

REVIEW OF REGULATIONS RELATING TO FISHING INTERACTIONS WITH SEA TURTLES - FINAL ADVICE

Executive Summary

- 1 The Western and Central Pacific Fisheries Commission (WCPFC), of which New Zealand is a member, has resolved that members should implement international guidelines to reduce sea turtle mortality, enhance the implementation of mitigation measures and report all available information on sea turtle interactions¹. The resolution is non-binding. Nonetheless, as a member of WCPFC, New Zealand has reported to the Commission that it intends improving its handling and reporting of sea turtles.
- 2 Coincidentally, the Ministry of Fisheries (MFish) and the Department of Conservation (DOC) are also currently proposing to implement new regulated reporting arrangements on 1 April 2008 for incidental catch of non-fish and protected species, including sea turtles. The project includes (among other measures) aligning fisheries reporting provisions with those required by the Marine Mammals Protection Act 1978 and the Wildlife Act 1953 (Wildlife Act), removing redundant provisions and publicising handling procedures designed to improve the survival of injured sea turtles.
- 3 In New Zealand fisheries waters, the taking and possessing of sea turtles by commercial fishers is prohibited under the Wildlife Act. This prohibition does not apply to sea turtles taken accidentally in nets, which may be taken on board fishing vessels in order to expedite safe handling and treatment and improve their likelihood of survival. In addition, current requirements to report catches of sea turtles relate only to those taken in nets (whether dead or alive).
- 4 More appropriate regulations are required to support the new initiatives for handling and reporting sea turtle interactions in all fisheries and not just those caught in nets. Accordingly, an Initial Position Paper (IPP), released 29 June 2007, proposed to review the Fisheries (Commercial Fishing) Regulations 2001 (hereafter the regulations) relating to fishing interactions with sea turtles.
- 5 The objective of reviewing these regulations is to ensure that the adverse effects of fishing on turtles are avoided, remedied and mitigated in accordance with the Fisheries Act 1996. In addition, national fisheries outcomes such as credible fisheries management may be enhanced by improved information resulting from better reporting of sea turtle interactions, and by implementing policies and practices compatible with New Zealand's international obligations.

¹ Resolution-2005-04 (included as Appendix 1)

- 6 This paper contains MFish's final advice on proposals for amending the regulations governing the handling of sea turtles and reporting interactions in response to New Zealand's commitment to the WCPFC, and to facilitate the improved reporting procedures of non-fish incidental catch.
- 7 This paper considers the following proposals:
- a) To amend the current regulations to allow fishers, regardless of fishing method, the ability to take and possess sea turtles in order to make use of proposed guidelines for treating and releasing any interacted sea turtle.
 - b) That the current requirement for fishers to report sea turtle interactions be extended to all fishing methods.
 - c) That that requirements in the regulations to report sea turtle interactions are aligned with proposed new fisheries reporting regulations likely to be effective from 1 April 2008.
 - d) Options are proposed as to whether or not to require injured or dead turtles to be delivered to approved institutions for care.

The Issue

- 8 The loggerhead sea turtle *Caretta caretta*, green sea turtle *Chelonia mydas*, and leatherback sea turtle *Dermochelys coriacea* occur in New Zealand waters. However, they are generally distributed in tropical, subtropical or oceanic waters and accordingly are rarely encountered in New Zealand coastal waters.
- 9 These turtles are rarely reported caught in New Zealand waters or on the High Seas by New Zealand vessels. However, these species are considered either endangered or vulnerable to local and even global extinction because of declining numbers. Therefore, it is desirable to gain information on their interactions in New Zealand fisheries, and to limit their mortality in such fisheries where possible.
- 10 In 2005 the Western and Central Pacific Fisheries Commission (WCPFC) adopted (among other measures) a non-binding resolution for mitigating the impact of fishing for highly migratory fish species on sea turtles (for further details see the IPP). New Zealand is a member of WCPFC and has reported to the Commission that it intends to improve its handling and reporting of sea turtles. New Zealand has also reported to WCPFC incidental catches of sea turtles in New Zealand waters during 2006.
- 11 Turtles are protected species in New Zealand according to the Wildlife Act. The effects of fishing activity on sea turtles in New Zealand waters are currently managed under regulations made pursuant to the Fisheries Act 1996 (FA96) regime. The regulations contain no provision covering the interactions of sea turtles with any fishing method apart from nets with respect to procedures for handling, releasing and reporting of sea turtle incidental catch. Currently, only turtles caught in nets may be taken and handled in order to improve their survival. These regulations were created at a time when nets

were the only fishing method known to catch sea turtles in New Zealand waters.

- 12 Since the regulations were promulgated, other fisheries have developed and other fishing methods are now known to impact on sea turtles (for further details see the IPP). However, the regulations do not stipulate requirements for dealing with sea turtles caught by these other methods.
- 13 In addition, the ad hoc reporting requirements under the current regulations do not necessarily result in the collection of the best available information on the effects of fishing on sea turtles. MFish and DOC have proposed more robust reporting arrangements for incidental catch of non-fish and protected species, including sea turtles. You have agreed in principle to amend the Fisheries (Reporting) Regulations 2001 to regulate a “Non-fish/Protected Species Catch Return” (NFPSCR) (see template in Appendix 5).
- 14 As proposed changes to reporting regulations and fishing regulations will, subject to your and Cabinet approval and agreement, take effect on 1 April 2008, it is desirable to align these changes and remove any redundant provisions.

