

**Review of Sustainability Measures and Other Management
Controls for 1 October 2007**

Volume 1

Final Advice Paper

and

Summary of Recommendations

5 September 2007

CONTENTS

INTRODUCTION.....	5
STATUTORY OBLIGATIONS AND POLICY GUIDELINES.....	9
GENERIC ISSUES	33
ORANGE ROUGHY (ORH 1) – FINAL ADVICE	47
ORANGE ROUGHY (ORH 3B) – FINAL ADVICE.....	92
ORH 7B – FINAL ADVICE.....	128
HOKI – FINAL ADVICE.....	161
OEO (OEO 1) – FINAL ADVICE.....	184
SQUID (SQU 1T) - FINAL ADVICE	194
NORTH ISLAND EELS (SFE 20-23, LFE 20-23) - FINAL ADVICE.....	210
FLATFISH (FLA 3) – FINAL ADVICE	253
RED COD (RCO 3) – FINAL ADVICE.....	270
TARAKIHI (TAR 1) – FINAL ADVICE.....	293
SCHOOL SHARK (SCH 1) - FINAL ADVICE.....	321
DREDGE OYSTER (OYS 7C) – FINAL ADVICE	344
WHITE WAREHOU (WWA 5B) – FINAL ADVICE.....	361
RUBYFISH (RBY 8) TECHNICAL TAC AND TACC ADJUSTMENT – FINAL ADVICE.....	373
SUMMARY OF RECOMMENDATIONS.....	376

INTRODUCTION

- 1 This paper provides you with the Ministry of Fisheries (MFish) **initial position** and **final advice and recommendations** on those sustainability measures and other management controls reviewed for 1 October 2007.
- 2 This Final Advice Paper (FAP) is produced in four volumes:

Volume 1

Statutory Obligations and Policy Guidelines

Generic Issues

Fishstock Final Advice

Fishstock Summary of Recommendations

Volume 2

Fishstock Initial Position Papers

Fishstock Summary of Submissions

Volume 3

Fishstock Submissions

Volume 4

Deemed Values Final Advice

Deemed Values Summary of Recommendations

Deemed Values Initial Position Papers

Deemed Values Summary of Submissions

Deemed Values Submissions

Initial Position Papers

- 3 The initial position papers (IPP) were developed for consultation as required under the Fisheries Act 1996 (the Act). They contained MFish's initial position on the fishstocks and deemed values identified for review. MFish emphasised that the views and recommendations outlined the papers were preliminary and were being provided as a basis for consultation with stakeholders.

Consultation

- 4 On or about 19 June 2007 MFish provided copies of the IPPs (contained in Volumes 2 and 3 and, in respect of Deemed Values, Volume 4) to iwi, stakeholders and you. Stakeholders and iwi were asked to provide written submissions on the IPP by 27 July 2007.
- 5 A summary of the submissions received for each IPP, and the submissions themselves, are included in Volumes 2, 3 and 4.

Final Advice Paper

- 6 This paper contains MFish's final advice to you on the proposals for the 1 October 2007 sustainability round. The FAP includes a **Statutory Obligations and Policy Guidelines** section that provides guidance on the interpretation of those sections of the Fisheries Act 1996 and other relevant legislation that are most relevant to setting sustainability measures. The FAP also includes a **Generic Issues** section prepared in response to a number of common policy and management issues raised in submissions on specific proposals. These sections should be read in conjunction with individual proposals.
- 7 Each FAP section provides MFish discussion (including an analysis of your statutory obligations in relation to each issue) and MFish's preferred options.
- 8 A summary of recommendations for the FAPs is included at the end of Volume 1 and Volume 4 (for Deemed Values).
- 9 A copy of this final advice paper will be made available to iwi and stakeholders who made a submission on these proposals, following the announcement of your decisions.

Implementation of Decisions

- 10 Following your final decision on any changes to management controls for 1 October 2007, officials will provide you with a draft letter to stakeholders outlining your decisions.
- 11 In addition, s 12(2) of the Act requires that after setting or varying any sustainability measure, you are required to write to sector groups advising them of the reasons for your final decisions.

Section One

Statutory Obligations and Policy Guidelines

and

Generic Issues

STATUTORY OBLIGATIONS AND POLICY GUIDELINES

- 1 The IPP provides sufficient information about the measures proposed by Government so that stakeholders can provide informed and informative submissions.
- 2 The FAP provides you with the best information available to make a decision. It describes the legal obligations, the available options, and the risks/consequences of each possible course of action. In short, MFish provides full information and ensures that the implications of actions are understood. Included in this analysis will be the possible consequences of leaving all management measures unchanged (the *status quo*).
- 3 This section provides guidance on the interpretation those sections of the Fisheries Act 1996 that are most relevant to setting sustainability and allocation measures. This will help interpret the information and advice provided in individual papers.

Purpose of the Fisheries Act 1996 (s 8)

- 4 The purpose of the Fisheries Act 1996 is to provide for the utilisation of fisheries resources while ensuring sustainability. It is a statement of the overarching goal for fisheries management against which all decisions under that Act must be measured. The purpose statement guides the exercise of decision making powers pursuant to the Act.
- 5 “*Ensuring sustainability*” as defined provides a guide on desirable yields from a fishery. Fisheries resources are to be maintained with the potential to meet the reasonably foreseeable needs of future generations. In addition, the purpose requires that any adverse effects of fishing on the aquatic environment should be avoided, remedied, or mitigated.
- 6 “*Utilisation*” of fisheries resources is defined as conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural wellbeing. There is a positive obligation to provide for the use of fisheries resources. While the Act does not require the government to promote fishing or maximise value, there is a positive obligation to provide a level and quality of access to fisheries resources, thereby enabling people to provide for their social, economic and cultural wellbeing from fishing. Section 8 refers to “*enabling people to provide for their social, economic and cultural wellbeing*”. This implies decisions under the Act should enable people to provide for their own wellbeing. Decisions should create the opportunities.
- 7 The Select Committee in its final report to the House of Representatives on the Fisheries Bill (as it then was) stated that the intention of the Bill was to “facilitate the activity of fishing while having regard to the sustainability of harvests and mitigating the effects of fishing on the environment”. In the *Coromandel Scallops Fishermen’s Association (Inc) v Minister of Fisheries* case (Wellington CP 182/99, 13 September 1999) the High Court noted that “utilisation is subject to the overriding objective of sustainability” (at page 22). In an earlier judgment, the High Court considered that “when in doubt decision makers must favour conserving the fishing stock”, noting

that this was plain from the “international agreements” (see *Roaring Forties Seafoods Limited & Ors v Minister of Fisheries* (High Court, Wellington CP 64/97, 1 May 1997) at page 9).

- 8 Since then the courts have given further consideration to how the purpose of the Act is to be applied, and in particular the relationship between utilisation and sustainability. In the *Squid Fishery Management Co v Minister of Fisheries*, 13 July 2004, CA39/04 litigation, the Court of Appeal noted that:

“The Minister...was required to balance utilisation objectives and conservation values. In the context of a harvestable species, this requires utilisation to the extent that it is sustainable...”

- 9 More recently, in the kahawai litigation (*NZRFC & Ors v Minister of Fisheries & Ors*, High Court Auckland, 21 March 2007), the High Court noted:

“...there is no hierarchy between the two objectives of providing for utilisation while ensuring sustainability and that utilisation should be allowed to the extent that it is sustainable. I agree, though ... that on a plain reading of s 8 the bottom line is sustainability. That must be the Minister’s ultimate objective. Without it, there will eventually be no utilisation.”

- 10 The purpose statement provides for one purpose that contains the elements of providing for utilisation and ensuring the sustainability of fisheries resources. This does not mean that one arm of the purpose is more important than the other is. Rather, it means that the two arms operate in parallel, and not independently of each other. Both elements need to be fully considered when acting under the Act. However, the bottom line must always be sustainability.

- 11 In operation the range of management measures that may be applied to achieve the purpose of the Act will produce a continuum of potential outcomes. This continuum reflects the balance that must be struck between providing for utilisation whilst ensuring sustainability. The continuum represents the range of options that must ensure sustainability with varying degrees of risk. Each option within the continuum also provides different levels of utilisation depending on the level of risk to sustainability the decision maker considers acceptable. The decision on a particular point on the continuum is in essence a decision on the appropriate balance between sustainability risk and short-term utilisation on a case by case basis. However, the overriding point is that sustainability must be ensured by each option. The explicit reference in the definition of “*utilisation*” to social, economic, and cultural factors indicates that all decisions made under the Act should consider these issues.

Future Generations

- 12 The Act, in its directive to provide for future generations, draws no direct distinction between the next generation and some distant generation in time. No precise determination is possible of where one generation begins and another generation ends. The time scale involved may be dependent upon the interests that are to be taken into account. Logically the time frame relevant to the reasonably foreseeable needs of future generations may be as short as each generation of children or an indefinite time in the future.
- 13 The needs of future generations however are to be considered in the context of the purpose of the Act and the provisions of the Act as a whole. The obligation is not

open ended, it is what decision makers can reasonably identify as a need for a particular generation. Future generation objectives are characterised by uncertainty — what level of population will exist in the future; what future preferences will be; what future requirements will be; what the impacts of our present actions will be; and, what technological innovations will allow. But in cases of uncertainty the information principles of the Act (s 10) are to be applied appropriately.

