

REVIEW OF SUSTAINABILITY MEASURES AND OTHER MANAGEMENT CONTROLS FOR KINGFISH 7 (KIN 7)



Figure 1: Quota Management Areas (QMAs) for Kingfish

EXECUTIVE SUMMARY

1 The Ministry for Primary Industries (MPI) proposes the following two options for the total allowable catch (TAC), total allowable commercial catch (TACC) and allowances for KIN 7:

Table 1: Final proposals – TACs, TACCs, and Allowances for KIN 7

Option	TAC (t)	TACC (t)	Allowances		
			Customary Māori (t)	Recreational (t)	Other sources of fishing-related mortality (t)
Option 1 (Modified Status Quo TAC) This option could include consideration of decreasing the recreational daily bag limit from 3 to 2 kingfish per day.	21	7	2	10	2
Option 2	41	15	2	20	4

2 Any variation to the TAC for KIN 7 can be done under section 13(4) and section 13(2A) of the Fisheries Act 1996 (the Act). Variations to the TACC can be done under section 20(2) after making the allowances provided for in section 21.

KEY CONSIDERATIONS

Need to Act

3 The overall management framework for kingfish is designed to manage commercial catch of kingfish to unavoidable bycatch levels only. Strong incentives to avoid catch and ability to return catch taken alive to the sea mean that any fish landed should be unavoidable bycatch that cannot be returned to the sea because it is dead. If there are no sustainability concerns, the management framework is designed to allow for this level of catch. However it is very difficult to determine true levels of unavoidable bycatch.

4 The KIN 7 TAC is being exceeded in some years. Since the introduction of KIN 7 to the QMS in 2003, the commercial catch of KIN 7 has exceeded the TACC in three of the nine fishing years. This suggests there may be an issue with the current TACC or that the current framework is not providing adequate disincentive for commercial fishers to catch kingfish.

5 In addition, new information is available regarding the recreational catch in KIN 7 indicating that current recreational catch is significantly in excess of the recreational allowance. Recreational fishers are reporting increasing availability of kingfish.

6 Both of these factors provide a good basis to consider the TAC, allowance and other management controls for KIN 7.

7 We have no information as to whether current catch levels are sustainable. Best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last 2 years.

8 Estimates of current and reference biomass are not available.

9 If Option 2 is your preferred option, you must set a TAC in accordance with section 13(2A) of the Act that is not inconsistent with the objective of maintaining the stock at or above B_{MSY} , or moving the stock towards or above, B_{MSY} . Kingfish is a productive species and catch has been below historical levels since 2003; hence, there is a reasonable chance that the KIN7 stock has been rebuilding.

Stock Status

10 No estimates of current and reference biomass levels or relative abundance indicators are available for KIN 7. Catch has fluctuated without trend prior to and since introduction into the Quota Management System (QMS).

Relevant Fishery Information

11 The KIN 7 stock is on the margins of the distribution of kingfish and landings and catches are small.

12 Kingfish was introduced into the QMS on 1 October 2003. In addition to the TAC, TACC, and allowances, the KIN 7 fishery is managed by way of a recreational maximum daily bag limit of 3 kingfish and a recreational minimum legal size (MLS) of 75cm, and a commercial MLS of 65cm, annual deemed values, and kingfish is on the Sixth Schedule of the Act allowing commercial fishers to release live kingfish back to the sea if they meet certain conditions.

13 Kingfish was placed on the Sixth Schedule of the Act in October 2005, becoming effective from January 2006. Release of live kingfish back to the sea provides another tool to assist commercial fishers in limiting landings. There is evidence from reporting data that fishers do use the provisions of the Sixth Schedule for KIN 7 catch. Over the most recent fishing year, 21 % of all reported KIN 7 was released under the Sixth Schedule. Despite this provision, over-catch has occurred. In light of the high deemed values, this suggests that fishers are complying with the rules for the use of the Sixth Schedule.

14 High deemed value rates are set to incentivise catch within the TACC and to reflect the significance of KIN 7 to non-commercial users. This approach is consistent with the High Value Stocks section of the Deemed Value Standard.

Commercial

15 Figure 2 shows commercial landings of KIN 7 from 2003/04 (the date of introduction to QMS) to 2011/12. The graph shows that KIN 7 has been substantially fished in excess of the TACC in three of the nine fishing years.

16 Between October 2009 and September 2012 (the last three fishing years), commercial fishers reported over 99% of KIN 7 as bycatch (note: this is subject to the accuracy of fishers' recording on the reporting forms). Only 34 kg of KIN 7 was recorded as target catch over this three-year period.

17 The available information shows that kingfish in KIN 7 are taken as bycatch predominantly in the target mid-water trawl fishery for jack mackerel (62%), with some also taken in the bottom trawl fisheries for barracouta, tarakihi and warehou (around 20%), and some in the school shark and rig set net fisheries (around 10%).

