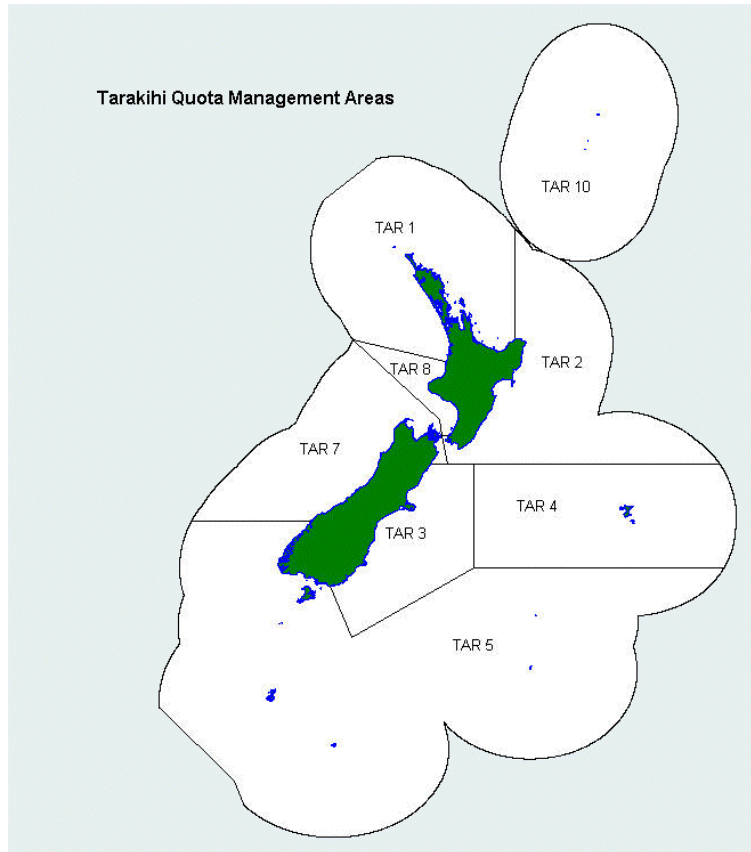


# TARAKIHI (TAR 1)



**Table 1: TAR 1 (FMA 1 & 9) landings (tonnes) and TACC (tonnes) since the 1983–84 fishery year**

1	Fishing year	2	Landings	3	TACC	4	Fishing year	5	Landings	6	TACC
7	1983-84	8	1326	9	-	10	1992-93	11	1477	12	1397
13	1984-85	14	1022	15	-	16	1993-94	17	1431	18	1397
19	1985-86	20	1038	21	-	22	1994-95	23	1390	24	1398
25	1986-87	26	912	27	1210	28	1995-96	29	1422	30	1398
31	1987-88	32	1093	33	1286	34	1996-97	35	1425	36	1398
37	1988-89	38	940	39	1328	40	1997-98	41	1509	42	1398
43	1989-90	44	973	45	1387	46	1998-99	47	1436	48	1398
49	1990-91	50	1125	51	1387	52	1999-00	53	1387	54	1398
55	1991-92	56	1415	57	1387	58	2000-01	59	1403	60	1398

## **Management Proposal**

1 MFish have received a proposal under the Adaptive Management Programme (AMP) from the Northern Inshore Fisheries Company Limited. The proposal is to establish a new five-year AMP for tarakihi in TAR 1 that will:

- a) increase the TACC from 1 398 tonnes to 1 997 tonnes (a 43% increase)
- b) assume responsibility for updating standardised CPUE analysis for the TAR 1 fishery, and
- c) implement catch effort splitting arrangements to avoid localised depletion.

2 MFish proposes that the AMP proposal include the following measures:

- d) setting the TAC at 2 482 tonnes
- e) making allowances of 155 tonnes for customary Māori catch and 310 tonnes for recreational catch
- f) making an allowance of 20 tonnes for unreported catch and incidental mortality, and
- g) implement controls (to be devised on the basis of submissions) under the AMP on fishing areas so that only existing tarakihi target trawl grounds are fished, and that catch under the increased TACC is spread appropriately over those areas.