Summary of Options

Initial Proposals

- 15 The IPP proposed to amend the Fisheries (Commercial Fishing) Regulations 2001 (see Appendix 3) as follows:
 - i) To provide an exemption from Regulation 45 (1) (the prohibition on taking and possessing sea turtles) if sea turtles are taken accidentally irrespective of fishing method (Reg 45(2)(a));
 - ii) To allow uninjured sea turtles caught by commercial fishers irrespective of fishing method to be released immediately to the sea (Reg 46);
 - iii) To provide that injured sea turtles caught by commercial fishers irrespective of fishing method must be delivered to approved institutions for care (Reg 47);
 - iv) To provide that dead turtles caught by commercial fishers irrespective of fishing method must be offered to the Museum of New Zealand Te Papa Tongarewa (Reg 48);
 - v) Require that sea turtle captures, whether alive or dead, irrespective of fishing method, be reported in accordance with the standards and specifications of new fisheries reporting regulations.

AND

Amend the explanatory notes for the Non-fish/Protected Species Catch Return to require additional reporting for sea

turtles when appropriate (eg, reporting of tags, providing photographs and taking measurements);

AND

Revoke Reg 49 (2), (3) and (4).

Final proposal

- 16 NOTE that New Zealand has reported to the WCPFC that it intends improving its handling and reporting of fishing interactions with sea turtles.
- 17 NOTE that MFish and DOC propose (through a process separate to this FAP) to improve reporting arrangements for protected species. You have approved these proposals in principal, subject to proposed amendments to the Wildlife Act 1953 and the Marine Mammals Protection Act 1978 being passed. If the amendments to those Acts are passed fisheries regulations governing the interaction of turtles will require amending to meet these commitments. It is anticipated that these proposed changes will come into effect on 1 April 2008.
- 18 And agree to EITHER

Option 1

- i) Maintain the status quo

OR

Option 2

- i) To provide an exemption from Regulation 45 (1) (the prohibition on taking and possessing sea turtles) of the Fisheries (Commercial Fishing) Regulations 2001, if sea turtles are taken accidentally irrespective of fishing method (Reg 45(2)(a));
- ii) To allow uninjured sea turtles caught by commercial fishers irrespective of fishing method to be released immediately to the sea (Reg 46 of the Fisheries (Commercial Fishing) Regulations 2001);
- iii) Require that sea turtle captures, whether alive or dead and irrespective of fishing method, be reported in accordance with the standards and specifications of the non-fish/protected species catch return in proposed new fisheries reporting regulations likely to commence from 1 April 2008.

AND

Amend the Fisheries (Reporting) Regulations 2001 to require reporting of sea turtle tags.

AND

Revoke regulations 49 (2), (3) and (4) (relating to requirements imposed on fishers who catch sea turtles in nets) of the Fisheries (Commercial Fishing) Regulations 2001;

- iv) To provide that injured sea turtles caught by commercial fishers irrespective of fishing method must be delivered to approved institutions for care by amending regulation 47 of the Fisheries (Commercial Fishing) Regulations 2001;
- v) To provide that dead turtles caught by commercial fishers irrespective of fishing method must be offered to the Museum of New Zealand Te Papa Tongarewa by amending regulation 48 of the Fisheries (Commercial Fishing) Regulations 2001;

OR

Option 3

- i) As for Option 2 (i) - provide an exemption from Regulation 45 (1) (the prohibition on taking and possessing sea turtles) of the Fisheries (Commercial Fishing) Regulations 2001, if sea turtles are taken accidentally irrespective of fishing method (Reg 45(2)(a));
- ii) Amend regulation 46 of the Fisheries (Commercial Fishing) Regulations 2001 to allow uninjured, injured or dead sea turtles caught by commercial fishers irrespective of fishing method to be released immediately to the sea; or in some circumstances released as soon as practical to the sea after being treated on board the fishing vessel;
- iii) As for Option 2 (iii) - Require that sea turtle captures, whether alive or dead and irrespective of fishing method, be reported in accordance with the standards and specifications of the non-fish/protected species catch return in proposed new fisheries reporting regulations likely to commence from 1 April 2008.

AND

Amend the Fisheries (Reporting) Regulations 2001 to require reporting of sea turtle tags.

AND

Revoke regulations 49 (2), (3) and (4) (relating to requirements imposed on fishers who catch sea turtles in nets) of the Fisheries (Commercial Fishing) Regulations 2001;

- iv) Revoke regulation 47 of the Fisheries (Commercial Fishing) Regulations 2001 (the requirement that injured sea turtles caught in nets must be delivered to approved institutions for care); and
- v) Revoke regulation 48 of the Fisheries (Commercial Fishing) Regulations 2001 (the requirement for dead sea turtles caught in nets to be offered to the Museum of New Zealand Te Papa Tongarewa).

(MFish preferred option)

Consultation

- 19 MFish carried out a consultation process in accordance with section 12 (1) (a) and (b) of the FA 96.
- 20 The proposal to align New Zealand regulations with international obligations and to improve reporting procedures for non-fish bycatch was consulted on with the persons and organisations considered by you to be representative of those classes of persons having an interest in the effects of fishing on sea turtles in the aquatic environment in the seas around New Zealand– and having particular regard to Kaitiakitanga.
- 21 A letter inviting requests for a hard copy of the IPP was sent out to the standard list of stakeholders on 29 June 2007. The IPP was posted on the MFish website on the same day. The closing date for submissions was 24 August 2007. Additionally the IPP proposal for sea turtles was discussed at a meeting of New Zealand Seafood Industry Council Ltd representatives with MFish and DOC officials on 5 July 2007.

Submissions Received

- 22 Although MFish consulted with a wide range of stakeholders as outlined above, the only written submissions MFish received on the proposals contained in the IPP, were from the Department of Conservation (DOC), the New Zealand Seafood Industry Council Ltd (SeaFIC), Te Ohu Kaimoana Trustee Limited (Te Ohu) and the New Zealand Recreational Fishing Council (NZRFC).
- 23 MFish received no written submissions or oral comments from environmental stakeholders such as environmental non-governmental organisations, iwi organisations, or tangata whenua having a non-commercial interest in the stock or an interest in the effects of fishing on the aquatic environment.