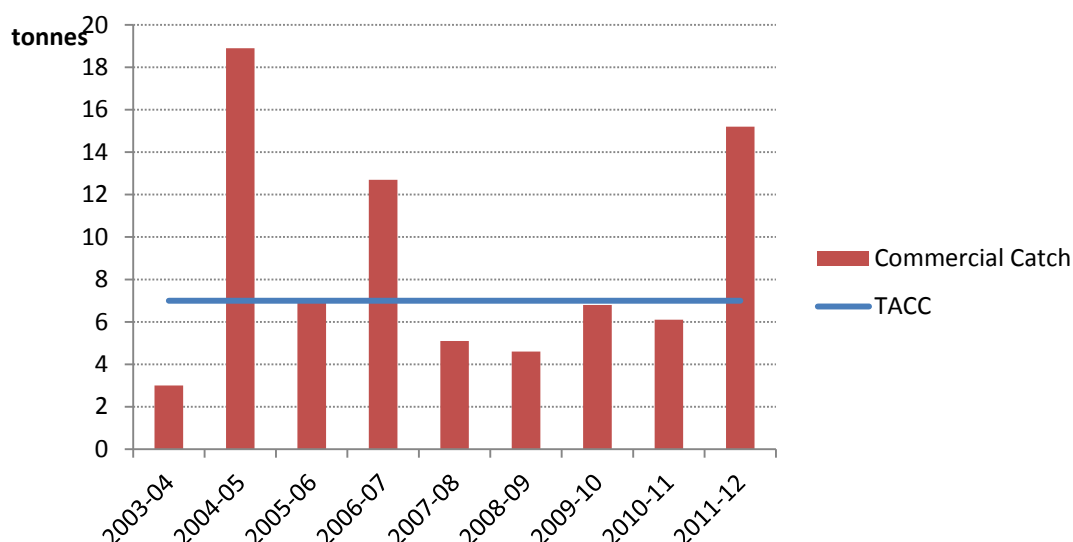


Figure 2: Commercial catch limits (TACC) and landings 2003/04-2011/12

18 Since 2003, management controls to reduce KIN 7 commercial catch have been successful for 6 of the 9 years. Controls include high deemed value rates and the inclusion of KIN 7 on the Sixth Schedule of the Act.

19 Considering the small size of the KIN 7 commercial fishery, payments of deemed values have been substantial in 3 of the 9 years since the introduction of KIN 7 to the QMS - Table 1.2.

Table 2: Commercial catch limits (TACC), catches and deemed value payments 2003/04 to 2009/10

Fishing Year	TACC (t)	Commercial Catch (t)	Deemed Value Payments
2003-2004	7	3.0	\$819
2004-2005	7	18.9	\$192 613
2005-2006	7	7.1	\$10 439
2006-2007	7	12.7	\$71 292
2007-2008	7	5.1	0
2008-2009	7	4.6	\$113
2009-2010	7	6.8	0
2010-2011	7	6.1	\$742
2011-2012	7	15.2	\$110 228

20 Much of the KIN 7 bycatch is taken in large volume trawls targeting jack mackerel. The proportion of kingfish in the catch is relatively small. The opportunity to sort the catch and release any kingfish while alive is limited. Reporting this bycatch of dead kingfish provides important information for management.

Recreational

21 KIN 7 is acknowledged as an important fishery for recreational fishers and the management strategy has attempted to reflect this value.

22 The FMA 7 Recreational Fishing Forum has identified KIN 7 as an important species and one of their most valued fish. In recent consultation with MPI, recreational forum representatives expressed their views that the size and abundance of kingfish in the KIN 7 area has been increasing over recent years.

23 Recreational fishing for kingfish is generally based around the species' value as a sport fish, with large kingfish being a prized trophy catch. Some recreational fishers practice catch and release fishing in KIN 7. The recreational minimum legal size for kingfish is 75cm, and the daily bag limit in KIN 7 is a maximum of 3 kingfish per person per day.

24 The estimated recreational catch of KIN 7 in 2011-12 from the national panel survey is 20.73 tonnes (C.V. of 0.38). The survey also suggests that for those fishers who land kingfish, very few take three fish (4.3%), with most only taking one fish (69.9%). However, these data are based on a small sample size and may not reflect practice across the fishery.

25 Historic information on the level of recreational catch in KIN 7 is very uncertain. Recreational catch in KIN 7 may always have been higher than the recreational allowance as the information used to set the original allowance upon introduction to the QMS was uncertain.

Māori Customary

26 Kingfish (haku) is not identified by Te Waka a Māui me Ōna Toka iwi forum²⁵ as a tāonga species in the Te Waipounamu Iwi Fisheries Plan. This plan includes objectives relating to supporting and providing for the customary and commercial interests of South Island iwi.

27 For those tangata whenua groups operating under the customary fishing regulations,²⁶ there is a requirement for Tangata Kaitiaki/Tiaki to provide MPI with information on Māori customary harvest of fish. However, most tangata whenua in KIN 7 are still operating under regulations 27 and 27A of the Fisheries (Amateur Fishing) Regulations 1986 (the Amateur Regulations), and it is not mandatory to report permits that are issued.

²⁵ The Te Waka a Māui me ōna toka iwi forum represents the nine iwi of the South Island, each holding mana moana and significant interests (both commercial and non-commercial) in South Island fisheries.

²⁶ Fisheries (Kaimoana Customary Fishing) Regulations 1998 and/or Fisheries (South Island Customary Fishing) Regulations 1999.

28 Information currently held by MPI on Māori customary catch of KIN 7 is uncertain. MPI has only 2 records of customary catch in KIN 7 from the last 5 years.

CONSULTATION

29 A decision to vary the TAC is a decision under section 13(4) of the Act. Therefore consultation requirements of section 12(2) apply. A decision to vary the TACC is a decision under section 20(2) of the Act. Therefore consultation requirements under 21(2) of the Act apply. These provisions require consultation on both options outlined in Table 1 with persons or organisations representative of those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Māori, environmental, commercial and recreational interests. The Initial position paper (IPP) was released on 12 July 2013. The options proposed were the same as set out in Table 1.

