

AMATEUR SET NET MANAGEMENT PROPOSALS TO  
PROTECT WEST COAST NORTH ISLAND MAUI'S DOLPHIN

## **Initial Position Paper**

**31 January 2005**

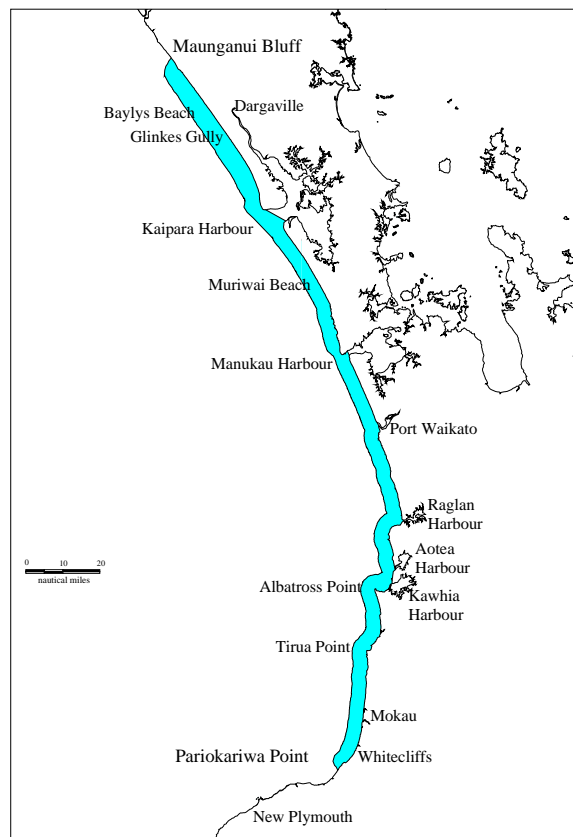


# AMATEUR SET NET MANAGEMENT PROPOSALS TO PROTECT WEST COAST NORTH ISLAND MAUI'S DOLPHIN

## Proposal

- 1 The Ministry of Fisheries (“the Ministry”) proposes that all amateur set netting is prohibited by fisheries regulation within 4 nautical miles (nm) of mean high water mark along the coast from Maunganui Bluff (near Dargaville) to Pariokariwa Point (near New Plymouth), as shown on Map 1.

**Map 1: Proposed four nautical mile closed area to amateur set netting.**



## Background

### *The Need to Reconsider the Amateur Set Net Closure*

- 2 This paper describes and provides a rationale for a proposal to close an area on the west coast of the North Island to amateur set net fishing. The purpose of this proposed closure is to prevent accidental capture of Maui's dolphin in nets set by amateur fishers. It is the same area that has been closed since 2001. The reasons why this closure is being reconsidered are as follows.

- 3 In August 2001, the Minister of Fisheries decided to close the area within 4 nm of the west coast (outside the harbours) from Maunganui Bluff to Pariokariwa Point to all amateur and commercial set netting.
- 4 In October 2001, the Northern Inshore Fisheries Company Ltd (representing commercial fishing quota holders) sought a judicial review of the Minister's closure decision in the High Court. In March 2002, the High Court set aside the decision on the closed area and the associated regulations. This decision only applied to the closure to commercial netting. The closure to amateur netting remained in effect.
- 5 After the High Court decision, the Minister reconsidered MFish advice on management measures needed to protect the Maui's dolphin population from the risks associated with commercial set netting. He did this after the Ministry consulted further with stakeholders.
- 6 The outcome of this process was that the Minister again decided that the area from Maunganui Bluff to Pariokawira Point needed to be closed to commercial set netting, to minimise risks to the dolphins. There were no challenges to this decision.
- 7 In 2003 penalties for offending for amateur set netting changed from infringement notices with a fine of up to \$250, to penalties of up to \$20,000 with fishing gear liable to forfeiture upon conviction. The new penalties regime is more severe, reflecting the importance of the controls to protect Maui's dolphins.
- 8 For these reasons, the Ministry considers it is appropriate to review the amateur set netting closures that were put in place at the same time as the original commercial closures, bearing in mind the Northern Inshore decision and further information obtained since 2001.
- 9 The closed area that applies to both amateur and commercial set netting inside the entrance to the Manukau Harbour is not being reconsidered. This closure was the subject of a separate process.

