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# ***NGĀTI PAREKAAWA KI POUKURA***

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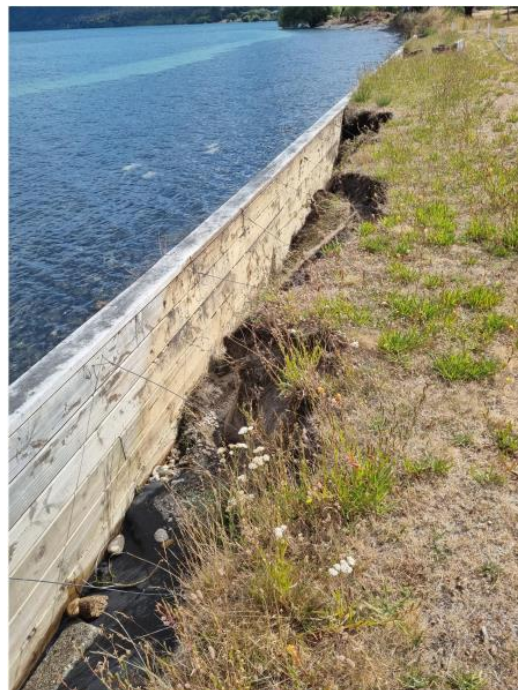


January 2022 – February 2023

### Poukura marae

Since the resource consent held by Mercury Energy legally commenced in 2006 there has been steady and progressive erosion occurring at Poukura pā. Due to a combination of high lake levels and extreme weather patterns likely to be related to climate change, the erosion significantly accelerated between January 2022 and January 2023.

Poukura Pā had engaged with a civil engineer, Ben Schubert of Blueline Consulting in January 2022. Included in the request to engage with Blueline were the below photos (taken January 2022).