- 14 The objective of the Act is to sustain fisheries resources for future use, not to provide for how future generations may desire to use such resources. Uncertainty is therefore to be considered in the context of how current decisions impact on the ability to provide for future use of the resource. Reference to “*maintaining potential*” to meet needs suggests that the crucial requirement in respect of future generations is to ensure the renewability of fisheries resources indefinitely at a quantity that provides for continual utilisation. Hence, the aim of the Act can be seen in part as providing for the extractive use of fisheries resources in the present, whilst maintaining the potential of those fisheries resources to provide for future generations.
- 15 The maintenance of the general functioning of the aquatic environment is intended by the Act only in respect of managing fishing activities. Whereas enhancement of the aquatic environment, beyond that achieved through the avoidance, remedy, or mitigation of adverse effects of fishing, is not. In terms of maintenance of the productivity of natural resources, the Act requires that biomass of a fishstock be maintained at a level that is at or above the level required to produce the Maximum Sustainable Yield (MSY). MSY is the greatest yield that can be achieved over time while maintaining the stock’s productive capacity. Therefore MSY caters for both maintenance of reproductive potential and ongoing utilisation. For most harvested stocks MSY is a practical means of providing for the reasonably foreseeable needs of future generations. The Act provides some circumstances for departure from this reference point in respect of stocks listed on the Third Schedule to the Act (s 14), and stocks maintained at a level below MSY but above their long-term viability (ss 14A and 14B).
- 16 The interests of future generations are described in s 8(2)(a) as relating to “fisheries resources” which are defined as “fish, aquatic life, seaweed”. No express reference is made to the inanimate elements of the aquatic ecosystem. It is considered implicit in the legislation that a sustainable aquatic ecosystem is integral to, or a pre-requisite of, the ability of fisheries resources to meet the reasonably foreseeable needs of future generations. However, in meeting reasonably foreseeable needs of future generations the scope of the Act relates to managing the effects of fishing, not all impacts on the aquatic environment.

Effects of Fishing

- 17 The obligation to avoid, remedy, or mitigate adverse effects of fishing pursuant to s 8(2)(b) of the Act is the second element of ensuring sustainability. Consideration as to what is adverse may be assessed on scientific knowledge about the environment, but may also utilise traditional knowledge. It is also likely to be influenced by stakeholder/community perceptions as to what is acceptable.
- 18 The requirement to “remedy” or “mitigate” suggests that such measures may be implemented over a time frame relevant to the circumstances of the individual

decision and nature of the activity involved. Equally achievement of this objective will contribute to maintaining the potential of fisheries resources to contribute to the wellbeing of future generations.

- 19 The Act does not define an “adverse effect”; rather it defines the term “effect”. The term “effect” has a very broad definition, including effects that are temporary or permanent; past, present, or future; cumulative; any potential effect of high probability; and any potential effect of low probability, which has a high potential impact. No threshold is specified as to the magnitude of any adverse effect required before any measure in response is to be adopted. Hence the measures adopted in response should be commensurate with the nature and extent of the adverse effect. There are a number of other variable factors that will influence whether an effect is considered adverse: characteristics of the aquatic environment; impacts from the removal of fish; the scale, intensity, and duration of effects; scarcity of environment type at local, regional, national, international level; resilience of habitat; the effects of activities other than fishing at a region level, the relationship of fishing effects to this; human perception and values; and the level of information available on any of these.
- 20 The Act does not prescribe an order of priority between the obligations to avoid, remedy or mitigate. The onus is on the decision maker to ensure that any adverse effects can be avoided, remedied, or mitigated. The obligation to “avoid, remedy, or mitigate” is not subject to any qualifier to the effect that such measures only need to be undertaken to an agreed standard. The appropriate response must depend on the circumstances of the case, and should be guided by the environmental principles (s 9) and the information principles (s 10) in the Act.
- 21 Decision makers can weigh up all the environmental factors contributing to the effect, along with the possible options available for avoidance; consider relevant social, economic and cultural factors; take into account the environmental and information principles of the Act; and opt for the most appropriate option of either avoid, remedy or mitigate. In some instances, only one response may be effective. Accordingly, completely irreversible effects are to be avoided. In other instances, it may be appropriate to consider a range of options. MFish acknowledges that sustainability is not a purpose to be traded off against utilisation through an analysis of the benefits and costs. However, the Act allows a range of approaches for achieving sustainability, and these may, and indeed should, be compared in terms of benefits and costs.

International Obligations

- 22 Section 5(a) of the Act provides that the Act shall be interpreted, and all persons exercising or performing functions, duties, or powers under the Act shall act, in a manner consistent with New Zealand’s international obligations relating to fishing. Those acting pursuant to the Act must understand, and act in a manner consistent with, the international obligations that the New Zealand Government has accepted. A general principle to apply is that where there is a choice in interpretation of the Act or the exercise of discretion, s 5(a) requires that the decision maker choose the option that is consistent with New Zealand’s international obligations relating to fishing.

- 23 It is MFish’s view that the provisions of the Act, and the proposed exercise of powers under the legislation, are generally consistent with New Zealand’s existing international obligations relating to fishing.¹

Treaty of Waitangi (Fisheries Claims) Settlement Act Obligations

- 24 The Act shall be interpreted, and all persons exercising or performing functions, duties, or powers under the Act, are required to act in a manner consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992. This also requires an interpretation that best furthers the agreements expressed in the Deed of Settlement referred to in the Preamble to the Settlement Act.
- 25 The Settlement Act acknowledges that the Crown continues to be subject to the principles of the Treaty of Waitangi in respect of non-commercial Maori fishing rights. The Settlement Act did not extinguish the duty to act in accordance with the principles of the Treaty in respect of non-commercial Māori fishing rights and interests, and goes as far as specifically requiring this in relation to the obligations under s 10 of the Settlement Act.
- 26 MFish acknowledges the following basic requirements apply to the Crown’s obligation to act in accordance with the principles of the Treaty of Waitangi:
- a) that the Crown acts reasonably and in good faith towards its Treaty partner;
 - b) that the Crown makes informed decisions; and
 - c) that the Crown avoids impediments to providing redress, and avoids creating new grievances.
- 27 These principles put an onus on MFish to establish structures and work practices that ensure it is capable of meeting its obligations to Māori under fisheries legislation. In *New Zealand Māori Council v Attorney General* [1987] 1 NZLR 641 the Court of Appeal concluded:
- “the responsibility of one treaty partner to act in good faith fairly and reasonably towards the other puts the onus on a partner, here the Crown, when acting within its sphere to make an informed decision, that is a decision where it is sufficiently informed as to the relevant facts and law to be able to say it has had proper regard to the impact of the principles of the Treaty.” (at page 683)
- 28 The principle of partnership and the requirement to act in good faith towards the other Treaty partner extends an obligation on the Crown to also consider and act on any proposals put forward by tangata whenua for the management of their customary fisheries. The principle of avoiding the creation of new grievances is of particular relevance in the fisheries environment now that a full and final settlement has been achieved. Fisheries management decisions seldom impact on one sector group alone, and the risk of such decisions adversely impacting on the secured rights and interests of Māori is a very real one.

¹ However, MFish notes that the framework set out in section 10 of the Act does not make sufficiently clear the need to give, on balance, a preference to sustainability under uncertainty, consistent with internationally accepted interpretations of the precautionary approach. This issue is discussed in more detail in paras 56-59.

Environmental Principles (s 9)

- 29 The Act prescribes three environmental principles that you must take into account when exercising powers in relation to utilising fisheries resources and ensuring sustainability.

Principle 1: Associated or dependent species should be maintained above a level that ensures their long-term viability.

- 30 The Act defines “associated and dependent species” as any non-harvested species taken or otherwise affected by the taking of a harvested species. “Harvested species” is defined as any fish, aquatic life, or seaweed that for the time being may be taken with lawful authority.
- 31 The term “long-term viability” (in relation to a biomass level of a stock or species) is defined in the Act as a low risk of collapse of the stock or species, and the stock or species has the potential to recover to a higher biomass level. This principle therefore requires the continuing existence of species by maintaining populations in a condition that ensures a particular level of reproductive success. The long term viability will be different for each species so necessitates a case-by-case analysis.
- 32 Long-term viability could be achieved at very low levels of population size, depending on associated risks, such as recruitment failure at low population sizes. Where fishing is affecting the viability of associated and dependent species, there is an obligation to take appropriate measures, such as method restrictions, area closures, and potentially adjustments to the total allowable catch (TAC) of the target stock.

Principle 2: Biological diversity of the aquatic environment should be maintained.

- 33 “Biological diversity” means the variability among living organisms, including diversity within species, between species, and of ecosystems. The “aquatic environment” is defined as:
- a) The natural and biological resource comprising any aquatic ecosystem; and
 - b) Includes all aquatic life and the oceans, seas, coastal areas, inter-tidal areas, estuaries, rivers, lakes, and other places where aquatic life exists.
- 34 When considering any decision under the Act, particularly sustainability measures, the impact of current or future impacts on biodiversity must be taken into account. The maintenance of biodiversity needs to be considered in the context of the purpose of the Act, which is that, where possible, a resource should be used to the extent that sustainability is not compromised. Determining the level of fishing or the impacts of fishing that can occur requires an assessment of the risk that fishing might cause biodiversity to be reduced to an unacceptable level.

Principle 3: Habitat of particular significance for fisheries management should be protected.

- 35 Habitat is not defined in the Act, but MFish considers it to be “the place or type of area in which an organism naturally occurs” (NZ Biodiversity Strategy). The

Magnuson-Stevens Fishery Conservation and Management Act (USA) defines “essential fish habitat” as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity”. The maintenance of healthy fishstocks requires the mitigation of threats to fish habitat. However, fishing may not be the sole source of the threat; a range of terrestrial activities may impact on fisheries habitats. Habitats of special significance, such as those that assist in the reproductive and productive process of a fishery, should be protected. Adverse effects on such areas must be avoided, remedied, or mitigated.