## **Statement of the Problem and Need for Action**

- 10 The Minister of Conservation has classified Maui's dolphin as a threatened species and the International Union for the Conservation of Nature has classified it as "critically endangered". The reason for these classifications is that the population has fallen to a very low level.
- 11 The next section provides a summary of the information currently available on the estimated size of the population. It also summarises what is known about the distribution of the population. The apparent low population size and information on distribution provide the basis for determining that controls on netting are needed, and for the extent of the proposed closed area.

## ***Summary of Current Information on Maui's dolphin***

### *Population features*

- 12 Maui's dolphin are endemic to New Zealand. Geneticists have examined the DNA from museum specimens of Maui's dolphin and the skin tissue from living dolphins. This research has shown that the North Island population of Maui's dolphins is genetically distinct from the South Island Hector's dolphin population. It is estimated that the populations have been separated for at least 10,000 years and do not interbreed.
- 13 This separation has been recognised by proposing a separate sub species for the Hector's dolphins found on the North Island west coast (*Cephalorhynchus hectori* or Maui's dolphin), while the southern varieties have kept the name Hector's dolphin. These northern and southern populations are not known to interbreed with each other.
- 14 The genetics research has also shown there has been a significant decline in genetic diversity of Maui's dolphin over the past century. Analysis of mitochondrial DNA showed that this population has lost two-thirds of the maternal lineage. Such a decline is consistent with a decline in population numbers during this time.
- 15 There have been several attempts in recent years to estimate the size of the Maui's dolphin population on the west coast. However, methods used to do this have varied and do not lead to comparable estimates. Some have been criticized in scientific reviews of the findings. A recent survey (2004), which used internationally accepted methods to assess population size, produced an estimate of 114 Maui's dolphins.
- 16 Although there is a high degree of uncertainty about this estimate, this and previous studies indicate that it is unlikely that there are currently more than 250 Maui's dolphins in the habitat surveyed.

### *Distribution*

- 17 Historically, Maui's dolphin may have occupied a much larger geographic range on both the east and west coasts of the North Island than they appear to occupy now. Apart from occasional sightings of small groups of what could have been Maui's dolphin in Hawkes Bay and the Wairarapa coast, the North Island distribution of Maui's dolphin is restricted to the west coast.
- 18 The alongshore and offshore extent of the area proposed to be closed to amateur set netting is based on four main sources of information about distribution of the dolphins on the west coast. They are: strandings or beach cast dolphins, public sightings, sightings by researchers, and sightings from aerial surveys.
- 19 There has been a marked change in the distribution of Maui's dolphin beach cast reports along the west coast over the last 30 years. In the 1970s, nine of the ten recorded beach cast incidents on the west coast were on the northern Taranaki Bight (Awakino to New Plymouth). Three of these dolphins were found drowned in set nets.
- 20 Since the 1980's the proportion of beach cast reports in the Taranaki area has fallen, while the proportion of reports further north has increased. In the 1990's there was

only one out of eleven beach casts reported from Taranaki. The main concentration of reports during that decade came from further north in the area from Port Waikato to the Kaipara Harbour.

- 21 A review of public sightings information also shows there has been a decrease in the range of Maui's dolphins over recent years. In the 1970's they were seen as far south as the south Taranaki – Wanganui area. Since that time there have been reliable<sup>1</sup> recent public sightings of the dolphins from Glinkes Gully (near Dargaville) to the Mokau (near New Plymouth).
- 22 Researchers have mostly seen dolphins between the Manukau Harbour and Port Waikato. There have been few research sightings north of the Manukau and none south of Raglan, perhaps in part because most of the research survey trips have concentrated on the Port Waikato to Manukau area.
- 23 Researchers have seen the dolphins in pods of up to 10 animals. There are some signs that these pods may be territorial and remain in one locality, rather than ranging all along the coast. Research has shown the related South Island Hector's dolphin to have an average long shore range of around 15 nm.
- 24 There have been aerial surveys in 2001, 2002 and 2004, mainly between Maunganui Bluff and New Plymouth. During the surveys, most sightings of Maui's dolphins were between the Manukau Harbour and Port Waikato. There were a few sightings between the Manukau and Kaipara Harbours. There were no sightings north of the Kaipara. In 2002 two Maui's dolphin were sighted about 5 nm south of Raglan Harbour.
- 25 Researchers and fishers have noted that in summer the dolphins spend most of their time in the "dirty water" zone within about 2 nm of the shore. However, researchers in 2004 also observed Maui's dolphin just over 3 nautical miles offshore in both summer and winter. This is the furthest observed offshore extent of the dolphin's range.