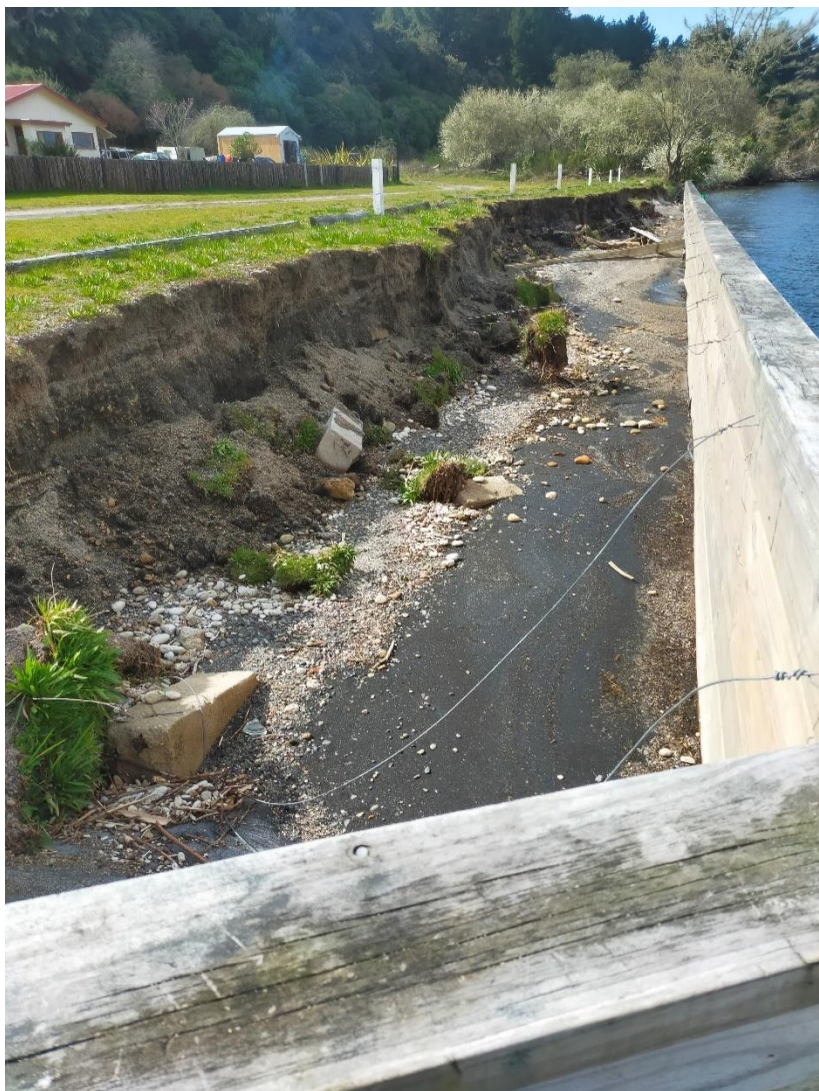


A Lakeshore Restoration Project application was submitted to the Ngāti Tūwharetoa Genesis Energy Committee and the Ngāti Tūwharetoa Mercury Development Group in March and April 2022, respectively.

Both mitigation groups agreed to split the costs outlined in the offer of service from Blueline Consulting based on the table below, and came to a total cost of \$16,900.00. Both groups approved the application and agreed to pay half - \$8450.00 each.

<b>Deliverables</b>	<b>Budget Estimate (Excl GST)</b>
1. Scoping & Options Assessment	\$2,400.00
2. Topographical Survey (Provisional)	\$2,000.00
3. Detailed Design	\$9,700.00
4. RMA Planning & Consenting	\$2,800.00
<b>TOTAL</b>	<b>\$16,900.00</b>

By November 2022, only Deliverables 1 & 2 were completed by Blueline, Deliverable 3 had been started but not completed.



*Photo taken September 2022.  
Structure to the right is the timber retaining wall (built in 2017)*

On Wednesday 11th January 2023 the Poukura Trust were advised that the erosion had reached the road between the marae ātea and the lake.



Photo taken Wednesday 11 January 2023.

The only suitable, efficient and immediate option available to prevent further loss of land to the lake, was sandbags.

Taupō District Council – Civil defence team were called and were able to deliver sandbags the following morning.

That night, 4 of us (including 2 kaumatua) managed to fill 40 sandbags. With our combined efforts we were able to protect the erosion site where the road had fallen into the lake.





*First layer of sandbags.  
Photo taken Wednesday 11th  
January 2023*



*Kahurangi and Ash Davison  
(kaumatua)  
Photo taken Wednesday 11th  
January 2023*



The following morning we were heartened to see that the sandbags had done their job and no further whenua had been lost overnight. Additionally, the sandbags had caught the sand and pumice both in front and behind the sandbags.



*Photo taken Thursday 12th January 2023*



Bubs Smith and Ian from the TDC – Civil Defence team were onsite and had delivered 150 sandbags to fill.

The Lake Rotoaira Forest Trust had delivered large logs for firewood, and we thought that we could put those into the lake on an angle, to help absorb some of the energy coming in from the waves.

We asked Te Waa Owens if we could use one of his logging machines to help put the logs into place. Te Waa and Les came down to Poukura to assess the situation and advised against putting the logs into the lake. They explained that if the logs got free, they would become a major hazard to the boaties out on the water.

Instead Te Waa offered to bring his logging crew down to help us fill sandbags. We were extremely humbled, thankful and so appreciative of his kind and generous offer. With the help of the logging crew, we were able to build a sandbag wall the entire length of the erosion site, two sandbags high.



*Photo taken Thursday 12th January 2023*





Koro Pompy Marshall, the Davison whānau and Te Waa Logging crew, Thursday 12th January 2023.



From Friday 13th January until Wednesday 18th January the sandbags were checked daily and patched up where needed by the whānau on the ground at Poukura. The sandbags continued to stop further loss of land and sand had begun to build up around the sandbags themselves. The whānau at Poukura also managed to add a 3rd layer of sandbags over this time.

Ara Poutama responded to our call for help and were happy to assist with our efforts. On Wednesday 18th January, over 5 tonne of sand was delivered to Tongariro Prison by Raymond Dempsey, on behalf of John Bishara, along with 200 sandbags from the TDC – Civil defence team.

On Thursday 19th January, a delivery of 200 sandbags was gratefully received from Tongariro prison.



