



# Mangonui Harbour

## Intertidal vegetation mapping

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# Mapping process and purpose

A remote sensing method has been used to map wetland/saltmarsh and mangrove habitat in Northland. This mapping aims to improve spatial intertidal habitat data for Northland. Please refer to the separate methodology report<sup>1</sup> for details of the mapping process.

This is one of 19 worksheets that display the extent and location of mapped wetland/saltmarsh and mangrove habitats in the Northland region. The worksheets also identify intertidal saltmarsh habitat that exceeds the Regional Policy Statement for Northland (RPS) wetland area threshold of 0.5 hectare for significant saltmarsh (referred to below as significant saltmarsh). Oblique aerial images of all significant saltmarsh features and a summary of significant avifaunal values that are associated with this coastal wetland are also included in the worksheets. The saltmarsh and mangrove layers are available via an online viewer:

<https://localmaps.nrc.govt.nz/LocalMapsGallery/>

Where coastal wetlands extend inland, the degree of salt influence reduces until wetland transitions from saltmarsh to a freshwater wetland. In order to limit the identification of significant features to saltmarsh habitat and avoid mapping freshwater wetland, the landward extent of significant saltmarsh was delimited using selected LINZ hydro parcels. In a small number of instances (eg. Whangārei Harbour, Pātaua Estuary, Horahora Estuary and Kāretu River), where the hydro parcel clearly omitted areas of intertidal habitat, the LINZ NZ property parcel was used. By limiting the mapping of significant saltmarsh to areas within the LINZ hydro parcels, there is a high level of confidence that the significant saltmarsh mapped by this project is saltmarsh and not freshwater wetland.

During the validation process it was apparent from the oblique imagery that typically inland of the hydro parcels the saltmarsh transitions to freshwater habitat. By utilising the LINZ hydro layer, degraded habitat that may not have dominant indigenous vegetation has been avoided, as has wetland or saltmarsh on private title. However, by using the LINZ NZ property parcel and LINZ hydro parcels as the inland boundary, some saltmarsh habitat inland of these boundaries will have been omitted. Further work is required to develop a robust method to delineate the landward extent of saltmarsh habitat.

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<sup>1</sup> MacDonald, Griffiths, Griffin, Pene & Umuroa (2020). Northland Intertidal vegetation mapping methodology.

## Area description and map outputs

Mangonui Harbour is a shallow drowned valley estuary on the east coast of the Northland peninsula. One hundred and sixty-four hectares of mangroves and 85 hectares of saltmarsh have been mapped. Eleven saltmarsh habitats, with a total area of 35.5 ha, have been identified in the CMA that exceed the Regional Policy Statement for Northland wetland area threshold of 0.5 hectare for significant saltmarsh (Figure 1 & Table 1).

**Table 1:** Significant saltmarsh identified in Mangonui Harbour

Reference	Area (m <sup>2</sup> )
AV27 511-236	26,813
AU27 511-281	5,412
AV27 494-250	74,166
AV27 508-236	31,146
AV27 515-232	30,758
AV27 517-234	114,742
AV27 506-246	27,758
AV27 495-248	9,108
AV27 499-251	8,403
AV27 518-236	18,482
AV27 491-251	7,955
<b>Total</b>	<b>354,743</b>

