



Houhora 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 report¹ 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.

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

Area description and map outputs

Houhora is a shallow drowned valley estuary on the east coast of the Northland peninsula. A total of 237 hectares of mangroves and 284 hectares of saltmarsh have been mapped. Eighteen saltmarsh habitats, with a total area of 48 ha (Figure 1 & Table 1), have been identified in the CMA that exceed the Regional Policy Statement for Northland wetland area threshold of 0.5 hectare.

Table 1: Significant saltmarsh identified in Houhora Harbour

Reference	Area (m ²)
AU26 123-494	27,783
AU25 114-512	106,641
AU25 106-490	41,099
AU25 085-524	10,628
AU25 083-527	24,619
AU25 090-519	28,282
AU25 084-529	5,233
AU25 085-530	16,019
AU25 097-500	12,639
AU25 087-525	18,801
AU25 091-514	19,384
AU25 094-508	28,905
AU25 092-518	8,364
AU25 097-502	8,484
AU25 084-527	6,455
AU25 078-535	10,4847
AU25 083-532	5,189
AU25 094-527	6,442
Total	479,816

Houhora is a moderate sized harbour flanked by a mix of mangrove, saltmarsh, shrubland and farmland, with extensive tidal flats. The harbour supports several thousand threatened waders including local breeding residents (northern NZ dotterel, variable oystercatcher), migratory waders from within New Zealand (particularly wrybill and banded dotterel) and northern hemisphere migrants (particularly bar-tailed godwit, lesser knot, ruddy turnstone and Pacific golden plover). Other local breeding birds include reef heron and pied shag, while many species also feed in the harbour, notably tern species. There are important populations of Australasian bittern, banded rail, spotless crane and fernbird in the local saltmarsh and other wetlands (Table 2).

Table 2: 'Threatened' and 'At Risk' birds using saltmarsh/mangrove habitat in the Houhora Harbour

Species Scientific Name	Species Common Name	NZ threat classification (2016)		Significance for species
<i>Botaurus poiciloptilus</i>	Australasian bittern	Threatened	Nationally critical	Nationally important breeding and feeding (saltmarsh/mangrove)
<i>Hydroprogne caspia</i>	Caspian tern	Threatened	Nationally vulnerable	Locally important 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)
<i>Haematopus finschi</i>	NZ pied oystercatcher	At Risk	Declining	Local feeding (mangrove edges)
<i>Limosa lapponica baueri</i>	Eastern bar-tailed godwit	At Risk	Declining	Nationally important feeding (mangrove edges)
<i>Porzana tabuensis tabuensis</i>	Spotless crane	At Risk	Declining	Locally important breeding and feeding (saltmarsh/mangrove)
<i>Phalacrocorax varius varius</i>	Pied shag	At Risk	Recovering	Locally important breeding and feeding (mangrove and channels)

