



Department of Conservation  
Bay of Islands Area Office  
34 Landing Road  
Kerikeri 0230

By email: [boimms@doc.govt.nz](mailto:boimms@doc.govt.nz)

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## **Proposed Te Pēwhairangi (Bay of Islands) Marine Mammal Sanctuary**

### **SUBMITTER DETAILS**

**Full name:** Environmental Defence Society Incorporated  
**Address for service:** PO Box 91736, Victoria Street West, Auckland 1142  
**Contact:** Raewyn Peart (Policy Director)  
**Telephone:** 09 302 2972  
**Email:** [raewyn@eds.org.nz](mailto:raewyn@eds.org.nz)

### **1. Introduction**

- 1.1. This is a submission on the proposed Te Pēwhairangi (**Bay of Islands**) Marine Mammal Sanctuary.
- 1.2. The Environmental Defence Society (**EDS**) is a not-for-profit organisation dedicated to achieving good environmental outcomes for all New Zealanders. It is a policy think-tank and litigator that demonstrates a long-standing commitment to the improvement of marine species and ecosystem management. In 2012, EDS published findings from a review of the legislative framework established by the Marine Mammals Protection Act 1978, along with recommendations on how to strengthen protection for marine mammals.<sup>1</sup> Building on this work, EDS published a book on the relationship between humans and dolphins in Aotearoa New Zealand.<sup>2</sup> The book specifically addresses the plight of the Bay of Islands bottlenose dolphin population and tracks the history of the dolphin tourism industry in the proposed sanctuary area.<sup>3</sup>
- 1.3. EDS is not associated with a whānau, hapū or iwi that exercises kaitiakitanga in the proposed marine mammal sanctuary area.

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<sup>1</sup> Mulcahy, K. and Peart, R. (2012) *Wonders of the Sea*. Environmental Defence Society. An electronic version of the publication is available at: <https://www.eds.org.nz/>

<sup>2</sup> Peart, R. (2013) *Dolphins of Aotearoa: Living with New Zealand Dolphins*. Craig Potton Publishing, Nelson, NZ. pp. 307.

<sup>3</sup> Ibid, at pages 168-180.

## 2. Summary of submission

- 2.1. EDS supports the proposed Marine Mammal Sanctuary in the Bay of Islands.
- 2.2. EDS does not support the proposal to exempt existing holders of marine mammal viewing permits from the requirement to maintain a minimum separation distance of 400 metres from marine mammals inside the Sanctuary. Such an exemption creates an inconsistent framework that will potentially undermine the recovery of the bottlenose dolphin population in the area.
- 2.3. EDS supports the proposal to establish two Marine Mammal Safe Zones inside the Sanctuary, within which vessel speeds will be restricted to a maximum of 5 knots.
- 2.4. EDS suggests that the proposed co-management body be required to develop an integrated adaptive management plan to improve outcomes within the Sanctuary. The development of such a plan, with appropriate monitoring and review mechanisms, will help to ensure the long-term protection of marine mammals in the Bay of Islands.

## 3. The proposal

- 3.1. On 20 April 2021, the Acting Minister for Conservation issued a Notice of Intention to Declare a Marine Mammal Sanctuary in the Bay of Islands pursuant to section 22 of the Marine Mammals Protection Act 1978 (**MMPA**).<sup>4</sup> The Department of Conservation (**DOC**) concurrently released consultation documentation including information on the rationale, objectives and impacts of the proposal.<sup>5</sup>
- 3.2. It is understood that the proposal seeks to establish a Marine Mammal Sanctuary with full coverage across the waters of the Bay of Islands (being the marine area bounded by Cape Wiwiki to the north and Cape Brett to the south).<sup>6</sup> It is also proposed to create two Marine Mammal Safe Zones inside the Sanctuary, with one located between Tapeka Point and Whangaiwahine Point, and the other between Motuarohia Island (Robertson Island) and Moturua Island.<sup>7</sup> Restrictions on in-water and vessel activities are proposed to be implemented within the Sanctuary and Marine Mammal Safe Zones.
- 3.3. The proposal seeks to achieve five core objectives:<sup>8</sup>
  - 1) “Halt and reverse the decline of Te Pēwhairangi (Bay of Islands) bottlenose dolphin subpopulation.
  - 2) By 2026, 50% of bottlenose dolphin calves are surviving to adulthood.
  - 3) By 2026, bottlenose dolphins are spending equal amounts of time resting, foraging, travelling and socialising.

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<sup>4</sup> “Notice of Intent to Declare a Marine Mammal Sanctuary” (20 April 2021) New Zealand Gazette No 2021-1422.

<sup>5</sup> Department of Conservation (2021) *A proposal to establish a marine mammal sanctuary in Te Pēwhairangi (Bay of Islands): Public consultation document Tuhinga take korero.*

<sup>6</sup> The Notice of Intent describes the coordinates of the proposed sanctuary as “comprising all the areas of the sea enclosed by a straight line running from 174°8.210'E, 35°9.383'S to 174°19.809'E, 35°10.174'S ('outer boundary') and then running along the shoreline within that outer boundary on the line of mean high water springs.” At page 1, para [1]. The proposed area is also shown on Map 1 of the proposal, above n 5, at page 13.