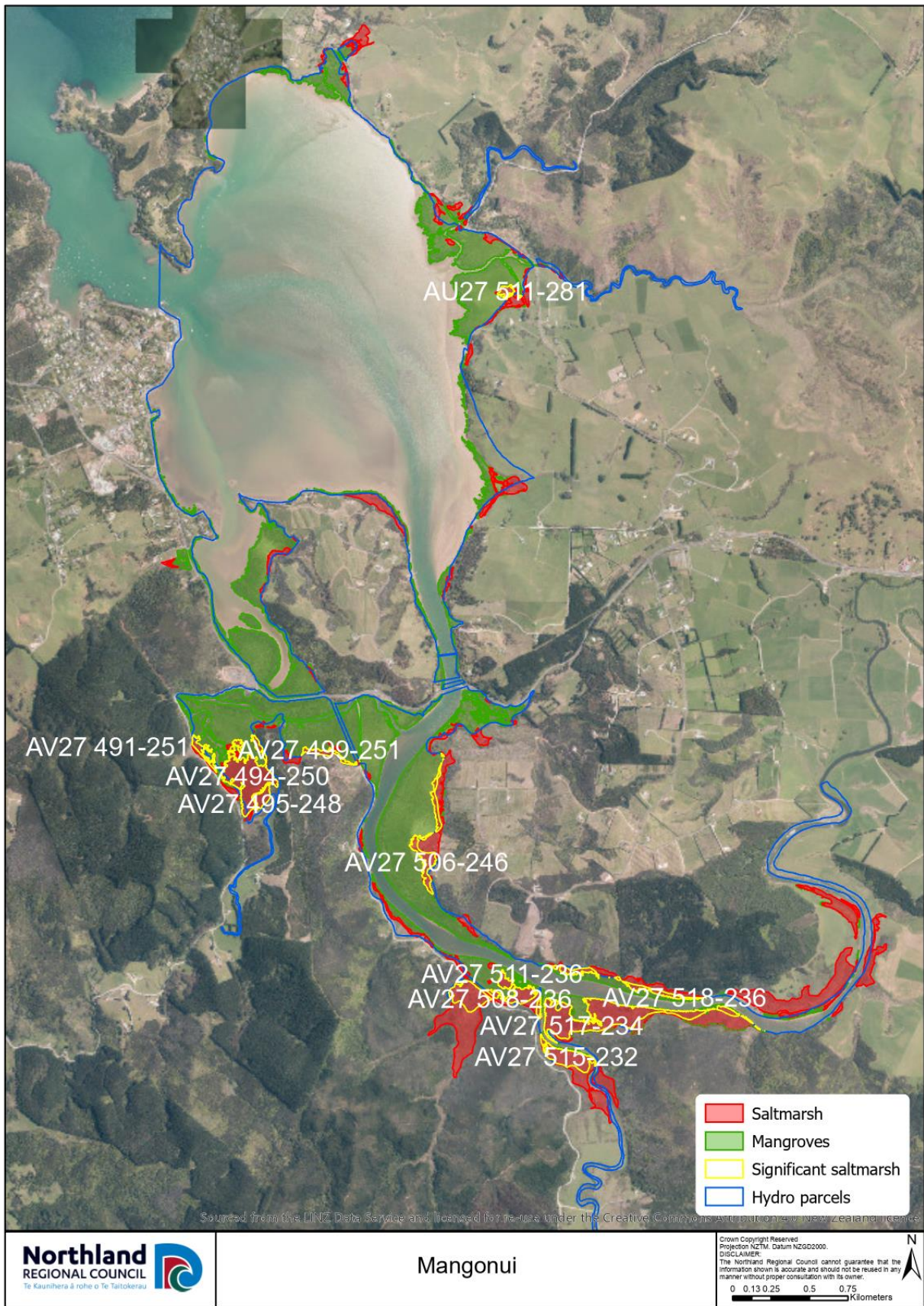
The Mangonui Harbour has extensive mudflats with mangrove and saltmarsh habitat along creek margins. Threatened species which breed locally include pied shag and reef heron, along with Australasian bittern, fernbird and banded rail occurring in the upstream wetlands and saltmarsh.