MFish Discussion

- 24 Consultation on the IPP was undertaken to enable an assessment of the initial position. DOC and the NZRFC were supportive of the proposed changes to Reg 45, Reg 46 and Reg 49 of the regulations.
- 25 SeaFIC notes that the taking and possession of sea turtles is prohibited under the Wildlife Act 1953 and submits Reg 45 be revoked. Further, because the Wildlife Act also requires uninjured and injured turtles to be returned to the sea, SeaFIC submits Reg 46 also be revoked. SeaFIC prefers that any return of sea turtles be carried out by observers only.
- 26 MFish notes the rationale for amending Regs 45 and Reg 46 of the regulations as proposed by Options 2 and 3 is to allow fishers catching turtles regardless of fishing method to make use of new guidelines (proposed to become effective by 1 April 2008) for treating and releasing sea turtles. Without this amendment fishers could not take and possess sea turtles in order to use improved handling techniques such as de-hookers or dip-nets – designed to reduce sea turtle injury. Accordingly MFish does not agree with SeaFIC that

Reg 45 and Reg 46 should simply be revoked. Because current levels of observer coverage are limited, the SeaFIC suggestion that only MFish observers be able to return sea turtles is untenable.

- 27 Both DOC and SeaFIC submissions propose revoking Reg 47 and Reg 48 (provisions requiring injured and dead turtles respectively to be delivered to approved institutions).
- 28 DOC notes that turtles may be too large to accommodate on small vessels or if retained may be less likely to survive compared to if released directly back to the sea. SeaFIC notes that treating turtles is inconsistent with the treatment of incidental catch of other protected species. It submits that the proposal requiring injured turtles to be delivered ashore for treatment would create vessel, crew and seafood safety issues as well as unnecessary stress to injured animals. In addition, both submitters considered there might be unreasonable costs to fishers associated with maintaining or extending these provisions.
- 29 MFish considers the best available information on handling sea turtles is contained in guidelines developed for tuna longline fishers by the Secretariat of the Pacific Community (a regional intergovernmental technical and development organisation). These guidelines do not include the requirement to bring ashore injured sea turtles. MFish agrees with submitters that conventional wisdom and international best practice no longer supports the requirement to bring ashore injured sea turtles for treatment.

Rationale for Management Options

- 30 The rationale for amending Reg 45 (1) of the commercial fishing regulations as proposed by Options 2 and 3 is to allow fishers catching turtles regardless of fishing method to make use of new guidelines (proposed to become effective by 1 April 2008) for treating and releasing sea turtles.
- 31 Options 2 and 3 of this FAP propose extending the requirement to report any sea turtles from those caught in nets to include those caught by any fishing methods (Reg 49 (1)). This is achieved by revoking Reg 49 (2), (3) and (4) and making the NFPSCR the minimum reporting requirement for sea turtles. This proposal will improve the information available on sea turtles. All submissions supported this course of action.
- 32 The current legal requirement under Reg 49 (1) is to report all turtles caught in nets within 48 hours of the arrival of the vessel in port. The 48 hour timeframe does not serve any purpose for timely protection of sea turtles. Adopting either Option 2 or 3 would mean that the 48 hour requirement is replaced with reporting regulation provisions linked to proposed reporting requirements for non-fish incidental catch and the reporting of all catches generally.
- 33 Under these provisions, fishers would be required to record the incidental catch on the NFPSCR as soon as it becomes evident that a turtle has been taken. This minimises the risk that the event would be forgotten before it is required to be reported. The current system only requires fishers to report the

incident not later than 48 hours after the arrival of the vessel in port, which conceivably could be weeks or months after the incident.

- 34 Apart from the reporting timeframe and extending reporting to all fishing methods, the intent of Reg 49 is retained under both Options 2 and 3. For example, the Fisheries (Reporting) Regulations 2001 will require that if a fisher finds a tag from a sea turtle, they must report the tag number to MFish. The other discretionary information commercial fishers may report to assist in identifying the turtle species, such as taking photographs or measuring or describing the carapace and tail, will no longer be listed in the regulations. This is because even if photographs or measurements were furnished by fishers there is no system available to store or utilise this ad hoc information. However the intent of Reg 49 is retained because the proposed guide in the NFPSR (see Appendix 4) provides a basis for identifying the species of turtle for fishers to use.
- 35 Options 2 and 3 differ in regard to Reg 46, Reg 47 and Reg 48.
- 36 Option 2 proposes to amend Reg 46 to allow fishers catching uninjured turtle by any fishing method to release it back to the sea. The rationale for this proposal is that it extends to all fishing methods a requirement to release any uninjured sea turtle.
- 37 Option 3 proposes to amend Reg 46 to allow fishers catching any turtle (regardless of whether dead, injured or uninjured) by any fishing method to release it back to the sea in accordance with proposed best practice guidelines. The rationale for making this amendment as Option 3 proposes, is to direct the requirements for releasing dead and injured turtles back to the sea in the event Reg 47 and Reg 48 are revoked.
- 38 Option 2 proposes to amend Reg 47 to extend the current requirement that injured sea turtles caught by nets must be delivered to approved institutions for care to include all fishing methods. The rationale for adopting Option 2 is to improve handling practices and assist in better managing the effects of fishing by requiring injured turtles to be treated ashore at approved institutions.
- 39 Option 3 proposes to revoke the requirement that injured sea turtles caught in nets be delivered to approved institutions for treatment (Reg 47). The rationale for adopting Option 3 is to improve handling practices and assist in managing the effects of fishing on sea turtles caught regardless of fishing method by releasing all turtles to the sea (dead, injured or uninjured) as soon as practical. MFish considers this option best matches guidelines of best practice (see paragraph 29).
- 40 Option 2 proposes to amend Reg 48 to extend to all fishing methods the current requirement that sea turtles taken dead in nets must be delivered to Te Papa. The rationale for adopting Option 2 is that Te Papa has had a role in researching turtles and establishing and maintaining specimens relating to the natural environment of New Zealand, the Pacific, and the wider world.