### ***Context for Proposal***

3 Commercial catches in TAR 1 have been relatively stable at or above the TACC since the 1991–92 fishing year. A recent analysis of commercial catch and effort data for TAR 1 suggested that the abundance of tarakihi has remained stable or has possibly increased over the past 10 years. The 2002 fishery assessment plenary reported that, given the long stable catch history of the tarakihi fisheries (including TAR 1), current catch levels and TACCs are thought to be sustainable. The plenary reported, however, that it is not known if the current TACCs and recent catch levels (including TAR 1) will allow stocks to move towards a size that will produce the maximum sustainable yield (MSY).

4 The main objective of the proposal is to provide contrast in the abundance indices so that they can be used to carry out a stock assessment of TAR 1. The extent of the TACC increase proposed is intended to provide sufficient contrast in the abundance indices to enable a determination of current biomass and long-term yields from the stock.

## **Current Information**

### ***Fishery Background***

5 To date, no TAC has been set for TAR 1. The Fisheries Act 1996 requires that in these circumstances a TAC be set when a TACC is varied. Further, MFish policy is for a TAC to be set when the TACC is formally reviewed.

6 No specific allowance for non-commercial fishing has yet been set in this fishery. Recreational fishers use lines and set nets to take tarakihi. Estimates of recreational catch reveal a substantial catch in TAR 1. Results of the national diary survey of recreational fishers in 1996 indicated that the recreational catch in TAR 1 was similar to that in the early 1990s. The estimated recreational harvest of 310 tonne represents about 20 % of the total commercial landings. Final results of the 2000 survey of recreational catches are not yet available. No quantitative information on the level of Māori customary catch or illegal catch is available. No information on other sources of fishing mortality is available.

7 The initial TACC for TAR 1 that was set upon entry into the QMS for the 1986–87 fishing year was 1 210 tonnes, and it increased incrementally until reaching its current level of 1 398 tonnes in 1994-95 as a consequence of quota appeal decisions. Since this time the TACC has been met or slightly exceeded in each fishing year. In the commercial fishery tarakihi are targeted by trawl, and quantities are also taken as a bycatch when targeting other inshore species.

8 A minimum legal size of 25 mm fork length and a minimum net mesh size of 100 mm apply in TAR 1. Tarakihi is one of the species that is subject to the recreational fishing combined finfish daily bag limit of 20 fish in the Auckland and Kermadec Fishery Management Areas.

### ***Fishery Assessment***

9 Summary fishery assessment information from the 2002 fishery assessment plenary, and the AMP proposal endorsed by the 2002 plenary, is provided in the table below.

**Table 2: Summary of TAR 1 information provided by the 2002 fishery assessment plenary**

<b>Factors to Evaluate</b>	<b>Description</b>
Stock status	<p>The 2002 report from the Fishery Assessment Plenary states that—</p> <ul style="list-style-type: none"> <li>• No estimate of current absolute biomass is available.</li> <li>• Commercial landings and CPUE have remained stable.</li> <li>• Given the long, stable catch history of the nationwide tarakihi fishery, it is thought that current catch levels and TACCs are sustainable.</li> <li>• It is not known if the current TACCs and recent catch levels will allow the stock to move towards the size that will produce the MSY.</li> <li>• The standardised CPUE analysis up to 1999 showed stable (slightly increasing) abundance for the west coast (TAR 1W) and east coast (TAR 1E) fisheries at current catch levels.</li> </ul>
Monitoring	<p>The 2002 plenary reports that the monitoring under the proposed AMP is satisfactory.</p> <p><i>Abundance Indices</i></p> <ul style="list-style-type: none"> <li>• MFish catch and effort logs for which tarakihi is the target species will be used to derive the fishery performance indicators used in the decision rule (note penury’s view that the decision rule was not necessary*). CPUE analyses to be done separately for west and east coast trawl fisheries.</li> <li>• Plenary noted that the west coast North Island trawl survey at 2 to 3 year intervals will provide fishery-independent information on abundance (a biomass index will be developed from the trawl survey over time).</li> </ul> <p><i>Biological Data</i></p> <ul style="list-style-type: none"> <li>• A shed sampling programme will be implemented to determine the age structure of the</li> </ul>

