yield

estimate calculated from the survey biomass already takes incidental fishing related mortality into account and, therefore, the allowance presumes a large increase in illegal catch and indirect mortality. MPI notes that there is very limited information on illegal and indirect mortality and that 25 tonnes represents only 6.75% of the TAC.

43. Until improved fishing-related mortality estimates are completed, MPI recommends using the existing estimate of 25 tonnes. While CAY estimates may partially take into account fishing-related mortality, you are required to allow for fishing-related mortality when setting a TAC.

ACE (TACC)

44. All submitters, except Piako Underwater Club, support an in season ACE (TACC) of 315 tonnes proposed in the IPP. However, CSFA, SeaFIC and TOKM note that for a variety of reasons the commercial harvest will probably be within the vicinity of 150 tonnes. MPI recommends that you allocate the full TAC regardless of how ACE holders may eventually use that ACE.

Other Matters

- 45. Te Runanga o Ngai Te Rangi lwi Trust suggest that; to protect taonga species and the ecology, dredging be banned from Tauranga Harbour; that MPI consider funding efficient processes and systems to assist lwi to produce reports for customary landings and; that research be undertaken on SCA CS in the context of the "Rena oil spill".
- 46. These matters are beyond the scope of this paper. However, MPI is involved in monitoring programmes for shellfish relating to the Rena oil spill, and some of the matters raised are being discussed with iwi outside of this process.

Final Proposals

47. MPI proposes the following in-season management options for SCA CS (Table 3).

| Option | TAC | ACE (TACC) | Māori customary allowance | Other sources of mortality | Recreational Allowance |
|----------------------|------------|------------|------------------------------|----------------------------|---------------------------|
| 1 (Current Settings) | 48 tonnes | 22 tonnes | 7.5 tonnes | 11 tonnes | 7.5 tonnes |
| 2 (Preferred Option) | 370 tonnes | 325 tonnes | 10 tonnes | 25 tonnes | 10 tonnes |

Table 3: Final Management Options for SCA CS (expressed as meat weight)

48. No other management changes are proposed. Section 13(7) of the Act only relates to in-season TAC and allowance changes (as opposed to bag limits or other management measures).

- 49. MPI advises that the current status of SCA CS in relation to the level of the stock that can produce the maximum sustainable yield (B_{MSY}) is unknown. In such circumstances, you must set a TAC that is "not inconsistent" with the objective of maintaining the stock at or above, or moving the stock towards a level at or above B_{MSY}, in a way and rate considered appropriate for the stock (s 13(2A) of the Act).
- 50. Based on current SCA CS assessments, both of the options meet this requirement. Neither a TAC of 48 tonnes, nor a TAC of 370 tonnes is likely to exceed the target reference point of $F_{0.1}$.
- 51. The options differ, however, in the extent to which they allow for utilisation of the fishery. Option 1 maintains the status quo, whereas Option 2 takes into account the estimated biomass of scallops in the fishery this season, and makes use of s 13(7) to increase the TAC, amount of ACE, and allowances within the current fishing year to generate additional benefits from the fishery.

Option 1 – Status quo

- 52. Under Option 1, no in-season change to the baseline TAC of 48 tonnes meat weight would be made. This option carries the least sustainability risk. The status quo option is not supported by any submitter.
- 53. There would be no increase in the amount of ACE available (22 tonnes), and the current Maori customary allowance of 7.5 tonnes and recreational allowance of 7.5 tonnes would both be retained. There would be no change to the allowance of 11 tonnes for other sources of fishing related mortality.
- 54. Compared with Option 2, this option will provide significantly fewer utilisation benefits for the commercial sector as the amount of ACE will be retained at the base level.

Option 2 – TAC of 370 tonnes, including an ACE increase to 325 tonnes

- 55. Under Option 2, a TAC of 370 tonnes meat weight would be set, with an ACE increase (under s 68 of the Act) to 325 tonnes (22 tonnes 'baseline' TACC plus an additional 303 tonnes of ACE). Under this option, non-commercial allowances, and the allowance for other sources of fishing related mortality will also be increased.
- 56. Increasing the amount of ACE by 303 tonnes could generate approximately \$5 million of additional revenue from the fishery, based on the 2012-13 port price of \$16.03 per kg. MPI cannot verify the extent to which this additional revenue will be achieved. Actual catches are likely to be less than this due to minimum economic catch rates of scallops (only the highest density scallop beds are likely to be fished), operation of the voluntary "CPUE limit" rule by the scallop fleet, and marketing constraints. The CSFA, on behalf of quota holders, advises it expects catch for the season to be in the vicinity of 150 tonnes with a value of approximately \$2.4 million.

