

# **Hector's and Maui's Dolphin Threat Management Plan**

**Draft for Public Consultation**

**29 AUGUST 2007**



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## 1. PURPOSE

The purpose of this draft Hector's dolphin Threat Management Plan (TMP) and Initial Position Paper (IPP) is to outline proposals to effectively manage human-induced threats to Hector's dolphins (including Maui's dolphins), and seek stakeholder submissions on the measures proposed, as part of the consultation process.

## 2. SUBMISSIONS

The Department of Conservation (DOC) and the Ministry of Fisheries (MFish) request that you provide written comments on the proposals contained in this draft Plan by **24 October 2007**.

These comments should be sent to:

**TMP Submissions**  
**PO Box 11-146**  
**WELLINGTON 6011**

OR:

[Hectorstmp@biodiversity.govt.nz](mailto:Hectorstmp@biodiversity.govt.nz)

## 3. EXECUTIVE SUMMARY

### 3.1. Overview

Public and government concern over the effect of human induced mortality on Hector's and Maui's dolphins has led to the development of a TMP to help protect these species.

Led by the Ministry of Fisheries (MFish) and the Department of Conservation (DOC), the TMP is designed to:

- ⇒ Describe the nature and extent of threats to Hector's and Maui's dolphins and
- ⇒ Implement strategies to reduce those threats which are human induced

The TMP builds on material released in a discussion document in May 2007 and incorporates response to that document including feedback gained during regional forums. This is your opportunity to provide further input to the plan and have your say on the best proposed course of action. The consultation period closes on 24 October 2007.

The TMP comprises three key sections:

- ⇒ Part I provides context on the problem, outlines general threats facing the dolphins, and introduces threat management proposals.
- ⇒ Part II focuses on fishing related threats to the dolphins and options for managing those threats by fishing method. The section looks at fishing threats across the species and regional populations. This approach allows you to focus on the populations and regions and fishing methods of most interest to you.
- ⇒ We also draw your attention to the Regulatory Impact Statement (RIS) at the back of Part II, which provides a useful overview of the fisheries impact issues and measures.
- ⇒ Part III outlines preliminary proposals for Marine Mammal Sanctuaries. The Sanctuaries are proposed in areas of high dolphin abundance and important habitat for dolphins.

Scientific and anecdotal information indicates fishing is the biggest cause of human induced mortality of Hector's and Maui's dolphins. Therefore, this document focuses on a range of options to reduce the risk of fishing related mortality to the dolphins.

It is acknowledged, that:

- ⇒ The nature and extent of threats is still highly uncertain, largely due to gaps in available information.
- ⇒ The Minister of Fisheries final decision on fishing related measures, in consultation with the Minister of Conservation, will be based on the level of effect from fishing related mortality that the Minister considers acceptable.

Because the nature and extent of fishing related mortality varies between each of the four populations of Maui's and Hector's dolphins, different options have been developed for each population.

#### Key regions affected

- ⇒ West Coast, North Island
- ⇒ West Coast, South Island
- ⇒ East Coast, South Island

⇒ South Coast, South Island

Note four new marine mammal sanctuaries are proposed by the DOC – the areas proposed provide significant habitat to dolphin populations and represent each of the four genetically distinct populations of dolphins except for West Coast South Island.

### The way forward

Status quo (ie taking no further action) will not reduce the risk of fishing related mortality. The Minister of Fisheries would choose this option if he considered the existing level of fishing related mortality was acceptable. Outside of the Status quo, three broad options are outlined in the plan:

⇒ Option 1 presents measures that will likely result in the least reduction of the risk of dolphin mortality and least cost to fishers

⇒ Option 2 presents measures that will have a moderate impact on the risk of dolphin mortality but involve moderate cost to fishers

⇒ Option 3 presents measures that will likely result in the most reduction of the risk of dolphin mortality significantly but will come at the most cost to fishers.

## 3.2. Context of the problem – in brief

### Location of the dolphins

Hector's and Maui's dolphins are only found in New Zealand's waters.