	<p>fishery.</p> <ul style="list-style-type: none"> <li>The west coast North Island trawl survey will also provide population weighted length frequencies and sex ratios.</li> </ul> <p><i>Catch spreading</i></p> <ul style="list-style-type: none"> <li>The 2002 plenary considered that the proponents should make every effort to ensure that any increase in catch is apportioned throughout TAR 1, rather than be taken up in a localised fishery or a single statistical sub-area. MFish considers that the AMP will need to include specific controls for catch spreading and restricting effort to existing tarakihi target trawl grounds in TAR 1 before it can be approved.</li> </ul>
Stock assessment criteria	<p>The fishery assessment plenary reported that the inclusion of TAR 1 in the AMP was justified under the following 'New AMP' criteria for existing or established fisheries—</p> <ul style="list-style-type: none"> <li>The stock size is uncertain, but the available information and analyses suggest that there is a reasonable probability that current biomass is greater than the size that will produce the MSY, and, on balance, the new TACC and TAC level are likely to allow the stock to move towards a size that will produce the MSY, or remain at or above that level over the five-year period of the programme</li> <li>Stock abundance appears to have remained stable at current catch levels - landings have remained stable and CPUE has remained stable.</li> </ul>
Decision Rule*	<p>The proposed decision rule for the TAR 1 AMP states that—</p> <ul style="list-style-type: none"> <li>If the standardised CPUE index for all vessels for TAR 1W falls by 30% or more from the 1989-99 average; or if the standardised CPUE index for all vessels for TAR 1E falls by 30% or more from the 1989-99 average level then the AMP is referred to the AMP Fisheries Assessment Working Group for review.</li> </ul> <p>* The 2002 plenary stated that the proposed decision rule was not considered necessary. The plenary noted that a full analysis of all information is a more effective way to review the performance of the stock. The plenary noted that there should be annual monitoring of the data collection scheme and catch spreading (TCEPRs), and a review after 2 years of all data on age distribution from catch sampling and abundance indices from the west coast North Island trawl survey, and catch rate analyses for east Northland, west coast, and Bay of Plenty.</p>
Other relevant information	<p>The 2002 plenary considered that the proposed TAR 1 AMP is unlikely to have any additional adverse effect on the aquatic environment based on the available information because—</p> <ul style="list-style-type: none"> <li>No geographic expansion into new fishing grounds will occur</li> <li>There are no known adverse impacts from the tarakihi fishery on non-fish bycatch species. The recreational involvement in this fishery in the Bay of Plenty was noted.</li> </ul>

## ***Environmental Considerations***

10 The Fisheries Act 1996 includes obligations to manage any adverse effects of fishing on the aquatic environment, and that those effects and management measures are taken into account when decisions are made about the sustainable utilisation of fishery resources.

11 A range of species is likely to be caught in the target trawl fishery for TAR 1. The three most significant commercial bycatch species in the TAR 1 target bottom trawl fishery in 2000–01 were snapper, barracouta, and school shark, all of which are managed under the Quota Management System (QMS). Tarakihi is also taken in substantial quantities as a bycatch of target trawling other inshore species including snapper.

12 Tarakihi are taken by various commercial fishing methods, but bottom trawl accounts for most of the catch. Bottom trawl gear is used to harvest a range of

inshore species, and by its very action affects the physical structure of the substrate and the benthic community structure. MFish has examined the spatial distribution of target trawl shots for TAR 1 in 2000–01, and it appears that target trawling occurs throughout the QMA, largely between the 100 and 200 m depth contours. There are two areas that reveal very little target trawling for tarakihi – to the north and northwest of Cape Reinga, and to the east of Great Barrier Island. The AMP proponents have undertaken to limit fishing to existing grounds, and so restrict effects to areas that have been trawled previously. However, there is some doubt as to the proponents' capacity to successfully do this, and this is a matter for which MFish requires more certainty during the consultative phase. MFish considers that mitigating adverse effects of fishing in that way is likely to be consistent with the obligation to provide for the utilisation of fishery resources while ensuring sustainability.