- 41 Option 3 proposes to revoke Reg 48. The rationale for adopting Option 3 is that Te Papa no longer undertakes turtle research or requires turtles for its collection. Presently there is no known herpetologist interested in collecting dead turtles in New Zealand.

Assessment of Management Options

Option 1 - Status Quo.

- 42 Current regulations contain no provision covering the interactions of sea turtles with any fishing method apart from nets with respect to procedures for handling, releasing and reporting of sea turtle incidental catch. Retaining the status quo is not suitable for meeting New Zealand's existing international obligations and commitments and is also not consistent with proposals by MFish and DOC to improve the reporting of non-fish incidental catch.

Option 2 – Extend to all fishing methods provisions relating to the handling, reporting, and delivering of injured and dead turtles to approved institutions.

Impact

- 43 Managing fisheries interactions with sea turtles is an international conservation issue. 'Interactions' includes those turtles released alive and unharmed, those released injured that survive, those released injured that die, and those that die at the time of capture.
- 44 The degree of fishing interactions with sea turtle species in New Zealand waters is largely unknown. Mandatory reporting of interactions with sea turtles is limited to the fishing method of nets. The available information for other fishing methods is limited to that derived from ad hoc reports from fishers, and the scientific observer programme.
- 45 In response to widespread sea turtle interactions in the Pacific, best practise guidelines on handling sea turtles have been developed for tuna longline fishers by the Secretariat of the Pacific Community. This initiative called *Releasing hooked turtles* is designed to improve survival of turtles and was the basis of the "How to handle live or injured sea turtles (and snakes)" guide in the NFPSCR (See Appendix 4). This guide should stimulate improved handling techniques including the use of equipment – line-clippers, de-hookers, and dip-nets – designed to reduce sea turtle injury. Applying provisions relating to the handling of turtles in uninjured, injured or dead state to all sea turtle interactions regardless of fishing method will facilitate use of the new handling guidelines. DOC has submitted its support for amending Reg 46 as proposed (to allow the taking of turtles in order that they are returned to the sea in accordance with techniques of best practice).
- 46 Currently, fishers are required under the Wildlife Act 1953 and the Marine Mammals Protection Act 1978 to report incidental deaths or injuries to non-fish species (e.g., seabirds, marine mammals) that occur in the course of fishing activities. You have agreed in principle to amend the Fisheries

(Reporting) Regulations 2001 to regulate a NFPSCR (see template for this return in Appendix 5).

- 47 You have also agreed in principle to amend the catch and effort and landing returns in the Reporting regulations. The proposal is to include a box on all returns that fishers must tick if they catch a non-fish or protected species. The tickbox would provide an essential link to the NFPSCR. These proposals would also apply to fishers that catch sea turtles. Therefore, if fishers catch a sea turtle using a longline, they will be required to tick the box on the relevant lining catch effort return and complete the NFPSCR. The proposed amendments to the commercial fishing regulations are dependent upon proposed amendments to reporting timeframes in the Wildlife Act 1953 and the Marine Mammals Protection Act 1978. However if these proposals are approved, MFish proposes that these new regulations will all come into effect on 1 April 2008.
- 48 The proposed amendments to the commercial fishing and the reporting regulations aim to gather better information on incidental catch and to simplify and streamline reporting requirements. The proposed amendments will:
- Improve information available on non-fish and protected species and the impacts of fishing on those species;
 - Encourage reporting by making timeframes more realistic and making returns more user-friendly;
 - Contribute to ensuring the sustainability of the aquatic environment.
- 49 To facilitate implementation of a NFPSCR for recording a range of fisheries interactions, the requirement in regulation 49 that any sea turtle caught in nets be reported within 48 hours of the vessel arriving in port should be amended to include all commercial captures and reflect the reporting timeframe set in NFPSCR / catch effort and landing reporting standards. There are several practical benefits to doing so:
- It will be simpler for fishers to make the NFPSCR and catch and effort and landing returns correct and consistent, because they will be completing and sending both forms to MFish at the same time;
 - It will result in improving best available information on sea turtles in New Zealand's EEZ.
 - In contrast to the current ad hoc reporting, reporting to a non-fish/protected species database will ensure more reliable storage and retrieval of data.
- 50 Option 2 proposes to extend to all fishing methods the requirement that injured sea turtles caught in nets be delivered to approved institutions for treatment (Reg 47). The rationale for adopting Option 2 is that survivability might be enhanced if injured turtles were treated ashore at approved institutions. However as discussed below in paragraph 55, MFish no longer considers treatment ashore to be the best available means of handling injured sea turtles.
- 51 Historically, fishing has been held responsible for some turtle deaths. Option 2 proposes to amend Reg 48 to extend the current requirement that dead sea

turtles caught by nets must be delivered to Te Papa to include all fishing methods. The rationale for adopting Option 2 is that Te Papa has had a role in researching turtles and establishing and maintaining specimens relating to the natural environment of New Zealand, the Pacific, and the wider world. However as discussed further in paragraph 58, this option is currently unavailable because Te Papa staff have been instructed to no longer collect dead sea turtles.

Option 3 – Extend handling provisions and requirements for reporting turtle interactions to all fishing methods, and revoke the other provisions.