Figure 1. Mangrove and saltmarsh habitat in Houhora Harbour

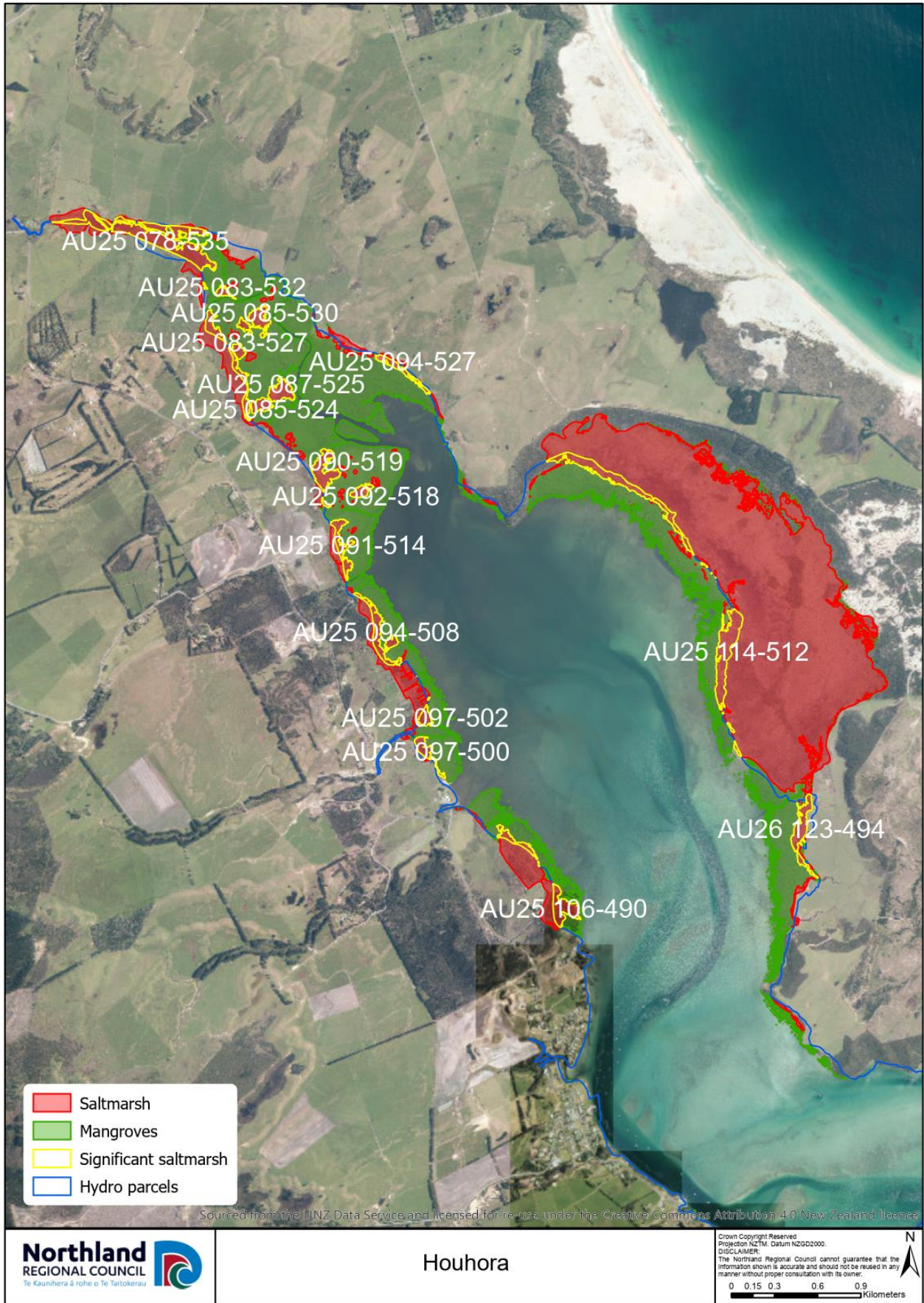


Figure 2: AU26 123-494



Figure 3: AU25 114-512



Figure 4: AU25 114-512