### ***The Need for a Closed Area***

- 26 The relevant statutory provisions outlined in Annex One and the information on population size, in combination require that action is taken to avoid any further decline in Maui's dolphin population numbers. The need for action has been further reinforced by calculation of a MALFIRM (Maximum Allowable Limit of Fishing Related Mortality) for this population.
- 27 MALFIRMs are based on a formula developed by the United States National Marine Fisheries Service. The formula can be used to set a limit on the maximum number of mortalities other than due to natural causes that must not be exceeded to ensure that marine mammal populations rebuild, rather than decrease.

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<sup>1</sup> Researchers receive numerous reports from the public about Maui's dolphin sightings. However, before accepting any public sighting, the researchers contact the person to assess the reliability of the sighting. The researchers only accept public sightings that they are very confident are definitely Maui's dolphins. Many public sightings are rejected because the information is unreliable or uncertain.

- 28 The result obtained, using the population estimate of 134 Maui's dolphins from a 1985 survey in the MALFIRM formula, is that there should be no more than one Maui's dolphin death from fishing-related causes every 6.75 years.
- 29 There is no intention to actually use this figure as a catch limit, but it further emphasises the need to prevent accidental deaths of any Maui's dolphin caused by fishing.
- 30 Further, in May 2000 a stakeholders' workshop agreed that because of the state of the population an appropriate management objective for the Maui's dolphin population is to reduce fishing impacts to zero - that is that the effects of fishing on Maui's dolphin should be avoided all together. They confirmed that this should be the objective at another meeting in April 2002. This is consistent with s 15 (2) of the Fisheries Act 1996. (Refer Annex 1).
- 31 The main risk to Maui's dolphin is considered to be their accidental capture in commercial and amateur set nets. Therefore MFish believes that achieving the objective of reducing fishing impacts to zero requires that the use of set nets is prohibited in all parts of the dolphins' known range. The Minister decided that this action was needed following his reconsideration of the area closed to commercial netting.
- 32 While the use of set nets on this coast by amateur fishers is likely to be infrequent, dead Maui's dolphin have been found in amateur nets. No such risks can be allowed, so excluding nets from the area frequented by dolphins is considered necessary.

### ***West Coast Amateur Set Net Fishing Interaction with Maui's Dolphin***

- 33 The North Island west coast is exposed and often rough. It is therefore not a place where amateur fishers in small boats can fish easily. Setting and hauling in nets is likely to be difficult much of the time. The main inshore fish species along this coast are snapper, rig, gurnard and school shark. Only snapper is especially sought-after by amateurs.
- 34 MFish believes there was very little amateur set netting in the area where the closure to amateurs is being reconsidered, before 2001 when there was no restriction on netting. Consequently a closure would have minimal adverse impact on amateur fishers.
- 35 This assessment is based in part on the reaction from amateur fishers in 2001 during consultation on the current closure. MFish told a reasonably comprehensive range of amateur fishing individuals and organisations about the proposed closure. The response was one submission from someone who didn't fish in the area, but was opposed in principle to closing any area to amateur fishing.

### **Preliminary Consultation**

- 36 There has been no recent consultation with amateur fishers before including the proposal to again close the area from Maunganui Bluff to Pariokariwa Point in this IPP. This is because of the likelihood that there was very little amateur set net fishing in this area before the set net prohibition in 2001. There was also a very low response

in 2001 from amateurs to the proposed closure. MFish will send this IPP to the amateur fishing groups who received copies of the 2001 IPP.