Impact

- 52 Options 2 and 3 differ primarily in regard to Reg 47 and Reg 48. Accordingly, the impacts described in paragraphs 45-49 for Option 2 apply also to Option 3.
- 53 Option 3 proposes to revoke the requirement that injured sea turtles caught in nets be delivered to approved institutions for treatment (Reg 47).
- 54 Both DOC and SeaFIC submissions proposed revoking Reg 47 and Reg 48 (provisions requiring injured and dead turtles respectively to be delivered to approved institutions).
- 55 MFish considers the best available information on handling sea turtles is contained in guidelines developed for tuna longline fishers by the Secretariat of the Pacific Community. These guidelines do not include any requirement to bring ashore injured sea turtles. In the absence of information to the contrary, MFish agrees with submitters that the best available information does not support the need for bringing ashore injured sea turtles.
- 56 Option 3 proposes to revoke Reg 48. The rationale for adopting this option is that Te Papa no longer undertakes turtle research or requires turtles for its collection.
- 57 DOC submits that Te Papa no longer has a herpetologist available to work on turtles and their collection does not require further turtle specimens. DOC suggests revoking this regulation and changing Reg 46 to state that all sea turtles (dead or alive) caught by commercial fishers irrespective of fishing method must be reported and returned immediately to the sea. SeaFIC also supports revoking Reg 48.
- 58 Te Papa no longer has a Collection Manager and its staff have been directed to no longer collect dead turtles. No other herpetologist is known to be collecting dead turtles. Accordingly, MFish supports revoking Reg 48.

Compliance Considerations

- 59 Monitoring turtle catches is important for ensuring appropriate information on sea turtle interactions and mortality is being collected (e.g. species identification, fate and condition at release). This is consistent with the international commitments and requirements imposed under fisheries

regulations. The current reporting requirements relating to sea turtles are not widely known by fishers, which may contribute to non-compliance.

- 60 There is limited ability to monitor compliance with most interactions occurring on the open sea, where inspections and the presence of observers are not a regular occurrence. In this context voluntary compliance is essential. A change to the reporting regulations to support mandatory reporting by all fishing methods will simplify the law relating to reporting sea turtle interactions, which may result in improved compliance. In addition there is a need for education and raising awareness among fishers of the requirements and the importance of mitigating the impact of fishing on turtle populations.

Costs and benefits of proposals

- 61 Turtles are vulnerable animals whose fate arouses public concern; therefore their incidental capture may indirectly cause negative socioeconomic impacts for the fishing industry. There are potential benefits for industry if it is seen to proactively manage even a small risk of turtle incidental catch (through implementing the handling and reporting measures).
- 62 The very small number of turtles reported caught in New Zealand waters suggests the costs of implementing any of the proposals in this paper will be small. Any costs associated with recovering and releasing turtles when necessary will be borne by fishers. These costs must be weighed against the potential to reduce fishing-related mortality of depleted turtle populations, and the need for an internationally consistent management regime.
- 63 Incidental catches of turtles have costs, not only for turtles but also for fishers. These include the economic loss of time and gear components as well as the risk of personal injury during the handling of the interacted turtle. Any costs associated with recovering, treating, and transporting injured and dead turtles when necessary to approved institutions will also be borne by fishers. MFish has no quantitative information, and received no such information in submissions, to assess what these costs may be. Accordingly, there is uncertainty about the level of costs to fishers of the proposed measures and options contained in this paper.
- 64 While the benefits to uninjured or slightly injured turtles of being handled and released may be self evident, there is much less ability to assess the benefits of bringing more seriously injured turtles ashore for treatment. Retaining turtles on board fishing vessels away from its natural environment for periods greater than about 24 hours to facilitate recovery is particularly stressful to turtles and this additional stress may lead the turtle to deteriorate or die. Severely injured turtles may lose eyes or require amputation of flippers. Even if these turtles were to survive treatment their ability to survive on release to the wild with ongoing disability is likely to be low.
- 65 An exception may occur when turtles are sluggish and inactive when lifted on board. The turtle may have water in its lungs and in this circumstance benefit from treatment by keeping on board for a minimum of 4 hours and up to 24 hours, as described in the *How to handle live or injured sea turtles and snakes*

guide in the NFPSCR (see Appendix 4). Apart from this limited situation, MFish agrees for reasons provided in paragraph 64 that a better approach is to immediately return to the sea all turtles, regardless of injury. This latter approach also bypasses any uncertainty about the practicality of bringing large turtles on board and caring and /or storing them for the duration of the voyage. MFish notes that DOC also supports this course of action.

Statutory Considerations

- 66 Statutory considerations relevant to your decisions on the proposals contained in this paper include section 15, section 11 and Part II of the FA96. Sections 297 and 298 of the FA96 are also relevant to your decisions with respect to the making and amendment of regulations relevant to the proposals contained in this paper.
- 67 Appendix Six contains the ‘Statutory Considerations’ relevant to this paper.

Appendices

Appendix 1 – Resolution to Mitigate the Impact of Fishing for High Migratory Fish Species on Sea turtles

Resolution-2005-04

The Commission For The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean

In accordance with the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean:

Recognizing the ecological and cultural significance of all species of sea turtles in the Western and Central Pacific Ocean (WCPO);

Recognizing that the FAO adopted Guidelines to Reduce Sea turtle Mortality in Fishing Operations at its Twenty-sixth Session of the Committee on Fisheries, held in March 2005, and recommended their implementation by regional fisheries bodies and management organizations;

Noting that the recent international scientific studies on circle hooks show a statistically significant decrease in sea turtle bycatch when such hooks are used in shallow set pelagic longline fishing but that studies and trials continue in different geographic areas;

Further noting that scientific studies indicate that, with the use of circle hooks, the hooking location can lead to a decrease in post-release mortality of incidentally caught species;

Taking into account Article 5 of the WCPF Convention, resolves as follows:

1. Commission Members, Cooperating non-Members, and participating Territories (called CCMs) shall, as appropriate, implement the FAO Guidelines to Reduce Sea turtle Mortality in Fishing Operations (the Guidelines) in order to reduce the incidental catch of sea turtles and to ensure the safe handling of all turtles that are captured, in order to improve their survivability.
2. The WCPFC shall encourage CCMs to collect, and provide to the WCPFC, all available information on interactions with sea turtles in fisheries managed under the WCPF Convention.
3. The Commission encourages CCMs to enhance the implementation of their respective turtle mitigation measures that are already in place (using best available scientific information on mitigation techniques) and urges them to foster collaboration with other CCMs in the exchange of information in this area.
4. The Commission urges CCMs to require that purse seine vessels flying their flags:
 - i. Avoid encirclement of sea turtles to the extent practicable and, if encircled or entangled, take all practicable measures to safely release sea turtles.

ii. Take all reasonable efforts whenever a sea turtle is sighted in the net to rescue the turtle before it becomes entangled in the net, including if necessary, the deployment of a speedboat.

iii. Stop net roll, if a turtle is entangled in the net, as soon as the turtle comes out of the water and, to the extent practicable, assist the recovery of the turtle before returning it to the water.

iv. Take necessary measures to monitor fish aggregating devices (FADs) to the extent practicable to release any sea turtles that become entangled and consider FAD designs and use that reduce the likelihood of sea turtle entanglement.