Information Principles (s 10)

- 36 The nature of the data and assumptions used to generate fisheries assessments and the results produced contain inherent variation and uncertainty. The Act specifies the information principles that must be taken in account when making decisions in relation to utilisation of fisheries resources or ensuring sustainability.
- a) Decisions should be based on the best available information. The Act defines best information that, in the particular circumstances, is available without unreasonable cost, effort, or time;
 - b) Decision makers should consider any uncertainty in the information available in any case;
 - c) Decision makers should be cautious when information is uncertain, unreliable, or inadequate; and.
 - d) The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of the Act.
- 37 A person with decision making powers under the Act is required “*to take into account*” the information principles set out in s 10. The information principles provide guidance as to how decisions are to be legitimately made on the basis of the information which is available.
- 38 The principle that decisions should be based on the best available information provides guidance that decision-makers (i.e. the Minister or MFish) should seek to obtain the best information provided that, in the particular circumstances, is available without unreasonable cost, effort, or time (as provided for in the definition of best available information in section 2 of the Act). Where new and better information comes to light during the decision-making process, that information should be incorporated into, and update, the information basis for a proposed decision. However, section 10 does recognise that decisions may need to be made where the relevant information is inadequate or absent – refer section 10(d).

Determining uncertainty – scientific and anecdotal information

- 39 Information as defined in the Act includes scientific, customary Maori, social or economic information and any analysis on any such information. The best available information for any given decision will likely necessarily incorporate both scientific and anecdotal (or quantitative and qualitative) information. As such both scientific

and anecdotal information should be considered and weighed accordingly when making management decisions.

- 40 The weighting assigned to particular information is subject to the certainty, reliability, and adequacy of that information. As a general principle, information on stock status outlined in the MFish Fishery Assessment Plenary Report, when available, should be given significant weighting. The information presented in the Report is subject to a robust process of scientific peer review.
- 41 Anecdotal information on stock status typically should receive lesser weighting than the Plenary Report. However, MFish believes that corroborated anecdotal information has a useful role to play in the stock assessment process and in the management process. Such processes should take account of all relevant inputs, and MFish believes that anecdotal information may provide useful, supplementary information to that contained in the Plenary Report, and should be taken into consideration where appropriate.
- 42 Although all sector groups are invited to participate in the stock assessment process, recreational, environmental and customary interests are often not represented due to a lack of resources. Therefore, anecdotal information from these groups may not be available at the time of the assessment to help interpret the quantitative modelling results. In particular, there are often difficulties in obtaining scientific information on the local availability of stocks in areas of importance to customary and recreational fishers given that the Plenary Report often focuses on assessing the status of a stock at the QMA level. Anecdotal information from customary and recreational sources may be an especially useful source of information in these cases.

How to make decisions under uncertainty: Fisheries Act 1996

- 43 The current Fisheries Act 1996 makes clear that while decision makers should be cautious where information is uncertain, unreliable or inadequate, they should not postpone decisions until they have full or completely certain information. The information on which decisions must be based may be unreliable in itself; or it may be insufficient to draw firm conclusions about the extent of a sustainability risk. More commonly, it suffers both these weaknesses. In these circumstances decision makers must balance competing risks: the risk of unnecessarily constraining utilisation on the one hand, versus the risk of placing sustainability in jeopardy, on the other.
- 44 You are required to form your own view as to the relative weight that should be put on the available information. You are also required to make your own assessment of the point at which the provision for utilisation should be constrained in order to ensure sustainability of the aquatic resources.

Proposed amendment to the Information Principles: Fisheries Act 1996 Amendment Bill

- 45 Internationally, the precautionary approach has been developed to provide guidance on how to ensure utilisation is sustainable in situations of uncertainty. The precautionary approach recognises that because information about sustainability risks is generally more uncertain than information about the costs of constraining utilisation, and because sustainability damage may be costly or require very lengthy

time periods to remedy, under uncertainty a degree of priority needs to be given to ensuring sustainability.

- 46 MFish considers the information principles in the current Fisheries Act 1996 do not make sufficiently clear the need to give, on balance, a preference to sustainability under uncertainty, consistent with internationally accepted interpretations of the precautionary approach. The Fisheries Act 1996 Amendment Bill has been developed to provide this guidance.
- 47 The Bill is presently being considered by the Primary Production Committee, which has received and heard submissions on the Bill. The Committee is now due to report back to Parliament in early November. At this point in time it is not certain when the Bill will be enacted or what form the Bill will take.
- 48 As such, you must make your decisions on the measures proposed in this final advice on the basis of section 10 as it is currently set out in the Act. MFish has prepared all of its final advice in relation to the measures proposed on that basis. Accordingly, where information is uncertain, unreliable or inadequate, decision makers should be cautious, but should not postpone or fail to take measures to achieve the purpose of the Act.

Consultation (s 12)

- 49 When you consider implementing a sustainability measure under the Act, you are required to consult with those classes of persons having an interest (including, but not limited to, Maori, environmental, commercial and recreational interest) in the stock or the effects of fishing on the aquatic environment in the area concerned.
- 50 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.
- 51 Statutory consultation occurs after policy options have been developed. The IPP provides stakeholders with the opportunity to comment on the various options. The FAP provides you with advice that includes the results of that consultation.

- 52 Section 12 also requires the Minister to provide for the input and participation of tangata whenua having a non-commercial interest in the stock concerned or an interest in the effects of fishing on the aquatic environment in the area concerned. You must also have regard to kaitiakitanga. This is a legal requirement, and reflects the provisions of the Settlement Act, and the Crown’s commitment to its treaty partner. Input and participation may include tangata whenua being involved in identifying concerns and developing proposals as well as being involved in formulating possible outcomes.

Sustainability Measures

- 53 The Act provides for the setting of sustainability measures. The Act defines as “sustainability measures” those measures set under Part III of the Act for the purpose of ensuring sustainability. There are a range of measures that can be adopted under Part III, the most identifiable being a TAC for stocks in the Quota Management System (QMS) and catch limits for non-QMS stocks.

Factors to be taken into account when setting sustainability measures

- 54 Prior to setting or varying a sustainability measure you are required to take a number of factors into account. The purpose and principles of the Act (i.e. ss 8–10), together with ss 5 and 12, are applicable to any decision you may make to set or vary a sustainability measure.

Stock characteristics and management controls

- 55 Under s 11(1) you may set or vary any sustainability measure, including a Total Allowable Catch (TAC), after taking into account the following factors:
- a. Any effects of fishing on the stock and the aquatic environment;
 - b. Any existing controls that apply to the stock or area concerned;
 - c. The natural variability of the stock concerned.
- 56 In accordance with achieving the purpose of the Act, any adverse effects of fishing on the aquatic environment should be avoided, remedied, or mitigated. As noted above in the section on environmental obligations, where MFish is aware of issues related to the effects of fishing associated with the stocks discussed, or issues are raised in submissions, they are discussed in the sections relating to that stock.
- 57 In general, the assessment for a fishstock will take into account the variability of the fishstock. Although the principal management mechanism for New Zealand’s commercial fisheries is a catch limit, this is augmented by a number of other input controls such as gear restrictions, minimum sizes and area closures. The assessment and advice in the sections following take these existing controls into account.

Plans and the Hauraki Gulf Marine Park Act

- 58 Under section 11(2) you must also have regard to relevant provisions of:

- a. Any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991;
- b. Any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and which you consider to be relevant;
- c. Sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 (see below).

59 The Hauraki Gulf Marine Park Act 2000 amended s 11(2)(c) of the Act to require the Minister, when setting or varying any sustainability measure relating to the Hauraki Gulf, to have regard to any provisions of ss 7 and 8 of that Act. Section 13 of the Hauraki Gulf Marine Park Act also requires decision-makers carrying out functions for the Hauraki Gulf under the Fisheries Act to have particular regard to the provisions of sections 7 and 8 of the Hauraki Gulf Marine Park Act. Section 7 of the Hauraki Gulf Marine Park Act 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. Many of these objectives mirror the concepts expressed in the purpose set out s 8 of the Fisheries Act, with perhaps a more explicit emphasis on recreational well-being.

Fisheries plans and services

- 60 The Act (s 11(2A)) also requires that you take into account, before setting or varying any sustainability measure:
- a) any conservation services or fisheries services;
 - b) any relevant fisheries plan approved under this Part; and
 - c) any decisions not to require conservation services or fisheries services.
- 61 Fisheries plans will specify a management framework for managing one or more stocks or areas in accordance with the purpose and principles of the Act. Fisheries plans allow for explicit trade-offs between services and catch levels to be achieved in a transparent manner. There are no fisheries plans currently in place which require specific consideration. In future as fisheries plans are developed, specific reference to the implications for sustainability measures resulting from contents of the plan will be made in each stock section.

General considerations

- 62 Consideration also needs to be given to how a sustainability measure is to be implemented. In approving the use of a sustainability measure, you should consider the most effective way of achieving the desired outcome. You may conclude that a sustainability measure does not need to be formally set.
- 63 An important factor in supporting the use of non-statutory measures is the degree of support for the measure and the nature of the monitoring and enforcement regime

proposed to support the measure. An example of a non-statutory measure is a catch limit for a single species within a multi-species stock, such as oreo, or the use of a catch spreading arrangement for orange roughy on the Chatham Rise. Non-statutory measures may be supported by legally binding contractual arrangements entered into by the fishers concerned. However, as the Crown is not formally a party to such agreements, there is no formal sanction imposed under the Fisheries Act for a breach of a sustainability measure implemented by non-statutory means. Any failure to adhere to non-statutory measures may mean that the Crown would be increasingly unlikely to rely on such measures subsequently.

- 64 Sustainability measures may also be set by regulatory means. The Act provides for the use of a regulation, or *Gazette* notice where necessary, to implement a sustainability measure. In the first instance, regulations are the preferred mechanism to implement general sustainability measures. However, a *Gazette* notice may provide a more timely and flexible response to particular situations than a regulatory response. For example, a *Gazette* notice may be used where a non-statutory implementation of a sustainability measure does not prove effective.

