

S77XX

5 December 2006

Minister of Fisheries

APPLICATION OF MEASURES TO MITIGATE SEABIRD BYCATCH

Purpose

1 The purpose of this paper is to report the results of consultation with stakeholders on your proposal to implement emergency measures to manage seabird bycatch in the surface longline fishery and to seek your final decision on the implementation of such measures.

Background

2 The Ministry of Fisheries (MFish) sought your views on a course of action to address a recent incident where a significant amount of seabird bycatch was taken by the *Seawin Emerald*, an Australian-owned vessel targeting swordfish and tuna in the Kermadec Fisheries Management Area (briefing S7723).

3 MFish advised that one option available to you as an emergency measure was the closure of the Kermadec Fisheries Management Area (Kermadec FMA) to surface longline fishing for a three month period (likely to be December 2006 – February 2007). It is not clear that the excessive level of seabird interaction observed was due to the actual area that was fished. However, the area is one of the primary fishing grounds for the application of a new fishing technique targeting swordfish and tuna and is an area where Antipodean albatross have recently been abundant.

4 MFish further advised that there was a significant risk that closing the Kermadec FMA may shift effort to other areas, rather than reduce the use of this fishing technique overall. The same high-risk seabirds are distributed within coastal waters particularly in areas around East Cape. There is the potential that the same fishing techniques applied in these areas could also result in

unacceptable levels of seabird bycatch. MFish therefore recommended that a second option available to you as an emergency measure was to require the compulsory night setting of all surface longlines within New Zealand's EEZ for a three month period. Setting during the hours of darkness has been shown to greatly reduce bycatch of albatross¹.

5 Based on that advice you instructed MFish to consult on your behalf on a proposal to implement these emergency measures in response to the incident of seabird capture. MFish has undertaken consultation and a discussion of the outcomes of this consultation are detailed in this paper.

Consultation process

6 Your letter to stakeholders asked for written submissions to be received by 5pm Wednesday 29th November. This letter was sent by facsimile to key stakeholders and each was contacted by telephone directly where possible. MFish recorded verbal commentary during this process, to be considered in addition to written submissions received.

Submissions Received

7 Submissions were received from the following stakeholders:

- a) Aotearoa Fisheries Limited
- b) Beth Chapman-Taylor
- c) Dale Coker
- d) E. W. Gartrell, Barrister and Solicitor, on behalf of a client
- e) Graeme Bell
- f) John Dyer
- g) Karl Bennett
- h) Kerren Packer
- i) M & B Fishing Limited
- j) New Zealand Federation of Commercial Fishers
- k) Oceanlaw New Zealand, on behalf of a number of fishers
- l) Pescatore Fishing Limited
- m) Robert Aitken
- n) Royal Forest and Bird Protection Society of New Zealand
- o) Royal Forest and Bird Protection Society of New Zealand –Tauranga branch
- p) Salvatore Zame
- q) Sanford Limited
- r) Seafood Industry Council
- s) Steve Haddock

¹ Klaer, N., Polacheck, T., 1998. The influence of environmental factors and mitigation measures on by-catch rates of seabirds by Japanese longline fishing vessels in the Australian region. *Emu* 98: 305–316.

- t) Talley's Fisheries Limited
- u) Te Ohu Kaimoana
- v) The Solander Group
- w) Tuna Management Association
- x) Worldwide Fund for Nature

General Comments

8 Most submissions received were supportive of the need to ensure that seabird captures of this scale do not happen again. Most submitters however, voiced concern regarding the implications of the emergency measures proposed. Most expressed a willingness to work with officials to develop alternative mitigation solutions for implementation either as voluntary controls or by regulation in the longer term.

9 Royal Forest and Bird Protection Society of New Zealand (Central Office, and Tauranga Office), Kerren Packer, Graeme Bell and Worldwide Fund for Nature are in strong support of both emergency measures proposed.

10 Key issues raised by stakeholders are discussed in this brief. Detailed summaries of all submissions are provided for your information in Appendix One, and the full submission from the Seafood Industry Council is provided at Appendix Two.

11 In this advice MFish first consider what mechanisms could be used to implement measures to mitigate further albatross catches, and then consider what measures would be most suitable.

Targeting measures to sources of risk

12 SeaFIC submit that a particularly disappointing aspect of the proposed emergency measures is that they are directed at the entire surface longline fleet, throughout the EEZ, yet the incident that has provoked this reaction is extremely specific – i.e., it relates to the targeting of swordfish by a single vessel operating in the Kermadec FMA. SeaFIC considers that it is completely inappropriate to impose measures on an entire fishing fleet when there are options available to target the measures at the specific source of risk.