Figure 5: AU25 094-517

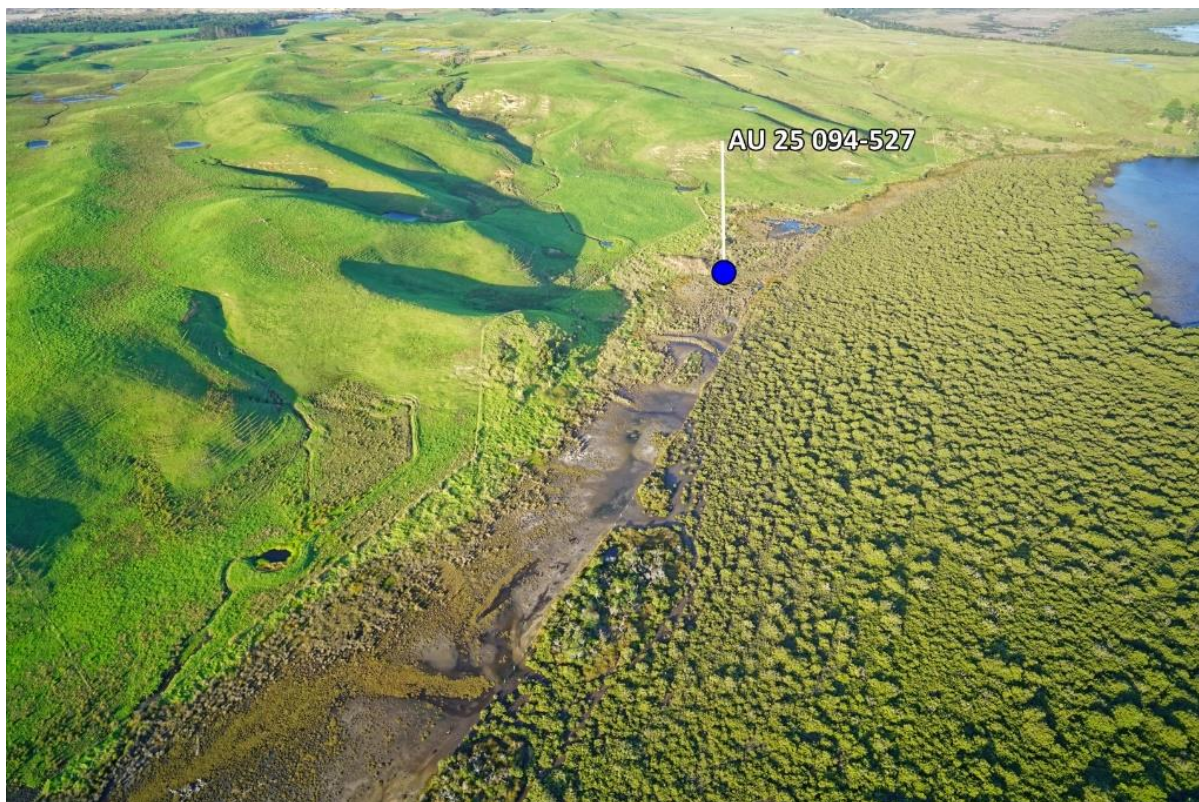


Figure 6: AU25 078-535

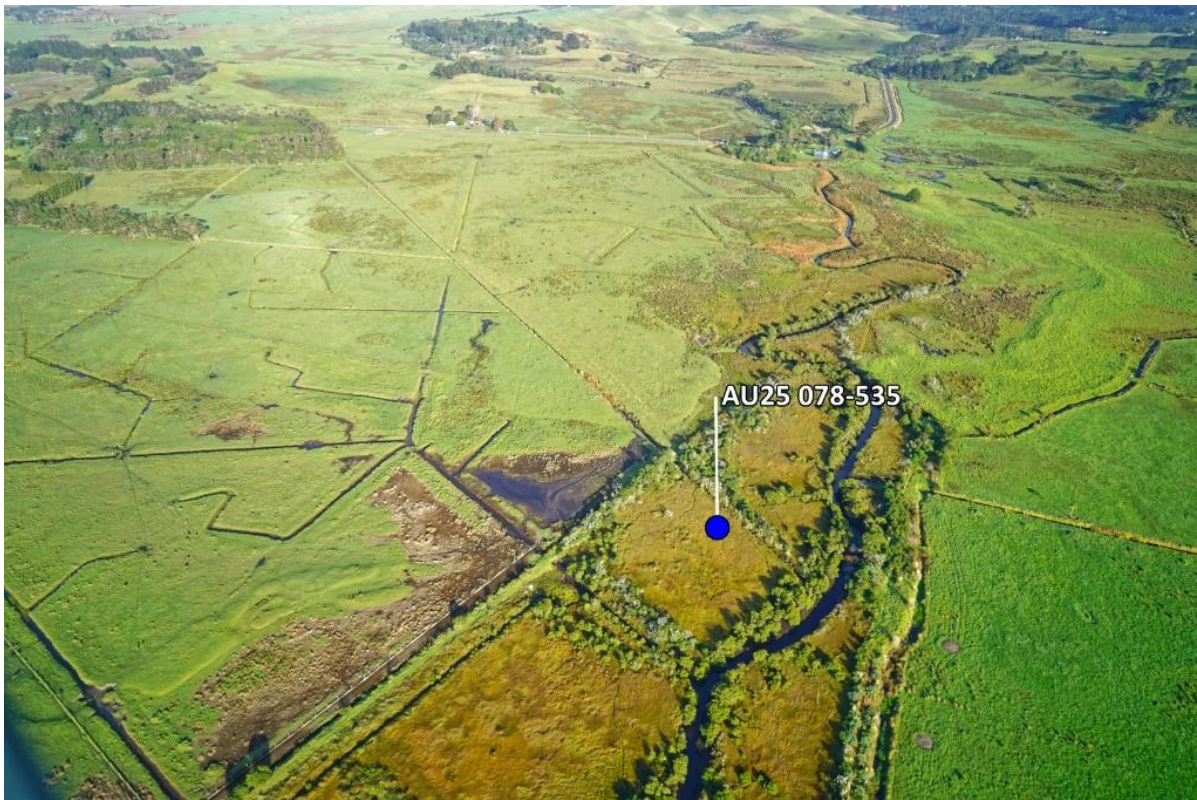


Figure 7: AU25 078-535