<sup>7</sup> Notice of Intent, above n 4, at page 1, para 2.

<sup>8</sup> The proposal, above n 5, at page 11.

- 4) By 2026, northeastern coast marine mammal species are visiting Te Pēwhairangi (Bay of Islands) at least once every 2 years.
- 5) Te Pēwhairangi (Bay of Islands) is recognised nationally and internationally as an important area for marine mammals”.

3.4. EDS supports the objectives of the proposed Sanctuary. Based on the findings of recent scientific research into the behaviour and population status of bottlenose dolphins in the Bay of Islands, it is clear that urgent and effect management action is required to prevent localised extinction.

3.5. The Aotearoa New Zealand bottlenose dolphin population is split between two distinct eco-types; the nearshore coastal environment and the open ocean environment. The coastal population is classified as “nationally endangered” due to an estimated less than 1,000 individuals remaining in the wild.<sup>9</sup> There are four geographically distinct sub-populations of coastal bottlenose dolphins in Aotearoa New Zealand, and the Bay of Islands has historically played an important role in sustaining the national population, by providing critical habitat for breeding and nursing activities.<sup>10</sup>

3.6. Recent research findings raise serious concerns about the future of the Bay of Islands bottlenose sub-population:<sup>11</sup>

- The number of bottlenose dolphins visiting the Bay of Islands declined by 91% between 1997 and 2020 (from 276 to 26). Only 16 of the 26 dolphins observed in the 2019-2020 study period were identified as frequent visitors, raising concerns about the potential for rapid localised extinction.
- Studies report high and unsustainable mortality rates of 50-75%. No new calves were observed in the peak calving season of 2019-2020.
- While DOC has implemented a variety of management measures, including a moratorium on the granting of new permits for dolphin watching or swimming in 2009; and the imposition of strict conditions on commercial permit holders in 2019; vessel presence in the Bay of Islands remains high compared with other areas in Aotearoa New Zealand.
- The near constant presence of vessels was found to disrupt normal behaviours that are critical for dolphin survival (including resting and feeding) and reproductive success. Dolphins are being driven out of the Bay of Islands and into more exposed breeding and nursing environments. The loss of an important nursery habitat raises concerns for the long-term conservation status of the national bottlenose dolphin population.

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<sup>9</sup> Refer to Department of Conservation “Bottlenose Dolphin”, <https://www.doc.govt.nz/nature/native-animals/marine-mammals/dolphins/bottlenose-dolphin/>

<sup>10</sup> Ibid.

<sup>11</sup> Refer to the consultation documentation; Tangaroa Research Institute of Oceanographic Studies (TriOceans) (June 2020) Identifiable individuals, behavioural responses to vessel and calf survival of bottlenose dolphins (*Tursiops truncatus*) in Far North waters, New Zealand. Prepared for the Department of Conservation. Available at: <https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/bottlenose-dolphin-in-far-north-water-new-zealand/> and to Peters, C. and Stockin, K. (2016) *Responses of bottlenose dolphins to vessel activity in Northland, New Zealand*. At page 85. The report is available at <https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/responses-of-bottlenose-dolphin-to-vessel-activity-in-northland/>

3.7. EDS supports the establishment of the Sanctuary without delay and provides some submissions below on its design.

#### **4. Proposed restrictions on in-water activities**

4.1. It is proposed to prohibit any person from being in the water within 400 metres of a marine mammal in any part of the Sanctuary (including the Safe Zones).<sup>12</sup>

4.2. EDS supports this restriction. It will deter vessel operators from infringing the proposed separation distance of 400 metres to appease swimmers; and avoid exposing marine mammals to unnecessary risk from vessel manoeuvres.<sup>13</sup>

4.3. Previous research on swim interactions with bottlenose dolphins in the Bay of Islands indicated that whilst some dolphins exhibited significant attraction towards swimmers, others exhibited avoidant behaviours and moved away.<sup>14</sup> The more avoidant dolphins were less frequently seen in the Bay of Islands, while dolphins that engaged more frequently with swimmers were unable to perform behaviours that are critical to survival (including resting and foraging). EDS considers the prohibition is an appropriate and necessary action to ensure dolphins that exhibit avoidant behaviours are not unintentionally driven from the Bay of Islands to more exposed marine environments. It will also help ensure that dolphins remaining in the Bay are not distracted from normal behaviours essential to their long-term health and wellbeing.