13 This view is shared by the majority of fishers spoken to, and that made submissions, who have expressed considerable concern that they are being unnecessarily “punished” as a whole, for the actions of a single vessel. Regardless of whether or not the emergency measures proposed cause any effect, fishers are of the view that the approach is neither a fair nor a reasonable response to the incident in question. In particular, questions were raised about why more targeted action couldn't be taken against the operators who are actually causing the problem.

14 Fishers are also extremely concerned that the general approach of measures applying to the whole of the surface longline fishery means that they are being implicated in the albatross deaths. They assert that they have long been active advocates of seabird mitigation measures, and that interactions have been declining over time because of their responsible behaviour. They feel that their reputation and the good work they have done over the years will be tarnished not only by the incident involving the *Seawin Emerald*, but by the approach taken to managing it.

15 MFish recognises that many participants in the New Zealand domestic surface longline fishery have been very active in the development and deployment of seabird mitigation devices in

their fishery, as well as actively seeking to modify aspects of the fishing activity to avoid seabird interactions (as demonstrated by the relatively low numbers of albatross caught in recent years). MFish also recognises that the general approach in this instance may be seen as unfair by that part of the Industry who have been working co-operatively for many years to address bycatch problems.

16 However, under the current management framework, there are no provisions to deal specifically with the incident –that is, it is not against the law to catch 51 albatross. On 10 out of 12 sets, measures required by regulations when taking tuna (i.e. tori lines that meet specific standards) were not used on the *Seawin Emerald* and this is currently being investigated. Should it be shown that rules or regulations were not adhered to without adequate explanation, then specific action against the vessel can be taken. However, as the regulations apply to the taking of tuna, it is not clear whether they are currently broad enough to apply to vessels targeting other fish species by surface longlining (even where tuna is a bycatch).

17 There are, however, limited provisions within the Act that allow for the imposition of controls specific to individual vessels or vessel operators. In the case of foreign-owned vessels the consent of the Chief Executive is required before they can be registered as New Zealand fishing vessels. This consent can be issued conditionally or unconditionally. However, it is unlikely that this mechanism can be used to impose sustainability conditions on the vessel. Future registrations of foreign-owned vessels intending to target swordfish and or tuna can be issued subject to appropriate conditions. For example, it would be MFish’s intention to condition such registrations with the requirement that an observer be on board the vessel at all times while fishing. Such a condition is not without precedent.

18 Also, there is no empowering provisions for the Chief Executive to amend or revoke the conditions of consent, and therefore even if available, this mechanism could not be applied to the *Seawin Emerald*. Further, any foreign charter vessel operator could obviate these conditions by reflagging the vessel as a New Zealand ship. Based on comments from a representative of the vessel operator, MFish understands that such action is being considered for the *Seawin Emerald* and her sister ships that are being brought over from Australia.

19 Regardless of these options, the concern in this instance is not the vessel itself, but the methods that were being used by the vessel. The *Seawin Emerald* was operating in daylight and longlines were being set shallow in the water, techniques not commonly applied in New Zealand waters (see Appendix Three). These techniques make the risk of seabird bycatch very high. Further, even when the vessel deployed a tori line (though not to required specifications), in some cases it was clearly ineffective, with 15 birds caught in a single set when a tori line was deployed.

20 More importantly, the techniques generating this seabird bycatch risk are not restricted to a single vessel. As highlighted in previous advice to you, it is likely that at least two other vessels are actively applying this new technique of surface longlining, and that three more *Seawin* vessels are being brought over from Australia expressly for this purpose. Therefore, it is likely the risk will increase over time as effort expands. MFish can confirm a recent case of a further seven Wandering albatross mortalities. MFish considers that the fundamental question is not how to stop the *Seawin Emerald* from fishing, but how to effectively mitigate the immediate risk posed by this new surface longlining technique to the vulnerable albatross species.