Maori Customary Allowance

- 57. Under Option 2 there would be an increase in the Maori customary allowance, from 7.5 to 10 tonnes. This increase assumes that customary catch will increase with increased scallop abundance, but it is not known to what extent this will occur, but also factors in the depth and accessibility of the Hauraki Gulf bed.
- 58. MPI notes this allowance exceeds reported customary catch, but that information is uncertain as iwi in some parts of the fishery are not operating under customary regulations with mandatory reporting. MPI invited iwi to submit any additional information they hold on customary catch levels in SCA CS.
- 59. MPI notes that the allowance does not constrain customary catch, as harvest is authorised by Kaitiaki.
- 60. This allowance would revert to 7.5 tonnes at the end of the fishing year.

Recreational Allowance

- 61. A similar approach is proposed in terms of the recreational allowance, which would increase from 7.5 to 10 tonnes. Recreational scallop catch cannot be reliably determined, however, the best available recreational survey data has been used to set the current allowance.
- 62. An increase in abundance is anticipated to result in greater recreational participation and an increase in fishers taking the full bag limit of 20 scallops, but it is not known to what extent this will occur. Previous submissions from recreational representatives have noted recreational harvest is influenced by a number of factors including weather, access, and the abundance of scallops in the non-commercial parts of the fishery (which are not usually surveyed).
- 63. Again, this allowance would revert to the original allowance at the end of the fishing year.

Allowance for Other Sources of Fishing Related Mortality

- 64. The allowance for other sources of fishing related mortality is proposed to increase in proportion to the increase in the TAC, from 11 to 25 tonnes under this option. In practise, incidental mortality may not increase in this way as CPUE will rise (and total dredging effort decrease) during periods of higher scallop abundance. Studies looking at this relationship are being finalised.
- 65. The allowance for other sources of fishing-related mortality would revert back to the baseline level at the end of the fishing season.

Additional Management Controls

CPUE Limit Rule

66. The voluntary 'CPUE limit rule' management scheme run by CSFA and SeaFIC has been in place for SCA CS for the past two years and operates across all vessels in the fishery. This management approach should ensure that the biomass of scallops in any one area will not be fished below a specified level of CPUE in the event of natural mortality events or sudden declines in abundance.

Other Existing Fishing Controls

67. MPI does not propose changes to any other existing fishing controls for SCA CS.

"Baseline" TAC

68. A separate review of the "baseline" TAC is scheduled for later this year. A review is considered appropriate given the recent improved performance of the fishery, to take into account operation of the "CPUE limit rule" management scheme and changes in the assumptions around dredge efficiency and $F_{0.1}$.

Assessment against Statutory Obligations

69. This section assesses the management options in terms of how they ensure that your relevant statutory obligations are met.

General Obligations

- 70. MPI considers that both Option1 and Option 2 satisfy the statutory requirements under section 8 of the Act in that they provide for utilisation in the SCA CS fishery while ensuring sustainability. Both management options will ensure the long term sustainability of the stock. Option 1 is more cautious but will constrain utilisation opportunities. Option 2 (MPI recommended option), will allow for increased utilisation.
- 71. In setting or varying sustainability measures, you must act in a manner consistent with New Zealand's international obligations relating to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.
- 72. A wide range of international obligations relate to fishing, including use and sustainability of fishstocks; and maintaining biodiversity (s 5(a) of the Act). MPI considers that the management options for SCA CS are consistent with these international obligations.
- 73. 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) of the Act). Ongoing work is being done within the area covered by SCA CS to promote policies that help to recognise customary use and management practices.
- 74. There is an obligation to provide for input and participation of tangata whenua and have particular regard to kaitiakitanga (under s 12). MPI requested submissions on this topic from tangata whenua for SCA CS. Te Runanga o Ngai Te Rangi Iwi Trust supported MPI's proposal, and requested that MPI

consider funding lwi to produce non-mandatory customary landings reports. MPI notes that this is beyond the scope of this paper.

ТАС

- 75. The biological characteristics of scallops mean that a reliable estimate of the level of the stock that can produce the maximum sustainable yield (BMSY)) cannot be made. Where reliable estimates of BMSY are not available, s 13(2A) 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 BMSY, 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 set a TAC.
- 76. The Coromandel scallop fishery is a target fishery with relatively little bycatch. It is managed as a separate management unit from adjacent stocks. The CAY estimates are based on the biomass estimate of the fishery. These estimates, therefore, take account of any interdependence issues.
- 77. The biology of scallops is well understood. Scallops demonstrate a highly variable biomass from year to year. The management approach used by MPI recognises this high variability and uses current biomass estimates generated from a survey to support the in-season TAC review.
- 78. Environmental conditions are believed to be the primary drivers for the highly variable nature of scallop biomass. Setting a TAC based on a current biomass estimate minimises uncertainties associated with changes in the stock biomass as a result of changing environmental conditions.