Other Management Controls

- 65 The primary sustainability measure for quota management stocks is the TAC. This can be supported by a number of management controls that collectively ensure the sustainability of the stock and provide for utilisation within accepted limits.
- 66 Section 11 provides for the setting of sustainability measures. A range of possible supporting measures is specified in s 11(3), but the list of options is not limiting. Sustainability measures may relate to size limits, biological state, fishing seasons, methods restrictions and closed areas. For non-QMS stocks, measures can also include general and commercial catch limits. The measures provided for under s 11 may be applied at a local level to address localised depletion or localised sustainability problems.
- 67 The most appropriate sustainability measure to be set or varied will depend on the precise nature of the issue being addressed.

Quota Management Stocks

- 68 The Act imposes a statutory requirement for you to set a TAC for each QMS stock (s 13(1)). This requirement is modified by the condition that you are not required to set an initial TAC for any fish stock unless it is proposed to also set or vary the TACC for that stock under s 20 of the Act (s 13(10)). For those fishstocks for which no TAC has been set, MFish's policy has been to set TACs and allowances progressively over time, as the need to review those specific fishstocks arises.

Setting a Total Allowable Catch

- 69 The Act contains a number of specific provisions to ensure a stock is managed sustainably. A key measure is the setting of a TAC for a QMS stock.
- 70 Setting a TAC is essentially a sustainability measure. As such, social, economic and cultural factors are not usually mandatory considerations when setting as TAC.

However, those factors are still permissible considerations where appropriate. For example, those factors can be considered when, for example, setting a TAC above a level that can produce MSY (see below).

- 71 The Act contains a number of different options (outlined below) for setting stock target levels. All of the options are consistent with the purpose of “ensuring sustainability”, but each option provides for a different management outcome.

Maximum Sustainable Yield (s 13)

- 72 In the case of quota management stocks, s 13 of the Act specifies a requirement to maintain a fishstock at a target stock level being at, or above, a level that can produce the MSY. MSY is defined, in relation to any fishstock, as being the greatest yield that can be achieved over time while maintaining the stock’s productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock. A requirement to maintain stocks at a level that is capable of producing the MSY is generally recognised internationally as being an appropriate fishstock target, although there is some international support for MSY representing a minimum fishstock target.
- 73 If a stock is currently at its target level (at or above a biomass that will support MSY), s 13(2)(a) requires you to set a TAC that will maintain the stock at that target level, having regard to the interdependence of stocks.

Rebuilding the stock towards target levels

- 74 If the stock is currently below a target stock level, there is a requirement pursuant to s 13(2)(b) to set a TAC that will result in the stock being restored to a target stock level (at or above a biomass that will support MSY) in a way and rate which has regard to the interdependence of stocks and within a period appropriate to the stock, having regard to its biological characteristics and any environmental conditions affecting the stock.

Fishing down a stock toward target levels or maintaining above

- 75 If the stock is above a target stock level (above a biomass that will support MSY), there is a requirement under s 13(2)(c) to set a TAC that will result in the stock moving towards the target stock level having regard to the interdependence of stocks. That target stock level may be at or above a biomass that will support MSY.

Way and the rate

- 76 In determining the way in which, and rate at which, a stock is altered to achieve the target stock level, you are required to have regard to such social, cultural, and economic factors considered relevant (s 13(3)). Section 13(3) makes it explicit that those qualifying factors are relevant in the determination of the way and rate, rather than in the determination of the target stock level. By “having regard” to the relevant factors specified by the Act, you must consciously consider those matters and give due weight to them. However, you have the discretion to reject or give such weight to the matters, as considered appropriate.

- 77 It is also important to note that, when you are considering a significant reduction to the TAC, the advice provided to you provides a careful cost/benefit analysis of a reasonable range of (i.e. way and rate) options available to you in moving the fishery towards MSY. This is so that, if the you decide on a TAC reduction having a major economic impact, it is evident that all other reasonable possibilities have been carefully analysed and why the TAC adopted was considered to be the preferable one – see *New Zealand Fishing Industry Association (Inc) and Ors v Minister of Fisheries and Ors* (CA82/97, 22/7/97)
- 78 The rate of rebuild to achieve B_{MSY} (the biomass that will produce MSY), and therefore the timeframe adopted to do so, is a matter for your discretion. In this context, you could set a TAC that initially allowed a fish stock to decline away from a level, which could produce the MSY, provided that TAC would rebuild the stock to the target level over a reasonable period of time. There is no set time frame within which you must achieve a rebuild or “fishing down” of a stock. You are given discretion under the Act to determine the rate at which the TAC is reduced, subject to consideration of the relevant circumstances on a case by case basis.
- 79 Such considerations may include the social impacts of the effect of decisions on stakeholders. Non-extractive uses, social values and expectations, and political imperatives may also constitute relevant considerations. Reference to cultural factors in s 13(3) could encompass the interests of Māori and their cultural practices and values.
- 80 The interdependence of stocks (i.e., any fish, aquatic life, or seaweed or one or more species that are treated as a unit for the purpose of fisheries management) is a legitimate basis for determining whether a stock is managed at or above a level that can produce the MSY, either temporarily, or on an ongoing basis. The interdependence of stocks may include the relationships among and between harvested species (i.e., any fish, aquatic life, or seaweed or one or more species that are treated as a unit for the purpose of fisheries management). MFish interprets interdependence of stocks as a situation where there is a direct trophic (i.e., one stock is likely to be directly affected through a predator or prey relationship by the abundance of another stock) or symbiotic relationship between stocks. This is therefore distinct from the requirement to protect the viability of associated and dependent species expressed in the environmental principles.

Management above B_{MSY}

- 81 The Act allows the management of fisheries above the biomass that will produce MSY on an ongoing basis. In the case of quota management stocks, s 13 of the Act sets out the requirement to maintain or move fishstocks towards a target stock level, being at, or above, a level that can produce the MSY, having regard to the interdependence of stocks, biological characteristics of the stock, and any environmental conditions affecting the stock.
- 82 There is scope for a stock to be managed at levels higher than that necessary to produce MSY. Such a ‘target level’ may be an appropriate management strategy in order to meet the wider social, cultural or economic goals provided for under s 8 (the purpose) of the Act or due to the interdependence of a second species on the target species. Stocks may also be managed above a level necessary to produce MSY where

there is a high degree of consensus amongst stakeholders. There may be an agreed management strategy to improve catch rates or produce large fish.

- 83 MFish considers that management above B_{MSY} is likely to be appropriate where there is consensus amongst stakeholders to do so. However, there is no legal requirement restricting you to make this choice where such consensus either exists or does not exist.

Managing sub-stocks

- 84 Under section 13, you have a mandatory duty to set the TAC at a level that enables a stock that is below B_{MSY} to be restored to a level that can produce B_{MSY} . In setting the TAC, you must base your decision on B_{MSY} for the stock as a whole (i.e. within the QMA) and not the individual level of any substocks. For example, you should not set the TAC at a level solely designed to bring a component substock to B_{MSY} .
- 85 The management of localised depletion or localised sustainability problems poses some challenges. Measures designed to ensure sustainability at a QMA level may not be effective at providing desired levels of access to fisheries on a localised basis. A determination is required as to which measures will best address the specific sustainability issue confronted. The Act provides for a range of measures, both regulatory and voluntary, that may be applied at the stock or local level to address sustainability issues, including catch spreading arrangements; area specific catch limits and bag limits; closed areas; controls on methods, size, and season; plus allocative measures such as customary Māori spatial tools.
- 86 Varying a TAC is primarily used to address stock-wide sustainability issues. However, localised sustainability issues may affect the maintenance of the stock at or above the level that can produce the maximum sustainable yield, and therefore a TAC adjustment may be appropriate. The size of the area and/or the number of areas depleted is relevant to this consideration.

Other matters

- 87 The Act specifies that the TAC is the primary tool for moving a stock towards the target stock level. Other measures may be adopted in conjunction with a change in the TAC, however such additional measures should not be relied on in place of the TAC.
- 88 Under section 13(4), you may vary any TAC for any quota management stock by increasing or reducing the TAC. When considering any such variation, you are to have regard to the matters specified in ss13(2) and (3).
- 89 Any TAC that is set or varied has effect on and from the first day of the next fishing year for the stock concerned. An exception applies to those stocks listed on the second schedule to the Act (see heading below).
- 90 Section 13(5) of the Act specifies that a TAC of zero may be set. It may be in situations where there are strong biological reasons for prohibiting all removals from a stock in order to ensure sustainability. The setting of a zero TAC may be part of a specified rebuild strategy to move the stock towards the target stock level. Prior to

setting a zero TAC you would need to have regard to the social, cultural and economic costs and benefits associated with such a measure.

No specified target stock level (s 14)

- 91 You must set the TAC for a stock under s 13 based on MSY, unless the stock falls within certain specific statutory exceptions provided for in the Act. Section 14 prescribes an exception to the target stock level based on an assessment of the MSY for those stocks where:
- a) It is not possible to estimate MSY because of the biological characteristics of the species; or
 - b) A catch limit for New Zealand has been determined as part of an international agreement; or
 - c) The stock is managed on a rotational or enhanced basis; or
 - d) The stock comprises one or more highly migratory species.
- 92 Stocks that meet the above criteria are listed on the Third Schedule to Act. For these stocks, provided you are satisfied that the purpose of this Act would be better achieved, you may set a TAC other than in accordance with the requirements stated in s 13 (to maintain the biomass of a fishstock at or above a level that can produce the maximum sustainable yield). However, the TAC must be set in a way that ensures use of the stock is sustainable.

