

## **SUMMARY STATEMENT OF DEANNA CLEMENT (MARINE MAMMALS)**

My evidence addresses the potential effects on marine mammals from the construction of the proposed reclamation. The evidence includes descriptions of the proposed reclamation activities and the existing environment from a marine mammal perspective.

A large proportion of New Zealand's marine mammals live or migrate along the north-eastern coastline of the North Island. The species most likely to be affected by the proposal are common and bottlenose dolphins, orca and Bryde's whales. Other species of interest include NZ fur seals, leopard seals, and southern right and humpback whales as they are more seasonal visitors to the wider Bream Bay area.

Based on the data available, I do not consider the coastal waters of Whangārei Harbour and Bream Bay to be ecologically significant habitats for any marine mammal species. Instead, this area represents only a small fraction of similar habitats available along the North Island's north-eastern coast that several species of marine mammal regularly utilise and migrate past on a regular basis.

The aspects of port expansion most likely to directly affect marine mammals in the Whāngareia area are the production of underwater sound from pile-driving activities, and possibly, risk of entanglement. However, I have assessed the overall risk of any adverse effects arising from the proposal as less than minor, based on recommended management actions.

Indirect effects of construction activities on marine mammals may result from physical changes to the habitat itself that adversely affect the health of the local ecosystem and / or impinge on important prey resources. However, given the location and habitats associated with the proposal, any indirect effects are not expected to be adverse or detrimental for local or visiting marine mammals in the region.

To ensure that the most appropriate measures are in place to minimise any potential adverse effects, several best management practices (including source noise reduction options, shut down zones, and seasonal consideration of piling stages) are recommended. Continuation of ongoing acoustic monitoring is also recommended to verify in situ piling sound levels and ensure the effectiveness of the management measures employed. This monitoring should include any systematic data being collected by manawhenua. Finally, I recommend that, consistent with best practice, a marine mammal management plan (MMMP) based on the draft MMMP provided with the application, is finalised prior to commencing operations and is duly implemented.

I have considered the concerns raised in submissions as they relate to marine mammals, and which focused on the following topics: datasets, marine life and habitats; acoustic, shipping, and climate effects; and cultural effects. I consider these have been appropriately addressed in my assessment and Evidence in Chief.

Evidence submitted by Dr Tom Brough on behalf of Patuharakeke Te Iwi Trust re-raises a few of these issues. However, I note that while Dr Brough may not agree fully with my methods and interpretation, he states in his evidence that he agrees that the ecological effects on local marine mammals from the proposed activities are likely negligible.

The Section 42A report concludes that effects on marine mammals are less than minor. It recommends new or amended conditions to address effects on marine mammals, including amendments to the draft MMMP.

- (a) I note that most of the S42A recommended adjustments are discussed in Mr Pettersson's Evidence in Chief, and the recent memorandum from Ms McConnell highlights those that are still in discussion.
- (b) These remaining conditions mainly deal with providing more context details with some conditions, detailing how the compliance limits were reached, and how the additional MMO posting at One Tree Point and exiting shut down would work for the varying species (i.e. whales vs dolphins).

These are discussed further in Mr Pettersson's Rebuttal Evidence. I discuss how a proposed review clause used in association with Condition 65(d) would be implemented to ensure no species were deterred from leaving the harbour while piling activities underway. This clause was discussed and agreed to in principle with Ms McConnell on the 1 October 2023.

It is my opinion that I have adequately considered the possible effects of the Proposal on marine mammals. I have considered the worst-case scenarios as part of my assessment (i.e. any species being present on any day) to assess the initial effect and then used the available information on similar projects and local marine mammals to fine-tune the final mitigation measures and conditions.



**Dr Deanna Clement**

**4 October 2023**