### ***Environmental Principles***

13 The Fisheries Act contains three environmental principles that must be taken into account by decision-makers.

#### **Habitats of significance**

14 No habitats of particular significance to fisheries management are known that might be affected by tarakihi trawling, and none are specifically protected from the effects of trawling for tarakihi.

#### **Maintaining biodiversity**

15 An area off Spirits Bay in the far north is closed to trawling as a measure to avoid the adverse effects of fishing on the unique biodiversity there. There are no other known or potential impacts on biodiversity that would be specific to the TAR 1 trawl fishery. Reporting of bycatch and protected species will allow for information to be collected to advance our knowledge of potential impacts.

#### **Associated and dependent species interactions**

13 There are no known interactions between the TAR 1 fishery and marine mammals that are of concern or specific to the fishery. The fishery does not dispose of any significant amount of fish waste or offal at sea, so the potential for interactions with seabirds is reduced. The draft Seabird Interaction with Fisheries in the New Zealand Exclusive Zone - A Review and National Plan of Action 2000 (NPOA) document does not list tarakihi as one of the fisheries with seabird interactions that are of concern.

### ***Relevant Plans and Strategies***

14 Before setting (or varying) any sustainability measure (which includes a TAC), the Minister must have regard to any regional policy statement, regional plan or proposed regional plan under the Resource Management Act 1991, as well as any management strategy or plan under the Conservation Act 1987. MFish is not aware of any considerations in these plans or strategies that are relevant to setting a TAC in the SNA 2 fishery at this time.

15 Before setting (or varying) any sustainability measure the Minister must take into account any conservation or fisheries service, or an decision not to require such services, along with any relevant fisheries plan approved under the Act. MFish does not consider that existing or proposed services materially affect this proposal, nor has any fisheries plan been approved.

### **Research**

16 The current research project 2002–01 for tarakihi contains an objective to age tarakihi otoliths collected from east coast North Island, west coast North Island, west coast South Island and east coast South Island *Kaharoa* trawl surveys. A further objective is to update the standardised CPUE indices for TAR 2 using data up to the end of 2001–02. An objective to update the standardised CPUE indices for TAR 1 will be dropped as an MFish-purchased service if the AMP is approved. Instead, the objective will be taken up under the AMP, and the responsibility for completing the work (within set standards) will lie with the proponents.

17 The age determination work will assist in stock assessment, and the CPUE analysis for TAR 2 will provide useful information on relative abundance in that component of the stock for comparison with TAR 1.

18 A survey (project REC9803) to estimate recreational catches (including tarakihi) was completed in 2000, and results are to be reported shortly. Another survey to estimate recreational catches is planned for 2004, with results to be reported in 2005.

### **Observer Coverage**

19 There is no targeted coverage of the TAR 1 target trawl fishery by MFish scientific observers. The AMP and inshore fishery assessment working groups can review the need for MFish observer coverage and input into the MFish business planning process during the course of the AMP programme if necessary.

### **Social, Cultural, Economic Factors**

20 The proponent of the AMP is the Northern Inshore Fisheries Company Limited, which claims to have a mandate to represent TAR 1 quota holders. This claim to a mandate will need to be confirmed or otherwise as part of the MFish consultation process. Establishing a clear mandate is necessary, because the proposal carries implied obligations for the proponents to implement elements of the proposal, such as research provision and effort split arrangements.

21 The 2002 fishery assessment plenary report noted the recreational involvement in the TAR 1 fishery in the Bay of Plenty. The 2002 plenary report shows that there are substantial recreational catches estimated for TAR 1, representing about 20 % of total commercial landings. As noted, no quantitative information on the level of Māori customary fishing is available.

