

9 August 2007

Minister of Fisheries

## **2007 REVIEW OF THE COROMANDEL SCALLOP FISHERY TAC – FINAL ADVICE**

### **Executive summary**

- 1 MFish is seeking your decision on whether or not to have an in-season adjustment to the TAC and ACE for the Coromandel scallop fishery (SCACS).
- 2 An Initial Position Paper (IPP) (Appendix 1), released on 2 July 2007, proposed two options for an in-season TAC and ACE increase for SCACS under sections 13(7) and 68(1) of the Fisheries Act 1996 (the Act). The two options for the increased TAC were based on different levels of allowances for non-commercial interests. Alternative options are also available at your discretion. The TAC would revert to 48 tonnes meatweight at the end of the 2007-08 fishing year in accordance with section 13(8) of the Act.
- 3 Two draft *Gazette* Notices relevant to each option are attached (Appendix 3) for your consideration and signature. Please sign the Notice that relates to the option you agree to. Should you decide to set alternative management measures, MFish will provide an appropriate Notice for your signature. Once aware of your decision, MFish will provide a draft decision letter for your consideration and signature. The decision letter will inform stakeholders of your decision and the reasons for it, as required under s 12(2) of the Act.
- 4 The SCACS stock occupies the area from Cape Rodney in the Hauraki Gulf to Town Point in the Bay of Plenty. SCACS is included on the Second Schedule of the Act, which allows for an in-season TAC increase, if supported by information about the abundance of scallops during the current fishing year, and after having regard to the matters specified in sections 13(2) of the Act.
- 5 Since 1978, research surveys have been used to estimate the abundance of scallops in the Coromandel scallop fishery. Yield estimates based on surveys have been used to determine catch limits for the fishery. These estimates

provide the key information for decisions concerning the utilisation of the resource while ensuring sustainability.

- 6 In making your decision on required services for 2007-08, you agreed to an optional survey for SCACS during 2007. Quota holders decided that scallop abundance should be assessed this year, and a survey was undertaken in May. The survey indicates that while scallop biomass may have decreased compared with last year, it remains high by recent historical standards and the fishery can support an increase to the baseline TAC during the current fishing year. Details and results from the survey are discussed in the IPP.

### **Key issues**

- 7 The key issues to be considered for the SCACS fishery are:
- a) whether or not the survey information supports the proposed in-season increase in the TAC (and ACE);
  - b) whether or not the TAC should be increased to provide for increased separate allowances for customary Maori interests and recreational fishing interests.

### **Summary of options**

#### ***Initial proposals***

- 8 MFish proposed two management options in the IPP.

#### Option 1: Increase the ACE and increase the non-commercial allowances

- a) The TAC for SCACS is increased from 48 to 165 tonnes meatweight, and within the TAC:
  - i) the allowance for recreational fishing is increased from 7.5 tonnes meatweight to 10 tonnes meatweight;
  - ii) the allowance for customary fishing is increased from 7.5 tonnes meatweight to 10 tonnes meatweight;
  - iii) the allowance for other sources of fishing-related mortality is increased from 11 tonnes meatweight to 37 tonnes meatweight;
  - iv) the ACE for quota owners is increased from 22 tonnes meatweight to 108 tonnes meatweight; and
  - v) at the end of the current fishing year for SCACS, the TAC will revert to 48 tonnes meatweight, the allowance for recreational fishing will revert to 7.5 tonnes meatweight, the allowance for customary fishing will revert to 7.5 tonnes meatweight, the allowance for other sources of fishing-related mortality will revert to 11 tonnes meatweight, and the ACE will revert to 22 tonnes meatweight.

#### Option 2: Increase the ACE and retain the non-commercial allowances

- b) The TAC for SCACS is increased from 48 to 160 tonnes meatweight, and within the TAC:
  - i) the recreational fishing allowance is retained at 7.5 tonnes meatweight;
  - ii) the customary fishing allowance is retained at 7.5 tonnes meatweight;
  - iii) the allowance for other sources of fishing-related mortality is increased from 11 tonnes meatweight to 37 tonnes meatweight;
  - iv) the ACE for quota owners is increased from 22 tonnes meatweight to 108 tonnes meatweight; and
  - v) at the end of the current fishing year for SCACS, the TAC will revert to 48 tonnes meatweight; the allowance for other sources of fishing-related mortality will revert to 11 tonnes meatweight, and the ACE will revert to 22 tonnes meatweight.

### **Consultation**

- 9 The principles of consultation, as identified by the Court and now widely accepted, are:
  - a) Consultation is not to be equated with ‘negotiation’. ‘Consultation’ may occur without those consulted agreeing with the outcome;
  - b) Consultation is the statement of a proposal not yet fully decided on;
  - c) Consultation includes listening to what others have to say and considering the responses;
  - d) The consultative process must be genuine and not a sham;
  - e) Sufficient time for consultation must be allowed;
  - f) The party obliged to consult must provide enough information to enable the person consulted to be adequately informed so as to be able to make intelligent and useful responses; and
  - g) The party obliged to consult must keep an open mind and be ready to change and even start afresh.
- 10 Your decision whether or not to have an in-season adjustment of the TAC and ACE for SCACS is a decision under section 13(7) of the Act and therefore the consultation requirements of s 12 of the Act apply.
- 11 Consultation on the 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 Maori, environmental, commercial, and recreational interests. Further, provision was made for the input and participation of tangata whenua having a non-commercial interest in the stock or an interest in the effects of fishing on the aquatic environment in the area concerned, having particular regard to Kaitiakitanga.

- 12 MFish also notes that several persons with interests in the SCACS fishery have been involved in the development of a draft fisheries plan for SCACS over the past two years. The key aspects of the management approach for the fishery have been discussed and agreed within that process.

### **Submissions received**

- 13 Ten written submissions were received from: Te Ohu Kai Moana Trustee Limited (TOKM); the Coromandel Scallop Fishermen's Association (CSFA); the Seafood Industry Council (SeaFIC); the New Zealand Recreational Fishing Council (NZRFC), Mark Hemingway, Piako Underwater Club, Karl Aislabie, Mark and Lorraine Aislabie, Te Kupenga o Ngāti Hako and a joint submission from the Hokianga Accord, the New Zealand Big Game Fishing Council, Option 4, Tauranga Game Fishing Club and the Mt Maunganui Sport Fishing Club (referred to herein as "non-commercial submitters"). The submissions are summarised below, and copies of those submissions in full can be found in Appendix 2.

### ***Submissions from commercial stakeholders***

- 14 The **New Zealand Seafood Industry Council** (SeaFIC) submission refers to views expressed in its previous submissions on this fishery. The submission is based upon discussions with the Coromandel Scallop Fishermen's Association, although the latter has made an independent submission.
- 15 SeaFIC supports the proposed in-season ACE increase to 108 tonnes if supported by commercial stakeholders. SeaFIC notes the importance of making in-season ACE increases available in a timely manner to facilitate utilisation during the current year's season, and it recognises efforts by the Ministry to effect this.
- 16 SeaFIC submits that any consideration of a lesser in-season ACE increase for 2007 based upon the 30 % decline in surveyed biomass from the 2006 estimate is irrelevant. SeaFIC notes that the best estimate of current annual yield (CAY) from the 2007 survey is 338 tonnes, and even the pessimistic estimate taking into account habitat degradation is 231 tonnes. SeaFIC considers that both estimates are well above the 2006 in-season increase, and also well above the proposed increases under options 1 and 2 for 2007 (TACs of 160 and 165 tonnes respectively).
- 17 SeaFIC requests that the final advice should clearly explain the management approach for the SCACS fishery, where a 'baseline' TAC is set and an in-season increase provided for as informed by pre-season research surveys and assessment. SeaFIC believes that this is necessary to illustrate to the Minister the very low risk associated even with in-season increases up to quite high levels, as indicated by the best estimates of CAY.
- 18 SeaFIC submits that the IPP provided no clear explanation of the proposed in-season ACE increase of 108 tonnes, although it is aware of discussions with commercial stakeholders that led to the figure. SeaFIC is concerned that those

discussions were not predicated upon any ill-informed notion that the 2007 in-season ACE should be 30 % less than in 2006. SeaFIC submits that the basis for the proposed ACE increase, and any agreement by commercial stakeholders, should be made clear.