21 Some submissions also requested that measures be put in place for vessels specifically targeting swordfish. It is recognized that the risk to albatrosses that we wish to mitigate is based on fishing practices that are associated with large catch rates of swordfish. However it is very difficult to explicitly identify the swordfish targeting fleet in order to apply direct mitigation measures to

these vessels. For example, options for identifying swordfish targeting include:

- a) Swordfish Quota or Annual Catch Entitlement (ACE) holdings: this will identify permit holders who currently have a right to catch swordfish. It does not identify the vessels that they will use or the fishing practices that they will employ to catch swordfish. Further, under the Fisheries Act a fisher does not need to have swordfish ACE to catch swordfish. It is possible for any fishing vessel with a fishing permit to go fishing using these fishing practices to catch swordfish and then seek to obtain ACE before the end of the fishing year.
- b) Reported target species: On catch and effort forms fishers are required to report the target species, however, the species reported has been shown to have little meaning and is often written after the fishing event. Fishers tend to report either the species first caught; the species most dominant in the catch; or the species they were trying to catch. Given that there is no definitive way to prove that somebody is targeting swordfish it is possible that those actually targeting swordfish could change their reported target species to avoid any extra regulatory requirements.
- c) Fishing practices: As shown in the analysis of the fishing practices in Appendix Three, there are some patterns in fishing which are clearly associated with targeting swordfish. These are the setting of the longline before sunset and setting the hooks at a shallow depth (as defined by the use of low numbers of hooks per basket). These are the factors that are linked to increased risk of capture of seabirds and turtles. While most sets reported as targeting swordfish have these characteristics, the use of daytime setting is also used to a much lesser extent for targeting of tunas.

Summary

22 MFish concludes that it is the fishing technique being used by the *Seawin Emerald* (whether it is used to target swordfish or tuna) that is of concern, rather than the vessel itself. While it would be desirable to more specifically target measures to the source of risk any regulatory measures to define the method considered to pose the risk would require detailed specification. In the short term, and without industry collaboration, there is a significant risk that such a definition would be open to abuse and the measures would not constitute credible fisheries management. Further, it is the method of shallow setting of surface longlines, whether targeting tuna or swordfish, that is of concern in this instance.

Response to Emergency Mechanism Proposed to Implement Management Measures

23 A number of stakeholders and stakeholder representative groups including SeaFIC, AFL TMA, Oceanlaw and TOKM submit that the use of emergency measures in this instance is inappropriate, damaging to the industry and more particularly the statutory tests of s16 of the Act are not met in this case. Oceanlaw in particular says that if emergency measures are implemented they will apply to the High Court to have the decision set aside.

24 Emergency measures are made under section 16 of the Fisheries Act 1996 (the Act) when various conditions are met. Under that section you can take emergency measures if satisfied there is or has been:

- a) An outbreak of disease; or
- b) A serious decline in the abundance or reproductive potential of one or more stocks or species; or
- c) A significant adverse change in the aquatic environment.

25 As emergency measures can be implemented with a greater degree of immediacy than most other measures open to you the level of certainty of information required to act under this provision is likely to be greater than for taking sustainability actions under other provisions of the Act. There needs to be a compelling reason to act now based on information to hand and you need to consider very seriously any uncertainties in the information that form the basis of your actions. You need to be reasonably certain on the information available that an emergency of the sort prescribed in s 16(1) exists and that immediate measures are required. In particular, in this situation you would need to be satisfied that the long term viability of the albatross species was put at risk by a serious decline in the albatross species due to surface longlining. Legal advice about the use of s 16 in these sorts of situations is attached.

26 If you are satisfied that the situation qualifies as an emergency under s16 then you can put in place measures under that section to address that emergency. However, any measures used should go no further than is necessary to address the immediate problem.

27 Situations of serious decline of a vulnerable albatross population can fit within the provisions of s 16, but the threshold is high. Whether the *Seawin Emerald* situation meets the threshold or not is ultimately a matter of judgment based on the science surrounding the imminent threat to the long term viability of the albatross species taken. You would also need to be reasonably certain that this level of catch isn't just a one off event but is likely to occur again in the immediate future if no measures are taken.

28 At this time, the scientific information available is not sufficient to indicate what level of take of Antipodean albatross by New Zealand longline fisheries would result in a serious decline in the population of Antipodean albatrosses. A full assessment of the impacts on the Wandering albatross are provided for your information in Appendix Four.

29 Antipodean albatrosses by their nature are highly vulnerable to population change as a result of mortality of adult birds. Their foraging ecology and distribution makes them susceptible to mortality in surface longline fisheries, such as that for swordfish. Assessments of threat status for the species indicate that a more severe threat status would likely be accorded if rapid population declines were noted. It is unknown at this point how many individuals would need to be removed from the Antipodean albatross populations before rapid decline would occur. The nature of the populations is such that measuring such a decline is likely to take some years, even if events to cause the decline occurred in the immediate future.