⇒ Hector's dolphins are principally found in the South Island

⇒ Maui's dolphins are found off the north-west coast of the North Island.

⇒ They are inshore coastal species with a limited home range

⇒ They are mostly seen in murky waters close to shore and generally live in small groups – usually three to five individuals but larger groups (up to 30-40 individuals) are sometimes seen

### Biology

Both dolphin species live only about 20 years, have a low reproduction rate (calving every 2-3 years) and have late onset of sexual maturity (7-9 years). These factors result in a low maximum population growth rate, which put Hector's and Maui's dolphin at threat from even low levels of human-induced mortality

### Endangered status

⇒ Hector's dolphin is considered to be one of the world's rarest dolphin species

⇒ Following a decline in numbers, the Minister of Conservation declared Hector's dolphins a "threatened species" in 1999

⇒ The dolphins were further classified as "nationally endangered" in 2003

⇒ The South Island Hector's dolphin is ranked as nationally endangered by DOC and endangered by the World Conservation Union (IUCN), and is estimated to consist of around 7, 270 individual dolphins

⇒The North Island Maui's dolphin, is estimated to have a population of around 111 individuals and is ranked as nationally critical by DOC and critically endangered by the IUCN

### Population status

⇒While there is uncertainty over trends in population size the South Island and West Coast North Island there is some evidence of overall population decline at a species level as well as within individual populations.

⇒Government has a general policy position that threatened species numbers should be increased to reach non-threatened status. However, in the absence of a Population Management Plan issued under the Marine Mammal Protection Act there is no obligation to require such a rebuild to occur.

### Wide-spread public concern

There has been wide-spread public concern regarding the impact of human induced mortality on Hector's and Maui's dolphins. This has been shown by petitions to Parliament and proposed management strategies from Non-Governmental Organisations, and significant amounts of correspondence to Ministers from the public and some local Government agencies.

### Threats

There are a number of actual and potential threats facing the dolphins including fishing-related threats and non-fishing related threats. Some of these threats are a direct cause of dolphin mortality, whereas others may impact on the population through sub-lethal impacts (for example, reducing reproductive success).

#### ◆ *Non-fishing related threats*

These are seen as a major component for the management of Hector's and Maui's dolphin. These threats include:

⇒Disease

⇒Impacts associated with interactions between the dolphins and vessel operations,

⇒Permitted and non-permitted tourist vessels

⇒ Pollution from discharges into the coastal marine area

⇒Plastic debris generated from dumping of both urban and marine based waste

A range of nationally consistent actions are proposed to mitigate non-fishing threats. Measures include investigating areas that may need vessel speed restrictions, a four year moratorium on the issuing of marine mammal viewing permits and the inclusion of Hector's and Maui's dolphin habitats in the review of the New Zealand Coastal Policy Statement.

#### ◆ *Fishing related threats*

Hector's and Maui's dolphins have a close inshore distribution, which results in an overlap with commercial and amateur set net fisheries, as well as inshore trawl fisheries.

Review of reported mortalities of Hector's and Maui's dolphins indicate that entanglement in set nets poses the greatest risk of human induced mortality to the dolphins.

Overall, the nature and extent of fishing related impacts is highly uncertain due to poor information on level of mortalities, which results from low observer coverage of fishing and poor incentives to voluntarily report incidents. However, it is believed that the effects of fishing are the greatest cause of human induced mortality on the dolphins.

The effect of fishing related mortality is likely to be greatest on populations that are small because the level of mortality they can sustain will be less.

#### **Existing controls and number of incidents**

A mix of controls are in place to mitigate the impacts of fishing on specific populations of Hector's and Maui's dolphins.

It is difficult to measure the effectiveness of current management controls because of the low level of monitoring and suspected low levels of voluntary reporting.

No confirmed incidents of fishing related mortality of Maui's dolphins have been recorded since 2003. However, because the population is estimated at 111, scientific information suggests that it cannot sustain even one human induced mortality and rebuild.