#### **5. Proposed restrictions on vessel operations**

5.1. The proposed restrictions will also require vessel operators to maintain a minimum separation distance of 400 metres from marine mammals within the Sanctuary<sup>15</sup> and to not exceed a vessel speed of 5 knots within the Marine Mammal Safe Zones.<sup>16</sup>

5.2. The minimum separation distance is set out at Paragraph 5(4) of the Notice of Intention which states:

“Throughout the proposed sanctuary every vessel operator would need to:

- a. Ensure that the vessel it operates keeps 400 metres from any marine mammal.
- b. To [sic] use all reasonable means to stop if a marine mammal moves within 400 metres of the vessel operator’s vessel, to allow the marine mammal to move 400 metres away.”

5.3. EDS supports these restrictions and considers them to be an important measure to achieve the objectives sought in relation to the bottlenose dolphin population. Previous research has observed significant behavioural changes in bottlenose dolphins resulting from vessel interactions including reductions in resting and foraging activity and increases in socialising and diving activity.<sup>17</sup> The requirement to maintain a minimum separation distance of 400 metres at

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<sup>12</sup> Notice of Intention, above n 4, at page 1, para 5(3).

<sup>13</sup> Reverse manoeuvres were previously utilised as a mechanism for swim placement by some commercial vessel operators and private vessel operators in the Bay of Islands; refer to Peters and Stockin, above n 11, page 85.

<sup>14</sup> Peters and Stockin, above n 11, at page 96.

<sup>15</sup> Notice of Intention, page 1, para 5(4)(a) and (b).

<sup>16</sup> Notice of Intention, page 1, para 5(2).

<sup>17</sup> Peters and Stockin, above n 11, at page 65.

all times will ensure dolphins are not intentionally exposed to vessels and therefore enable dolphins to undertake biologically significant behaviours.

- 5.4. The requirements in Paragraph 5(4) help fill an existing gap in the regulatory framework. Under the Marine Mammal Protection Regulations (**MMPR**) no minimum separation distance applies in respect of dolphins if a vessel complies with the “no wake” speed requirement (approximately 5 knots) and there are less than 3 vessels in position.
- 5.5. However, the Notice of Intention proposes that any commercial vessel with an existing marine mammal viewing permit will be exempt from the requirement to maintain a minimum separation distance of 400 metres from marine mammals inside the Sanctuary.<sup>18</sup> EDS submits that this proposed exemption creates an unsatisfactory and inconsistent management framework that will undermine the objectives of the Sanctuary and should therefore be removed.
- 5.6. The findings of the TriOceans report 2020, commissioned by DOC to assess the effectiveness of regulations enacted under the MMPR in 2019, provide insight on permitted vessel interactions with bottlenose dolphins in the Bay of Islands. Permitted commercial operators are restricted to one 20 minute encounter with bottlenose dolphins. Observations of commercial permit holder interactions with dolphins showed that, on average, the restrictions were providing for up to 0.5 vessels to locate within 300 metres of bottlenose dolphins per hour.<sup>19</sup>
- 5.7. Given the alarming decline in the number of bottlenose dolphins visiting and remaining in the Bay of Islands, and the adverse behavioural impacts the presence of vessels have on bottlenose dolphins, EDS considers any allowance for commercial permit holders to locate within 400 metres of the dolphins is inappropriate.

## **6. Proposed Marine Mammal Safe Zones**

- 6.1. As previously outlined, the proposal seeks to establish two Marine Mammal Safe Zones inside the Sanctuary, in which vessel speeds will be restricted to a maximum of 5 knots.<sup>20</sup>
- 6.2. EDS fully supports the proposed Marine Mammal Safe Zone and associated restriction on vessel speed. It is understood that the proposed Safe Zone locations are currently frequented by bottlenose dolphins and are therefore areas where the highest interactions have previously occurred.<sup>21</sup>
- 6.3. EDS emphasises that previous research has shown that the patterns of bottlenose dolphin utilisation of key rest areas changes through time and is variable across seasons.<sup>22</sup> Indeed, past research concluded “newly imposed static area specific management zones ... would likely be redundant”.<sup>23</sup>

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<sup>18</sup> Notice of Intention, above n 4, at para 7.

<sup>19</sup> Above n 11.

<sup>20</sup> Notice of Intention, above n 4, at page 1, para 5(2). Relating to any permits issued before 20 April 2021.

<sup>21</sup> DOC, above n 4, at page 16.

<sup>22</sup> Peters and Stockin, above n 11, at page 104.

<sup>23</sup> Ibid.

- 6.4. EDS submits that the proposal should include an administrative requirement that obliges Ngā Hapū o te Pēwhairangi and DOC (as the proposed co-management body) to develop an integrated adaptive management plan to supplement the initial restrictions imposed as part of the Sanctuary. This plan could consider a combined temporal and spatial management approach, with periodic closures of discrete areas during peak breeding times. It could also include complementary conservation measures developed in collaboration with other government agencies (e.g. Fisheries New Zealand, Maritime New Zealand and the Northland Regional Council) to address cumulative effects from other marine activities (including fishing and maritime transport) and land use in the adjacent catchment (sedimentation and pollution).