- 19 While SeaFIC supports the proposed in-season ACE increase to 108 tonnes if supported by commercial stakeholders, it submits that it does not support option 1, on the following grounds:
- There is variation between beds and no basis to assume that the stock on recreational beds has increased in the same proportion as on commercial beds;
  - Increases for commercial catch have been informed by rigorous surveys and similar surveys of recreational areas are needed before making increases to that sector's allowances;
  - Recent changes to the recreational fishing rules for scallops have provided for a large increase in the scallops available to recreational fishers, and the effects of those changes should be monitored before contemplating further changes;
  - The incentives to improve the monitoring and control of recreational fisheries should be maintained, but making uninformed rule changes would undermine such incentives.
- 20 SeaFIC notes that using the NZRFC logic regarding reducing the in-season ACE by 30 % in proportion to the reduction in estimated biomass would result in recreational allowances reduced by nearly 2.5 tonnes, rather than increased by that amount.
- 21 **Te Ohu Kaimoana Trustee Limited** (TOKM) submits its support for Option 2 of the IPP.
- 22 TOKM notes the 30% reduction in the biomass estimated from the 2007 survey compared with 2006, but also that the current biomass level is substantially greater than the 17 year average. It also comments that, while the decline in stock biomass contributed by scallops larger than 95 mm is disappointing, the historical biomass trends, views of experienced fishers, and the fact that one third of commercial beds have greater biomass estimates for 2007 than in 2006 mitigate their concerns for the sustainability of the stock.
- 23 TOKM supports increasing the allowance for commercial catch to 108 tonnes as that represents, in their view, a conservative level of catch below what could be safely harvested.
- 24 TOKM notes that the higher number of large scallops found in 2007 are of relevance to the commercial fishery because, if not taken this season, those scallops will probably die.

- 25 TOKM also notes that most of the commercial catch is sold domestically, and hence represents “a considerable proportion of the recreational consumption”.
- 26 TOKM rejects Option 1, largely on the grounds that there is insufficient information on the abundance of and yields from the recreational-only scallop beds. TOKM supports its view that the spatially separated commercial and recreational beds are not comparable by reference to the significant differences in estimated biomass between commercial beds.
- 27 TOKM refers to previous Ministerial comment to the SeaFIC conference in 2005, which stated that increases to recreational allowances would not be made because there was a lack of biomass information. While recognising that biomass studies of recreational beds began in 2006, TOKM submits that information should be reviewed and considered to bring closure to the debate about how scallop biomass might vary between the areas.
- 28 TOKM agrees that an increased recreational allowance might be appropriate to accommodate increased recreational harvest in years of comparative scallop abundance. However, it submits that it would be prudent to consider whether or not biomass on recreational beds had increased, and how to include the spatial separation between sectors’ areas, before increasing allowances for recreational fishing. TOKM submits that any redistribution of the TACC to the recreational sector would need to ensure that the rights of commercial fishers are not adversely affected.
- 29 TOKM notes the IPP discussion of the recent rule changes for recreational scallop fishers leading to the likelihood of increased harvest. TOKM submits that the “additional 6 week extension to the season” this year will also result in more scallops being taken. While TOKM agrees that additional recreational catch is likely if there is sufficient biomass, it notes the following questions:
- Did the Minister intend to allow unconstrained recreational catches as a result of the rule changes?
  - Did MFish intend to allow recreational catch to increase to the extent that a redistribution of commercial or customary allowances to recreational might be required, and to what extent would that be allowed?
  - Will the biomass on recreational beds sustain any increased catch?
  - How reliable is current recreational catch data?
- 30 TOKM notes the imminent pilot study to determine the feasibility of estimating recreational catch in the Coromandel scallop fishery. TOKM submits that obtaining the level of confidence desirable for good management will only be achieved after some form of mandatory recreational reporting is introduced.
- 31 TOKM comments on the initial views provided by the New Zealand Recreational Fishing Council (NZRFC), and notes its wholehearted agreement with the NZRFC view that the fishery should be managed with a conservative

approach. However, TOKM does not agree with the NZRFC recommendations for the fishery, nor with its view that recreational fishers will take what they take regardless of allowances.

- 32 The submission addresses the NZRFC commentary regarding the efficiencies of commercial scallop dredges used in the Coromandel fishery, and the assertion that two scallops are killed for every one harvested. TOKM notes that, despite its involvement in many discussions about the fishery, this is the first time this matter has come to its attention.
- 33 TOKM submits that it does not accept the Ministry's criteria for determining the customary allowance in the absence of information. The submission notes that at least nine iwi have an interest in the fishery, and that the Ministry should obtain catch information collected by respective kaitiaki, or from the relevant iwi forum, in order to assist with setting the customary allowance.
- 34 TOKM also submits that it has previously raised its view that there has been a lack of customary input and participation in the development of the draft fishery management plan for the Coromandel scallop fishery. It notes that the Ministry acknowledges in the IPP that input from customary fishers had not been received on the latest survey results.
- 35 The **Coromandel Scallop Fishermen's Association** (CSFA) supports **option 2** as described in the IPP.
- 36 CSFA argues that recreational catch has probably increased significantly in response to recent changes to the recreational regulations allowing divers to collect for safety people. Moreover, the CSFA predicts recreational take will continue to increase with a change to the recreational season coming into effect in SCACS this year. The CSFA states that these changes may increase recreational catch by up 50%, but feels they were made without supporting scientific evidence. This is contrasted with the process for setting the commercial catch limits, which are based on a (generally) annual biomass survey.
- 37 The submission questions the ability of the recreational sector to conserve a fishery, and feels that the New Zealand Recreational Fishing Council is unqualified to make comments on commercial catch limit decisions.
- 38 CSFA also notes that commercial fishing allows the majority of New Zealanders who do not have access to the recreational fishery in SCACS to purchase scallops on the domestic market.
- 39 The CSFA concludes by noting its support of the submissions by TOKM and Karl Aislabie.
- 40 **Mr Karl Aislabie** notes that he is a quota holder and skipper in the Coromandel scallop fishery, and has been involved in the fishery for 29 years. Mr Aislabie supports option 2 as described in the IPP, concluding that it provides a safe option for an in-season TAC increase.

- 41 Mr Aislabie notes that while the NIWA survey of the commercial areas provides scientific information on the quantity of scallops available for harvest, the recreational catch remains unknown.
- 42 Mr Aislabie also notes that SCACS is currently on an upward turn, especially when compared to the years of the ‘black gill’ disease outbreak and the tube worm infestation (approximately 1999–2001). He points out that commercial fishers have consistently taken less than the yield estimates from biomass surveys suggest is available, instead opting for conservative catch levels. He also states that commercial fishers have moved from a seven-day week to a five-day week, which allows them to ensure their gear remains in top condition, making harvesting more efficient. He further argues that the dredges used in the Coromandel fishery are less damaging than those used in the South Island as they rise to the surface when full. He summarises the approach of commercial fishers in SCACS as being like that of a farmer working his fields, and notes that when meat weight or size drop in a particular bed, fishers move to a new bed.
- 43 Mr Aislabie comments that not everybody can access the recreational scallop fishery in SCACS, and that commercial fishers provide scallops to the New Zealand market place for such people. In doing so, he argues that commercial fishers provide jobs to locals in the processing sheds on the Coromandel.
- 44 Mr Aislabie also contends that the commercial and recreational fisheries are becoming distinct, with commercial fishers primarily fishing beds seldom accessed by recreational fishers. He states that all the best beds have been closed to commercial fishers.
- 45 Mr Aislabie also provided several background paragraphs on the history and sustainability of the fishery, recent changes to the recreational scallop regulations, and the commercial view of the fishery. These views do not directly address the IPP proposals, but they are provided with the full submissions (Appendix 2) for your information.
- 46 **Mark and Lorraine Aislabie** note that they are quota holders, operate a commercial scallop boat, and have been involved in SCACS for at least 32 years. They recommend **option 2** as described in the IPP.
- 47 They also mention that the 2006 in-season TAC increase was not applied to the fishery until late in August 2006, which they consider created significant uncertainty for commercial fishers and processors operating in this fishery. They argue that processors cannot guarantee to fill orders, and that fishers are unsure how much money to spend maintaining their boats when they do not yet know how much scallop they will be allowed to catch. They also note that any increase beyond the amount currently sought is unlikely to be caught before the season ends, given the length of time taken by the in-season increase process. In light of this, they do not have enough confidence in the process to seek a greater increase than the 108 tonnes currently proposed by MFish.



- 48 The Aislabies also draw attention to the fact that commercial fishers have again opted for a catch limit well below what the biomass survey deems would be sustainable, noting that the NIWA yield estimate itself has many inbuilt safeguards.
- 49 The Aislabies also fully support the submissions of Te Ohu Kai Moana and Karl Aislabie.