5. The Commission urges CCMs to:

- i. Undertake research trials of appropriate-size circle hooks in commercial pelagic longline fisheries.
- ii. Undertake research and trials on the use of circle hooks in recreational and artisanal fisheries;
- iii. Require longline vessels flying their flags to carry on board and, when sea turtle interactions occur, employ the necessary equipment (e.g. de-hookers, line cutters, and scoop nets) for the prompt release of incidentally caught sea turtles.

6. The Commission shall consider measures related to the use of circle hook gear technology in longline fisheries at its annual Session in 2006, taking into account the results of research and trials.

7. The Commission urges cooperation with the Inter-American Tropical Tuna Commission in order to share data on sea turtle bycatch and to develop and apply compatible bycatch reduction measures given the migration patterns of many species of sea turtles.

8. As the Commission develops its regional observer program and considers improving observer coverage in the Convention Area, existing observer programs should be reviewed to ensure that the appropriate information on sea turtle interactions is being collected (e.g. species identification, fate and condition at release, relevant biological information and gear configuration).

9. The Commission decides that resources available in the Special Requirements Fund may be used to assist developing State Members and territories in implementing the FAO Guidelines to Reduce Sea turtle Mortality in Fishing Operations.

10. The Commission encourages CCMs to contribute to the Special Requirements Fund to support eligible small-island developing States, territories, and possessions in implementing this resolution, or to do so through bilateral arrangements.

11. Beginning in 2006, CCMs shall include in their Annual Report to the Commission (Part II) a report on the steps taken to implement this resolution.

12. The Commission, through the Technical and Compliance Committee, shall monitor the progress of CCMs in applying this

resolution and develop relevant strategies for the further consideration of the Commission in 2007.

Appendix Two: Recently reported interactions of sea turtles in New Zealand waters

- 1 Turtles are taken as an infrequent incidental bycatch of tuna longline fishing, set netting and rock lobster potting. Since 2001, 11 sea turtles have been reported by fishers and observers within New Zealand fisheries waters (Table 1). All these captures were by the fishing method of surface longline. Of the 11, seven were leatherback turtles, one was a loggerhead turtle, one was reported as a green turtle, and two were not reported to species.

- 2 The turtles were mostly caught during the New Zealand summer with catches from November to June. All but one turtle was released alive. Overall turtles are a very rare catch in the New Zealand longline fishery, with only one observed mortality in the past five years. There have been isolated reports of turtles being caught in rock lobster lines or pots.

Table 1. Observed sea turtle interactions for surface longline vessels based on fisher and observer records. All turtles, except for one unidentified turtle caught in 2001, were alive on capture and released.

Species	Scientific name	2001	2002	2003	2004	2005
Green turtle	<i>Chelonia mydas</i>					1
Leatherback turtle	<i>Dermochelys coriacea</i>	3	1		1	2
Loggerhead turtle	<i>Caretta caretta</i>		1			
Unidentified		2				

Appendix 3 – Commercial Fishing Regulations Relating to Sea turtles

1 Taking and possession of sea turtles prohibited

- (1) Commercial fishers must not take sea turtles from New Zealand fisheries waters or possess sea turtles taken from those waters.
- (2) Subclause (1) does not apply if—
 - (a) sea turtles are accidentally caught in nets; or
 - (b) an authority or permit has been given to take or possess sea turtles either—
 - (i) under section 53 or section 56 of the Wildlife Act 1953; or
 - (ii) under section 14 of the Trade in Endangered Species Act 1989.

2 Uninjured turtles must be immediately returned to sea

Sea turtles caught in nets by commercial fishers that are not injured must immediately be returned to the sea.

3 Injured turtles must be delivered to approved institutions for care

- (1) Sea turtles caught in nets by commercial fishers that are injured, whether as a consequence of being caught or otherwise, must be delivered to the nearest institution approved for the immediate care of sea turtles by the chief executive in consultation with the Director-General of Conservation.
- (2) Despite subclause (1), commercial fishers may return injured sea turtles to the sea if authorised to do so by the chief executive after consultation with the Director-General of Conservation.

4 Dead turtles must be offered to Museum of New Zealand Te Papa Tongarewa

- (1) If sea turtles are caught in nets by commercial fishers and die (whether or not as a consequence of being caught), they must be offered to the Museum of New Zealand Te Papa Tongarewa.
- (2) Despite subclause (1), commercial fishers may return dead sea turtles to the sea if authorised to do so by the chief executive.

5 Turtle catches must be reported

- (1) Commercial fishers who catch sea turtles in nets, whether alive or dead, must record each catch in the vessel's log and report it in writing to the chief executive not later than 48 hours after the vessel arrives in port.
- (2) Every report under subclause (1) must include—
 - (a) the location where the turtles were caught; and
 - (b) the species (if known) of the turtles or a general description of them; and
 - (c) a description of tags found on the turtles; and
 - (d) a description of the conditions and circumstances in which each catch occurred.
- (3) Without limiting subclause (2)(b), a description given under that paragraph may—
 - (a) be in the form of a photograph; or
 - (b) consist of the measurements of the carapace and tail, together with a description of the carapace.