Submissions

30 MPI received 18 submissions on the IPP from:

- Bevan Middlebrook – recreational fisher
- Chris McDougall
- Dirk Sieling
- Gavin Williams
- Greg Goodall – member of FMA 7 Recreational Fishers Forum, member of TASFISH
- Jason Manson
- Johnathon Claridge
- New Zealand Recreational Fishing Council (NZRFC)
- New Zealand Sport Fishing Council (NZSFC)
- Pelorus Boating Club Inc
- Sanford Limited
- Southern Inshore Fisheries Management Company Limited (SIF)
- Talley's – commercial fishing company
- Tarakohe Sea Anglers
- Tasman and Sounds Recreational Fishers' Association (Inc) (TASFISH)
- Te Ohu Kaimoana (TOKM)
- Troy Dando – recreational fisher
- Zebbi King Turner – disgruntled recreational fisherman

31 All submissions are attached to this paper for your reference.

TAC

Support for Option 1

32 TASFISH, NZRFC, and Pelorus Boating Club Inc, and Troy Dando all support Option 1 – the status quo – with no increase in TAC for KIN 7 at this time. Greg Goodall and Pelorus Boating Club Inc endorse for TASFISH’s submission.

33 TASFISH, NZRFC, Pelorus Boating Club Inc, and Chris McDougall submit that kingfish are an important and valuable species for recreational fishers. Given the importance and value of kingfish to recreational fishers, an extremely conservative approach should be taken to setting a TAC. These submitters, as well as Jason Manson, Johnathon Claridge, Tarakohe Sea Anglers and Bevan Middlebrook do not believe there is enough scientific information to support an increase in the KIN 7 TAC. Jonathon Claridge and Troy Dando would support a reduction in commercial and recreational catch until more information is available.

34 TASFISH submits that KIN 7 must be managed at a level significantly above B_{MSY} if there is to be any chance of access equity. They consider that, given the pivotal importance of this stock to non-commercial interests, it is crucial they continue to be moved to a level above B_{MSY} .

35 TASFISH and NZRFC note that while recreational fishers have claimed increased catches of KIN 7 in recent years, reports over this last summer and winter indicate catches are down on previous years. Jason Manson submits that the state of their local area has just started to show signs of recovery and by no way would he like to see the proposed changes.

36 TASFISH and NZRFC submit that improved technologies, improved levels of reporting and increased observer levels have contributed to increased by-catch of kingfish, not increased abundance.

37 Gavin Williams voices his strong objection to the proposed new fishing quotas.

Support for Option 2

38 TOKM, Sanford Limited, SIF and Talley’s support Option 2 – an increase in the TAC so that fishers are able to take advantage of the present strong biomass.

Alternative Stakeholder Proposals

39 SIF and Talley’s also believe that Option 2 is too conservative and say that there would be no sustainability issues if the TAC was increased significantly above the proposed level as kingfish are a very productive species.

40 NZSFC suggests alternative management settings, including a TAC of 36 tonnes based on the average of the last 8 year’s reported landings.

MPI Discussion

41 There is little information available upon which to base a TAC decision for KIN 7. Estimates of current and reference biomass are not available. We have no information as to whether current catch levels are sustainable and information on increasing abundance is largely anecdotal.

42 The best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last year.

43 When kingfish were introduced to the QMS, the Ministry of Fisheries (MFish) noted that kingfish could be managed above B_{MSY} to provide benefit to recreational fishers via increased abundance and greater range of size classes. However, there was no information to assess where the stocks were in relation to B_{MSY} so MFish advised the then minister that it did not regard the setting of a target level above B_{MSY} to be a critical issue at that time when setting the TAC for kingfish stocks.

44 The KIN 7 commercial catch (which is greater than 99% bycatch) has exceeded the TACC in three of the past nine fishing years by approximately 171%, 78%, and 85%. However, this does not necessarily indicate an increase in biomass. If biomass was increasing, we would expect to see an increasing commercial bycatch in consecutive years. There is some anecdotal information from recreational fishers that KIN 7 abundance is increasing, but some recreational fishers have also submitted that catches have declined somewhat in the last year.

45 MPI notes that increased bycatch could be due to changes in fishing practices and/or fishing gear – although we would also expect this to be a constant increase, not a sporadic effect. There is no catch per unit effort information and no size frequency information available.

46 Under Option 1, the existing TAC for KIN 7 would be retained. This option reflects a cautious approach to change, reflecting the uncertainty in information about the KIN 7 stock status relative to target levels and the uncertain level of any increase in biomass.

47 TASFISH and the NZRFC support Option 1. This option reflects the importance and value of kingfish to recreational fishers and would maintain the management objective of constraining commercial catch of kingfish in KIN 7 to a bycatch-only fishery.

48 Option 1 may be the appropriate option if further efforts to constrain catches to the TAC are considered necessary or desirable for sustainability reasons.

49 Under Option 2, the proposed increase to the TAC reflects what is already being caught in some years and does not provide for any increased harvest by recreational fishers.

50 TOKM and Sanford Limited support Option 2. SIF and Talley's support an increase in TAC, but consider that Option 2 is too conservative and that the KIN 7 TAC should be set at a level that will allow further development.

51 NZSFC proposes an alternative TAC option of 36 tonnes, based on the average of the last 8 year's landings. This option falls between the two MPI options and MPI does not consider it is significantly different to those options.