### *Submissions from recreational fishers*

- 50 The **New Zealand Recreational Fishing Council** (NZRFC) has expanded upon its preliminary comments to MFish (shown in the IPP) with a formal submission. The NZRFC states that it represents a range of national and regional clubs, Māori organisations, corporate and individual members across the whole of New Zealand. The NZRFC notes that it directly or indirectly represents approximately 300 000 people. However, it also notes that the Government and the Courts have recognised the NZRFC as the only body able to represent the public interest, and as such, it effectively represents all recreational fishers in New Zealand (including non-members) which they state is approximately 1.35 million people.
- 51 The NZRFC maintains that there has always been strong recreational involvement in the Coromandel scallop fishery, involvement it claims predates the establishment of a commercial fishery in the late in 1960s.
- 52 The NZRFC considers that making proper provision for non-commercial interests is the correct starting point for setting a TAC, and must be done before allowing for commercial interests. It states that the social, cultural and economic needs of the people must be allowed for when making provision for non-commercial interests. The NZRFC asserts that the TAC in SCACS should be set at a conservative level, with the allowances for non-commercial fishing, illegal fishing and other sources of mortality set at levels that represent the worst case scenarios before setting the TACC. The NZRFC further claims that all decisions must be made to ensure the SCACS fishery is managed above  $B_{MSY}$ .
- 53 The NZRFC considers that MFish must take an active role in environmental protection, especially in terms of pollution from urban areas affecting the coastal marine area. It notes that MFish should be a “constant lobby force to local authorities and any RMA process effecting coastal land development.”
- 54 A major concern expressed by the NZRFC relates to the dredges used by commercial fishers in SCACS. The NZRFC claims that commercial scallop fishers in SCACS have not done sufficient research into improving the efficiency of their dredges nor into reducing the incidental mortality of scallops or environmental damage caused by dredging. It quotes the incidental mortality of scallops as being as high as two scallops killed for every one scallop captured. The NZRFC also expresses disappointment that its suggestion that SCACS would benefit from a rotational fishing program were rejected by commercial fishers.

- 55 The NZRFC notes that more abstract notions of environmental degradation and biodiversity reduction (as caused by dredges) should not be sidelined by more immediate utilisation arguments. The NZRFC also comments that it understands that commercial dredge use is also having a significant impact on the seabed in the Challenger scallop fishery.
- 56 The NZRFC expresses its general support towards the current conservative management approach in SCACS. Specifically, it supports the pre-season assessment process and the baseline TAC, TACC and allowances and sees no reason to change this approach. The NZRFC is also broadly supportive of the management measures regulating recreational fishing in SCACS, believing the commercial exclusion zones, seasonal restrictions and bag limits to be appropriate. It does, however, signal its desire for a review of the recreational bag limit in the future, ideally in 2008. The NZRFC also feels that by foregoing any potential bag limit increase for this season, it has again demonstrated its commitment to conservative management and to the stabilisation and rebuilding of the SCACS fishery. It believes this obligates MFish to take a more precautionary approach to managing SCACS this year than has been taken so far.
- 57 The NZRFC considers that inherent in a conservative approach is an adequate allowance for recreational catch as otherwise there is a risk of failing to account for overall take and potentially overfishing the fishery. Thus, it submits where there is uncertainty about the recreational catch, the allowance must err on the side of caution and overestimate—rather than underestimate—recreational catch.
- 58 The NZRFC considers that an allowance of 10 tonnes underestimates recreational catch in SCACS. However, it notes that a 20 tonne allowance for combined non-commercial catch probably comes close to actual non-commercial take. The NZRFC does not indicate whether it supports the non-commercial allowances remaining at their baseline levels or increasing to 10 tonnes (meatweight) each, stating that such arguments are semantics as the sector catches what it catches. Rather, it contends that there is a degree of uncertainty in recreational catch in SCACS and that catch is likely to vary from year to year depending on catch per unit effort, climatic conditions during the open season, and the condition of scallops. Thus, it leaves the decision on allowances to you, provided you consider the rationale included in the NZRFC submission.
- 59 The NZRFC is concerned with the unexplained 30% reduction in biomass estimate in SCACS for 2007. While unsure of the reasons for this reduction, NZRFC submits that in order to maintain a conservative management approach in the fishery, a corresponding reduction in the amount of any ACE increase is required. This gives a figure of 83 tonnes (meatweight) though the NZRFC notes that such a level could impact upon the viability of commercial scallop fishing, and consequently it would support up to 90 tonnes ACE being made available. The NZRFC also expresses its support for a further 10 tonnes ACE being made available to those commercial fishers who “submit an approved dredge efficiency and mortality research program.”

- 60 The NZRFC states that the unavailability of robust data on recreational fishing areas and recreational catch levels is unacceptable. However, it believes that the state of commercial beds (as described by the pre-season survey) closely represents the state of non-commercial beds, especially where these beds are adjacent. The NZRFC submits that a precautionary approach to management would assume at least some linkage between commercial and non-commercial beds, and that depletion of one area could negatively affect other areas. Thus, a key concern of the NZRFC is that catch limits are set at a level that ensures a strong biomass across the whole of the fishery — most of which it argues is commercially accessible. This, it claims, should ensure good distribution and spat fall in non-commercial areas as well as the sustainability of the fishery as a whole.
- 61 In its submission, the NZRFC provided an interesting method for estimating the size of the recreational catch. Its method assumed that 1000 recreational fishers each took their bag limit on 100 days (out of a 210-day season) and an approximate meatweight count of 55 scallops per kilogram. The NZRFC submission therefore considers that the allowance for recreational catch of 10 tonnes proposed under Option 1 underestimate catch by 26.3 tonnes (meatweight).
- 62 The NZRFC also raises several matters not directly related to an in-season TAC increase in SCACS. These include concerns about “anchoring by dredge” in commercial exclusion areas, incentives for encouraging research into dredge efficiency, and introduction of a vessel monitoring system.
- 63 The **non-commercial submitters** provided a joint submission on behalf of the Hokianga Accord, the New Zealand Big Game Fishing Council, Option4, Tauranga Game Fishing Club and the Mt Maunganui Sports Fishing Club.
- 64 The non-commercial submitters reject both options outlined by MFish in the IPP and instead advocate a TAC of 117 tonnes with the following allowances:
- A baseline allowance of 15 tonnes (meatweight) for customary Māori fishing
  - A baseline allowance of 15 tonnes (meatweight) for recreational fishing
  - An allowance of 22 tonnes (meatweight) for other sources of fishing-related mortality
  - A TACC of 22 tonnes and additional ACE of 43 tonnes be provided for the 2007 season.
- 65 A lower TAC is proposed by the non-commercial fishers as they consider this better reflects the variable nature of the fishery and would encourage commercial fishers to fish individual beds once only per season. They note that it would not be reasonable for you to allow large harvests from areas where commercial and recreational interests overlap and scallops above 100mm are at a low density (such as the beds near Waihi and Papamoa/Motiti). They state that commercial fishers have an advantage both

in terms of harvesting power and a lower minimum size which would unfairly affect recreational fishers in these areas.

- 66 The non-commercial submitters advocate for a conservative TAC of 117 as they have concerns about the sustainability of key non-commercial beds in the fishery. They state that this approach has been confirmed in the recent ruling on kahawai and quote Justice Harrison as stating: “the Minister must not allow current utilisation of a stock at a level which puts its future sustainability at risk. He is obliged to take the long view.”
- 67 The non-commercial submitters note that if commercial fishing was to be excluded from Waiheke, Waihi and Papamoa/Motiti, they could support up to 90 tonnes (meatweight) of ACE (including the baseline TACC) being made available.
- 68 The non-commercial submitters are concerned with the effects of commercial dredges, both in terms of how they impact upon on scallop populations and on the health of the benthic environment more generally. They argue that when the fishery was first exploited commercially, fishers would target and deplete localised populations of scallops, before moving onto another bed. The submitters argue that this masked the effects of dredge use on scallop productivity within the fishery until all known beds had been exploited. Recent outbreaks of tube worm and blackgill are also linked with the use of dredges by commercial fishers, with the submitters arguing that dredges may cause and spread these problems.
- 69 The non-commercial submitters are especially concerned with the use of dredges in areas of low scallop density. They argue that while scallop populations are naturally variable, dredging in low density areas exacerbates this variability and delays recovery. While recognising that fewer commercial fishers and higher diesel prices may generally prevent exploitation of these areas, the submitters state that MFish should have the ability to close areas of low density within SCACS.
- 70 The non-commercial submitters also contend that continued use of Victorian box-dredges does not meet the Minister’s statutory obligations, does not take into account and have regard for Māori non-commercial fishing and environmental interests, nor does it have particular regard to kaitiakitanga. The submitters strongly advise MFish to resource tangata whenua in a way that enables meaningful input and participation into fisheries management processes.
- 71 The non-commercial submitters believe that the environmental principles of the Act are not being met by the current management strategy in this fishery, especially in terms of the use of Victorian dredges by commercial fishers. They suggest you direct MFish to take measures to address environmental issues. Related to this, the non-commercial submitters also propose the setting of minimum standards to encourage fishers to use harvest methods that are less damaging to the aquatic environment. They believe that incentives to develop and use more benign methods would encourage more environmentally friendly fishing in SCACS.