- (4) A report under subclause (1) may—
- (a) include details of reported sightings of sea turtles; or
 - (b) be made in respect of all or some of the turtles caught by a commercial fisher on a particular day.

Appendix 4 – Extract from the Proposed Guide to Species Groups for the Non-fish / Protected Species Catch Return

MARINE REPTILES

TURTLES:

TLE

- **Leatherback turtles (LBT)** are up to 2.7 m in length and weigh up to 900 kg. They have 3 prominent ridges running the length of the shell instead of plates. They are dark green to grey in colour with small patches of lighter colour over the body.



Leatherback Turtle

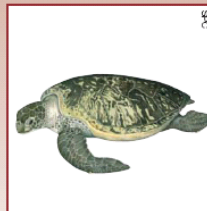
TURTLES

MARINE REPTILES

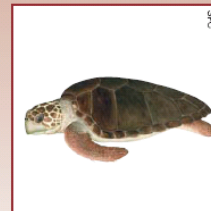
TURTLES:

TLE

- **Green turtles (GNT)** are up to 1.5 m in length, and weigh up to 200 kg. They have a hard shell of bony scutes (plates), olive green to brown in colour.
- **Loggerhead turtles (LHT)** are around 1 m in length and reddish-brown to orange-brown in colour. They can be up to 100 kg in weight.



Green Turtle



Loggerhead Turtle

TURTLES

HOW TO HANDLE LIVE OR INJURED TURTLES AND SNAKES:

Handling animals correctly is safer for you and gives them a better chance of survival.

- Turtles need to be handled with great care to avoid damaging them.
- Sea snakes are venomous. Don't handle a live animal. To return a live snake to the sea, gently hose it off the deck with water.

RELEASE ANIMALS GENTLY



Gently bring hooked turtles on board with a net.



Place a piece of wood across the mouth to avoid bites. Remove any hook, or lines, cutting off the barb and pulling the hook through to the outside if possible.



Pack up the rear of the turtle to drain it. Keep it moist and shaded while it recovers (4 - 24 hr).

Appendix 6 - Statutory Considerations

The following sections of the Fisheries Act 1996 (FA96) are relevant to your decisions on the proposals contained in this FAP:

- 1 **Section 5(a)** requires all persons exercising or performing functions, duties, or powers conferred or imposed by or under the FA96 to act in a manner consistent with New Zealand's international obligations relating to fishing. The WCPFC has created new non-binding international obligations, requiring New Zealand to improve handling and better report any interactions with sea turtles. New Zealand needs to undertake a review of its current regulations and consider additional handling practices and monitoring requirements, as proposed in this paper.
- 2 **Section 5(b)** requires all persons exercising or performing functions, duties, or powers conferred or imposed by or under the FA96 to act in a manner consistent with the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992. MFish considers that the proposals contained in this IPP are consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.
- 3 **Section 8** - the purpose of the FA96 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 wellbeing.
- 4 The proposals in this paper include improved handling practices and improved monitoring of fishing interactions with sea turtles. The proposals will improve the information available on sea turtles and assist in managing the effects of fishing on sea turtles. The proposals in this paper will assist in achieving the purpose of the Act.
- 5 **Section 9** requires all persons exercising or performing functions, duties, or powers under the FA96, in relation to the utilisation of fisheries resources or ensuring sustainability, to take into account the following environmental principles: (a) Associated or dependent species should be maintained above a level that ensures their long-term viability: (b) Biological diversity of the aquatic environment should be maintained: (c) Habitat of particular significance for fisheries management should be protected.
- 6 Fishers occasionally interact with sea turtles within New Zealand fisheries waters. There are therefore potential impacts on associated and dependent species, biodiversity, and protected species that require monitoring and possibly future management action. The introduction of improved handling procedures and better monitoring of turtle interactions will improve the ability to address these issues. No habitats of particular significance will be affected

by the proposals. Accordingly, MFish considers that the environmental principles set out in section 9 of the Act will be better met by adopting measures as proposed.

- 7 **Section 10** requires all persons exercising or performing functions, duties, or powers under the FA96, in relation to the utilisation of fisheries resources or ensuring sustainability, to take into account the following information principles:
 - a) Decisions should be based on the best available information:
 - b) Decision makers should consider any uncertainty in the information available in any case:
 - c) Decision makers should be cautious when information is uncertain, unreliable or inadequate:
 - d) The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of that Act.
- 8 MFish considers that further information on sea turtle fishing interactions would strengthen its ability to manage such interactions. There is uncertainty about interactions of sea turtles with fishing methods and the current level of reporting of interactions of sea turtles. Therefore there is uncertainty about the nature and number of current sea turtle interactions with fishing. Adopting measures as proposed would provide better information than continuing with the status quo. There is also uncertainty about the costs to fishers of the proposed measures and options contained in this paper. However, the absence of, and any uncertainty in information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of the FA96.
- 9 **Section 15(2)** provides that in the absence of a population management plan approved under the Wildlife Act 1953 or the Marine Mammals Protection Act 1978 the Minister may, after consultation with the Minister of Conservation, take such measures as he or she considers are necessary to avoid, remedy, or mitigate the effect of fishing-related mortality on any protected species, and such measures may include setting a limit on fishing-related mortality.
- 10 The Court of Appeal commented that the Minister is required to consider utilisation objectives and conservation values and take what action he considers "necessary" for avoiding, remedying or mitigating fishing effects on the protected species. (*Squid Fishery Management Co Ltd v Minister of Fisheries* 22/5/04, CA39/04)
- 11 There is no relevant population management plan in existence for sea turtles. MFish considers that it is necessary to take the proposed measures for the purpose of avoiding, remedying or mitigating the effect of fishing-related mortality on sea turtles. MFish considers that the proposed measures will have little impact on fisheries utilisation objectives. MFish does not consider it necessary for the proposed measures to include setting a limit on fishing-related mortality.