Above level of long term viability (s 14B)

- 93 A further exception to setting a TAC in accordance with MSY is the management of a stock under s 14B of the Act. Under s 14B, a TAC is set at a level that allows a stock to be managed below the level that can support MSY but at a level that ensures its long-term viability. However, you must be satisfied that the purpose of the Act would be better achieved by setting a TAC other than in accordance with s 13 (ie, at or above MSY). Maintaining a stock above the level that ensures its long-term viability is consistent with the purpose of the Act in relation to meeting the reasonably foreseeable needs of future generations.
- 94 The purpose of s 14B is to enable other related stocks to be fully harvested. The stock in question must be taken primarily as an incidental catch during the taking of one or more other stocks and must constitute only a small proportion of the combined catch taken. Section 14B addresses the difficulty of managing stocks within a mixed fishery to the level that will support the MSY without forgoing some economic return. In some mixed species fisheries the TACs of minor bycatch species may limit the ability of fishers to catch their entitlement of the target species and could result in closure of the target fisheries.
- 95 The determination of the alternative stock target level is required on a case-by-case basis, subject to the requirement that the TAC must be set at a level no greater than what is required to allow for the taking of another stock in accordance with its own TAC and Total Allowable Commercial Catch (TACC). Quota owners are required to take all reasonable steps to minimise the catch of the stock managed below the level that will support the MSY.

- 96 The ability to set a TAC under s 14B is triggered by the submission of a proposal from quota owners to the Minister of Fisheries. An Order in Council must be made specifying the application of s 14B for the named stock. The Minister for the Environment is required to concur with the proposal to set a TAC below B_{MSY} but above the level that ensures its long-term viability.

In-season TAC adjustment (Second Schedule Stocks)

- 97 Any TAC that is set or varied takes effect on the first day of the fishing year for the stock concerned. For stocks that have highly variable abundance, an in-season TAC increase may be possible during a year of high abundance. For this to occur, a stock managed under s 13 must be listed on the Second Schedule to the Act; stocks listed on the Third Schedule, and managed under s 14, are also available for an in-season increase. The purpose of an in-season increase is to take advantage of the available yield beyond the pre-determined target stock level.
- 98 An in-season TAC increase may be distributed between commercial, customary and recreational fishers, and an allowance made for other sources of mortality to the stock. The increase allocated to commercial fishers does not result in an increase to the TACC during the next fishing year. At the start of the next fishing year the TAC reverts to the level set at the start of the previous fishing year.

Allocation of the TAC

- 99 You are required to make allowances for different fishing interests under section 20 and 21 of the Act. This is a separate decision about allocation after setting the TAC. In setting or varying the TACC under section 20, and thus establishing the commercial share, you must allow for Māori customary non-commercial fishing interests, recreational interests, and all other mortality to that stock caused by fishing under section 21; these will be discussed below.

Discretion to allocate TAC

- 100 On each occasion the allocation of the TAC for a stock is reconsidered, you have the discretion to determine, on a case-by-case basis, how to allocate the TAC. There is little statutory guidance on the apportionment of the TAC among sector groups, either with respect to quantitative measure or prioritisation of allocation.
- 101 A conscious transfer of catch between sectors is a legitimate activity under the Act. An allocation decision that adversely affects ITQ holders but which advantages – deliberately or incidentally – non-commercial interests is not in itself outside, or contrary to, the purpose of the Act.
- 102 The appropriate allocation is a matter for your assessment bearing in mind all relevant considerations on each occasion you review a TAC. The allocation of the TAC can be changed under various circumstances, not just in relation to a change in biomass. For example, you are not precluded from giving extra allowance to meet a greater recreational demand, subject to your obligation to weigh carefully all the competing demands on the TAC before deciding how much should be allocated to each sector group.

Customary allowance

- 103 The allowance made for customary fishing should satisfy customary interests, and therefore the allowance should not constrain the level of customary catch taken. The customary fishing regulations (Fisheries (South Island Customary Fishing) Regulations 1999 and the Fisheries (Kaimoana Customary Fishing) Regulations 1998) do not provide for the Crown to place limitations on customary fishing, except when required to ensure the sustainability of a particular stock. Customary take is regulated through the authorisation system in the customary regulations, which requires that all customary fishing is to be undertaken in accordance with tikanga and the overall sustainability of the fishery.
- 104 In most cases, there is little information on customary fishing, although this will improve as customary regulations take effect and better reporting processes are implemented.
- 105 In the meantime, setting appropriate customary allowances is difficult. MFish has adopted a policy that bases the customary allowance on the recreational allowance, such that:
- The allowance is set at (and in some cases above) the recreational allowance for species of importance to customary users;
 - The allowance is set at half the recreational allowance for species known to be taken by customary fishers but are not of importance; and
 - No specific allowance is provided where there is no known customary catch of a species.
- 106 By following this approach, it is unlikely that customary take would ever exceed the allowance. Customary allowances may well be reduced if you are confident that actual customary take will remain within the revised allowance.
- 107 In response to submissions on the 2006 IPPs, MFish agreed that it may be possible to more accurately determine customary Maori interest in specific fisheries. MFish is undertaking an examination on the way in which customary allocations are derived and to produce guidelines on how this may be better achieved over the medium term. This work is at a preliminary stage and no outputs are available to influence customary allowances at this time.

Recreational allowance and the commercial allocation

- 108 Prior to setting the TACC, you must also allow for recreational interests in the stock – an allowance must be made for recreational fishers where demand exists. However, there is no requirement to provide for recreational demand in full, nor does the recreational allowance take priority over the commercial allowance.
- 109 In terms of those considerations that you are to take into account, MFish notes that s 8 of the Act, in the context of utilisation of fisheries resources, refers explicitly to the Act enabling people to provide for their social, economic, and cultural wellbeing.
- 110 Outlined below are descriptions of some of the relevant considerations that may be taken into account when allocating a TAC. This is not an exhaustive list. MFish

considers that those factors which may be relevant to the exercise of your discretion, in addition to the principles specified in s 5 (international law and Settlement Act obligations), s 8 (purpose statement), s 9 (environmental principles), and s 10 (information principles) of the Act, include, but are not limited to:

- a) the characteristics and current status of stock;
- b) the existing allocations;
- c) current catch levels;
- d) previous decisions;
- e) equity of allocation – notion of “shared pain” when stock declines / “shared benefit” when stock rebuilds;
- f) participation levels and importance of the resource, including customary values;
- g) population trends;
- h) the extent to which people’s social, economic and cultural well-being will be satisfied, both directly and indirectly;
- i) assessment of relative value of resource to respective sectors;
- j) current and past fishing practices (including overfishing, voluntary shelving or closures by a stakeholder);
- k) investment and initiatives undertaken to develop or enhance the resource;
- l) impact on ability of sector to take allocation provided;
- m) customary fishing rights (as confirmed by the Settlement), recreational fishers common law fishing rights, and commercial fishers property rights as quota holders;
- n) economic impact of allocative decisions;
- o) social and cultural impact of decisions;
- p) recreational fishers’ common law right to fish, subject to statutory limitations; and
- q) any loss of access to particular species.

111 Information about the current status of the stock relative to the statutory target level, existing catch levels, existing allowances and catch levels, plus previous decisions may be informative of the actions that need to be taken.

Proportional vs reallocative

112 Where the TAC is reduced, either TACCs and/or other allowances must also be reduced. There is no statutory obligation to undertake a proportional reduction between recreational and commercial interests.

113 The Act assigns no priority between commercial and recreational interests, except to the extent that customary and recreational non-commercial interests must be provided for to some degree where they exist. Within that framework, the Act permits the

preference of one sector to the disadvantage of another; for example to provide for greater allowance for recreational interests in proportion to the commercial allocation.

- 114 Notwithstanding your discretion to allocate catch, case law also considers that it is not unreasonable for commercial and recreational fishers to share some of the “pain” from a reduction in the TAC. There is no requirement that the interests of recreational or commercial fishers must be fully provided for.
- 115 MFish considers in situations where there is an absence of information about the relative benefits to be derived from allocating a stock to one or other sector then it is equitable for both commercial and recreational fishers to ensure the sustainability of the stock through a reduction in the TACC and recreational allowance (along with the implementation of commensurate to effect a reduction in catch – such as bag limit reductions). Equally, commercial and recreational fishers should derive shared benefit from the rebuild of a fishery in terms of the allocation provided to the respective sectors, all other things being equal.

Monitoring allowances

- 116 If the TAC is reduced, you should take reasonable steps to monitor the customary and recreational allowances so as to ensure that the level of harvest is within those allowances. To fail to do so provides a risk that any reduction to those allowances, and also the TAC, could be rendered futile.

Ability to take allocation

- 117 Consideration should also be given to the ability of a sector to take the allowance provided. Impediments may exist that preclude the sector from exercising the full extent of their entitlement. Tools are available in the Act that enhance the ability of different sectors to exercise their right to fish. As well as implementing specific measures in support of allocative decisions, caution should be taken to ensure that a decision does result in a sector being precluded from being able to take the allowance allocated.

Enhancement

- 118 Logically those parties who are responsible for the enhancement of a resource should receive the benefit of the activity. However, the ability to ascertain the increased yield from a fishery as a result of enhancement activities and hence the extent of the allocation provided to the sector is problematic. The development of a fishery resource involves demonstrating through research and/or monitoring that an increase of catch from existing and new fisheries is sustainable. It is generally assumed that the development will occur as a result of a structured deliberate initiative. It may be possible for any one sector to develop a fishery. In such situations, it may be desirable for the sector that undertakes the development of a fishery to be entitled to be allocated the benefits of that development.

Population trends

- 119 Population trends are reflected in the level of recreational fishing undertaken, both on a national and regional context. The growth of urban centres, in particular Auckland,

have a significant impact on particular fisheries. An allowance for the recreational interest and the corresponding management controls for a stock could take into account existing population distribution and growth. Hence where a greater recreational demand arises you are not precluded by any proportional rule from providing an increased allowance to the recreational entitlement subject to weighing all competing demands on the TAC (see *New Zealand Fishing Industry Association (Inc) and Ors v Minister of Fisheries and Ors* (CA82/97, 22/7/97) page 18).