## **Options for Management Response**

- 37 The information on distribution summarized previously has determined the extent of the proposed closed area. The boundaries of this area encompass the full range of frequent Maui's dolphin sightings on the open coast during the 1990s based on the public sightings database.
- 38 It appears the closely related Hector's dolphin has an average long shore range of at least 15km. This information and the sightings over recent years suggest the area from Mauganui Bluff to Pariokawira Point is the likely extent of the range of Maui's dolphins on the west coast. This has determined the length of coastline proposed to be closed to netting.
- 39 Sightings show that Maui's dolphins frequent the dirty water close to shore in summer, but are more dispersed in winter. There have been research sightings of them more than 3 nautical miles offshore in both summer and winter. This is why the proposed closed area extends 4nm offshore.
- 40 The need for a closed area has been outlined previously. The Maui's dolphin population is at risk and cannot withstand fisheries-related mortalities that exceed one dolphin in any six year period. Consequently the strongest possible measures are needed to ensure that this does not happen. That is why the closed area has been a regulated, rather than voluntary control. The seriousness of the sustainability risk to Maui's dolphins is further reflected in the recently imposed severe penalties for breaches of the regulation.

## **Statement of the Net Benefits and Costs of the Proposal**

### ***Benefits***

- 41 Confirmation of the need to prevent accidental capture of Maui's dolphin in set nets is provided by:
- The precarious state of the dolphin population;
  - The provisions of legislation that require protection for endangered marine mammals; and
  - The agreement by stakeholders that dolphin deaths by other than natural causes should be reduced to zero.
- 42 There have been no reports of dolphins found washed up dead with net marks anywhere within the area that has been closed to amateur set netting since 2001, and to commercial netting since 2003. This indicates that closing the area to netting is having the desired effect of eliminating fishing as a risk to the population.

- 43 Re-instating closure of the area that current information suggests is the range of the Maui's dolphin population to all set netting will have the benefit of maintaining this protection.

### **Costs**

- 44 Because there is minimal amateur set net fishing in the area proposed to be closed, there are unlikely to be any costs in fishers displaced from good fishing spots in this area. The lack of any submissions in 2001 from amateur fishers objecting to any such loss, points to this conclusion.

### **Administrative Implications**

- 45 Imposing the proposal would require a regulation to be made under s 298 of the Fisheries Act 1996 as an amendment to the Fisheries (Auckland and Kermadec Areas Amateur Fishing) Regulations 1986.
- 46 The present closure has been extensively publicised. Compliance officers have been active in the area to ensure that people are aware there is a reasonable likelihood of being caught if they ignore the ban. This proposal involves reinstating the present set net regulations. Consequently MFish does not believe that there is any need for new publicity.

### **Compliance Issues**

- 47 The area proposed to be closed is reasonably well defined. The northern boundary, Maunganui Bluff, is proposed because it is a prominent and easily recognisable geographic feature north of Glinkes Gully. Pariokariwa Point, proposed as the southern boundary is also an easily recognised feature. The offshore extent of the proposed area is a consistent 4nm from mean high water mark between these two points.
- 48 The Auckland Compliance team have been very active in both promoting awareness and maintaining a Compliance presence in the area. This does involve spending Compliance time and resources. However, because of the pressing sustainability risk associated with the low Maui's dolphin population size, such expenditure is appropriate.

### **Conclusion**

- 49 The Maui's dolphin population on the west coast of the North Island is at a very low level. MFish considers that a comprehensive strategy of regulatory measures, research, and enforcement is needed to rebuild the population.
- 50 Maui's dolphin have been caught occasionally by accident in amateur and commercial set nets. The provisions of relevant legislation and the general agreement reached by stakeholders that mortality from anything other than natural causes should not happen, point to the need to close the dolphins' habitat area to set netting.