Figure 8: AU25 083-532

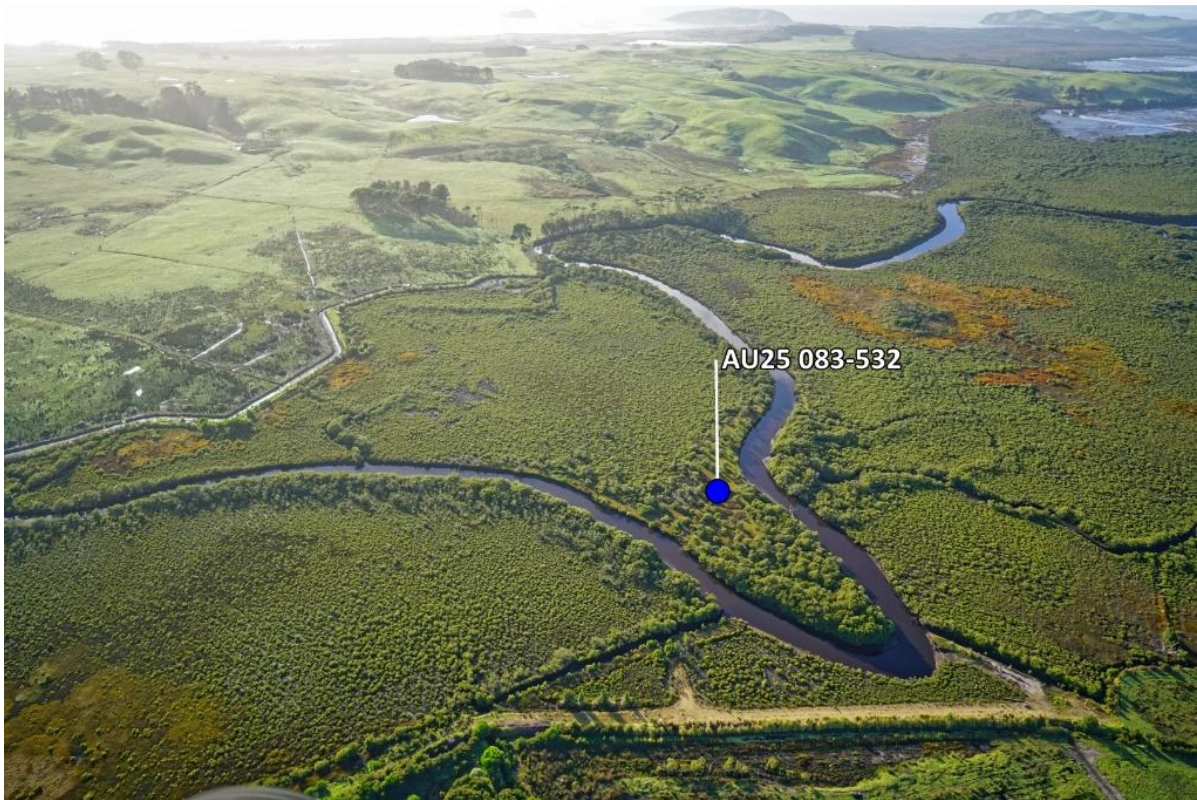


Figure 9: AU25 083-527, AU25 084-529, AU25 085-530

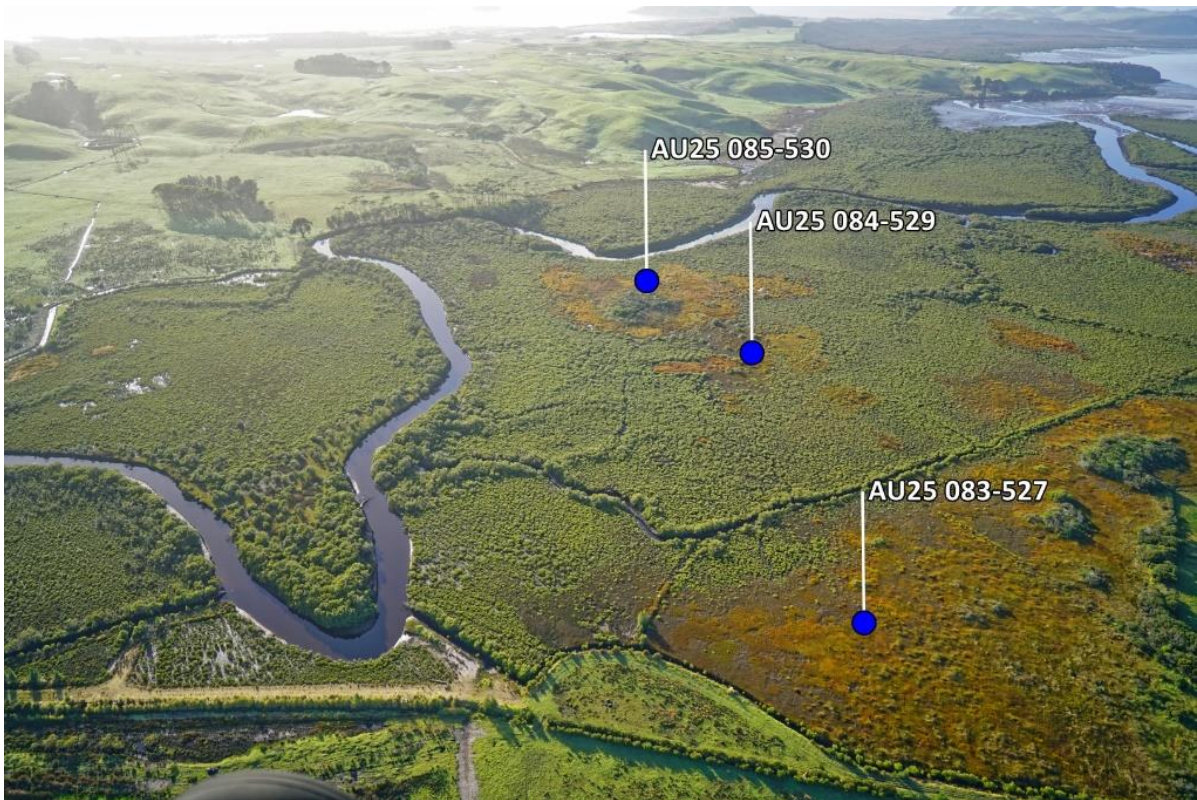


