Sand extraction in Te Ākau Bream Bay Potential effects on seabirds and shorebirds



This report was commissioned by McCallum Bros Limited to assesses the potential effects on seabirds and shorebirds of proposed sand extraction from within an area at least 4.7 km offshore within Te Ākau Bream Bay, Northland.

The objectives of this assessment were to:

- Summarise the seabird and shorebird assemblage that is likely to occur in the vicinity of the proposed sand extraction area and along the shore adjacent to the proposed sand extraction area,
- Identify potential effects of sand extraction activity on seabirds and shorebirds, and
- Assess the likely impact of potential effects of sand extraction activity on seabirds and shorebirds.

A conservative total of 34 seabird taxa, of which five are classified as 'Threatened' under the New Zealand Threat Classification System (NZTCS: tara iti fairy tern *Sternula nereis davisae*, takahikare-raro New Zealand storm petrel *Fregetta maoriana*, taranui Caspian tern *Hydropogne caspia*, tākoketa black petrel *Procellaria Parkinson* and toroa grey-headed albatross *Thalassarche chrysostoma*), with a further 23 taxa classified as 'At Risk', were identified as likely to occur in the within Te Ākau Bream Bay area. Overall, 82% of seabird taxa likely to occur in Te Ākau Bream Bay are classified as either 'Threatened' or 'At Risk'.

Additionally, 13 shorebird taxa, of which three are classified as 'Threatened' under the NZTCS (matuku-hūrepo Australasian bittern *Botaurus poiciloptilus*, ngutu pare wrybill *Anarhynchus frontalis* and tūturiwhatu northern New Zealand dotterel *Charadrius obscurus aquilonius*), with a further six classified as 'At Risk', were identified as likely to occur in Te Ākau Bream Bay.

Of particular conservation concern, tara iti fairy tern breeds at Waipū estuary, 5.6 km to the southwest of the proposed sand extraction area, with 1-2 breeding pairs at this site.

Seven potential effects of proposed sand extraction activity (loss of terrestrial breeding habitat, exclusion from marine habitat, changes to prey abundance/availability, interaction with the sand extraction vessel, fuel/oil spill, airborne noise and underwater noise) were assessed for all seabird and shorebird taxa using a consequence-likelihood-risk approach. Risk scores for all potential effects and for all taxa were classified as 'low'. For tara iti fairy tern and for the potential effects of loss of terrestrial breeding habitat, interaction with the sand extraction vessel and fuel/oil spill the risk score was in the middle of the low category, due to the 'very low' likelihood scores for these three potential effects. It is recommended that management plans (interaction with the sand extraction vessel and fuel/oil spill) be established or maintained.

Dr David Thompson Seabird Ecologist Group Manager - Coastal Ecology and Fisheries Group National Institute of Water & Atmospheric Research Ltd