Environmental considerations

- 79. The Act requires that when any effect of fishing is adverse, this effect should be avoided, remedied or mitigated. Section 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.
- 80. The commercial scallop fishery is a dredge fishery. Dredging is a non-selective fishing method and will catch species of no commercial interest to the fishers. Dredging is also known to reduce habitat heterogeneity and biological diversity. Although such effects cannot be avoided, commercial fishers tend to fish the same areas each year and only use a small proportion of each habitat type. These two factors minimise the impacts of the fishery on these matters. A larger TAC proposed under Option 2 will likely result in increased dredging activity. However, the relationship between TAC and area dredged is unlikely to be linear as during years of high scallop population biomass, scallop densities will also be higher. MPI also notes that the fishery substrate tends to be mobile sand and, therefore, naturally disturbed.

- 81. Maori customary and recreational fishers catch scallops by diving or by using a small lightweight dredge. These harvest techniques have few impacts.
- 82. Limited information exists on the nature and location of habitats of particular significance to fisheries management, however, given the above and the localised nature of the fishery, it is considered that the fishery is unlikely to have any significant effect on such habitats. Accordingly, fishing at the level of either of the TAC options proposed in the IPP is considered to be consistent with the environmental principles of the Act.

Section 11 considerations

- 83. In making your decision on sustainability measures for SCA CS, you must also have regard to the requirements of s11 of the Act as follows:
 - a) Section 11(1)(a): Before setting or varying any sustainability measure for this stock, you must take into account any effects of fishing on any stock and the aquatic environment. The majority of SCA CS commercial take is as a targeted dredge fishery. Dredging is a non-selective fishing method that can catch species of no commercial interest to the fishers (associated and dependent species) and reduce habitat heterogeneity and biological diversity. The way in which these are taken into account is discussed in the previous section.
 - b) Section 11(1)(b): Before setting or varying any sustainability measure for this 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 SCA CS 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.
 - 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 previously in relation to the biological characteristics of SCA CS.
 - d) Sections 11(2)(a) and (b): Before setting or varying any sustainability measure for this 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. The Ministry is not aware of any such policy statements, plans or strategies that should be taken into account for the SCA CS stock.
 - e) Section 11(2)(c): Before setting or varying any sustainability measure for this stock, you must have regard to s 7 and 8 of the Hauraki Gulf Marine Park Act 2000 that apply to the coastal marine area and you consider relevant. The entire quota management area for SCA CS, except that part south of the northern end of Waihi Beach, is within the Hauraki Gulf Marine Park.

Section 7 of the Hauraki Gulf Marine Park Act 2000 (HGMPA) recognises the national significance of the Hauraki Gulf and the importance of sustaining the life supporting capacity of the gulf. Importantly, life supporting capacity includes being able to provide for the relationship of tangata whenua with the Gulf, and the social, recreational and economic well-being of people and communities, and includes the use of the Gulf's resources. The management approach and both options proposed in this paper are consistent with s7 of the HGMPA.

Section 8 sets a series of management objectives for the Hauraki Gulf. These include:

- The protection and, where appropriate, the enhancement of; the life supporting capacity of the Gulf, it's natural and physical resources, and the relationship of tangata whenua with the Gulf and its resources.
- The protection of the cultural and historic associations of people and communities with the resources of the Gulf.
- The maintenance and, where appropriate, the enhancement of contributions of the Gulf's resources to the social, economic well-being, and the recreation and enjoyment of people and communities.

The purpose of the in-season TAC review is to enable better utilisation of the scallop resource while maintaining the sustainability of the resource and its environment. Accordingly, the TAC increase is consistent with the management objectives set out in s8 of the HGMPA.

- f) Section 11(2)(d): Before setting or varying any sustainability measure for this stock you must have regard to any planning documents lodged with the Minister of Fisheries by a customary marine title group under s 91 of the Marine and Coastal Area (Takutai Moana) Act 2011. There are no such planning documents that relate to SCA CS.
- g) 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. A draft national inshore shellfish plan is being developed but is yet to be approved.
- h) 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.

Setting Allowances

84. If a TAC is increased pursuant to s 13(7), you must, under s 21(2) and (3), consider Maori customary non-commercial fishing interests, recreational interests and other fishing-related mortality before creating additional ACE. 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.

- 85. Option 2 allows for an in-season increase in ACE reflecting the likely abundance of scallops this season. Option 2 also assumes that customary and recreational catch will increase with increased scallop abundance, but it is not known to what level.
- 86. Section 21(4) requires that any mätaitai reserve or closures/restrictions under s 186A to facilitate customary Maori fishing be taken into account. There is one mätaitai reserve within the Coromandel scallop fishery quota management area – Mount Maunganui and Part Tauranga Harbour Mätaitai Reserve. This area is relatively small and probably holds few scallop resources. There is one s186A temporary closure and this does not relate to scallops.