30 The use of emergency provisions of the Act has a high threshold. It involves in this case both an assessment of the biological risk and an assessment of the likelihood of repeat events of high seabird strikes. From the information summarised above the biological risk is uncertain and it could take an appreciable time to detect any significant decline in albatross populations. It is clear that albatross populations are vulnerable and despite the relatively large population numbers their reproductive strategies place them at risk.

31 In relation to the likelihood of repeat occurrences of high strike rates, MFish has learned that another vessel involved in targeting swordfish, *Santa Maria 11* returned to port yesterday and seven Wandering albatross and one petrel had been killed during three longline sets on its fishing

trip. Further, the *Seawin Emerald* is preparing to leave port today to fish in northern waters outside of the Kermadec FMA. An observer will be on board this vessel however MFish has not yet been advised of its intended mitigation strategy following the events of its most recent fishing trip and despite submissions of the vessel operators to the contrary. MFish considers that there is a risk of repeat events given experience to date with shallow set longlines intended to target swordfish and tuna, however the significance of the risk is highly uncertain.

32 While uncertainty is no reason to postpone decision making, coupled with the new assessment of biological information, this leads MFish to conclude that the threshold for the use of emergency measures has not currently been met.

Summary

33 MFish does not now consider that this incident constitutes an emergency requiring action under s16 of the Act. This assessment is open to review if significant bycatch does re-occur in the future. MFish also expects better information to be available from modeling albatross populations in the near future

34 While not an emergency, MFish does consider that urgent mitigation action is required, a view shared by the majority of stakeholders that provided submissions. MFish therefore considers that alternative mechanisms available to you for implementing mitigation measures are:

- a) Permit conditions
- b) Section 11 measures

Permit conditions

35 Rather than using emergency measures to manage the risk associated with this new fishing technique, many submitters questioned whether measures could be better implemented through fishing permits.

36 The Chief Executive is empowered under s 92 of the Act to set fishing permit conditions that relate amongst other things to:

- i) Areas and or methods.
- ii) The use or non-use of vessels, and the specific vessel if any that can be used...

37 Conditions on fishing permits could be imposed at relatively short notice (approximately 10 days), however a precondition is that all permit conditions for a stock must be substantially the same for all permits unless there are stated grounds to have differing conditions.

38 The conditions that may be imposed on fishing permits may be more restrictive or more onerous than the conditions imposed on fishing by regulation or notice pursuant to s92(3). This mechanism could be used to set conditions for the use of surface longlines or the targeting of swordfish by surface longlines. There are no specific legislative consultation requirements for the application of permit conditions but the Chief Executive would need to provide an opportunity for those particularly affected by them to comment on the proposed conditions. However, permit conditions cannot be used to establish a broader regulatory framework, and a more direct, and preferred, approach is to use the specific provisions of the Act intended to address sustainability

measures.

Section 11

39 Section 11 of the Act allows you to set or vary any sustainability measure for one or more stocks or areas, after taking into account any effects of fishing on any stock and the aquatic environment; any existing controls that apply to the stock or area concerned; and the natural variability of the stock concerned. Ensuring sustainability includes avoiding, remedying or mitigating any adverse effects of fishing on the aquatic environment. The aquatic environment includes aquatic life, which in turn includes seabirds (whether or not in the aquatic environment).

40 Section 11 outlines a non-exhaustive list of sustainability measures that you may apply to a stock. It includes, but is not limited to measures that may relate to catch limits, biological characteristics of stocks, fishing areas, fishing methods and fishing seasons. You may implement any such measures by notice in the Gazette or by recommending the making of regulations.

41 However, before implementing any s11 sustainability measure you must consult with persons or organisations that have an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Maori, environmental, commercial, and recreational interests, as well as provide for the input and participation of tangata whenua.

42 MFish considers that it is open to you to use the Gazette provisions of s11 to implement measures in the short term. In this case, given that consultation on two interim proposals has already occurred, MFish considers that a short period of consultation, given the circumstances, would be sufficient prior to any final decision to implement a short term measure by Gazette notice early in 2007. When alternative longer term measures have been developed the Gazette notice defining short term measures could be revoked.

