KUKUWAI PROJECT
An investigation of the natural fresh water on Motuihe Island

Summer 2025 (10 January 2025)

Carried out by Fiona Alexander and Margaret Freeman

NOTE: We had had a reasonably dry summer with short heavy showers only. Also a lot of strong wind so everything was very dry.

Snapper Bay Stream

No water at all in the stream.

Margaret went 100 m up the stream bed but there was no water but lots of wandering dew.

Ocean Beach Stream/Wetland valley

Map attached of the valley.

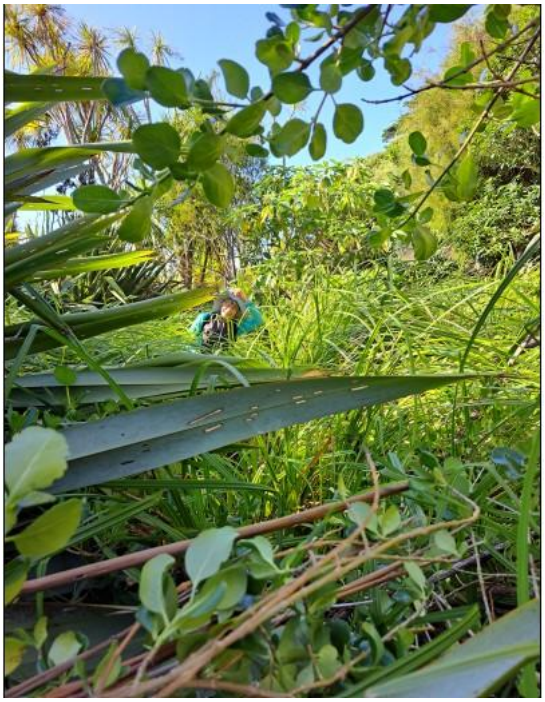
There was no water in the stream at all from the beach right up the valley.
There was no way we could find the long lost field drains. Any effort to turn the valley into a wetland feature will be extremely difficult due to the cutty grass and flax smothering the valley floor.

We entered the valley at the Ocean Beach bridge.
There was no water anywhere in the valley. The stream bed was damp and in a few places a bit muddy.

Position one in The

Wetlands valley was swamped in cutty grass
36 degrees 48’ 26” S 174 degrees 56’43.34” E

Position 2 in the wetlands valley shows the dry stream bed we were following. The cutty grass fell over it but we could make out the stream bed as it didn't have any growth on it, there were small banks each side and the ground was damp and in a few places muddy. We are confident we followed the stream bed even though it was difficult to see.
36 degrees 48'27.49"S 174 degrees 56' 43.29" E



The cutty grass was head high and stretched the full length of the valley except for a few places where thick flax took its place.
It was very difficult to make progress up the valley, it is only one and a half kilometers from the Ocean Beach bridge to the pump shed but it took us 3 hours. The best method to get through the cutty grass was for Margaret to walk backwards using her backpack as a buffer and me to shuffle along close behind. We both suffered numerous cuts and scratches.

This very old and large macrocarpa tree is a good landmark on the west side of the valley.

Just below the macrocarpa we came across a gate as part of the old fence line. We thought we would follow the fence line up the slope but there were only a couple of fence posts and then it disappeared. We did not find the pump shed. Once up the slope from the valley floor we were hidden in Manuka and couldn't see out. We came out on to the main track very near where the pump shed track branches off.

Von Luckner Bush stream

NOTE The service track we used in July last year is no longer mowed and as a result it was hard going to walk down to von Luckner's bush from the ridge road.

There was water in the ponds going down the slope towards the beach but there was no water flowing from one pond to another.
We tested at 36 degrees 48' 56.85" S 174 degrees 56' 54.11" E

Turbidity 20 (winter last year = 30 so there was less turbidity this summer than last winter)

pH 6 (winter last year = 6 PH is the measure of acidity in the water. 7 is neutral, above 7 is alkaline below 7 is acidic. Acidity in the stream is due to decaying vegetation around the test site.)

Nitrate	0	We couldn't measure Nitrate last year. The nitrate level should be 0 as nitrate is not good for marine life. We test for nitrate to make sure the nitrate in our fertiliser tabs is not leaching into the streams.

The Pond

The pond water level was surprisingly high. There was water up to the banks. On the measuring waratah the depth was 250 cm. There were no ducks on the pond just a pukeko and a black back gull. We were there on a hot afternoon so the ducks were probably sheltering under the flax.

The pond did not look good. The water was very dirty looking and the surface was covered in some sort of swamp weed with a white flower.

Turbidity	45	(last winter 36 so there is more turbidity this summer than last winter)
pH	5.5	(last winter 6.5 so the pond is more acidic than last winter)
Nitrate	0	(we could not measure for nitrate last year. 0 nitrate is good)

Turbidity is the cloudiness of the water, due to particles floating in the water. The lower the number the less cloudiness.