22 Increasing the TAR 1 TACC may affect non-commercial interests in the fishery through decreased fish size and availability. The extent of this will depend on the current stock size. If the stock is currently above the level that will produce the MSY, fishing it down towards that level to increase sustainable yield is likely to alter the size and age composition of the stock. If the stock is currently close to the desired

level, then the increased catch might inappropriately affect availability of tarakihi to non-commercial fishers. However, the proponents note that recreational landings have been stable over the past decade, as have commercial CPUE indices, suggesting, as concluded by the plenary, that there is a reasonable probability that the biomass is above the target stock level.

23 MFish notes that a survey to estimate recreational catches that is planned for 2004 will provide information to monitor changes in recreational catch in 2005. This information will be supplemented over time by anecdotal information that might be provided to MFish on any effects of an increased TACC for TAR 1 on non-commercial interests in the fishery.

24 The proponents note that 62 % of the trawl catch of TAR 1 is from the west coast and east Northland, where only a very small proportion of the recreational catch was reported. They conclude that there does not seem to be a significant overlap of harvest by the recreational and commercial sectors. However, MFish notes that the remaining 38% of trawl catch of TAR 1 comes from the Bay of Plenty area, where the greatest non-commercial interest in the species has been reported. An additional level of commercial catch in that area could result in disputes between the sectors if adverse effects on non-commercial interests results.

25 The AMP proposal also stipulates that catches will be spread throughout existing fished areas in TAR 1, rather than the additional catch being taken within any localised fishery or single statistical area. Spreading catches in that way has the potential to mitigate risks of localised depletion that can lead to conflict between sectors, but management measures to achieve that are not set out in the proposal. One possible measure could be to exclude any additional commercial catch from an area of potential spatial conflict, or to constrain any additional commercial catch to a level that might be agreed by the sectors. The increased commercial catch could then be spread appropriately over the remainder of the QMA. MFish considers that such measures be specified in order to address the broader aims of the AMP proposal, and could be determined on the basis of the results of this consultation process.

26 MFish notes also that there are significant areas of the inshore zone within TAR 1 where trawling is prohibited, including the waters in and adjacent to specified harbours, bays, and the inner Hauraki Gulf (see the Fisheries (Auckland and Kermadec Areas Commercial Fishing) Regulations 1986). On the west coast, trawling is excluded within one nautical mile of the coast from Tirua Point northwards to Scott Point at the northern end of 90 Mile Beach. At harbour entrances and major river mouths on the west coast, trawling is excluded from 'bubbles' of a two nautical mile radius around the entrances/mouths. In the Bay of Plenty on the east coast, trawling is excluded from an area within two nautical miles of the coast from Homunga Bay to Cape Runaway. These measures already provide a high degree of protection for non-commercial fishing interests.

27 The proponents provided the proposal to the New Zealand Big Game Fishing Council, the New Zealand Recreational Fishing Council, and the New Zealand Trailerboat Federation for comment during the development phase. No comment appears to have been provided by those parties. One of the purposes of this document is to enable stakeholders to make informed comment about this proposal and any perceived effects on their interests.

28 Increasing the TAR 1 TACC as proposed will have economic benefits in the short term, but longer term benefits will be dependant on stock status. Earnings from the fishery are likely to increase with greater catches (by around \$1 million in port price value), with additional positive downstream implications for the industry. The increase of the TACC may also increase the quantities of bycatch (the major species are snapper, barracouta, and school shark) and these stocks are also managed under the QMS. Under the deemed value regime associated with the QMS, fishers initially unable to obtain annual catch entitlement (ACE) to cover bycatch will face financial incentives to balance.

29 Tarakihi in this fishery are also taken as a bycatch in other target trawl and bottom longline fisheries. A higher TACC for TAR 1 might make it easier for those fishers to obtain the ACE to cover their bycatch of tarakihi. Overall, an increase of the magnitude proposed can expect to lead to some rationalisation of quota holdings within the inshore fleet.