52 It is unlikely that either Option 1 or Option 2 would be inconsistent with enabling you to set a TAC that is not inconsistent with the objective of maintaining the stock at or above B_{MSY} , or moving the stock towards or above, B_{MSY} . Kingfish is a productive species. Kingfish are fast growing, medium-lived, and known to be robust when handled appropriately. Kingfish are likely to recover quickly from reductions in abundance and catch has been below historical levels since 2003. There is a reasonable chance that the KIN 7 stock is increasing.

Allocation

Stakeholder Views

53 TOKM reminds MPI of the concerns they expressed in 2003 about the primacy given to recreational fishing over ITQ when kingfish were introduced into the QMS, meaning that kingfish is now managed as a bycatch fishery.

54 Dirk Sieling submits that kingfish should not be allowed to be targeted by commercial fishers or sold commercially. He believes that kingfish are our best non-pelagic fighting fish and a larger sport-fishing industry could be based around this species if numbers increased.

55 Tarkohe Sea Anglers feel that the kingfish is now a fish sought after by the amateur fishers and is worth more to the amateur fishers than the commercial take.

MPI Discussion

56 When KIN 7 was introduced into the QMS, an objective was to manage the commercial KIN 7 fishery as bycatch-only fishery and to increase benefits to recreational fishers. At the time of QMS introduction, the then Minister believed that the available information suggested an overall increase in utility would result from providing greater opportunity for recreational catch of kingfish. However, the Minister also recognised the competing demands for the use of kingfish and did not support fully allocating the fishery to

recreational fishers or endeavouring to provide for the needs of recreational fishers in full. Such a situation would have ignored the inevitable bycatch of kingfish in associated target commercial fisheries and would have potentially lead to excessive waste of catch and other socio-economic impacts.

TACC and Allowances

Support for Option 1

57 Tarakohe Sea Anglers, Johnathon Claridge, Zebbi King-Turner, and Bevan Middlebrook submit that there should not be any increase to the commercial quota for kingfish. Bevan Middlebrook submits that over the previous five years, only once (last season) was the KIN 7 TACC exceeded, and that this is hardly supporting data for lifting the TACC. Zebbi King-Turner cannot see any proof that KIN 7 can sustain an increase in TACC.

58 TASFISH and NZRFC submit that increasing levels of observer coverage are causing increased reporting of kingfish catches by industry and that technological advances that have had an effect on the “twine surface area” of the jack mackerel trawlers, and new lighter net materials mean that trawlers can tow faster and kingfish can no longer out-swim the nets. Commercial fishers are also now surface trawling at night time. They submit that improved technologies, improved levels of reporting and increased observer levels have contributed to increased bycatch of kingfish, not increased abundance.

Support for Option 2

59 Sanford Limited and TOKM support Option 2 – an increase in the TACC to 15 tonnes – so that fishers are able to take advantage of the present strong biomass.

60 SIF and Talley’s support an increase in the KIN 7 TACC. However, they consider that the proposal for an 8 tonne increase is too conservative and that the TACC should be set at a level that would allow for further development of the KIN 7 fishery.

61 NZSFC suggests alternative management settings, including TACC of 10 tonnes (the average of the last 8 year’s reported landings, to provide incentives to avoid or release kingfish alive), adjusting the recreational allowance to 20 tonnes (the average of the last 8 year’s harvest estimates), allowing 2 tonnes for Maori customary interests, and allow 4 tonnes for other fishing related mortality.

62 TOKM support for the increase in recreational allowance is conditional on a commitment from the sector to report their catch.

MPI Discussion

63 Option 1 is supported by recreational fishers. They believe that there is insufficient information to support an increase to the KIN 7 TACC and allowances, and propose a decrease in the recreational bag limit to maintain recreational catch within the current recreational allowance.

64 The economic implications of choosing Option 1 are to impose a cost on commercial fishers for the excess catch taken in target fisheries for other species. The current KIN 7 TACC is resulting in deemed value costs to commercial fishers targeting other species and taking kingfish as bycatch. Since the KIN 7 TACC was introduced in 2003, commercial stakeholders have paid total annual deemed values ranging from nil to \$192 613, or an average of \$21 401 per fishing year.

65 Maintaining the KIN 7 catch within the TACC would require further constraints to be introduced. These include a review of deemed value rates with a view to further increasing incentives for commercial fishers to avoid kingfish bycatch.

66 Much of the KIN 7 bycatch is taken in trawls targeting jack mackerel (62%), it is likely that many kingfish in those catches will be dead by the time they are sorted from large volume catches of mackerel. As large predatory fish, kingfish are likely to be feeding on the jack mackerel schools and hence taken incidentally to the target species. This supports the view that kingfish bycatch is difficult to avoid in those fisheries.

67 Industry could make changes to their fishing gear and/or fishing practices to minimise kingfish bycatch. However, the relatively small amount of kingfish bycatch would likely mean that fishers choose to pay deemed values rather than invest in new gear and fishing practices, in this instance.

68 Option 2 is supported by commercial fishers. The proposed increase TACC and recreational allowance reflect what is already being caught in some years and does not provide for significant increased harvest by commercial or recreational fishers.

69 The current KIN 7 TACC is resulting in deemed value costs to commercial fishers targeting other species and taking kingfish as bycatch. Given that much of the KIN 7 bycatch is taken in trawls targeting jack mackerel (62%), it is likely that many kingfish in those catches will be dead by the time they are sorted from large volume catches of mackerel. As large predatory fish, kingfish are likely to be feeding on the jack mackerel schools and hence taken incidentally to the target species. This supports the view that kingfish bycatch is difficult to avoid in those fisheries.