**Table 2:** ‘Threatened’ and ‘At Risk’ birds using saltmarsh and adjoining mangrove habitat in the Mangonui Harbour

Species Scientific Name	Species Common Name	NZ threat classification (2016)		Significance for species
<i>Botaurus poiciloptilus</i>	Australasian bittern	Threatened	Nationally critical	Locally important breeding and feeding (saltmarsh/mangrove)
<i>Hydroprogne caspia</i>	Caspian tern	Threatened	Nationally vulnerable	Local feeding (mangrove channels)
<i>Bowdleria punctata vealeae</i>	North Island fernbird	At Risk	Declining	Locally important breeding and feeding (saltmarsh/mangrove)
<i>Gallirallus philippensis assimilis</i>	Banded rail	At Risk	Declining	Locally important breeding and feeding (saltmarsh/mangrove)

Species Scientific Name	Species Common Name	NZ threat classification (2016)		Significance for species
<i>Limosa lapponica baueri</i>	Eastern bar-tailed godwit	At Risk	Declining	Local feeding (mangrove edges)
<i>Phalacrocorax varius varius</i>	Pied shag	At Risk	Recovering	Locally important breeding and feeding (mangrove and channels)
<i>Phalacrocorax melanoleucos brevirostris</i>	Little shag	At Risk	Naturally uncommon	Locally important breeding and feeding