Longer-term solutions

43 MFish accepts that the management measures available to you are interim measures pending the development of a longer term approach to seabird mitigation supported by a more rigorous monitoring program. Worldwide research is indicating that multiple mitigation strategies are required particularly in areas or at times of high risk of seabird interactions. Such measures include offal management strategies, line weighting, differing tori lines designs among others and a continued need to monitor performance in a range of different fishing conditions.

44 MFish applauds the willingness expressed in submissions (in particular the operators of the *Seawin Emerald*) to work with all concerned parties to develop long term solutions and to maintain these under review. To this end, once your decisions are known, MFish will work with the officials and stakeholders to determine the longer term mitigation strategies for the fishery.

Specific management measures available for implementation

Closing the Kermadec FMA to surface longlining

45 In its initial advice to you, MFish considered that based on catch effort data, most New Zealand surface longliners did not actively fish in the Kermadec area, and of those that did, most were fishing in the latter half of the fishing year. Information received from stakeholders through the submission process indicates that:

- a) Fishers object as a matter of principle to the generality of the measures, those

targeting tuna being concerned that they are impacted by activities not of their making;

- b) The Kermadec FMA is considered to be an important area for fishing for bigeye tuna at the time of the proposed closure and is relied on by some fishing operators;
- c) New Zealand flagged surface longline operators who fish in the area, predominantly for swordfish, claim to be able to avoid significant seabird bycatch;
- d) Several fishers had planned on fishing the Kermadec area for the first time this season.

46 As a result, many fishers have rejected the idea that closing the Kermadec area for three months to surface longlining will not have an adverse effect on the domestic fleet.

47 MFish has subsequently looked in greater detail at patterns of surface longline fishing in the Kermadec area (Table 1). Most catch in the area is apparently taken in the first and fourth quarters (Oct –Dec and Jul – Sep respectively). However, small catches are recorded throughout the year so a temporary closure from December through to February could affect a number of participants in the surface longline fishery. Although the magnitude of catches in the area does not appear to be substantial, swordfish, and tuna in particular, are valuable species and even small catches represent a significant economic return to the fishers involved. Also, while the actual number of vessels fishing in the area does not seem very high, it is a significant proportion of the fleet. For example, 7 vessels fishing in the Kermadec area in 2005/06 represents over 10% of vessels participating in the surface longline fishery.

Table 1. Reported landings of swordfish and tuna in the Kermadec Fisheries Management Area during each fishing quarter since 1996/97.

Fishing year	Vessels	Swordfish reported landings (Kg)					Total reported landings (tuna species and swordfish) (Kg)				
		Fishing quarter					Fishing quarter				
		1	2	3	4	Total	1	2	3	4	Total
1996/97	2	0	0	100	0	100	880	0	297	0	1,177
1997/98	1	0	0	60	0	60	0	0	1,100	0	1,100
1998/99	6	0	0	7,850	4,432	12,282	0	0	8,630	12,910	21,540
1999/00	13	7,145	180	90	2,467	9,882	13,555	1,523	185	6,642	21,905
2000/01	21	11,870	40	2,119	11,985	26,014	20,375	190	5,853	42,268	68,686
2001/02	23	2,865	200	0	6,225	9,290	10,555	270	350	18,107	29,282
2002/03*	9	12,420	1,690	0	4,917	19,027	18,570	2,697	0	12,886	34,153
2003/04	4	1,859	0	1,520	0	3,379	2,740	70	1,938	0	4,748
2004/05	3	0	0	0	3,460	3,460	0	0	0	7,999	7,999
2005/06	7	240	160	15,565	53,401	69,366	659	160	15,815	66,644	83,278

* Catches from two foreign chartered vessels targeting albacore tuna not included.

48 It is apparent that closing the Kermadec area to surface longlining will have a larger impact than previously assessed, even if the measure is only in place for a short period of time. However this impact relates primarily to the inclusion of the area in the annual fishing plans of a small number of fishing companies, the intentions of other fishers to fish in the area and the expansion plans of those who hold quota to take swordfish.

49 MFish accepts that some fishers place reliance on the area for a proportion of their catch and are legitimately concerned that they are impacted by the practices of others. MFish has examined observer reports from one of the vessels claiming the area as a traditional tuna fishing area at this time of year and accept that the incidence of seabird captures was low and that the vessel applied a range of mitigation techniques. Deep set tuna surface longlines pose less of a risk of bird strike particularly if multiple mitigation strategies are employed, however, MFish has concluded that it would be difficult in the short term to specify a swordfish target fishing method using surface longlines because of the ease with which any attempted definition could be subverted.