There have been 36 confirmed incidents of fishing related mortality of Hector's dolphins from the East Coast South Island population since the marine mammal sanctuary was introduced in 1988.

No mitigation measures are in place for the West Coast population.

### **3.3. Where to from here?**

A range of management options have been developed to manage the effects of fishing-related mortality on Hector's and Maui's dolphins, for inclusion in the draft TMP. All options are outlined in Table 1 at the end of the executive summary.

Options have been developed for each of the four populations of Maui's and Hector's dolphins because the nature and extent of fishing related mortality varies between populations. However, the Minister of Fisheries will make a decision at a species level in considering impacts of measures across populations.

Options have been developed to address each threat (fishing method) which has been identified as creating a risk of fishing related mortality. There are three broad mitigation options for each threat, ranging from least to most restriction.

The options are categorised by their ability to reduce the risk of fishing related mortality caused by each threat and by the cost to fishers.

#### **Marine Mammal Sanctuaries**

There are four proposals for new marine mammal sanctuaries:

- ⇒ West Coast of the North Island
- ⇒ Clifford and Cloudy Bay in Marlborough
- ⇒ Porpoise Bay/Fortrose, Catlins Coast
- ⇒ Te Waewae Bay, South Coast.

It is also proposed to extend the existing Banks Peninsula marine mammal sanctuary in Canterbury

If the Minister of Fisheries in consultation with the Minister of Conservation decide further measures to manage the effects of fishing are needed, their preference is for a consistent approach to measures applying throughout the range of the dolphins. Reasons for this include transparency, compliance, cost and efficiency.

Applying a consistent approach means that Fisheries Act 1996 measures would apply in Marine Mammal Sanctuaries and in areas outside the Marine Mammal Sanctuaries. This will also provide an integrated approach to threat management.

The Department of Conservation prefers measures within the Marine Mammal Sanctuaries that will give the greatest protection. They consider these measures will best meet the objectives and intent of the sanctuaries.

### **3.4. Implementation and review of fishing related options**

The Minister of Fisheries, in consultation with the Minister of Conservation can choose different options for each threat and for each population.

Minister of Fisheries could also choose to bring in measures over time.

The Minister's decision will be based on the level of risk of fishing related mortality the Minister considers appropriate for the species as a whole and for each individual population.

Depending on the options agreed to by Ministers, increased levels of monitoring (via observer coverage and electronic monitoring) and research are proposed to enable ongoing analysis of effectiveness of measures.

Government wants any new measures to manage the effects of fishing in place before the end of 2007. In order to meet this timetable the intention is to implement any measures considered necessary first by Gazette Notice under section 11 of the Fisheries Act 1996. Measures would be replaced by regulations as soon as possible in 2008.

### **3.5. Implementation and review of non-fishing related proposals**

The Minister of Conservation will consider all submissions on non-fishing related threats and choose what proposed national measures will be included in the final TMP.

The marine mammal sanctuary proposals will follow the defined statutory process which is outlined in Part III.

MFish and the DOC are developing a communications plan to ensure decisions from Minister's are communicated to affected fishers and interested stakeholder groups.