- 72 The non-commercial submitters express concern for scallop productivity in the two statistical areas around the Mercury Islands (areas 2L and 2K). They state that local fishers now have to travel further to access scallops of sufficient quality and quantity. They are also concerned that the beds around the Mercury Islands and Whitianga might be suffering long term damage to their productivity.
- 73 The non-commercial submitters considers that the IPP focuses primarily on an in-season increase to ACE, and does not have sufficient regard for setting the non-commercial allowances. They refer to Justice Harrison's comments in the recent kahawai court case, stating that non-commercial allowances must be adequately allowed for to provide for the social, cultural and economic wellbeing of recreational fishers before setting the TACC.
- 74 The non-commercial submitters note that any increase in ACE in SCACS would benefit both commercial fishers and domestic consumers.
- 75 The non-commercial submitters note that as SCACS falls within the Hauraki Gulf Marine Park, you must have particular regard to ss 7 and 8 of the Hauraki Gulf Marine Park 2000. They also suggest MFish work with other agencies to improve the environment within the gulf, to the benefit of the people of the Gulf.
- 76 The non-commercial submitters are concerned the non-commercial sectors have difficulty finding the resources to participate in the fishery plan process, and yet have the most to lose from this process.
- 77 The non-commercial submitters feel that recent changes to the regulations governing recreational use of the SCACS fishery have increased overall recreational catch significantly. They also contend that the population with access to the SCACS recreational fishery has increased considerably since the 1996 survey upon which the baseline was established. The submitters believe these changes oblige you to increase the baseline non-commercial allowances to 15 tonnes (meatweight). They claim that baseline allowances at this level would recognise the likely maximum the non-commercial sector would harvest annually and would thus represent a sound long-term management strategy. They claim that there is already precedent for setting allowances above average catch, citing the TACC in the FLA 1 fishery. They also note that recreational and customary Māori allowances of 15 tonnes (meatweight) would simplify the in-season increase process as these allowances would no longer need to be adjusted. They state that if the baseline allowances cannot be increased during the in-season TAC review process, that this measure be included in the SCACS and SCA 1 fisheries next year.
- 78 The non-commercial submitters note their concern that the allowance for other sources of mortality (OSM) is 34.4% of the commercial catch, stating this to be unacceptably high. They also question why the baseline allowance for OSM is 50% of the baseline TACC, but drops to 34.4% when in-season ACE is allocated. They request clarification around the use of two different figures for calculating OSM.

- 79 **Mr Mark Hemingway** submitted his opposition to both options proposed in the IPP, on the grounds that he does not support increasing the commercial take to 108 tonnes. He notes that he would support a smaller increase for commercial take of approximately 60 to 65 tonnes.
- 80 Mr Hemingway's opposition arises from his view of the state of scallop resources in the Tauranga Harbour – Papamoa Beach – Motiti Island area. He considers that those resources are “not in good shape, not only with scallop numbers but also damage done by dredges which in turn destroys our Papa reef system between Papamoa Beach & Motiti Island”.
- 81 Mr Hemingway acknowledges that the situation might differ from the Whitianga beds. He also notes that, while not much dredging has been done in the area of his concern for the past two seasons, dredging had been quite heavy before and beds are a long way from recovery.
- 82 Mr Hemingway proposes that caution should be exercised when considering the in-season increase for any party because we are yet to see the effects of recent rule changes (allowing recreational divers to take up to 40 additional scallops if there are two safety boatmen aboard, and the change in the season).
- 83 Mr Hemingway proposes that consideration be given to a recreational take only area between Motiti Island and Papamoa Beach.
- 84 The **Piako Underwater Club** (PUC) discussed the proposal to increase the TAC of SCACS at its monthly meeting and agreed that it does not support either of the options proposed by MFish.
- 85 It has concerns with increases to any sector when the estimated fishery biomass is lower than the two previous years. PUC also notes that it feels the options presented seem to unfairly favour the commercial sector, claiming that an increase of 348% for the commercial sector is too high compared with a 133% increase for the non-commercial sectors.
- 86 It concludes that increases to any sector's take should not be considered until next year, and only then if the pre-season survey indicates an increase in fishery biomass.

### *Submissions from tangata whenua*

- 87 **Te Kupenga o Ngati Hako** (TKNH) submitted on behalf of Te Iti o Hauraki Marare (Kerepehi), Te Kotahitanga Marae (tirohia), Paeahi Marae (Waitoki) and the whānau, hapu and individuals of Ngati Hako. They note that Ngati Hako have traditional fishing grounds within SCACS.
- 88 TKNH supports **option 2** as described in the IPP.
- 89 TKNH supports **option 2** as they feel there is a lack of reliable quantitative information available on recreational scallop harvest levels. Because harvest levels from the areas closed to commercial fishing are not known, TKNH feel that the recreational and customary allowances should not be changed.

- 90 The **Hokianga Accord** views are incorporated within the submission by option4, as summarised above.

## **MFish discussion**

### Determining the TAC

- 91 MFish notes that there is no current assessment of the entire stock on which to base a TAC. The only available assessment information relates to those parts of the stock that are accessible to both commercial and non-commercial fishers. The available estimates of biomass and CAY are derived from surveys of areas primarily utilised by commercial fishing. The estimate of CAY is a valid reference for informing the sustainable level of commercial catch under the TAC, which under the provision of s 13(7) of the Act provides for generating additional ACE within the season.
- 92 The proposed TAC options are composites of the respective stakeholder sector groups' catch allowances, plus any fishing-related mortality that can be assessed for the commercial fishery. The incidental mortality arising from commercial fishing is accounted for in the stock assessment and CAY estimate, and can be added to the CAY to contribute to the TAC. MFish considers that the allowances for other sources of fishing-related mortality and for non-commercial fishing can be safely added to the baseline TACC, plus any additional ACE that might be allocated in the fishery within the season, to form the basis of the TAC.
- 93 MFish considers that both proposed TAC options are at cautious levels with respect to the estimate of CAY from the beds open to commercial fishing (both slightly below 50% of estimated yield). MFish considers that there is effectively no difference in the level of risk between the two options from the perspective of overall stock management.

### Level of ACE for commercial fishing

- 94 MFish notes that stakeholder groups that made submissions were of different opinions regarding the proposals to increase the in-season ACE to 108 tonnes. Commercial stakeholders and Te Kupenga supported the proposed ACE increase. All recreational submitters (including option4) opposed the ACE increases proposed in the IPP, and all suggested that in-season ACE be increased by lesser amounts.
- 95 In response to concerns regarding the proposed extent of in-season ACE increase, MFish first makes reference to the management framework for the SCACS fishery.

### Management framework

- 96 Scallops are known to have biological characteristics that contribute to marked fluctuations in population numbers from year to year. Those fluctuations can occur even without fishing, although fishing intensity might influence how the population responds and recovers from periods of low abundance.

- 97 The SCACS fishery is purposefully managed under the provisions of the Fisheries Act 1996 (the Act) that are designed for fisheries which exhibit these large interannual changes in abundance. The SCACS fishery is listed on the Second Schedule of the Act, which allows s 13(7) to be used to increase the TAC and available ACE within the fishing year when the stock is abundant.
- 98 The management framework relies on the TAC being set at a cautious 'baseline' level that is considered to provide for utilisation while ensuring sustainability, even in years of low scallop numbers. Pre-season research surveys of the SCACS commercial beds are used to estimate abundance and sustainable yields for the survey year, and you are asked to decide on the appropriate in-season increases to the TAC on the basis of the survey information revealing comparatively high abundance and yield.
- 99 MFish notes the non-commercial submitters' concerns regarding the fisheries plan process and acknowledges the efforts made by some recreational fishing representatives to participate actively in the development of the SCACS draft plan. MFish notes that it recently provided a six week period for informal public discussion on the draft plan. A further period of formal consultation is likely to be provided in the near future. MFish will continue to provide opportunities for all stakeholders to work together towards the further development and implementation of the plan.