Value

- 120 You are required to allocate the TAC in order to enable people to provide for their social, economic and cultural wellbeing. An assessment of value is important to determine the wellbeing that will flow from any allocation decision. Where one sector values a resource more than other sectors, an allocation of the resource in favour of that sector is likely have a greater positive effect on the well-being of the participants in that sector, (than an alternative allocation approach).
- 121 Certain fisheries are considered to be of particular value or importance to fishers. In considering the extent of the recreational and Māori customary allowance it is appropriate to consider the nature of the species and the importance of the species to fishers. For example, the recreational sector may place a particularly high value on some species of sports fish. The abundance of a species, and the availability of particular size fish for a specific stakeholder group, may be factors relevant to your decision.
- 122 MFish notes that it is difficult to quantify the relative value of a resource to each sector. However, when considering value, a broad and inclusive concept of value is appropriate. The value attributed to a resource is not limited solely to financial value but a range of non-market, or qualitative, values.

Impact of overfishing

- 123 Overfishing of a TAC may result in the subsequent reduction of that TAC. Reported overfishing by individual commercial fishers is subject to existing controls under the Act. The consistent overfishing of the TACC or an allowance, which results in the reduction of the TAC, as a general principle, ought to be attributed to the stakeholder group responsible for the overfishing.

Undercatch of allowance

- 124 Stakeholders may elect to exercise their fishing rights in a manner, which results in their allocation in a fishery being undercaught. Voluntary closures and shelving of allocation may be undertaken as a means of improving the abundance of a species and the availability of certain sized fish. Such methods may improve recruitment. In the absence of explicit shares in a fishery, any subsequent increase in the TAC as a result of such methods would be available to all stakeholders. Stakeholders are not immune from any subsequent decrease in the TAC for sustainability purposes simply on the basis of the previous undercatch of their allowance.
- 125 The Act does explicitly recognise underfishing rights of commercial fishers. In most QMS species, where the person holding annual catch entitlement for a stock (not the

owner of the ITQ) undercatches the extent of their entitlement, the person may carry forward the extent of the undercatch to the second fishing year up to a maximum of 10% of the total Annual Catch Entitlement (ACE) they held in the first fishing year. The carry forward of underfishing rights does not apply when the TACC is reduced in the second fishing year (s 67A(2)(b)).

Analysis of impacts

- 126 A variation of the TACC and recreational and customary allowances may have significant social, cultural, and economic implications for stakeholders and consequential downstream economic activity. In *New Zealand Fishing Industry Association (Inc) and Ors v Minister of Fisheries and Ors* (CA82/97, 22/7/97), the Court of Appeal noted that where a decision with major economic impact is considered necessary the rationale for that decision should be clearly transparent. Those affected ought to be able to establish that all other reasonable possibilities were analysed and that the decision adopted was the preferable option.
- 127 In reducing a TACC, you should carefully weigh the economic impact of any such action on individual quota owners, those fishers dependent on obtaining annual catch entitlement, and on the QMS generally. However, the reduction of the TACC is not rendered unlawful simply on the basis that the decision adversely impacts the property right inherent in the QMS. In the context of fisheries legislation, a property right constitutes a right to harvest, which is subject to the Minister's statutory powers. Accordingly, MFish considers that financial security of a property right is a valid but not irrefutable consideration in the context of your TAC/allocative decisions.
- 128 The actual financial costs associated with allocative decisions are to be assessed according to the nature of the fishery. Downstream impacts may result as a consequence of allocative decisions made in respect of both recreational and commercial stakeholders. In addition to the commercial harvesting and processing sector a significant number of service industries are linked to the fishing industry, including charter operators, sale of fishing gear, repair, and transport related services. Decisions may also impact on particular communities where the fishing and fishing related services provide a significant contribution to a local economy.
- 129 A cost benefit analysis is designed to act as a tool for deriving the most efficient and productive solution. In itself such an analysis is not intended to impose a barrier to implementing measures considered necessary for fisheries management purposes. In many instances MFish does not have access to the information necessary for a detailed cost benefit analysis to be undertaken. Invariably it is the stakeholders concerned who hold the relevant information. MFish endeavours to identify the relevant costs and benefits of any allocation option, to the extent possible with the available information including that provided by submissions, where there is likely to be a significant impact for a proposed decision

All other fishing-related mortality

- 130 An allowance can be made for any mortality to a stock that results from fishing. This includes illegal catch, discards, and incidental mortality from fishing gear. Often, little quantitative information is available to assess the level of fishing-related mortality,

although inferences can be drawn from the impact associated with a particular method, or information from similar stocks or species.

- 131 Where quantitative estimates of other sources of fishing-related mortality are available, this is used as the basis for determining the allowance. If no estimates are available, but other sources of mortality are known to occur based on information from similar stocks or methods, then MFish generally recommends a nominal allowance. If there is no known mortality, then no allowance is made.
- 132 Where it is possible to determine the fishing-related mortality caused by a sector group (for example the incidental mortality related to a specific type of fishing gear used by a particular sector), then the fishing-related mortality attributable to that sector should be deducted from the allowance for that sector. Where this is not possible an estimate of other sources of fishing related mortality should be deducted from the TAC.

GENERIC ISSUES

- 1 A number of policy and management issues were raised in submissions that are of a general nature, although many of the issues flow through into the individual sustainability advice papers:
 - a) Section 10 and the precautionary approach
 - b) Environmental impacts of fisheries
 - c) Objectives-based fisheries management
 - d) Use of anecdotal information and monitoring of recreational catch
 - e) Factors to consider when setting a TAC
 - f) Management above B_{MSY} ;
 - g) Managing sub-stocks
 - h) Proportional v re-allocation
 - i) Adverse effect
 - j) Shelving of ACE

Section 10 and the precautionary approach

- 2 Forest and Bird submitted that the management options outlined in the IPP do not adequately factor in the precautionary approach to fisheries management. Forest and Bird suggests that in many stock reviews, the appropriate precautionary option is not even presented.
- 3 Similarly, ECO submitted that under section 5 of the Fisheries Act 1996 (the Act), the Minister should act in a manner that is consistent with international obligations to take a precautionary approach.
- 4 In contrast, SeaFIC strongly disagrees that the Act requires amendment in order to reflect more clearly the internationally recognised precautionary approach. Further, SeaFIC does not consider it appropriate for MFish to seek submitters' views on the options in the IPP if section 10 of the Act was amended. Sanford and SeaFIC both stress that consultation on the IPP should occur under the law as it currently stands.

MFish response

- 5 As noted in the IPPs, MFish acknowledges that section 10 as it is currently set out in the Act must be applied to the sustainability decisions outlined in this final advice. Further, MFish notes that consultation on the different options proposed in each IPP has occurred in light of section 10 as it is currently set out in the Act. The fact an amendment to section 10 is being considered by Parliament at the moment is not a relevant consideration in your decisions on this sustainability round.

- 6 Submissions generally reflected two different interpretations of precaution: the exercise of caution in decision-making when faced with uncertainty and/or unreliable information; and, the interpretation of precaution as favouring sustainability when information is uncertain.
- 7 Submissions from Forest and Bird and ECO correctly note that s 5 of the Act discusses the requirement to act in a way consistent with international obligations. Such international obligations cannot however be interpreted as overriding specific provisions contained in the Act. MFish interprets s 5 to mean that where there is a choice in the interpretation of the Act, or the exercise of discretion, the decision maker must choose the option that is consistent with New Zealand's international obligations relating to fishing.
- 8 The information principles in s 10 of the Act expressly state that the decision should be cautious when information is uncertain, unreliable, or inadequate. Fisheries management is decision making in an information-deficient situation. The Act does not prevent action in the absence of information or complete information; rather measures should still be taken to give effect to the purpose of the Act.
- 9 MFish accepts that the generally accepted international meaning of the 'precautionary approach', which is geared towards cautious management to minimise environmental or sustainability risk, is different from the section 10 direction that decision makers should be cautious when information is uncertain, unreliable or inadequate. In these circumstances decision makers must balance competing risks: the risk of unnecessarily constraining utilisation on the one hand, versus the risk of placing sustainability in jeopardy, on the other. In the absence of an amendment to the Act such as the amendment currently being proposed by the Fisheries Act 1996 Amendment Bill (i.e. to ensure particular care is given to ensuring sustainability where information is absent, uncertain, unreliable or inadequate), MFish considers decision makers must apply the existing framework of section 10, and in particular section 10 (c) and (d). As noted above, you must make these decisions within the existing statutory framework.

Environmental impacts of fisheries

- 10 Forest and Bird submitted that MFish has a responsibility to not only give an assessment of the socio-economic impacts of the different management options, but also an assessment of the environmental impacts of each option. By way of example they note by-catch of dolphins in flatfish fisheries, bycatch of corals and bryozoans on trawl fisheries and seabird and mammal bycatch in the squid and hoki fisheries.
- 11 Similarly, ECO submits that MFish needs to consider how environmental effects are better integrated with single stock considerations and that environmental considerations tend to be an after-thought. ECO also considers that obligations to protect and preserve the marine environment under Article 192 of UNCLOS and to take an ecosystem-based approach to resource management are relevant to decisions because of section 5 of the Act.