50 Further, it cannot be confirmed that fishing in the Kermadec FMA led to the high incidence of seabird catch. It is possible if the same technique was used off the east coast of the North Island for example, it could also lead to high catches as the albatross species involved are also found in these areas.

Summary

51 While albatross are known to be distributed in the Kermadec FMA and are clearly vulnerable to capture in parts of the area, the seasonality and extent of their distribution is not known precisely. What is also clear is that albatross are distributed in other parts of New Zealand fisheries waters and are equally vulnerable in throughout their distribution. MFish no longer considers that a closure of the Kermadec FMA is an effective and targeted mitigation measure.

Requiring the setting of surface longlines at night

52 In its initial advice to you, MFish also considered that requiring surface longline vessels to set their lines at night would have little impact on the domestic fleet as most fishers claim to only set at night. Submissions were quite varied on this issue. In particular, there was a level of confusion amongst fishers regarding what aspect of the operation would need to be undertaken at night, with some particularly concerned that they would need to set longlines, fish and then haul their lines at night only.

53 Given that albatross are day time feeders, more active around dawn and dusk, MFish considers the a requirement to set lines only at night is possibly the single most effective short term mitigation measure that could be imposed. MFish acknowledges that a new method is the one creating the most significant risk to seabirds in the short term but has concluded that defining this method is impractical at this stage.

54 Many fishers spoken to supported the measure and agreed that it would have little impact provided care was taken with specifying the hours allowed to set longline gear. Other submissions received, however, expressed concern for the measure because they are currently setting during the day. Of principle concern to these fishers was:

- a) It is safer to set during daylight hours;
- b) Swordfish can't be caught effectively at night; and
- c) Some surface longlining for yellowfin occurs during the day.

55 MFish notes that despite these concerns, over 80% of the domestic tuna fleet set their lines later than half an hour after "nautical dusk" (see Appendix One). Although there have been some records of vessels setting as early as 2pm, daytime setting is clearly not a common practice in the domestic tuna fleet and prohibiting daytime setting for three months is unlikely to have a significant

adverse effect on the majority of the fleet. It is noted that there is some targeting of other tunas, using deeper set lines, that occurs during daytime hours (from 9% of southern bluefin to 50% of yellowfin² sets occur during the day), however, there is far less reliance on this practice for target tuna fisheries than target swordfish fisheries.

56 Concern was also expressed by significant swordfish quota owners that a constraint on daytime setting would devalue the fishery, by reducing port prices, increasing catch costs and lowering ACE prices thereby undermining the economics of the fishery. You are referred to the submissions of Talley's Fisheries Limited, Ocean Law, and Mr Tony Muollo on behalf of Pescatore Fisheries Limited (Appendix Two) who claim that this measure would significantly impact upon the value of their assets in the swordfish fishery.

57 MFish agree that the new techniques being applied during the day are more effective at catching swordfish and that prohibiting daytime setting will adversely affect the proportion of the fleet that are using the technique. However, substantial amounts of swordfish have previously been taken in New Zealand waters by fishers setting at night in deeper waters, so the access to the fishery on the whole will not be restricted.

58 MFish notes that the proposed measure is only to be in place until such time as more detailed measures are developed. Any meaningful change in the economics of the fishery is unlikely to occur during this time. In particular, the economics of the fishery are not presently considered to be stable, so it is unlikely that temporary measures will have any noticeable overall effect.

59 Further, as a relatively new target fishery, it is reasonable to expect that any undue impacts are managed even if this affects the economics of fishing. While New Zealand swordfish vessels claim that they can effectively manage any potential impact on seabirds, recent information contradicts this.

Summary

60 Avoiding daylight and twilight hours while setting shallow longlines intended to target swordfish and tuna is likely to be an effective mitigation measure in the short term. If this measure is applied to all surface longline fishing, there will be an impact on some tuna target fisheries and most swordfish target fisheries. If, on the other hand, the measure is made specific to swordfish target fishing, there is a significant risk that fishers will subvert the measure by simply reporting that they are targeting other species. If considering implementation of this measure by s 11 Gazette notice, further consideration and advice on its effects on utilisation can be provided following additional consultation.