- 51 In 2002 the High Court set aside the Minister's 2001 decision closing the area to commercial fishing. After the Court's decision, the Minister of Fisheries reconsidered how to give the dolphins the protection from commercial netting that was clearly needed. This involved compilation of another Initial Position Paper and further consultation with stakeholders.
- 52 For consistency, the closure to amateur set netting is also being reconsidered. On the basis of the information available (including information since the closure was first put into effect in 2001), closure of the Maunganui Bluff – Pariokawira Point area to 4 nm offshore is still considered to be needed. This is to lessen risks of capture of a Maui's dolphin in a net set by an amateur fisher. The proposed closed area is where information from the combination of research and reliable public sightings shows that Maui's dolphin have often been seen.
- 53 MFish does not think a closure to amateur set netting in this area would have a serious adverse impact on amateur fishers. This is because there has been virtually no set fishing on this exposed and often rough coast.

## **Recommendation**

- 54 MFish recommends that the Minister of Fisheries should decide to make regulations under s298 of the 1996 Fisheries Act, prohibiting amateur set netting in the area from Maunganui Bluff to Pariokawira Point, extending 4nm seaward of mean high water mark.

# ANNEX ONE

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## Legislation

- 55 The management measures proposed to protect Maui’s dolphin from risks of capture in set nets have been devised to give effect to the provisions of legislation that is relevant to this issue. This Annex summarises these provisions.
- 56 The purpose (s 8) of the 1996 Fisheries Act is to provide for the utilisation of fisheries resources while ensuring sustainability. “Ensuring sustainability” means “... avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment”. Aquatic environment is defined as “including all aquatic life”.
- 57 Under s 10 of the 1996 Act, decision makers are required to take into account four information principles. They should:
- Use the best available information;
  - Consider any uncertainty in the information;
  - Be cautious when information is uncertain, unreliable, or inadequate; and
  - Not use the absence of or uncertainty in, any information as a reason for postponing or failing to take any measure to achieve the purpose of the Act.
- 58 These provisions of s 10 are relevant because MFish believes that there should be no delay in applying management measures that are needed to prevent any further decline in the dolphin population. There is a degree of uncertainty about information such as the actual numbers of dolphins in the population (although there is no doubt that the population is very small). While new research information is being obtained every year on this and other aspects of the dolphins’ biology and habits, the management proposals here are based on the best currently available information.
- 59 Two environmental principles in s 9 of the 1996 Act are relevant to the Maui’s dolphin population and have been taken into account in devising the proposed management measures. These principles are that:
- Associated or dependant species should be maintained above a level that ensures their long-term viability; and
  - Biological diversity of the aquatic environment should be maintained.
- 60 The 1996 Act defines associated and dependent species as any non-harvested species taken or affected by the taking of a harvested species. MFish considers that Maui’s dolphin is an associated and dependant species because it has been accidentally caught in nets set to catch other species. The term “biological diversity” means the variability among living organisms, including diversity within species, between species, and of ecosystems.
- 61 Section 15 of the Fisheries Act 1996 gives more specific guidance on powers the Minister of fisheries can use to manage fishing-related mortality of marine mammals.

Section 15 is closely linked to the Marine Mammals Protection Act 1978 that provides for preparation of population management plans. Section 15(2) states that:

“In the absence of a population management plan, the Minister [of Fisheries] 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.”

- 62 The Minister of Conservation has not approved a population management plan for Maui’s dolphin. All marine mammals, including Maui’s dolphin, are “protected species” referred to in s 15(2). Therefore the Minister of Fisheries may impose measures under s 15(2) to protect Maui dolphins from the effects of fishing.
- 63 Section 15(4) allows the Minister of Fisheries to recommend making of any regulations under s 298 of the 1996 Act, to implement any measures referred to in s 15(2). The proposal to make a regulation to prohibit amateur set netting along part of the North Island west coast is consistent with all of these provisions.
- 64 In applying the legislative provisions of the Fisheries Act 1996 to the North Island Maui’s dolphin, MFish recognises that where possible, utilisation and fishing should be provided for, to the extent that it is sustainable. MFish considers that where there is a significant threat to sustainability or the long-term viability of a threatened population (as there is with the Maui’s dolphin population), the sustainability measures applied should be more precautionary than where there is a lesser threat.