#### Taking into account the biomass decline

- 100 MFish notes submissions pointing out that the 2007 biomass estimate was some 30 % less than in 2006. Some submitters suggest that as rationale for reducing the in-season ACE by a similar proportion.
- 101 MFish notes that, although the 2007 estimated biomass has declined since the previous year, it is still relatively high compared with historical biomass records. Consistent trends should not be expected in scallops because their recruitment and growth varies so much between years (and areas). While scallop biomass is known to be highly variable, the reasons for the variability are not well understood. This is why the SCACS fishery is managed as a Schedule 2 stock.
- 102 The best estimate of the single-year maximum sustainable yield (MSY) for a fishery such as SCACS is provided by the current annual yield (CAY), which is estimated as a constant proportion of the available biomass in any given year. As such, the yield estimate for 2007 already reflects the biomass decline. The best estimate of the CAY from beds open to commercial fishing for 2007 is 338 tonnes (using the 'average outlook' assumptions which have formed the basis of management proposals in recent years). Given that the equivalent CAY estimate for 2006 was approximately 488 tonnes, the 2007 estimate of 338 tonnes approximates a reduction of some 30 %.

#### The need for caution in setting the TAC and ACE increase

- 103 The surveyed biomass and estimated yields for 2007 were derived not from the entire productive area of the SCACS fishery, but from only the beds



available to both commercial and non-commercial fishers. It seems reasonable, therefore, to conclude that additional biomass and yield will be available from the non-commercial areas of the fishery not included in the survey. A point of note, however, is that the estimates are for recruited biomass of scallops greater than 90 mm, which is the size limit applying to the commercial fishery. The recreational minimum size is 100 mm. Although this will have some effect on the yield available to non-commercial fishers in the surveyed areas, MFish considers that the survey estimates of biomass and yield are inherently cautious if considered as estimates for the overall stock, in the absence of estimates for the non-commercial beds.

- 104 A further point is that the start-of-season biomass was estimated including areas where the density of scallops (scallops per square metre of sea floor) was less than the density considered to provide for economically viable catch rates (one scallop per 25 square metres). Accounting for this critical density would reduce the fishery-wide biomass and yield estimates by about 22 % to approximately 264 tonnes, depending on which beds were fished. Even under that scenario, MFish considers that the ACE and TAC increases proposed under options 1 and 2 represent a cautious approach. MFish notes that the vast majority of the surveyed biomass was present on the beds at Little Barrier Island, Colville, and Mercury Islands, where the mean density of scallops was high.
- 105 MFish considers that the proposed in-season increase in the TAC and ACE under either option represents a cautious approach to harvest from the stock. The TACs of 160 or 165 tonnes are slightly less than half of the estimate of available yield from the beds open to commercial fishing. The ACE increase to 108 tonnes is just 32% of the available yield from commercial beds.
- 106 MFish considers that the TAC for SCACS could be increased to the level of the CAY estimate and would satisfy sustainability obligations under s 13, as the TAC would be set at a level that, by definition, will move the stock towards or above the level that will produce the MSY. Setting the TAC at a level significantly less than the CAY represents a more cautious approach, and would be a decision under s 13(2)(a) that would be likely to maintain stock size above that which can produce the MSY, consistent with some submitters' views that the fishery be managed above the  $B_{MSY}$  level.
- 107 MFish notes the submissions from non-commercial parties suggesting variously lower in-season ACE increases from 60 tonnes to 90 tonnes. The NZRFC proposed that a further 10 tonnes of ACE beyond their proposed 90 tonnes be made available to commercial fishers who might involve themselves in research into improving dredge design. While those submitters noted the need for cautious management as the rationale for their views, they did not provide any analysis of how their proposals related to the research-based information on yield for 2007. MFish considers that the proposed ACE increase to 108 tonnes is already a very cautious approach, aimed at taking only 32 % of the CAY. The suggestions regarding improving dredge design are discussed further below.

#### Basis for the proposed in-season ACE increase

- 108 MFish notes that the consensus recommendation from the 2007 Annual General Meeting (AGM) of the Coromandel Scallop Fishermen's Association (CSFA) was to increase the ACE to 108 tonnes. The CSFA has stressed that the commercial quota-holders are again taking a particularly conservative and responsible attitude towards increasing ACE. Quota holders have stated their preference to take a conservative management approach due to the high natural variability of the scallop population to ensure a successful long-term rebuild. MFish acknowledges the conservative management approach again adopted by the CSFA.
- 109 MFish reiterates that the proposal to increase ACE to 108 tonnes represents a very cautious approach at only 32 % of the 338 tonne CAY for the 2007–08 fishing year. Similarly, if the proposed level of 108 tonnes ACE is considered within the two proposed TAC options of 160 and 165 tonnes, total catch levels and allowances across all sectors and all mortality caused by fishing combine to less than 50% of the CAY estimate for 2007–08.

#### Implementation of ACE increase

- 110 As in previous years, several submitters from the commercial sector have commented that the in-season review process introduces considerable uncertainty into business planning processes. They state that as additional ACE is not guaranteed until it is gazetted as late as the end of August, it is difficult for processors to guarantee orders will be met, and difficult for fishers to budget for income and boat maintenance. Moreover, they note that as the 22 tonnes of baseline ACE is fished very quickly, commercial fishers are required to fish against deemed values, without a guarantee that the level of ACE they have sought (or indeed, any extra ACE) will be granted.
- 111 MFish is aware of the time constraints in this fishery, and endeavours each year to undertake the process without unnecessary delay, while observing all statutory obligations to consult. Through on-going work on the draft Coromandel Scallop Fishery Plan, other options for streamlining this process are currently being explored.

#### Hauraki Gulf Marine Park Act

- 112 In setting a TAC, the Minister is required under s 11(2)(c) of the Act to have particular regard to ss 7 and 8 of the Hauraki Gulf Marine Park Act 2000 in so far as the decision relates to the Hauraki Gulf. Section 7 recognises the national significance of the Hauraki Gulf including its capacity to provide for the relationship of tangata whenua and the social, economic, recreational, and cultural well-being of people and communities. Section 8 sets out the objectives of the management of the Hauraki Gulf, which include the maintenance of the Hauraki Gulf for the social and economic well-being and its contribution to the recreation and enjoyment of the people and communities of the Hauraki Gulf and New Zealand. The maintenance and enhancement of the physical resources of the Gulf, which include scallops, is also an objective.

- 113 The main commercial and non-commercial beds in the Coromandel scallop fishery all fall within the Hauraki Gulf Marine Park (Marine Park).
- 114 MFish understands that, at present, all landings from the Coromandel scallop fishery (118 tonnes meatweight last year) are sold on the domestic market and that it is a popular species with consumers. The wellbeing of commercial scallop fishers and of consumers who would purchase commercially-caught scallops is likely to benefit from an in-season increase to the ACE available to them. The primary benefit from such an increase would be to allow these fishers and consumers to benefit from the relative scallop abundance this season. Given that the increase proposed would increase ACE from 22 to 108 tonnes, this is likely to have a significant effect on fishers' incomes and possibly create temporary employment opportunities in processing sheds.
- 115 It is probable that the Coromandel scallop fishery is of considerable importance to the people of the Hauraki Gulf. MFish is aware of many recreationally-fished beds within in the Marine Park (e.g. around Kawau Bay or Whitianga). While other beds are accessible outside the park (such as in Manukau Harbour or Bream Bay), it is likely that a significant number of recreational fishers from within the Hauraki Gulf area derive wellbeing through this fishery.
- 116 As a species of considerable importance to recreational fishers, an increase in the allowances for recreational interests could better recognise the value of the Coromandel scallop fishery to the recreational sector and the wellbeing they derive from accessing this fishery. However, in the absence of information to suggest that the current allowances are insufficient for recreational and cultural wellbeing, MFish is not in a position to qualify or quantify the relative benefits of increases to the respective sectors.

#### Recreational allowance

- 117 MFish notes that the Act does not expressly state the manner in which, or the factors to be taken into account, when allowing for interests in the fishery and apportioning the TAC between stakeholders. The allocation of the TAC is a matter for the Minister to assess, taking into account relevant considerations. MFish believes that a relevant consideration is that the fishing sectors are spatially separate to a relatively large extent. Therefore, any additional yield assessed from the scallop beds primarily utilised by commercial fishing may be allocated largely to that sector. From a legal perspective there is no obligation to undertake a proportional adjustment to Maori customary, recreational or commercial interests when the TAC is varied for the purpose of ensuring sustainability.
- 118 Some submitters expressed the view that increases to recreational allowances should not be made until the recreational areas have been surveyed to provide estimates of abundance and yield there. They consider that there is little basis for assuming biomass changes on non-commercial beds have been in the same proportion as on surveyed commercial beds. The NZRFC, however, believes that scallop abundance in the non-commercial areas is likely to resemble abundance in those areas subject to the pre-season survey, especially where

those areas are adjacent. It contends that depletion of one area could negatively impact on another area, and thus a cautious approach to management would assume some linkage between the surveyed areas and non-commercial beds.