Tori Lines

61 The *Seawin Emerald* was not using tori lines for a majority of the sets during the trip where 58 seabirds were captured. Regulations relating to the requirement of tuna longliners to use tori lines make no reference to swordfish targeted surface longlining. However, swordfish is taken by surface longline in conjunction with tuna, and MFish considers that the regulations should apply given that a high proportion of swordfish target sets take tuna as bycatch. MFish considers that fishers would have a reasonable expectation of taking tuna while targeting swordfish.

² Note that the yellowfin tuna fishery is relatively small, with only 9 tonnes caught in the 2005/06 fishing year.

62 For the removal of doubt, MFish proposes that a short term measure be to specify that all surface longliners must use tori lines.

63 MFish recognises that multiple mitigation measures will be required in the long term. In the short term MFish considers it important to confirm that tori lines of appropriate standards are deployed during the setting of all surface longlines. In the longer term there is uncertainty whether tori lines alone would be sufficient to mitigate seabird bycatch when setting during the day, or at night during the full moon, given that tori lines were used by the *Seawin Emerald* and the *Santa Maria 11* when they caught Wandering albatross.

Improved Monitoring

64 There is wide industry support for the need to mitigate seabird interactions; SeaFIC further agree that more observer coverage is required.

65 The Chief Executive has power to place an observer on any vessel to observe fishing or to collect information on the effect of fishing on the aquatic environment. However, MFish has no ability in advance to determine when and where fishers intend to operate. This is an impediment to ensuring adequate coverage.

66 If you accept the option of interim mitigation measures pending the development of longer term measures in conjunction with a higher level of observer coverage other measures will be required. These include:

- a) An operational plan to determine the level of observer coverage and manage the deployment of observers.
- b) A short term measure to require operators to register their intent to fish the area and or use the fishing method and require at least five working days notice of their departure to the fishery so that observer coverage can be arranged.

Department of Conservation Views

67 The Department of Conservation (DoC) supports the temporary closure of the Kermadec Fishery Management Area while appropriate mitigation measures are developed and implemented.

68 In any event, DOC strongly supports implementation of night-setting and considers that this will reduce albatross bycatch significantly. DoC notes that night-setting alone does not eliminate risk of seabird bycatch, including catch of albatrosses. Some elements of the fishing operation still occur during the day, notably hauling. Birds were released alive by the *Seawin Emerald* crew, and while it is not possible to determine the time of capture for those birds, at least some may have been caught on the haul.

69 The tenacity of seabirds in targeting baited hooks on lines, and the occurrence of seabird bycatch during periods other than setting, renders it essential to deploy mitigation measures targeting different stages of the fishing operation. DOC strongly supports the implementation of night-setting, as well as effective tori lines and line-weighting.

70 Minimally, line-weighting should include the attachment of weighted swivels. Finally, DOC notes that baits and offal were discarded during the haul, creating an attractant for foraging seabirds during this period. Offal and 'old'/used baits must be retained during hauling and setting.

Conclusions

71 MFish notes the support for your proposal to implement emergency measures in this circumstance from DoC, Forest and Bird, WWF and recreational fishing submitters, and acknowledges the views expressed that long term measures will be required to address the interaction between seabirds and swordfish fishing.

72 MFish's initial advice to you regarding the impact of the proposed emergency measures on the tuna longline fleet as a whole was that confirmation from a consultation process was required. Submissions have pointed to a much greater impact than initially anticipated because:

- a) Fishers object as a matter of principle to the generality of the measures;
- b) The Kermadec FMA is considered to be an important area for fishing for bigeye tuna at the time of the proposed closure and is relied on by some fishing operators;
- c) New Zealand flagged swordfish operators who fish in the area claim to be able to avoid significant seabird bycatch;
- d) A requirement to set longlines during the hours of darkness will put human safety at risk and will result in reduced catch rates of swordfish and associated economic effects;
- e) Some setting of tuna longlines (properly mitigated) occurs in daylight hours and some fishers think flexibility will be lost and/or fisheries (e.g. yellowfin tuna) impacted; and
- f) Confusion that the proposed measure requires all aspects of the fishing operation to be completed in the hours of darkness (both setting and hauling).

73 With regard to the generality of the measures proposed MFish has concluded that it would be difficult in the short term to define the method of setting longlines to target swordfish in such a way that there was not a high risk of the measure being subverted. The short term measures proposed are therefore, of necessity, general in nature.