Figure 10: AU25 087-525, AU25 085-524, AU25 083-527



Figure 11: AU25 092-518, AU25 090-519



Figure 12: AU25 091-514



Figure 13: AU25 094-508



Figure 14: AU25 097-502

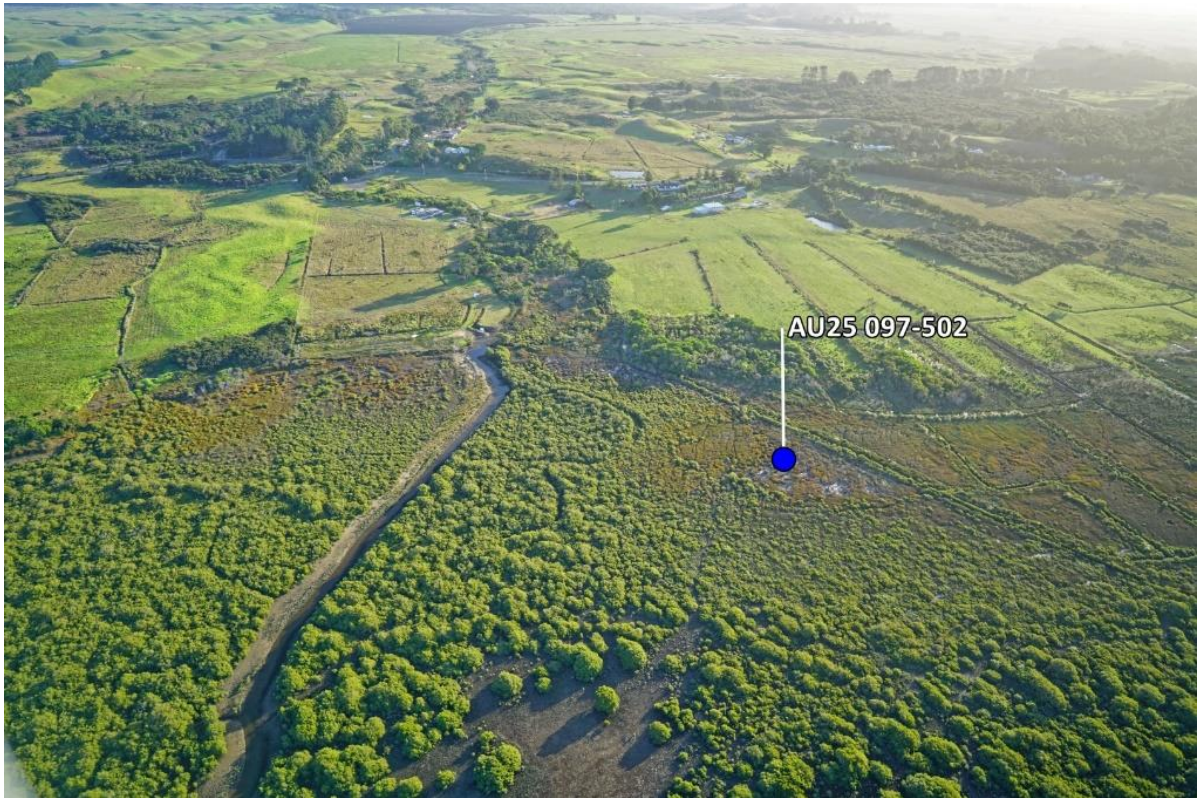


Figure 15: AU25 097-500

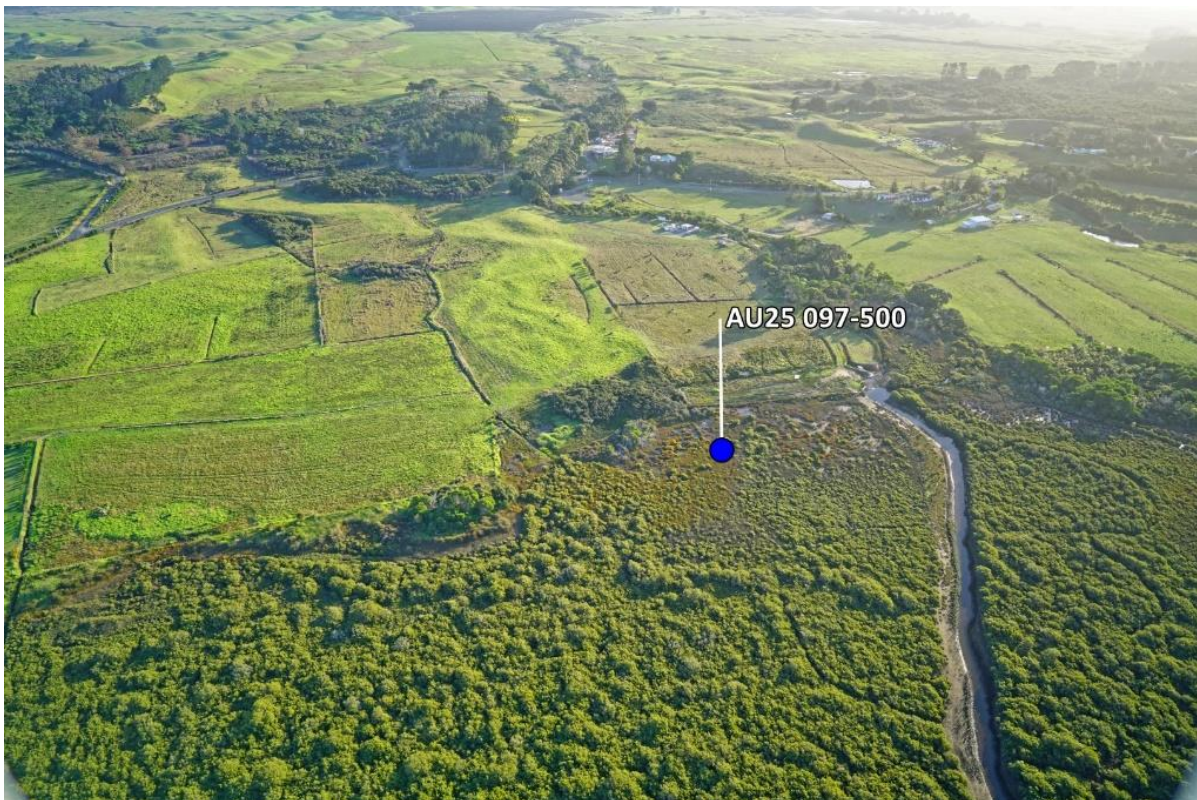


Figure 16: AU25 106-490



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