- 119 MFish acknowledges that there is considerable uncertainty regarding the relationship between surveyed areas and non-commercial beds, but notes that a research programme began in 2006 to survey scallop abundance on the beds open only to non-commercial fishers. As the results of that programme are understood, we will be better informed about the relationship between abundance in the different areas, and better able to inform management decisions. At this stage, however, the relationship remains undetermined and the extent of yield from those areas is unknown.
- 120 MFish notes that some submitters appear to be misinformed about the distinction between the so-called recreational and commercial areas of the fishery. There are several areas of the fishery (largely inshore embayments) that have been set aside by regulation exclusively for non-commercial fishing. The remaining areas of the fishery are not, however, exclusive to commercial fishers, but are open to all sectors. These are the areas surveyed to determine biomass and yield, hence MFish considers that it is reasonable to provide for non-commercial allowances under the CAY estimated from these areas that are open to all. MFish recognises, however, that available information suggests that there is relatively little fishing by non-commercial fishers in the areas open to all, possibly because of easier access to scallops in the areas closed to commercial fishers.
- 121 Some submitters commented on recent changes to the recreational fishing rules for scallops which have provided for a large increase in the scallops available to recreational fishers, and suggested that the effects of those changes should be monitored before contemplating further changes. MFish agrees it is likely that there will be an increase in the catch for the recreational sector for 2007-08. The available biomass estimate is relatively high compared to historical estimates, so an increased recreational catch could be attained from a number of factors. Existing fishers might fish more frequently for scallops. If catch rates are good, there are likely to be more “new” and “occasional” fishers fishing for scallops. In addition, fishers might more frequently attain their full legal entitlement of scallops ie. the current daily bag limit of 20 scallops per fisher per day.
- 122 Submitters also note that changes to the allowances should not be made without better estimates of catches by the non-commercial sectors. MFish notes that you are required to make allowances for recreational and customary Maori non-commercial interests in the fishery, using all the relevant information that is available. MFish considers that, in determining allowances, you should consider information about the interests of non-commercial fishers in the scallop fishery more broadly, rather than basing allowances on estimates of current use (however uncertain they might be).
- 123 While recognising the lack of information about abundance and yield from the non-commercial beds and the uncertainties surrounding the extent of

recreational catch of scallops, MFish notes that Fishery Officers present at boat ramps and recreational fishing leaders have commented that there has been a general increase in the number of scallops taken by the recreational sector over the past few years in the Coromandel fishery. MFish considers that this qualitative information is consistent with the relatively high biomass levels estimated for this year and MFish's contention that it would be reasonable to increase non-commercial catch allowances for 2007-08.

- 124 Information became available last year on the amount of the recreational catch by sub-areas. This information was obtained by analysing the nationwide telephone / diary surveys conducted in 1993-94, 1996, 1999-00, and 2000-01. Diarists recorded their catch by zone (sub-areas). The results show that the eastern Coromandel area (Cape Colville – Waihi Bluffs zone) accounted for nearly 50% of the recreational scallop catch. Experienced local fishers have indicated that most of the recreational catch reported from the Cape Colville – Waihi Bluffs zone is taken from the Mercury Islands – Whitianga area. The western Gulf zone (primarily the scallop beds inside Kawau Island and around Tiri Island) accounted for around 20% of the recreational catch. Fishery Officers, researchers, and experienced local fishers considered that scallop abundance had also significantly improved in this area.
- 125 The diary information shows that the Whitianga area is the main recreational scallop fishery, similar to the commercial scallop fishery. The annual pre-season surveys show that there has been a significant increase in the scallop biomass in the Whitianga commercial scallop beds. From 1993 to 2003, the estimated number of scallops larger than 95mm at the time of the survey for the Whitianga bed varied between 1.5 and 6 million. This increased to 23.5 million in 2004, 53.2 million in 2005, 46.2 million in 2006, and 34.8 million in 2007 (see Table 3 of the IPP in Appendix 1). The key Whitianga recreational beds (The Cove, Opito Bay, Otama Beach, Kuaotunu Beach) are all adjacent to the “commercial” beds as commercial fishers are prohibited by regulation from fishing these shallow near-shore areas. Because of the extended time that scallop larvae spend drifting in the plankton, MFish considers it reasonable to assume that all scallop beds close to Whitianga are part of the same population. Therefore, it is reasonable to assume that the relative scallop abundance on the Whitianga recreational beds will reflect that on the commercial beds.
- 126 Given the reasonable likelihood that the recreational catch will increase, MFish considers it would be reasonable to increase the recreational allowance to some extent. However, MFish does not have reliable information from which to gauge the extent of any likely increase. Last year, with a very high abundance of scallops estimated by the survey of commercially-fished beds, MFish proposed a likely realistic scenario of recreational catch doubling from the ‘baseline’ 7.5 tonnes to 15 tonnes. Given that the biomass estimate this year is some 30 % lower than in 2006, similar logic would suggest a lesser increase. However, since the biomass estimate does not include the non-commercial areas, MFish does not propose a 30 % proportional reduction of the 15 tonne allowance proposed in 2006. Should you consider that there is sufficient evidence to support an increase in the recreational allowance, MFish

proposes that it be increased from 7.5 to 10 tonnes meatweight. The recreational allowance would then revert to 7.5 tonnes meatweight at the end of the current fishing year for SCACS (31 March 2008).

- 127 At present, the results from the research survey in 2000 remain the best information available to MFish for estimating recreational catch in SCACS. However, MFish notes that surveys of recreational beds are currently underway, and a pilot study (REC2007/11) of recreational scallop catch from Cape Colville to Hot Water Beach is scheduled to begin 1 October 2007. These projects are expected to provide information with which MFish can review the recreational allowances in this fishery. Further input and discussion through the fishery plan process in SCACS will be important in this review.
- 128 PUC submits that proposed increases of 133% to the recreational and customary allowances are not consistent with the 348% increase proposed to the commercial allowance. MFish notes that the baseline non-commercial allowances and the baseline TACC are set and varied according to different rationale. The non-commercial allowances were established in 2002, and represent MFish's best estimates of recreational and customary catch from the fishery. While MFish does allow for in-season increases to this figure in years of relatively high biomass, 7.5 tonnes remains MFish's best estimate of likely recreational and customary catches (respectively) in SCACS. The baseline ACE level was set at a level thought to ensure sustainability in most years, even at quite low biomass levels. That baseline can be increased within season if supported by an estimate of sustainable yield derived from a scientific survey of commercial beds. The low baseline TAC and TACC ensure sustainability should a survey not be done, but in-season increases can be large if scallops are found to be abundant.

#### *Customary allowance*

- 129 TOKM disagrees with the MFish method of estimating an allowance for customary interests. MFish is working towards collating the information being gathered by kaitiaki, but until the data is believed to be representative, MFish considers its current approach to setting the allowance is reasonable. MFish notes that Gazetted kaitiaki are not operating for much of the fishery area of SCACS.

#### *Environmental issues*

- 130 Most of the submissions from the recreational sector raised the issue of the negative effects of dredging on the environment. Concerns included the incidental effects on localised scallop populations, whether or not dredging contributed to the spread of scallop diseases (e.g., blackgill) or invasive organisms (e.g., tube worm) and effects to wider health and productivity of the benthic environment where dredging occurs. The NZRFC also expressed their understanding that two scallops are killed for every one scallop captured by the commercial dredges used in SCACS.
- 131 MFish recognises that commercial dredging can affect the growth and mortality rates of scallops, and might make scallops more vulnerable to predation. However, MFish notes that the incidental effects of dredging are expressly

allowed for in the stock assessment model and other sources of mortality (OSM) allowance within the TAC. This allowance represents the extent to which dredging for scallops decreases the growth rates and increases mortality of those scallops either passing through the dredge or undersized scallops collected by the dredge, but subsequently returned to the sea. The allowance for OSM was calculated to be 34.4% of the level of commercial fishing when harvesting at the level of the CAY, and would be less if harvesting below the CAY (calculated by NIWA in 1997; recreational dredges were found to have a negligible effect on scallop mortality and growth rates).