Table 1: Summary of possible fisheries measures

	MAUI DOLPHIN				HECTOR'S DOLPHIN			
Option	Recreational	Commercial			Recreational	Commercial		
	Set net	Set net	Trawl	Drift net		Set net	Trawl	Potting (ECSI only)
<b>Status quo –</b>	No change	No change	No change	No change	No change	No change	No change	No change
<b>1 - highest residual risk/ lower cost to users</b>	Partial area prohibitions in additional selected NI harbours	Partial area prohibitions in additional selected NI harbours	Additional monitoring on vessels operating in within 4 nm between Maunganui Bluff to Pariokariwa Point	Partial area prohibitions in parts of Waikato River	Mandatory net attendance, no overnight, and maximum net size and number	Adherence to existing codes of practice and additional monitoring on vessels operating within areas that overlap with Hector's dolphin distribution	Development and adherence to a code of practice and additional monitoring on vessels operating within areas that overlap with Hector's dolphin distribution	Kaikoura fishers to voluntarily weigh down lines when setting in pots in areas where tidal movements are strong
<b>2 – moderate residual risk/higher costs to users</b>	Mandatory net attendance and no overnight setting in NI harbours	Mandatory net attendance and no overnight setting in NI harbours	Seasonal area prohibition between Manukau Harbour to Port Waikato and Maunganui Bluff to Pariokariwa Point	Full area prohibition in Port Waikato	Seasonal prohibition within areas that overlap with Hector's dolphin distribution with limited fishing allowed in designated areas	Seasonal prohibition within areas that overlap with Hector's dolphin distribution with limited fishing allowed in designated areas	Prohibition within areas that overlap with Hectors' dolphin distribution out to 2nm except for vessels targeting flatfish with low headline height nets	
<b>3- lowest residual risk/highest cost to users</b>	Full prohibition in West Coast NI (Kaipara to Cape Egmont) Harbours and extension of closure out to 12nm and to Cape Egmont	Full prohibition in West Coast NI (Kaipara to Cape Egmont) Harbours and extension of closure out to 12nm and to Cape Egmont	Full trawl prohibition Maunganui Bluff to Cape Egmont out to 4nm		Full prohibition within areas that overlap with Hector's dolphin distribution out to 6nm (West Coast South Island) or 12nm (East Coast and South Coast South Island)	Full prohibition within areas that overlap with Hector's dolphin distribution out to 6nm (West Coast South Island) or 12nm (East Coast and South Coast South Island)	Full prohibition within areas that overlap with Hector's dolphin distribution out to 2nm	

## 4. DOCUMENT STRUCTURE

This document is structured as follows:

### PART I

#### ◆ *Context*

This section provides context on the problem, outlines general threats facing the dolphins, and introduces threat management proposals.

### PART II

#### ◆ *Ministry of Fisheries Initial Position Paper*

The Minister of Fisheries has obligations under the Fisheries Act 1996 (FA96) to avoid, remedy or mitigate the adverse effects of fishing on the aquatic environment. This includes avoiding, remedying or mitigating the effect of fishing-related mortality on any protected species such as Hector's dolphins<sup>1</sup>. Specific proposals to implement measures to avoid, remedy or mitigate fishing impacts under the FA96 are set out and analyzed separately in the draft TMP from measures proposed under other legislation (for example, the Marine Mammals Protection Act 1978).

Matters are considered at a species level but also in relation to each population of dolphin. Each regional section (North Island West Coast, South Island West Coast, South Island South East Coast and South South Island) contains a mix of options based on fishing type and sector. The mix of options form a matrix the Minister may choose from between and within populations.

### PART III

#### ◆ *Marine Mammal Sanctuary Proposals*

This section outlines initial proposals for Marine Mammal Sanctuaries.

#### ◆ *Research*

This section outlines proposed future research on Hector's dolphin.

#### ◆ *Monitoring*

This section outlines proposed future monitoring of fishing related threats to Hector's dolphins.

## 5. IMPLEMENTATION

The TMP will set out the management framework for managing human induced threats to Maui's and Hector's dolphins. The plan will outline: biology; identify threats; characterization of the nature and extent of threats, management of threats, monitoring, research and review sections.

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<sup>1</sup> Throughout this document reference to Hector's dolphin species (*Cephalorhynchus hectori*) encompasses both the Maui's dolphin sub-species (*Cephalorhynchus hectori maui*) and the South Island Hector's dolphin subspecies (*C. h. hectori*).

The document in its draft form contains options to manage fishing and non-fishing related threats and initial proposals for Marine Mammal Sanctuaries. The final TMP will contain those measures agreed by Ministers, and where necessary Cabinet, following consultation. The final TMP will likely be available in early 2008 following decisions by Ministers. However, measures agreed by the Minister of Fisheries in consultation with the Minister of Conservation under the Fisheries Act 1996 are proposed for implementation in 2007 if possible. A full implementation timetable for those measures is set out in Part II of this document.