70 The alternative TACC suggested by NZSFC sits between Option 1 and Option 2, proposing a 3 tonne increase in TACC. This option proposes a greater proportion of the TAC be allocated to recreational fishers and less to the TACC. In MPI's view, the allocations recommended in this paper in relation to each option are the appropriate ones.

71 The current recreational allowance for KIN 7 is 10 tonnes. Kingfish is an important target species for recreational fishers and the recent national panel survey indicates that the recreational catch is significantly greater than this current recreational allowance. Under Option 2, the recreational allowance would be increased by 100% to cover current recreational catch.

72 The extremely small amount of kingfish reported as targeted leads us to believe a proposed increase to the TACC will not have an adverse or significant effect on associated fisheries. As long as the fishery remains a bycatch fishery, as it has since 1992, there is no information that would suggest associated target species will be adversely affected by the proposal.

73 Option 2 may be the appropriate option if you consider that sufficient incentives have been applied to reduce commercial catch of KIN 7 to a bycatch-only fishery and you do not consider current commercial and recreational catch levels to pose a sustainability issue.

74 Because commercial kingfish targeting has effectively ceased and the KIN 7 TACC is significantly below the pre-QMS average commercial catch. It is not anticipated that the proposed TAC options would result in a significant change to fishing operations.

75 Current information does not suggest a need to change the customary Māori allowance.

Recreational Daily Bag Limits

76 TASFISH, NZRFC and Pelorus Boating Club acknowledge that the retention of the status quo could include a daily bag limit reduction from 3 to 2 kingfish in KIN 7 in order for recreational fishers to remain within the current recreational allowance. TASFISH and NZRFC support such a reduction in bag limit only if the status quo for the TAC/TACC is retained.

77 Bevan Middlebrook submits that the kingfish in KIN7 have a very high value to recreational fishers, particularly around Tasman & Golden Bays, D'Urville & Stephens Islands & the Marlborough Sounds. Recreational targeting of kingfish is increasing with the progress of modern boats and more accurate weather forecasting, and Bevan would be in support of reducing recreational bag limit from 3 to 1 kingfish per person, per day to protect the fishery, but only if the TACC was not to be increased. Troy Dando also proposes a 1 fish per person bag limit – but not if the TACC is increased.

MPI Discussion

78 If Option 1 – the status quo – is chosen, the recreational catch will need to be constrained within the current recreational allowance.

79 Recreational submitters have proposed a reduction in bag limit for KIN 7 from 3 down to 2 kingfish per person per day. MPI notes that the FMA 7 Recreational Forum also supports and shares the views of TASFISH and NZRFC with respect to a possible decrease in recreational bag limits. It is not possible to anticipate what effect decreasing the KIN 7 bag limit from 3 to 2 would have on the amount of recreational catch.

80 You could choose a reduction to bag limits if you have a sustainability concern and consider that catch should be managed at current levels or if you want to protect against future catch increases.

81 Such a reduction would be implemented by way of a separate regulatory process during 2014.

Economic Considerations

82 TASFISH and NZRFC submit that recreational fishers make a significant contribution to the local economy. They travel large distances to enjoy this fishery and spend significant amounts on gear – with reels costing up to \$1500 and lures \$30 to \$50 each. Local fishing stores report “noticing these purchases”.

83 Talley’s considers that kingfish is an unavoidable bycatch of the jack mackerel fishery, and that a more in-depth study of the economic impact of imposing a potential cap on both the jack mackerel and kingfish fisheries should have been carried out. Talley’s point out that there is 15 tonne reported kingfish catch, but the actual catch could be more in the range of 50 tonnes. The high deemed value of kingfish provides no incentive to report kingfish catch and Talley’s cite numerous instances where large trawlers in the jack mackerel fishery have caught catches of 5 tonnes in a single tow.

MPI Discussion

84 MPI notes the contribution that recreational fishers make to the Nelson/Marlborough area. The KIN 7 fishery is already managed to recognise recreational value – refer paragraph 50.

85 MPI recognises the impact of kingfish bycatch on commercial fishers, but notes the Sixth Schedule is intended as a backstop.

86 MPI does not hold the necessary information for an in-depth study of the economic impact of imposing a potential cap on the jack mackerel fishery. The submission process provides an opportunity for stakeholders to supply this information.

87 However, MPI also notes that the KIN 7 TACC does not necessarily impose a cap on the jack mackerel fishery. Fishers can return live kingfish to the sea and so have the opportunity to adjust their fishing practices to mitigate mortality of kingfish. For example – adjusting tow length, avoiding time periods and depths where kingfish are likely to be caught, modifying gear, etc.

88 Another option open for industry is to explore gear modifications to reduce bycatch of large predatory fish like kingfish. Much work has been done internationally on this approach to reducing bycatch.

89 The deemed value for KIN 7 is set through a process separate to this KIN 7 TAC review (note deemed value section of this paper). Information provided by industry is incorporated into setting the deemed value.

Stakeholder Views: Other Submissions

90 TASFISH and NZRFC both submit that the consultation process with recreational fishers has not been meaningful.

91 NZSFC supports an alternative management option based on average catch to provide incentives for commercial fishers to avoid kingfish, release them alive, and also better cover expected bycatch of dead fish. This includes:

- 100% observer coverage on chartered factory trawlers while in New Zealand waters.
- Sixth Schedule releases to be monitored and information collected on the survivability of trawl-caught kingfish.
- Considering the impact of an increase in current catch and sixth schedule releases, and an appropriate allowance for other sources of fishing mortality made.
- Monitor kingfish abundance in KIN 7
- Identify kingfish “hot spots” to provide vessels with information on how to avoid excessive kingfish catch.