- 132 The use of commercial dredges is also thought to modify the benthic environment in which scallops are found. One potential effect of this habitat modification is a reduction in the availability of surfaces upon which scallop spat can settle, thus potentially increasing juvenile mortality. In recognition of this, NIWA provides an alternative CAY estimate from the beds open to commercial fishing that allows for the “feedback” effects of habitat modification (called “average outlook, including putative habitat effects” in the draft results from the May 2007 survey). While this CAY estimate is not currently used to manage SCACS, you may wish to note that at 231 tonnes, it is significantly larger than the proposed ACE increases options for the 2007–08 fishing year.
- 133 Concerns raised in the joint non-commercial submission refer to the blackgill outbreak and tubeworm infestation of 1999–2001 and suggest that these may have been caused or exacerbated by commercial dredging. MFish cannot categorically rule out this possibility as there is no information currently available to prove or disprove such an effect. However, the possibility that dredging might have contributed to either of these issues provides further rationale for continued application of a cautious approach to setting and varying the TAC in this fishery.
- 134 The joint non-commercial submission expressed that an incidental mortality level of 34.4% of the commercial catch is “unacceptably high”. MFish is satisfied that the total mortality from all types of fishing and all incidental effects of fishing are well accounted for within sustainable limits. The submission also sought clarification around the use of two different ratios for calculating the allowance for other sources of fishing-related mortality (50% of baseline TACC for baseline OSM allowance, and 34.4% of available ACE after any in-season increase to ACE). The baseline OSM allowances were set when the best available information suggested that the incidental mortality of commercial dredges in SCACS and SCA 1 was up to 50% of the commercial catch, and this is reflected in the baseline TACs of both these fisheries. Subsequently, research by NIWA has provided a figure of 34.4% as the most accurate representation of the incidental effects of commercial dredging on scallops. Thus, for all in-season increases, this figure is used. However, MFish considers that the 50% ratio is a more accurate estimator of incidental mortality at low biomass levels, when extra effort would generally need to be applied to catch available ACE, and thus its use to determine baseline OSM is appropriate. In years when biomass is high, an in-season increase is normally applied and the

updated proportion of 34.4% is used to determine OSM for that fishing year from the overall ACE for that year.

- 135 The NZRFC submission refers to the desirability of further research into dredge design, with a view to increasing efficiency and decreasing incidental mortality and environmental effects in SCACS. Dredge efficiency trials (contracted by MFish) carried out in the Coromandel fishery in the mid 1990s indicate that the box dredge used in SCACS is thought to cause more environmental damage and higher incidental mortality for a single tow than other available dredges (such as the ‘ring-bag’ or the “keti ami” dredge types). However, the considerably higher efficiency of the box dredge on the harder, sandy surfaces typically fished in SCACS means that fewer tows are needed to catch the same quantity of scallops, and thus the overall area subject to dredging is reduced. Modelling suggest that the higher efficiency of the box dredge is thought to more than compensate for the rate of damage from each tow, making their use preferable to other dredge types.
- 136 The NZRFC submission also expresses the view that two scallops are killed on the seafloor for every one scallop taken by commercial dredge. MFish believes this to be a misinterpretation of the allowance for OSM. In broad terms, an allowance of 34.4% of ACE means that over the whole of the SCACS fishery, for every three scallops taken by commercial dredge, the equivalent<sup>1</sup> of one additional scallop is killed. Actual incidental mortality varies with fishing pressure, such that if a large proportion of ACE is removed from one bed, incidental mortality in that area would be higher than 34.4%, due to the increased fishing pressure applied to that bed. Under very heavy fishing pressure, incidental mortality can be as high as 100% i.e. for every one scallop taken, another is killed. However, incidental mortality in all other beds in the fishery would be reduced, due to the lower fishing pressure in these areas. Thus, MFish uses the figure of 34.4% as the best estimate of incidental mortality across the whole of the SCACS fishery.
- 137 MFish acknowledges that dredging is having an effect on the benthic environment in parts of the Coromandel scallop fishery that are fished frequently. MFish is uncertain whether or not further research into the box dredge could result in modifications that might improve its efficiency and/or reduce its impact on the benthic environment. MFish believes that at the current cautious utilisation levels in SCACS, and with the incidental effects of dredging on scallops explicitly included in the TAC, the effects of commercial dredging on scallops and on the benthic environment are likely to be sustainable. This is another matter best explored through the fishery planning process, and to be integrated with the forthcoming benthic impact standard. The latter might address the non-commercial submitters’ concerns regarding minimum standards in SCACS.

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<sup>1</sup> Scallops are not only killed by dredges, but can suffer non-lethal effects whereby their growth or reproductive capacity might be reduced for a period of time. The allowance for other sources of fishing-related mortality considers all these effects, and reference to scallops “killed” allows for all lethal and non-lethal effects to scallops as a result of dredging.



138 MFish has taken steps previously when information becomes available to indicate dredging was having an adverse effect on an area of special or significant biodiversity. MFish took steps to avoid, remedy, or mitigate the adverse effect identified at Spirits Bay in the Northland scallop fishery in the late 1990s. Research information indicated that dredging and trawling were likely to be having a significant adverse effect on the rare and endemic benthic biota only occurring in that area. Consequently, a large area at Spirits Bay and Tom Bowling Bay was closed by fisheries regulation to dredging and trawling. MFish notes that a benthic impact standard is being developed and will provide a reference for the determination of acceptable levels of impact in the near future.

*Recent changes to rules regulating recreational access to SCACS*

139 Many submitters refer to several recent changes to regulations which affect recreational access and use in SCACS. All submitters agree that these changes are likely to increase recreational catch in the fishery, though several commercial submitters question the rationale for these changes.

140 In its submission, TOKM refers to an “additional 6 week extension to the [recreational] season”. MFish wishes to clarify that the recreational scallop season between North Cape and Cape Runaway (which includes the whole of SCACS) has been delayed (not extended) by six weeks, so that it now runs 1 September to 31 March.

141 The NZRFC raises concerns about some commercial fishers allegedly using their dredges to anchor in the areas closed to commercial fishing. These allegations are compliance issues, and are probably best addressed through the ongoing development of a fishery plan in SCACS. Similarly, suggestions in the NZRFC submission that a vessel monitoring system should be implemented in SCACS fall outside the scope of this FAP, and could be better dealt with through the fishery plan process.

142 The joint non-commercial submission asks that the baseline recreational and Māori customary allowances in SCACS be increased from 7.5 tonnes to 15 tonnes each. They state this would be consistent with the cautious approach adopted in this fishery and would also reflect recent regulation changes and increases in the number of people with access to this fishery. However, in the absence of quantitative data suggesting a particular figure that would better represent likely recreational catch, MFish believes it would be premature to change the baseline recreational allowance in SCACS. However, MFish notes two research projects that should soon provide improved quantitative data on recreational yield and catch in SCACS, and looks forward to discussing the results of these projects with the recreational sector in the course of developing and implementing the fishery plan for SCACS.

143 In its submission, TOKM raises several questions about the rationale underlying changes to recreational regulations. They question whether or not the Minister intended to allow “unconstrained recreational catches” through these changes. MFish considers that the intent of the changes was not to allow for unconstrained catch, but to provide for better access and value to be

realised by the recreational sector. MFish also notes that the TAC and allowances are inherently intended to constrain catch. Moreover, recreational catch remains constrained by two key measures which remain unchanged: the bag limit and the 100mm minimum size limit.

- 144 TOKM also questions whether or not MFish intended to allow recreational catch to increase to the extent that a “redistribution of commercial or customary allowances to recreational might be required.” MFish considers that the purpose of the regulation changes was to allow reasonable access to the recreational sector, not to redistribute allocations between sectors. MFish further notes that as the TAC is slightly less than 50% of the yield estimate, any increase to the recreational allowance to recognise increased catch would not need to be subtracted from the ACE available to the commercial sector for the 07–08 fishing year. Subtraction would be necessary in the case where the increased ACE was approximately at the level of the CAY, and the recreational catch was believed to be large, and a high proportion of the recreational catch was thought to come from the shared beds – those factors are not triggered by the options presented for 2007.
- 145 TOKM further ask whether or not MFish believes biomass on recreational beds can support increased catch. At present, there is little information available on biomass and yield in the recreational beds in SCACS, though more information is expected soon through recent ongoing research into these areas. However, MFish reiterates that regardless of the state of the areas closed to commercial fishing, any increase in recreational catch in SCACS can be supported by the areas open to both commercial and recreational fishers.