MFish response

- 12 MFish emphasise that under the Act, the Minister must consider environmental factors when making decisions under the Act. The Minister has a general responsibility, described in the purpose of the Act, to avoid, remedy or mitigate any adverse effects of fishing on the aquatic environment. In addition, the Minister must take into account the environmental principles that relate to associated and dependent species, biodiversity and habitats of significance to fisheries management. These considerations are elaborated on in the relevant sections of individual advice papers.
- 13 Environmental considerations such as the adverse effects of fishing and maintenance of biodiversity are broad issues facing all fisheries. As such they are often more appropriately and effectively addressed at a national level than through the consideration of catch levels for a single stock. MFish is currently working on such issues through implementation of the Government's Marine Protected Areas Policy, and through the development of the Seabird Standard and the Benthic Impacts Strategy.

Objectives-based fisheries management

- 14 The New Zealand Big Game Fishing Council (NZBGFC) submitted that MFish has been promoting objectives-based fisheries management, Fisheries Plans and Fisheries Standards, however, NZBGFC fails to see where the current proposals fit with this work. As such, decisions on inshore stocks, such as school shark, are premature as Fisheries Plans are due to be launched later this year.
- 15 SeaFIC raised similar concerns. SeaFIC stressed the importance of viewing the IPP management options and decisions in the context of longer term management objectives for the fisheries under review. SeaFIC accepts that the Minister has an obligation to ensure that the purpose of the Act is being met for a stock regardless of whether long-term management objectives and strategies have been agreed for that fishery (e.g., through a Fisheries Plan). Nevertheless, SeaFIC suggests that single-year management settings made as a result of the annual sustainability measures process should ideally be considered in light of the likely future management of that fishery.

MFish response

- 16 MFish takes this opportunity to reaffirm our commitment to Fisheries Plans and Standards. MFish's SOI clearly expounds the benefits of this approach and considerable MFish resources have been aligned to this process. MFish also acknowledge that a key component of the successful implementation of the Fisheries Plan model is the involvement and collaboration of stakeholders in determining strategies for fisheries which derive best value.
- 17 However, as SeaFIC points out, the existence of a Fisheries Plan does not absolve the Minister of his obligations under the Act. You are still obliged make decisions which are consistent with the purpose of the Act.
- 18 MFish does not consider that the current sustainability round undermines the value of Fisheries Plans. The strength of the Fisheries Plan approach is that it provides a greater opportunity for stakeholder input into the management of fisheries. Greater

stakeholder involvement in management decisions and setting decision rules will provide them with certainty and transparency around when action must be taken and what that action will be. This will provide a foundation for better decisions to be made by stakeholders on the future of their fishing operations.

Use of Anecdotal Information and Monitoring of Recreational Catch

- 19 Sanford expressed strong reservations about the use of anecdotal information where limited scientific information is available. Sanford was critical of MFish's failure to gather accurate information on recreational and customary catch that, in their view, leads to the reliance on anecdote. Sanford submitted that such anecdotal information is notoriously unreliable and even if appropriately weighted has only limited usefulness.
- 20 Sanford emphasises that to ensure sustainable shared fisheries, accurate and robust information on recreational and customary catch is vital.
- 21 Sanford and SeaFIC also express concern over the extent to which recreational catch is monitored. They contend that the lack of recreational reporting means there is no way of knowing whether a recreational allowance is being over-fished. As such, monitoring of recreational catch is essential.

MFish response

Anecdotal Information

- 22 MFish considers all information in the context of management decisions. The weighting assigned to particular information is subject to the certainty, reliability, and adequacy of that information. MFish accepts that as a general principle, information on stock status outlined in the MFish Fishery Assessment Plenary Report should be given significant weighting. The information presented in the report is subject to a robust process of scientific peer review. In contrast, anecdotal information on stock status typically should receive lesser weighting than the Plenary Report.
- 23 MFish believes that corroborated anecdotal information has a useful role to play both in the stock assessment and management processes. Anecdotal information may be used to assist in "ground truthing" stock assessment modelling results, and is reported in the Plenary when available. Although all sector groups are invited to participate in the stock assessment process, recreational, environmental and customary interests are often not represented due to a lack of resources. Therefore, anecdotal information from these groups may not be available at the time of the assessment to help interpret the quantitative modelling results. The management process takes account of all relevant inputs, and MFish believes that the anecdotal information in question provides useful, supplementary information to that contained in the Plenary and should be taken into consideration. In particular, anecdotal information on local availability of the stock in areas of importance to customary and recreational fishers may be especially useful.

- 24 It is quite plausible for the stock assessment information contained in the Plenary Report on a stock-wide basis not to reflect local variations in catch rates of each fishing sector. Consideration of anecdotal information can provide a useful additional snap-shot of the fishery.

Monitoring of Recreational Catch

- 25 In the majority of fisheries, recreational take represents a small portion of the total catch. More importantly, a regulatory framework to manage recreational fishing is in place, albeit not as comprehensive or as detailed as with the commercial fishery.
- 26 Monitoring of recreational take also constitutes a considerable portion of available compliance resources. Fisheries officers routinely check to ensure recreational and customary fishers are operating within the bounds of the regulatory framework. Considerable effort is allocated to popular recreational areas during the summer months. Infringement notices have been added to the penalty provisions of the Act and are designed to deal with low level offending. In addition, the work of Honorary Fisheries Officers is targeted principally at monitoring recreational fishers.
- 27 MFish accepts that there is a degree of imprecision about the estimates of recreational catch. However, MFish considers that the best available information is taken into account. Estimates of marine recreational harvest have been determined by a number of research projects.

Factors to consider when setting a TAC

- 28 SeaFIC disagrees that social, economic and cultural factors are not usually mandatory considerations when setting a TAC. SeaFIC suggests that social, cultural and economic considerations are mandatory relevant considerations when considering the way and rate at which a stock moves towards B_{MSY} (s13(3)) and therefore social, cultural and economic considerations must be relevant to the setting of a TAC.

MFish response

- 29 MFish acknowledges that when setting the TAC pursuant to s13(2)(b) and (c) i.e. rebuilding or fishing down a stock to at or above B_{MSY} , social, economic and cultural factors are mandatory considerations in assessing the way and rate the stock is moved. Apart from that express requirement in section 13(3), social, economic and cultural factors are not mandatory considerations when setting as TAC.
- 30 Nevertheless, given the purpose of Act provides for utilisation to include enabling people to provide for their social, economic and cultural wellbeing, MFish considers those factors are still permissible considerations when setting the TAC. MFish's assessment of these factors is incorporated into each advice paper.

Management above B_{MSY}

- 31 Sanford submitted that it does not support managing fisheries above B_{MSY} other than where there are agreed benefits from doing so.

- 32 Similarly, SeaFIC submitted that setting stock management targets above B_{MSY} may be appropriate where there is consensus amongst stakeholders. However, SeaFIC does not accept that a target level above B_{MSY} may be an appropriate management strategy in order to meet the wider social, cultural or economic goals provided for under s 8 (the purpose) of the Act. If government sets stock targets above B_{MSY} without the support of rights holders it is inappropriately making assumptions about the relative value of the stock to the various fishing sectors and is therefore applying the management target as an allocation tool rather than a sustainability measure.
- 33 In contrast, NZBGFC and ECO both support managing fisheries above B_{MSY} . ECO supports this position to ensure greater stock sizes as a precautionary measure to ensure the effects of trawl fishing on the marine environment are avoided, remedied or mitigated. The NZBGFC supports higher biomass for shared fisheries to ensure greater probability of catching fish and the increased likelihood of catching fish of greater size.

MFish response

- 34 In the case of quota management stocks, s 13 of the Act requires the Minister to set a TAC to maintain, a stock at, or move a stock towards, a target stock level being at, or above, a level that can produce the the maximum sustainable yield (MSY). This requirement reflects Article 61(3) of UNCLOS.
- 35 The plain and ordinary meaning of s 13 makes it clear that the Minister has a discretion to set a TAC that maintains the stock “at or above” a level that can produce MSY. Outside of the specific context of sustainability concerns relating to the interdependence of stocks, there is little guidance in s 13 as to the exercise of the Minister’s discretion to set a target level above B_{MSY} . Although explicit reference is made in s 13 of the Act to interdependence of stocks, MFish does not consider this reference constrains the ability of the Minister to manage a stock above B_{MSY} only where the interdependence of stocks arises.
- 36 It is clear that the Minister’s discretion must be exercised in accordance with the purpose of the Act in s 8 and be based on the best available information. Therefore, s 13 also needs to be interpreted in the context of the purpose and intention of the Act itself.
- 37 In particular, the purpose of the Act refers to enabling people to provide for their social, economic, and cultural well-being. While a TAC is primarily a sustainability measure, it also is a measure that determines the level of utilisation of the resource that is provided. Managing above B_{MSY} in many situations may enable people to better provide for their social, economic, and cultural well-being. For example, benefits could include improved catch rates for all sectors, easier access to the resource in different locations, and a greater size range of fish, including larger fish. There is probably little debate about these benefits, rather the contention surrounds the circumstances in which management above B_{MSY} should occur for utilisation purposes (i.e. how to maximise the value from the fishery).
- 38 Management above B_{MSY} will also provide sustainability benefits. A greater proportion of the biomass will be left in the water. This will result in a greater abundance of fish and larger, more productive fish. Managing above B_{MSY} also

provides an increased buffer against overfishing a stock. There is a growing body of opinion in the fisheries science community that managing above B_{MSY} should be the default starting point. In many instances there is a lack of information to determine with sufficient degree of confidence to monitor the status of the stock relative to B_{MSY} or to determine what constitutes B_{MSY} for the stock, let alone be fully cognisant of the ecosystem effects of fishing the stock in question.