92 TASFISH also submits that finer scale management within FMA 7 needs to be implemented to allow for increased utilisation and higher value. The TACC should be broken down to be management by statistical reporting areas that better reflect the geographical nature and varying abundance levels within FMA 7 and to avoid localised depletion and provide for all sectors equally.

93 Troy Dando considers that the commercial fleet should change the way that they target mackerel to reduce the amount of kingfish bycatch. Bevan Middlebrook believes that, for the 2012-13 year-to-date, 70% of the Jack Mackerel (JMA7) quota has been caught with only 4 tonnes of kingfish landed in KIN7. Bevan encourages increasing incentives to avoid bycatch.

94 Troy Dando submits on the interdependence of the kingfish and mackerel fishstocks. He questions whether the amount of pressure on the mackerel fishery is reducing the main food source for kingfish.

95 Troy Dando also considers that a kingfish tagging programme is necessary to gain information about this fishstock.

96 TOKM submits that more needs to be done to improve management in the recreational sector by developing clearer means of restraining catch where needed and a better means of obtaining catch information.

MPI Discussion

97 MPI has established regionally-based Recreational Fishers Forums as the primary engagement point between MPI and recreational stakeholders. The FMA 7 Recreational Fishers' Forum was notified at the end of May 2013 that commercial stakeholders had requested a review of KIN 7 management controls. Two meetings of the FMA 7 Recreational Forum have been held to discuss this proposal, and the formal submission process undertaken, with a period of 4 weeks to make submissions.

98 KIN 7 is a Fisheries plan Group 6 stock. The management approach for Group 6 stocks is to provide opportunities for stakeholders to develop the potential of these fisheries, while minimising costs. Monitoring kingfish abundance by any method other than commercial catch would be technically challenging and very expensive and is not an economically viable option for such a small fishery.

99 MPI notes that there is already 100% observer coverage on foreign charter vessels such as those in the jack mackerel fishery.

100 MPI notes that an appropriate allowance for other sources of fishing-related mortality is being proposed under option 2.

101 Alternative management options, finer scale management, tagging programmes, and improving the management of the recreational sector are outside the scope of this KIN 7 TAC review. These proposals would be appropriately progressed through the MPI Fisheries Planning and harvest strategy development processes.

Additional management controls

102 If you choose Option 1, maintaining the KIN 7 catch within the TAC and existing allowances would require further constraints to be introduced. These include a review of deemed value rates with a view to further increasing incentives to avoid kingfish bycatch (refer separate “Deemed Values” paper) and recreational fishers have proposed a reduction in bag limit for KIN 7 from 3 down to 2 kingfish per person per day.

103 Based on available data, it is likely that the recreational bag limit would need to be reduced from 3 down to 1 kingfish per person per day to constrain the catch below the current level and move it closer to the current allowance.

104 Any bag limit change would be implemented by way of a separate regulatory process, probably during 2014.

105 Talley’s also note that use of the Sixth Schedule is not a realistic solution as almost all kingfish entrapped in the cod-end are dead when retrieved.

106 Fishers can return live kingfish to the sea and so have the opportunity to adjust their fishing practices to mitigate mortality of kingfish. For example – adjusting tow length, avoiding time periods and depths where kingfish are likely to be caught, modifying gear, etc.

107 Another option open for industry is to explore gear modifications to reduce bycatch of large predatory fish like kingfish. Much work has been done internationally on this approach to reducing bycatch.

ASSESSMENT AGAINST STATUTORY OBLIGATIONS

Purpose of the Act

108 Section 8 of the Act says that the purpose of the Act is to provide for the utilisation of fisheries resources while ensuring sustainability. [Ensuring sustainability means maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment. Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being].

109 MPI considers that all options presented in this paper satisfy the purpose of the Act in that they provide for utilisation in the KIN 7 fishery while ensuring sustainability.

110 Both management options will ensure the long term sustainability of the stock. Option 1 is more cautious and reflects the uncertainty in information (see “Information Principles” below) about the KIN 7 stock status relative to target levels and the uncertain level of the increase in biomass. In contrast, increasing the TAC from 21 t to 41 t under Option 2 will allow for increased utilisation of the KIN 7 stock.

General Obligations

111 In setting or varying sustainability measures, you must also act in a manner consistent with New Zealand’s international obligations to fishing and the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

112 A wide range of international obligations relate to fishing, including use and sustainability of fishstocks; and maintaining biodiversity (s 5(a)). MPI considers that the management options for KIN 7 are consistent with these international obligations.

113 MPI also considers the proposed management options to be consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (s 5 (b)). Ongoing work is being done within the area covered by KIN 7 to promote policies that help to recognise customary use and management practices.

114 Section 12(1)(b) requires that you provide for the input and participation of tangata whenua and have particular regard to kaitiakitanga before setting or varying a TAC. Te Waka a Māui me na Toka iwi forum was approached for their collective view on LEA 3. No collective view was provided by Te Waka a Māui me Ōna Toka.

Information Principles

115 Under section 10 of the Act, you must take into account the information principles of the Act, these being that:

- decisions should be based on the best available information,
- decision makers should take into account any uncertainty in the available information,
- decision makers should be cautious when information is uncertain, unreliable, or inadequate, and
- 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.
- The best available information on the stock status of KIN 7 is insufficient to enable reliable estimates of $B_{CURRENT}$ and B_{MSY} . No estimates of current and reference biomass levels or relative abundance indicators are available for KIN 7. Catch has fluctuated without trend prior to and since introduction into the Quota Management System (QMS).