Implementation Mechanism

74 Due to the higher levels of certainty required for s16 emergency measures compared to other sustainability measures, as well as uncertainty surrounding the biological risk, MFish does not now consider that this incident currently meets the thresholds required by s16 of the Act. This assessment is open to review if significant bycatch does re-occur in the future or further scientific information confirms that there is more than a low risk that the catch rates may threaten the albatross species. MFish expects better information to be available from modeling albatross populations in the near future

75 While science advice on the risk associated with further albatross mortalities is uncertain, MFish does consider that urgent mitigation action is required, a view shared by the majority of stakeholders that provided submissions. MFish therefore considers that alternative mechanisms available to you for implementing mitigation measures are permit conditions and s 11 measures.

76 The Chief Executive is able to impose controls on fishing areas and methods via permit conditions and to amend these over time as considered appropriate. If you decide to adopt this

approach the Chief Executive could be asked as a matter of urgency to consider imposing conditions relating to the setting of surface longlines. However, MFish considers that it is not desirable to use permit conditions to set up a regulatory regime for this developing fishery.

77 Section 11 of the Act allows you to set or vary any sustainability measure for one or more stocks or areas, after taking into account any effects of fishing on any stock and the aquatic environment; any existing controls that apply to the stock or area concerned; and the natural variability of the stock concerned. MFish considers that it is open to you to use the Gazette provisions of s11 to implement mitigation measures in the short term. When alternative measures have been developed the Gazette notice defining short term measures could be revoked.

Mitigation Measures

78 In its initial advice to you, MFish proposed two mitigation measures –closing the Kermadec FMA and prohibiting the setting of surface longlines during daytime hours.

79 MFish has presented further catch information on fishing in the Kermadec FMA to allow you to better assess the impact of a short term closure of the fishery. Given the increased importance of the Kermadec FMA to the surface longline fleet, and the scientific analysis that indicates that it is the method of fishing rather than the area that is responsible for the higher level of seabird bycatch, MFish no longer considers that a closure of the Kermadec FMA is an effective and targeted mitigation measure.

80 A prohibition on setting longlines during the day is likely to be the most effective short term mitigation measure available as albatross are daytime feeders which are particularly vulnerable at dusk. This measure would also apply throughout New Zealand fisheries waters covering the full range of albatross vulnerable to the New Zealand domestic fishery. There will be some impact on target fishing for tuna (yellowfin during summer months) and an impact on the economics of swordfish fishing by surface longline if this measure is applied to all surface longline fishing. MFish notes, however, that it is intended as a short term measure while more detailed mitigation and monitoring strategies are developed. MFish notes the recent advice of further seabird mortalities in recent days.

81 Regulations relating to the requirement of tuna longliners to use tori lines make no reference to swordfish targeted surface longlining. However, swordfish is taken by surface longline in conjunction with tuna, and MFish considers that the regulations should apply given that a high proportion of swordfish target sets take tuna as bycatch. MFish considers that fishers would have a reasonable expectation of taking tuna while targeting swordfish. For the removal of doubt, MFish proposes that a short term measure be to specify that all surface longliners must use tori lines.

82 Given the ongoing importance of monitoring the effectiveness of mitigation measures in place in the fishery, there is a clear need for increased observer coverage. To assist in planning for this, a further measure recommended is a requirement that all operators intending to target swordfish or tuna using shallow-set surface longlines notify the MFish observer program of that intention and give five days notification of departure for each fishing trip.

Recommendation

83 It is recommended that you:

- a) **Note** that MFish is now of the view that the statutory threshold for the use of

emergency provisions of the Fisheries Act 1996 has not been met.

- b) **Agree** that there is still a need to consider implementation of interim measures to mitigate the incidental bycatch of seabirds by surface longlining for tuna and swordfish;
- c) **Agree** to consult on the proposed mitigation measures, pursuant to s11 of the Fisheries Act 1996, to:
 - i) Require that all surface longlines be set at night (0.5 hours after nautical dusk to 0.5 hours before nautical dawn);
 - ii) Confirm that tori lines are required to be carried and used while setting all surface longlines;
 - iii) Require fishers intending to target fish for tuna or swordfish using shallow set longlines to notify the MFish observer programme of their intention and also provide at least five days notice of departure on a fishing trip
- d) **Sign** the attached letter of consultation to stakeholders, pursuant to s12 of the Fisheries Act 1996, on the proposed measures outlined in c) above.



Arthur Hore
for Chief Executive
Ministry of Fisheries

APPROVED / NOT APPROVED / APPROVED AS AMENDED

Jim Anderton
Minister of Fisheries

/ / 2006