- 39 MFish contends that the option to manage above B_{MSY} can be used to provide benefits to the sector that values that resource the most. Section 13 of the Act simply refers to management of the stock at or above/to or above/moving towards or above a level that can produce the maximum sustainable yield.
- 40 While MFish considers that management at B_{MSY} or above B_{MSY} are both viable options under section 13 of the Act, we consider that management above B_{MSY} is most likely to be appropriate where there is consensus amongst stakeholders to do so. There is however, no legal requirement restricting the Minister to make this choice where no such consensus exists.
- 41 In some instances managing at B_{MSY} may not optimise social, economic, and cultural well-being. Managing at B_{MSY} may result in less than the maximum net social benefit from the use of the resource (i.e. in some instances disadvantage non-commercial users of the resource). Managing at B_{MSY} inevitably results in a greater reduction of the total biomass of the stock than managing above B_{MSY} .
- 42 Ultimately such decisions are yours to make as Minister of Fisheries based on the specific factors faced in each particular fishery. Each advice paper provides MFish's best assessment of the lawful options available to you.

Managing Sub-Stocks

- 43 Sanford and others submitted that localised depletion or localised sustainability concerns are problematic. Sanford maintain that it is imperative to the success of the QMS that stocks are managed at the Quota Management Area (QMA) level and that any sub-stock management consider carefully the likely impacts on the QMS.

MFish response

- 44 Under sections 13, 14 and 14B of the Act, the Minister may set or vary a TAC in respect of each quota management stock. QMAs are defined at the point of introduction of a stock to the QMS. In many cases the management areas reflect considerations relating to administrative efficiency rather than detailed knowledge of the biological distributions of individual stocks of any one species. The standard management areas are considered the most cost effective unit in terms of overall costs of management and enforcement capabilities.
- 45 The establishment of QMAs and TACs do not remove the need to consider other spatial scales for particular management interventions depending on the biology of the species and the needs of differing fishers. For sedentary species it may be difficult to manage on a large scale without interventions in addition to the TAC. In areas where both recreational and commercial fishing is important, there will be differing

requirements in terms of the desirable size of the area managed or the types of management tools that are employed.

- 46 Typically, a distinction is made between ensuring sustainability at a QMA or stock level and local sustainability issues (commonly referred to as localised depletion). However, in both cases, the lack of availability of the species at the QMA level and discrete areas within the QMA are issues relating to sustainability of the species. The intensity of fishing pressure and the biological characteristics and distribution of the species can lead to localised depletion. That may be a sustainability issue. The presence of localised depletion in a number of areas within the QMA may be a sustainability issue. The serial depletion of areas – the sequential fishing out of the stock area by area may also be sustainability issue.
- 47 The management of localised depletion or localised sustainability problems poses some challenges. Measures designed to ensure sustainability at a QMA level may not be effective at providing desired levels of access to fisheries on a localised basis. A determination is required as to which measures will best address the specific sustainability issue confronted. Section 11 of the Act provides for a range of measures that may be applied at the stock or local level to address sustainability issues.
- 48 Varying a TAC is primarily used to address stock-wide sustainability issues. However, localised sustainability issues may affect the maintenance of the stock at or above the level that can produce the maximum sustainable yield, or affect the sustainability of the QMA stock more generally under s14, and therefore a TAC adjustment may be appropriate. When considering a change in TAC, the Minister must have regard to the stock as a whole (i.e. at the QMA level). Where issues of localised depletion have been identified, but these issues do not translate to a sustainability concern for the stock as a whole, then it is inappropriate to use a TAC reduction to address them.
- 49 MFish notes there is also legislative provision (sections 25 onwards) for sub-dividing QMAs which may be an appropriate tool also to address sub-stock management issues.

Proportional v re-allocation

- 50 Sanford strongly advocated for proportionally managed fisheries. Sanford believes this creates the correct incentives for all sectors to take responsibility for their actions and to share equitably the gains and burden when TACs are adjusted. Sanford submitted that reallocation between sectors should only occur after the costs and benefits have all been comprehensively and fully justified.
- 51 SeaFIC expressed support for MFish’s previous policy preference for proportional allocation stating that is was consistent with the purpose of the Act and essential for maintaining the integrity of the QMS.
- 52 However, SeaFIC was concerned that the current IPP sets out a preference for proportional allocation only “*where there is an absence of information about the relative benefits to be derived from allocating a stock to one or other sector.*” SeaFIC suggested that this implies the preferred allocation policy is now a “*value based*”

approach to reallocation based on estimates of benefits to each sector, rather than a proportional approach. Because Cabinet has yet to make decisions on the Shared Fisheries proposals, SeaFIC recommends that until a new policy is agreed the current approach (i.e. proportional allocation) should continue to apply.

MFish response

- 53 The Minister, on each occasion he reconsiders allocation of the TAC for that stock, has the discretion to determine, on a case-by-case basis, how to allocate the TAC. There is little statutory guidance on the apportionment of the TAC among sector groups, either with respect to quantitative measure or prioritisation of allocation.
- 54 The appropriate allocation is a matter for the Minister's assessment bearing in mind all relevant considerations on each occasion he revisits the issue. The allocation of the TAC can be changed under various circumstances, not just in relation to a change in biomass. For example, the Minister is not precluded from giving extra allowance to meet a greater recreational demand, subject to his obligation to weigh carefully all the competing demands on the TAC before deciding how much should be allocated to each sector group.
- 55 The Act assigns no priority between commercial and recreational interests, except to the extent that customary and recreational non-commercial interests must be provided for to some degree where they exist. Within that framework, the Act permits the preference of one sector to the disadvantage of another; for example to provide for greater allowance for recreational interests in proportion to the commercial allocation.
- 56 Notwithstanding the Minister's discretion to allocate catch, case law also considers that it is not unreasonable for commercial and recreational fishers to share some of the "pain" from a reduction in the TAC. There is no requirement that the interests of recreational or commercial fishers must be fully provided for.
- 57 MFish considers that, all other things being equal, in situations where there is an absence of information about the relative benefits to be derived from allocating the TAC to one or other sector, then it is equitable for both commercial and recreational fishers to ensure the sustainability of the stock through a reduction in the TACC and recreational allowance. Equally, commercial and recreational fishers should derive shared benefit from the rebuild of a fishery in terms of the allocation provided to the respective sectors, all other things being equal.

Adverse Effect

- 58 SeaFIC considers that the Act anticipates and provides for a level of effects of fishing on the aquatic environment and that these effects are lawful unless they are identified as being "*adverse*". However, the statement that a determination of whether an effect is adverse is "*likely to be influenced by stakeholder/community perceptions as to what is acceptable*" confuses a "biological" interpretation of the adverse effects of fishing with a more political interpretation based on community perceptions. SeaFIC suggest that this implies that while the Act sets some threshold level of adverse effect based on "scientific knowledge", it does not prevent lesser effects also being classified as "adverse" if there is a wider "community perception" that the effect is unacceptable.

- 59 SeaFIC believes it is wrong to suggest that “*community perception*” forms a separate head for consideration of whether an effect is adverse, beyond a consideration of whatever particular level of adverse effect on the aquatic environment is specified in a particular section of the Act. While the Minister clearly has considerable discretion to decide what level of control is needed to ensure sustainability and avoid, remedy or mitigate adverse effects, having done so, SeaFIC believe that he can not further restrict utilisation for reasons of community perception.

MFish response

- 60 The obligation to avoid, remedy, or mitigate adverse effects of fishing pursuant to s 8(2)(b) of the Act is the second element of ensuring sustainability. MFish reiterate that consideration as to what is adverse may be assessed based on scientific knowledge about the environment, but may also be influenced by stakeholder/community perceptions as to what is acceptable.
- 61 The Act does not define an “adverse effect”; rather it defines the term “effect”. The term “effect” has a broad definition, including effects that are temporary or permanent; past, present, or future; cumulative; any potential effect of high probability; and any potential effect of low probability, which has a high potential impact.
- 62 No threshold is specified as to the magnitude of any adverse effect required before any measure in response is to be adopted. Hence the measures adopted in response should be commensurate with the nature and extent of the adverse effect. There are a number of other factors that will influence whether an effect is considered adverse: characteristics of the aquatic environment; impacts from the removal of fish; the scale, intensity, and duration of effects; scarcity of environment type at local, regional, national, international level; resilience of habitat; the effects of activities other than fishing at a region level, the relationship of fishing effects to this; human perception and values; and the level of information available on any of these.

Shelving of ACE

- 63 SeaFIC disagrees with the MFish position on shelving (retaining a relatively high TACC and relying on the actions of quota owners to set aside ACE in years of lower abundance). SeaFIC acknowledge that there is a difference of legal opinion between MFish and SeaFIC over the extent to which shelving can be used to achieve the purpose of the Act, particularly when a stock is considered to be below B_{MSY} .
- 64 SeaFIC’s position interprets the Act as allowing the shelving of ACE by the commercial sector to meet the Minister’s obligations under the Act to rebuild stocks in fisheries where the best available information suggests that the TAC is above the level which can produce the maximum sustainable yield (MSY). They base this position on their interpretation of sections 8, 11, 13, 20 and 21 of the Act.
- 65 ECO are not in favour of shelving and consider it goes against the fundamental direction of the quota management system and the setting of catch limits.

MFish response

- 66 MFish has a clear and consistent position on the interpretation of the Act in regards to shelving. Under s 13 of the Act the Minister has a mandatory duty to set the TAC at a level that enables a stock below B_{MSY} to be restored to a level that can produce MSY. The minimum requirement is that a TAC that will rebuild the biomass of a stock to B_{MSY} over the maximum period the Minister considers acceptable. Nothing in the purpose statement, or any other provision under the Act, alters this requirement. The Minister has discretion as to the way and rate a stock is restored to or above B_{MSY} . Shelving may be used as a mechanism to assist the way or rate a stock is restored to B_{MSY} and the existence of voluntary catch reduction measures such as shelving may give greater assurance that any sustainability risks in management options adopted are being mitigated. However, the Minister may not consider shelving as an alternative to reducing the TAC in situations where the stock status clearly calls upon the Minister to do so in terms of statutory obligations under s 13.

Section Two

Fishstocks for Review