TAC

116 The TAC for KIN 7 is set under section 13 of the Fisheries Act 1996 (the Act).

117 Before a TAC can be set under section 13(2) of the Act, an assessment of $B_{CURRENT}$ and B_{MSY} is required. The best available information that MPI currently has on KIN 7 is insufficient to enable reliable estimates of $B_{CURRENT}$ and B_{MSY} .

118 Where estimates of $B_{CURRENT}$ and B_{MSY} are not available, section 13(2A) of the Act provides for the Minister to use the best available information to set a TAC that is not inconsistent with the objective of maintaining the stock at or above B_{MSY} , or moving the stock towards or above, B_{MSY} .

119 Under the Act there is a requirement to act on the best available information and not postpone or fail to set a TAC due to the absence of, or uncertainty in, information.

120 Best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last year.

121 Estimates of current and reference biomass are not available. But, kingfish is a productive species and the KIN 7 catch is below historical levels. There is a reasonable chance that the KIN 7 stock is rebuilding.

122 It is unlikely that either option would be inconsistent with enabling the Minister to set a TAC that is not inconsistent with the objective of maintaining the stock at or above B_{MSY} , or moving the stock towards or above, B_{MSY} .

Environmental Principles

123 Section 9 requires you to take into account the following environmental principles:

- associated or dependent species be maintained at or above a level that ensures their long-term viability
- the biological diversity of the aquatic environment should be maintained
- habitat of particular significance for fisheries management should be protected.

124 Key environmental issues associated with the KIN 7 fishery and how they will be affected by an increase to the TAC are discussed below:

- Incidental captures of seabirds do occur in this fishery. The number of such seabird captures has not been quantified. However, MPI considers the number of incidental seabird captures is unlikely to increase under either option because we do not expect the amount of trawling to increase significantly (see below).
- Increasing the TACC of KIN 7 will not necessarily increase the amount of trawling undertaken because the increase in TACC proposed is only at the level to cover current by-catch.
- As long as the fishery remains a bycatch fishery, as it has since 1992, there is no information that would suggest associated target species will be adversely affected by Option 2 – increasing the KIN 7 TAC and TACC.

Section 10 - Information principles

125 Section 10 says you must take into account the following information principles when exercising or performing functions, duties or powers under the Act in relation to the utilisation of fisheries resources or ensuring sustainability:

- decisions should be based on the best available information
- decision makers should take into account any uncertainty in the available information,
- decision makers should be cautious when information is uncertain, unreliable, or inadequate, and
- 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.

126 There is little information available upon which to base a TAC decision for KIN 7. We have no information as to whether current catch levels are sustainable and information on increasing abundance is largely anecdotal.

127 The best available information on abundance to inform TAC setting for KIN 7 at this time is the increase in commercial catch (which is greater than 99% bycatch) and anecdotal information from recreational fishers that KIN 7 abundance is increasing. However, some recreational fishers have submitted that catches have declined somewhat in the last year.

Section 11 Considerations

128 Before setting or varying any sustainability measure for any stock, you must, under Section 11:

- a) Section 11(1)(a): take into account any effects of fishing on any stock and the aquatic environment. KIN 7 is a bycatch fishery. The proposed increase in TAC under Option 2 is to current catch levels and it is not anticipated that the proposed TAC (and TACC) options would result in a significant change to fishing

operations. Therefore, it is not anticipated there will be an increase in impacts on the marine environment or on the harvest of other stocks.

- b) Section 11(1)(b): take into account any existing controls under the Act that apply to the stock or area concerned. Standard management controls apply to the KIN 7 fishery, for example deemed values, amateur bag limits, amateur and commercial minimum size limits, and fishing method constraints. The proposed changes to the TAC do not affect these measures.
- c) Section 11(1)(c): take into account the natural variability of the stock. This has been discussed above in relation to the biological characteristics of KIN 7.
- d) Sections 11(2)(a) and (b): have regard to any provisions of any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991 and any management strategy or management plan under the Conservation Act 1987 that apply to the coastal marine area and that you consider relevant. MPI considers that both options proposed are consistent with the Hector's Dolphin Threat Management Plan. MPI is not aware of any other policy statements, plans or strategies are required to be taken into account for the KIN 7 stock.
- e) Section 11(2)(c): have regard to any provisions of s 7 and s 8 of the Hauraki Gulf Marine Park Act 2000 that apply to the coastal marine area and that you consider relevant. You must have particular regard to these provisions when setting or varying the TACC. The boundaries of the quota management area for the KIN 7 stock do not intersect with the Park boundaries, therefore this criterion is not relevant to your assessment.
- f) Section 11(2A)(b): take into account any relevant fisheries plans approved under s 11A. There are no such relevant fisheries plans you need consider.
- g) Sections 11(2A)(a) and (c): take into account any relevant conservation or fisheries services, or any decision not to require such services. MPI does not consider that existing or proposed services materially affect the proposals for this stock. No decision has been made to not require a service in this fishery at this time; therefore, this criterion is not relevant to your assessment.

TACC and Allowances

129 When setting or varying a TACC for a stock under section 20 of the Act, you must, under section 21 of the Act, have regard to the TAC for that stock and allow for Māori customary non-commercial fishing interests, recreational fishing interests, and for any other sources of fishing-related mortality.

130 When allowing for Māori customary fishing interests, you must take into account any mātaimai reserve or closures/restrictions under s 186A in the relevant quota management area (s21(4)).