**Figure 1:** Mangrove and saltmarsh habitat in Mangonui Harbour



**Figure 2:** AV27 517-234, AV27 515-232



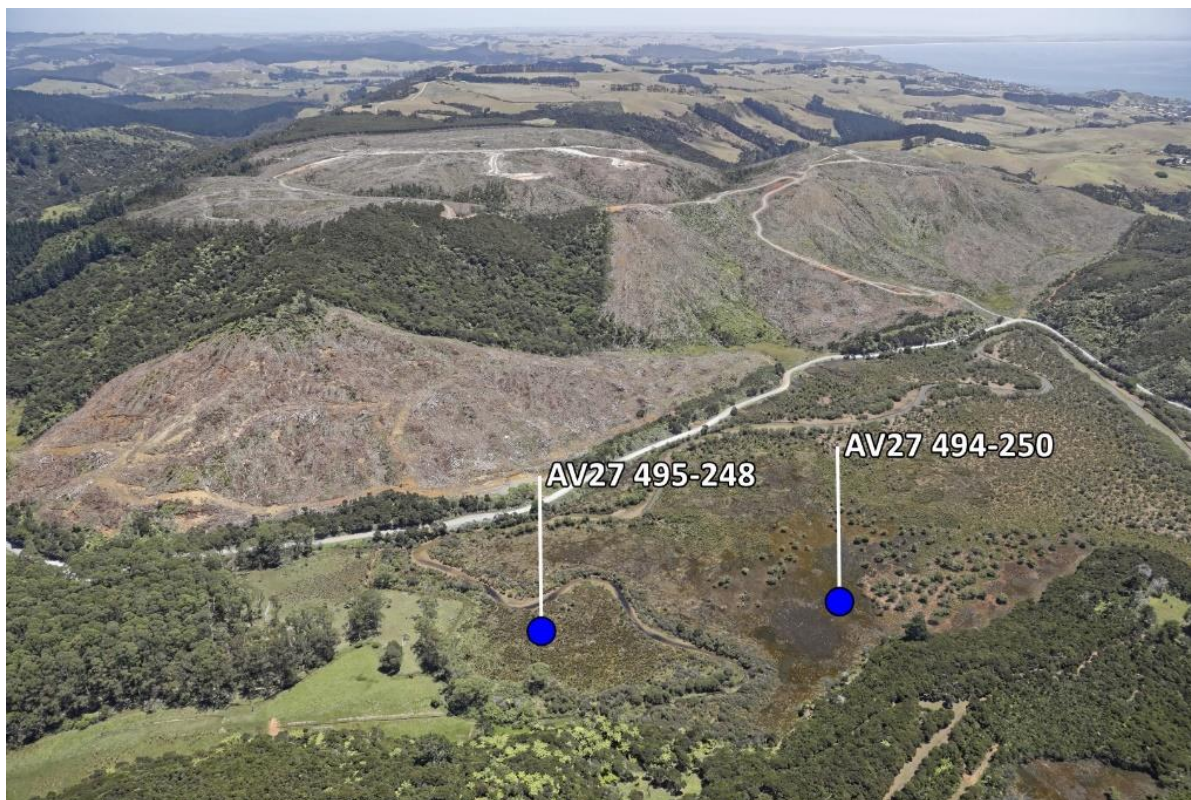
**Figure 3:** AV27 518-236



**Figure 4:** AV27 511-236, AV27 508-236



**Figure 5:** AV27 494-250, AV27 495-248



**Figure 6:** AV27 499-251



**Figure 7:** AV27 506-246

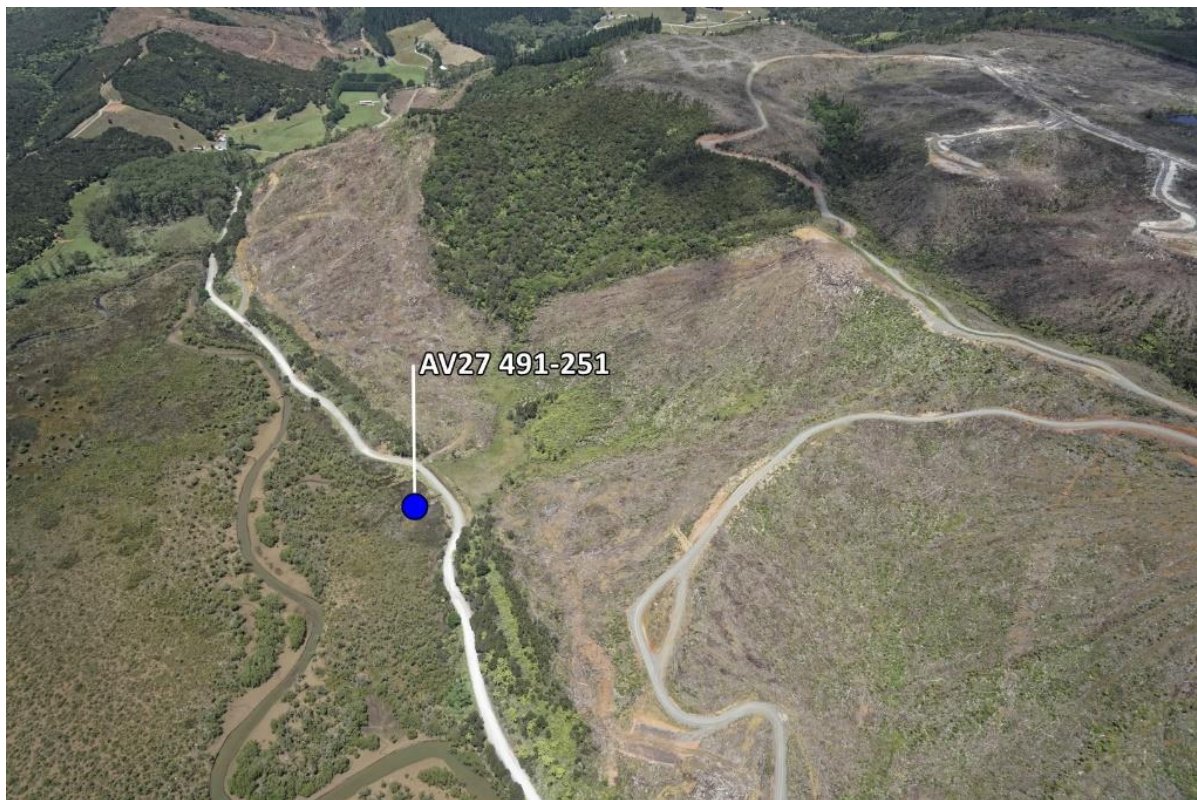




**Figure 8:** AU27 511-281



**Figure 9:** AV27 491-251



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