## **Assessment of Management Options**

30 This AMP proposal is intended to allow for contrast in the relative abundance indices (CPUE) to be detectable, and so provide information to enable a stock assessment to be carried out. If the level of catch is set too low, it may not be possible to detect changes in relative abundance that will assist in monitoring the status of the fishery, and ultimately providing for a stock assessment. With catch limits at an appropriate level, the monitoring under the AMP should ensure that changes in the performance of the commercial fishery would be detected. In addition, the research trawl survey abundance indices for the west coast will be available as a fishery-independent source of comparative information. The TAC/TACC levels can be revised appropriately if, on the balance of probabilities, it is detected that the catches under the AMP are causing the stock size to move below the level that will produce the MSY.

### ***TAC Option and Allowances***

31 In total, it is proposed, under the AMP, to include a new five year programme for TAR 1 that will:

- a) set the TAC at 2 482 tonnes
- b) make allowances of 155 tonnes for customary Māori and 310 tonnes for recreational catch
- c) make an allowance of 20 tonnes for unreported catch and incidental mortality
- d) increase the TACC from 1 398 tonnes to 1 997 tonnes
- e) for the proponents to assume responsibility for updating standardised CPUE analysis for the TAR 1 fishery
- f) place controls (to be devised on the basis of submissions) on fishing areas so that only existing tarakihi target trawl grounds are fished, and that catch under the increased TACC is spread appropriately over those areas, and



- g) monitor the performance of the fishery under the AMP in accordance with the steps agreed to at the 2002 fishery assessment plenary.

### ***Monitoring***

32 Annual monitoring of the data collection scheme and catch spreading reported on TCEPRs across existing trawled areas under the AMP will mitigate any risks associated with the fishery at the increased level, relating to localised depletion or impacts on associated fisheries. However, MFish acknowledges that there is potential for the additional commercial catch under an increased TACC to affect the size and availability of tarakihi for non-commercial fishers. MFish considers that in line with the intent of the proposal, appropriate measures will need to be put in place to ensure that catches and effort are spread across existing tarakihi trawl grounds, and effort is not exported outside those areas. Such measures could be devised as part of any confirmed arrangement after taking into account submissions that are received on this proposal.

### ***Recreational Allowance***

33 There are regulations that prohibit or restrict fishing arising from decisions taken by the Minister under s 311 of the Fisheries Act that affect fishing for TAR 1 that need to be taken into account when determining the allowance for recreational fishing. These areas relate to the inshore zone of the eastern Bay of Plenty, and their significance is discussed in this paper. MFish understands that while this closure provides preferential access for non-commercial fishing generally, the main tarakihi fishing grounds lie outside this closed area.

34 As noted, recreational catches of tarakihi in TAR 1 have been estimated at some 310 tonnes, or about 20 % of the current TACC. That level of catch appears to have been relatively stable over the past decade. The criterion within the MFish policy for setting allowances that is most closely met by the tarakihi fishery is that the allowance be set at the level of estimated recreational catch (from diary surveys, etc.). MFish proposes that, within the TAC, an allowance of 310 tonnes, at the level of estimated annual catch over the past decade, is made to provide for recreational catch.

### ***Customary Allowance***

35 There are no mataitai reserves or temporary closures in place within the QMA for TAR 1 that would need to be taken into account when making any allowance for customary fishing.

36 No quantitative information on the level of customary Māori catch is available. Since it is known recreational fishers take tarakihi, it is reasonable to assume that some level of customary catch occurs. The criterion within the MFish policy for setting allowances that is most closely met by the tarakihi fishery relates to situations where there are no estimates of customary catch, but there is known customary catch, and the stock is considered to be of no particular importance to Māori. The policy suggests that, in such cases, an allowance equivalent to half the recreational allowance be set. Accordingly, MFish proposes that, within the TAC, an allowance of 155 tonnes is made to provide for customary catch.