131 When allowing for recreational interests, you must take into account any regulations in place following a recommendation made by you the Minister under s 311 of the Act that prohibit or restrict fishing (s21(5)).

132 The Act does not provide an explicit statutory mechanism to apportion available catch between sector groups either in terms of a quantitative measure or prioritisation of allocation. Accordingly, you have the discretion to make allowances for various sectors based on the best available information. In the event of imperfect information, you are entitled to be cautious.

133 There is no proposal to increase the Māori customary allowance for KIN 7. The KIN 7 TAC was last reviewed in 2003 when KIN7 was introduced to the QMS. Information on Māori customary catch is uncertain but MPI has no information to indicate that Māori customary catch has changed significantly over the last 10 years.

134 The Whakapuaka (Delaware Bay) Taiapure, and the Te Tai Tapu, Manakiaiaua/Hunts Beach, Mahitahi/Bruce Bay, Tauperikaka, and Okura/Mussel Point mātaītai reserves are all within the KIN 7 quota management area. MPI notes that the proposals in this paper will not impact on, or be impacted by, these taiapure and mātaītai reserves. The boundaries of the quota management area for the KIN 7 stock do not intersect with the fisheries waters covered by s 186A of the Act; therefore this criterion is not relevant to your assessment.

135 New recreational fishing information has become available in the form of the national panel survey results, indicating that recreational snapper catch in KIN 7 is currently around 20 tonnes; double the current allowance of 10 t. Option 2 proposes to increase the recreational allowance by 10 tonnes (100%) to cover this current recreational catch. Under Option 1, recreational fishers have proposed that the recreational bag limit for KIN 7 be reduced from 3 to 2 kingfish per person per day to constrain recreational catch within the current recreational allowance. (MPI notes that such a regulation change would not be able to be implemented until 2014 because of the timeframes required by the regulatory process.)

136 There are no areas closed to commercial fishing methods made under s 311 of the Act in place in the KIN 7 quota management area; therefore this criterion is not relevant to your assessment when allowing for recreational interests.

CONCLUSIONS

137 Since the introduction of KIN 7 to the QMS in 2003, the commercial catch of KIN 7 has exceeded the TACC for three of the nine fishing years. This has occurred despite high deemed values and the ability to use the Sixth Schedule of the Act to return live kingfish to the sea. KIN 7 is not a target fishery and the majority of this over-catch is bycatch of the jack mackerel mid-water trawl fishery.

138 New information is available regarding the recreational catch in KIN 7 indicating that current recreational catch is significantly in excess of the recreational allowance.

139 We have no information as to whether current catch levels are sustainable. However, commercial kingfish targeting effectively ceased during the mid 1990s and the KIN 7 TACC is significantly below the pre-QMS average.

140 Kingfish has traditionally been managed as a commercial bycatch fishery (by policy rather than by law) because of its value to the recreational sector.

141 Option 1 (the status quo) reflects a cautious approach, reflecting the uncertainty in information about the KIN 7 stock status relative to target levels and the uncertain level of any increase in biomass. This option proposes retaining the current TAC, TACC and allowances.

142 Maintaining the KIN 7 catch within the TAC and existing allowances would require further constraints to be introduced. These could include a review of deemed value rates with a view to further increasing incentives to avoid kingfish bycatch; amendments to the TACs and TACCs of one or more of the associated target fisheries to reduce total kingfish bycatch; review of the recreational daily bag limit, from 3 kingfish per day to 2 kingfish per day, with a view to restraining recreational catch within the recreational allowance. (MPI notes that alteration of the recreational bag limit would require an additional regulatory process and changes would not be implemented until 2014.)

143 Option 2 proposes changes to the TAC that are intended to accommodate what is currently taken as commercial bycatch and recreational catch. To support this option, MPI proposes introducing a revised differential deemed value rates schedule for KIN 7 (refer separate “Deemed Values” paper) to further encourage fishers to remain within the proposed new TACC limits (refer to Deemed Value IPP) (kingfish is on the Sixth Schedule and live fish may be returned to the sea).

144 Option 2 is unlikely to encourage development of a KIN 7 target fishery, consistent with the decisions made on introduction of the stock into the QMS in 2003.

RECOMMENDATIONS

MPI recommends that, for the KIN 7 fishery, you choose either

Option 1

YES / NO

Agree to retain the existing TAC, TACC, and allowances for KIN 7 as follows:

- i) **retain** the existing TAC at 21 tonnes,
- ii) **retain** the Māori customary fishing allowance at 2 tonnes,
- iii) **retain** the recreational fishing allowance at 10 tonnes,
- iv) **retain** the other sources of fishing-related mortality allowance at 2 tonnes,
- v) **retain** the existing TACC at 7 tonnes.

Note that recreational fishers have proposed a reduction in bag limit for KIN 7 from 3 down to 2 kingfish per person per day. Such a reduction would be implemented by way of a separate regulatory process during 2014.

OR

Option 2

YES / NO

(MPI preferred)

Agree to vary the TAC, TACC, and allowances for KIN 7 as follows:

- i) **set** the TAC at 41 tonnes,
- ii) **retain** the Māori customary fishing allowance at 2 tonnes,
- iii) **set** the recreational fishing allowance at 20 tonnes,
- iv) **set** the other sources of fishing-related mortality allowance at 4 tonnes,
- v) **set** the TACC at 15 tonnes.

AGREED / AGREED AS AMENDED / NOT AGREED

James Stevenson-Wallace
Director Fisheries Management

Hon Nathan Guy
Minister for Primary Industries

/ / 2013