- 12 **Section 15(3)** provides that the Minister may require, or authorise the chief executive (CE) to require persons listed in section 189 of the FA96 to give to the CE or Minister such information relating to fishing-related mortality as the Minister or CE considers necessary and require or authorise the CE to require that information to be in the approved manner or form.
- 13 Although MFish does not recommend setting a limit on fishing-related mortality MFish considers that the collection of information relating to fishing-related mortality of sea turtles is necessary.
- 14 **Section 15(4)** provides that the Minister may recommend the making of regulations under section 298 of the FA96 that the Minister considers necessary or expedient for the purpose of implementing measures referred to in sections 15 (1) or (2) or (3).
- 15 MFish considers the making of amendments to regulations outlined in this FAP both necessary and expedient for implementing measures referred to in sections 15(2) and (3).
- 16 **Section 11(1)** - Before setting any sustainability measure for one or more stocks or areas the Minister must take into account: (a) any effects of fishing on any stock and the aquatic environment; and (b) any relevant existing controls under the FA96; and (c) the natural variability of the stock concerned.
- 17 Best available information suggests the effect of current fishing practices on sea turtles is very small in New Zealand waters. Nevertheless, measures as proposed will improve the ability for assessing the effects of fishing on sea turtles. Existing controls are not considered suitable for meeting New Zealand's existing international obligations and commitments. Turtle populations are not known to be naturally variable.
- 18 **Section 11(2)** – Before setting any sustainability measure, the Minister must also take into account:
- (a) any regional policy statement, regional plan, or proposed regional plan under the Resource Management Act 1991; and
 - (b) and any relevant management strategy or management plan under the Conservation Act 1987; and
 - (c) Sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000
- 19 MFish is not aware of any provisions in any strategy or planning document under the Resource Management Act 1991 or Conservation Act 1987 beyond those mentioned that are relevant to reviewing these measures for sea turtles.
- 20 Sea turtles are not known to occur within the boundaries of the Hauraki Gulf.
- 21 **Section 11(2A)** - Before setting any sustainability measure under Part III of the FA96 the Minister must take into account:
- (a) any conservation services or fisheries services, and
 - (b) any relevant fisheries plan approved under Part III of the FA96; and

- (c) any decisions not to require conservation services or fisheries services.
- 22 There are no relevant fisheries plans approved that would have any bearing on these measures for sea turtles. Conservation and fisheries services apply to fisheries generally in order to assess and monitor the impacts of fishing on non-target fish and non-fish species. The Pelagic Fisheries Medium Term Research Plan outlines research directions already adopted by MFish.
- 23 **Section 12** requires you to consult with certain persons before doing anything under section 11(1), 11(4), 11A(1) and s15(2) of the FA96. You are required to consult with persons or organisations you consider are representative of those classes of persons having an interest in the stock or the effects of fishing on the aquatic environment in the area concerned, including Maori, environmental, commercial, and recreational interests; and provide for the input and participation of tangata whenua having a non-commercial interest in the stock concerned; or an interest in the effects of fishing on the aquatic environment in the area concerned – and have particular regard to Kaitiakitanga. Consultation on the proposals presented in this FAP was carried on in accordance with these requirements.
- 24 **Section 189** requires certain persons to keep accounts, records and provide to the CE such returns and information as may be required by or under regulations made under the FA96. Section 189(a) includes holders of fishing permits, special permits, licences or other authorities or approvals issued or granted under the FA96 entitling the holder to take fish, aquatic life, or seaweed by any method for any purpose. This includes commercial fishers.
- 25 The proposals contained in this IPP require commercial fishers to comply with the proposed changes to the Fisheries (Commercial Fishing) Regulations 2001.
- 26 **Section 297** empowers the Governor General to make regulations for certain purposes. This includes under s297(1):
- (a)(i) Regulating, authorising, or prohibiting the taking or possession of any fish, aquatic life, or seaweed of any stock or species:
 - (a)(ii) Regulating, authorising or prohibiting the taking or possession of fish, aquatic life, or seaweed from any area:
 - (a)(v) Regulating or prohibiting the taking, possession, or disposal of any fish, aquatic life, or seaweed that is in any specified condition or exhibits specified physical characteristics:
 - (a)(vi) Regulating or prohibiting the return of fish, aquatic life, or seaweed to any waters:
 - (h) Prescribing the accounts, records, returns, and information that any person or class of persons may be required to keep or provide under Part X of the FA96 or any other provision of this Act, and providing for-

(i) The manner and form in which such accounts, records, returns, and information are to be kept or provided:

(ii) The time for or within which such accounts, records, returns and information are to be kept or provided:

(iii) The person by or to whom such accounts, records, returns, and information are to be kept or provided:

(iv) The places where such accounts, records, returns, and information are to be kept or provided.

- 27 Section 297(1)(o) enables the Governor-General to make regulations implementing any provisions of, or giving effect to, any bilateral or multilateral treaty, convention, or agreement to which New Zealand is a signatory or a party, and any understanding concluded by the Government of New Zealand and the government of any other country; and declaring any such regulations to apply beyond the outer limits of New Zealand fisheries waters in respect of any New Zealand citizen, person entitled to reside in New Zealand indefinitely, body incorporated in New Zealand, or any New Zealand ship or vessel registered under the FA96.
- 28 MFish considers that the proposed changes to the Fisheries (Commercial Fishing) Regulations 2001 fit within the relevant provisions of section 297.
- 29 Section 298 provides that without limiting the generality of section 297, the Governor-General may make regulations for certain purposes. Under section 298(b) these purposes include if there is no applicable approved population management plan in force, imposing such measures as may be necessary or expedient to avoid, remedy, or mitigate the effect of fishing-related mortality on any protected species, which measures may include setting a limit on fishing-related mortality.
- 30 MFish considers that the proposals contained in the FAP are necessary and expedient to avoid, remedy, or mitigate the effect of fishing-related mortality on sea turtles. MFish does not propose setting a limit on fishing-related mortality. The proposals include amendments to regulations.