## ***Other Sources of Mortality***

37 No quantitative information is available on the level of illegal catch or other sources of mortality. Since the proposal is for a bottom trawl fishery which will have an element of incidental target species mortality associated with gear contact and escape, it is proposed that, within the TAC, an allowance of 20 tonnes is made for other sources of mortality. The allowance includes unreported or illegal catch. The proposed 20 tonnes is a nominal amount set in accordance with the policy regarding introductions of species into the QMS where there are no estimates, but other sources of mortality are known to occur. A minimum legal size applies to tarakihi, so some mortality must be associated with returned (undersized fish – all sectors), particularly given the greater depths from which they are taken (barotrauma). MFish considers that an estimate of illegal and unreported catch of 10 % as used in the assessment models for SNA 1 would be too large because tarakihi are taken generally much deeper than many of the other inshore species, and so their vulnerability to illegal ‘black market’ fishing is reduced.

## **TACC**

38 The proposed allowances total 485 tonnes. Under a TAC of 2 482 tonnes this leaves a balance of 1 997 tonnes to be allocated as TACC in line with the industry proposal.

## ***Associated Implications***

39 **Compliance implications**—should the AMP proposal be implemented, it is not expected that there will be any implications for the Compliance business. MFish considers that under the AMPs, responsibilities are internalised to proponents where appropriate. However existing compliance concerns over misreporting by area and species and dumping of bycatch will essentially remain. The way in which the proponents approach the issue of catch spreading will have implications for MFish compliance services, as participants in the fishery may have difficulty in discerning between statutory and contractual/voluntary rules.

40 **Administrative implications**—the direct costs of the AMP proposal, if implemented, will be borne by the industry. A decision to implement the proposal and increase the TACC will require that cost recovery levies be adjusted.

## **Conclusion**

41 The Northern Inshore Fisheries Company Limited has proposed that the TACC for TAR 1 be increased under a new five-year programme under the AMP.

42 The relatively stable catches at or above the TAR 1 TACC since the 1991–92 fishing year, and the relatively stable commercial CPUE indices for TAR 1, suggest that current catch levels and TACCs are sustainable. However, the 2002 fishery assessment plenary concluded that it is not known if the current TACCs and recent catch levels will allow stocks to move towards a size that will produce the MSY.

43 The main objective of the proposal is to provide contrast in the abundance indices so that they can be used to carry out a stock assessment of TAR 1. The extent of the TACC increase proposed is considered to be sufficient to provide the contrast in the abundance indices that will enable a determination of current biomass and long-term

yields from the stock. MFish considers that monitoring and review of the commercial fishery performance under the conditions of the AMP will be adequate to detect and manage commercial fishery and sustainability issues that might arise during the programme.

44 The proposed increase in the TACC could affect non-commercial interests in the fishery by reducing the average size and/or the availability of tarakihi. Non-commercial stakeholders have not provided comment on the proposal to date. The proponents consider there to be relatively little overlap in the spatial occupation of the fishery by the commercial and non-commercial sectors. However, there is substantial commercial catch in the Bay of Plenty, where the greatest level of non-commercial interest has been reported, and therefore issues of inter-sector access may well arise under this proposal.

45 The proposal undertakes to constrain fishing to existing areas, so mitigating any adverse effects on the environment, and the potential for spatial conflict. The proposal further requires that catches are apportioned throughout the QMA, and that will mitigate the potential for localized depletion. However, MFish considers that specific measures to ensure catch spreading and constrain effort to existing areas will need to be implemented under the AMP to ensure that mitigation measures are clear and measurable.

46 No specific concerns exist regarding associated or dependent species, and standard requirements are in place to report interactions with seabirds and marine mammals.

## **Preliminary Recommendation**

47 MFish proposes, under the Adaptive Management Programme, to include a new five-year programme for tarakihi in TAR 1 that will:

- a) set the TAC at 2 482 tonnes
- b) make allowances of 155 tonnes for customary Māori and 310 tonnes for recreational catch
- c) make an allowance of 20 tonnes for unreported catch and incidental mortality
- d) increase the TACC from 1 398 tonnes to 1 997 tonnes
- e) implement controls (to be devised on the basis of submissions) on fishing areas so that only existing tarakihi target trawl grounds are fished, and that catch under the increased TACC is spread appropriately over those areas
- f) assign responsibility for updating standardised CPUE analysis for the TAR 1 fishery to the proponents of an approved AMP.