#### *Tangata whenua input and participation*

- 146 The non-commercial submitters state that they “strongly advise MFish to resource tangata whenua in a manner that enables them to exercise their traditional tikanga and to assist them in providing meaningful “input and participation” into fisheries management processes such as the in-season scallop reviews.” MFish notes that it is increasingly encouraging and enabling input and participation through the establishment of iwi forums, and the ongoing work of the pou takawaenga and pou hononga teams.
- 147 TOKM suggests that there has been inadequate customary input and participation in the development of the draft Coromandel Scallop Fishery Plan, and note that the Ministry did not receive any feedback from customary fishers on the draft results of the latest biomass survey in SCACS. MFish notes that several iwi/hapu were provided opportunities to participate in the development of the draft plan and were consulted on initial proposals for this in-season review. One submission was received from Te Kupenga o Ngāti Hako but this did not address the customary allowance in SCACS.
- 148 Te Kupenga o Ngāti Hako comments that “Although customary take of scallops is currently unavailable we would support development that allows for customary take.” MFish notes that the Kaimoana (Customary Fishing) Regulations apply to scallops in SCACS in the way that they apply to other shellfish species. Customary fishers may fish under the Auckland and

Kermadec (Amateur Fishing) Regulations or may fish outside these regulations if authorised to do so by a Gazetted kaitiaki.

#### *Commercial exclusion areas*

149 Several recreational submitters advocated for the establishment of further areas closed to commercial scallop fishing. The joint non-commercial submitters note that if Waiheke, Waihi and Papamoa/Motiti were to be closed to commercial fishing, they would support a greater amount of ACE being made available than they would otherwise. Mr Hemmingway similarly suggests a closed area between Motiti and Papamoa is necessary in order to protect recreational scallop fishing interests in that area.

150 In contrast, several of the commercial submissions contend that most of the best areas for scallop fishing have already been closed to commercial fishing. MFish is not currently intending to close any further areas within SCACS to commercial fishing. Such proposals are best explored through the ongoing development of a fishery plan in SCACS.

#### **Statutory Considerations**

- a) **Sections 5(a) and 5(b):** There is a wide range of international obligations relating to fishing (including sustainability and utilisation of fishstocks and maintaining biodiversity). MFish considers issues arising under international obligations and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 are adequately addressed in the management options for this stock.
- b) **Section 8:** The management options ensure sustainability of the stock by setting the TAC at an appropriate level as informed by the best available information on in-season biomass and yield. Utilisation is provided for by way of setting allowances for commercial, recreational and customary fishers.
- c) **Sections 9(a) and 9(b):** Interactions between species have been identified, but there is no evidence that these interactions are of significant magnitude to impact on associated and dependent species, or on biological diversity.
- d) **Section 9(c):** No habitats of particular significance for fisheries management have been identified. On the basis of the available information, it is considered unlikely that the fishing method would have a demonstrable adverse effect on such habitats.
- e) **Section 10:** The information on the biomass and yield from the scientifically surveyed commercial beds is considered to provide the best available information on the status of the stock and its current annual yield. Although there is always some uncertainty associated with survey results, the results are considered to provide a sound basis for management decisions. It should be noted that the survey results for biomass and yield are likely to be underestimates, given that the important non-commercial beds were not included. It should also be noted that

the best available scientific estimates of non-commercial catches are uncertain, both because of methodological problems and being based on surveys some time ago. Revised estimates are to be delivered in the near future.

- f) **Section 11(1):** Sustainability measures: Before setting or varying any sustainability measure, s 11(1) of the Act requires the Minister to take into account specified matters. These include:
- i) any effects of fishing on any stock and the aquatic environment;
  - ii) any existing controls that apply to the stock or area concerned;
  - iii) the natural variation of the stock concerned.

Evaluation of the available information on the effects of fishing has led to a number of restrictions that underpin the existing commercial fishery management regime for SCACS. These restrictions are consistent with the overriding obligation to avoid, remedy or mitigate the adverse effects of fishing. They are implemented through a combination of regulations and voluntary agreement and include:

- i) restrictions on dredge size to reduce adverse effects on the seafloor;
- ii) five day fishing week and daylight only fishing (reduces fishing intensity);
- iii) daily catch limits to reduce fishing intensity (Coromandel Scallop Fishers' Association voluntary initiative).

The management framework and proposed options recognise that biological systems can be inherently variable, and stocks are prone to fluctuations in abundance. This is particularly applicable to scallop populations.

- g) **Sections 11(2)(a) and 11(2)(b):** There are no provisions applicable to the coastal marine area known to exist in any policy statement or plan under the Resource Management Act 1991, or any management strategy or plan under the Conservation Act 1987, that are relevant to the setting or varying of any sustainability measure for this stock.
- h) **Section 11(2)(c):** Under section 11(2)(c) you must have regard to sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000. In summary, sections 7 and 8 articulate the national significance of the Hauraki Gulf to sustain the life-supporting capacity of the environment and note that management objectives for the Hauraki Gulf are to protect the life supporting capacity of the environment and to maintain the contribution of the natural

resources to the social, recreational, and economic well-being of the people and communities of the Hauraki Gulf and New Zealand. Setting a sustainable commercial catch limit on a fishery resource, having taken into account the environmental principles of the Act, is consistent with these objectives as it provides for utilisation while ensuring sustainability.

- i) **Sections 11(2A)(a) and 11(2A)(c):** The current fisheries service applying to the fishery is a pre-season survey to estimate CAY for the fishery. The survey estimate has been considered and forms the basis for the proposals contained in this paper. There are no conservation services applying to the fishery.
- j) **Section 11(2A)(b):** Currently, there is no approved fisheries plan for the Coromandel scallop fishery. However, the Ministry and stakeholder leaders are preparing a draft fisheries plan for this fishery. The draft plan has been provided to the public for information and discussion. The next stage will be to undertake formal statutory consultation with stakeholders and the general public.
- k) **Section 13(7):** Under section 13(7) of the Act, as SCACS is a stock listed in the Second Schedule to the Act, you may increase the TAC during the current fishing year after considering information about the stock abundance during the current fishing year and after having regard to the matters specified in sections 13(2) and 13(3) of the Act.
- l) **Section 68:** Under section 68 if the TAC is increased during a fishing year and the Minister believes that, after considering the matters referred to in section 21(1) he would have increased the TACC but for section 20(4), the Minister shall create additional ACE for the stock that equals the amount by which he would have increased the TACC. Section 21(1) relates to Maori customary non-commercial fishing interests, recreational interests, and all other mortality to that stock caused by fishing.

## Recommendations

151 MFish recommends that you:

### EITHER

#### Agree to Option 1 and:

- a) Increase the TAC for SCACS from 48 to 165 tonnes meatweight, and within the TAC:

- i) Increase the allowance for recreational fishing from 7.5 tonnes meatweight to 10 tonnes meatweight;
- ii) Increase the allowance for customary fishing from 7.5 tonnes meatweight to 10 tonnes meatweight;
- iii) Increase the allowance for other sources of fishing-related mortality from 11 tonnes meatweight to 37 tonnes meatweight;
- iv) Increase the ACE for quota owners from 22 tonnes meatweight to 108 tonnes meatweight; and
- v) agree that at the end of the current fishing year for SCACS, the TAC will revert to 48 tonnes meatweight, the allowance for recreational fishing will revert to 7.5 tonnes meatweight, the allowance for customary fishing will revert to 7.5 tonnes meatweight, the allowance for other sources of fishing-related mortality will revert to 11 tonnes meatweight, and the ACE will revert to 22 tonnes meatweight.

OR

Agree to Option 2 and:

- b) increase the TAC for SCACS from 48 to 160 tonnes meatweight, and within the TAC:
  - i) retain the recreational fishing allowance at 7.5 tonnes meatweight;
  - ii) retain the customary fishing allowance at 7.5 tonnes meatweight;
  - iii) increase the allowance for other sources of fishing-related mortality from 11 tonnes meatweight to 37 tonnes meatweight;
  - iv) increase the ACE for quota owners from 22 tonnes meatweight to 108 tonnes meatweight; and
  - v) agree that at the end of the current fishing year for SCACS, the TAC will revert to 48 tonnes meatweight; the allowance for other sources of fishing-related mortality will revert to 11 tonnes meatweight, and the ACE will revert to 22 tonnes meatweight.

152 Depending on your preferred option, MFish recommends that you:

- a) **sign** the relevant attached *Gazette* Notice.



John Taunton-Clark  
for Chief Executive  
Ministry of Fisheries

AGREED / NOT AGREED / AGREED AS AMENDED

Jim Anderton  
Minister of Fisheries

/ / 2007