*Reg Tamati delivered 200 sandbags on behalf of Ara Poutama/Tongariro prison to Poukura.*

*After the 200 extra sandbags had been added to the wall.*



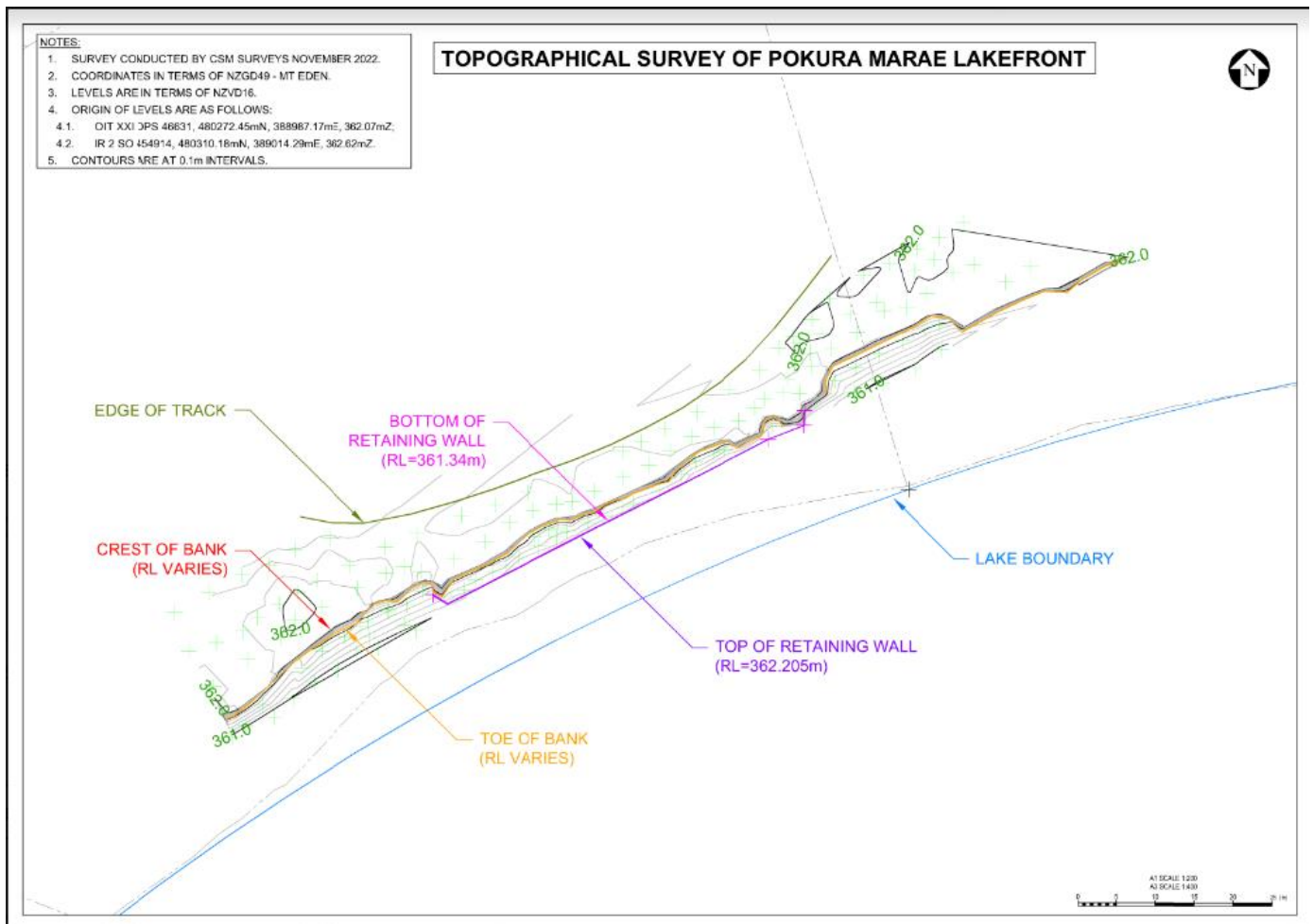


### Meeting Friday 20th January

On Friday 20th January a hui was held at Poukura marae between the Poukura Trustees, the Tūwharetoa Māori Trust Board and the Taupō District Council. Jeffrey Addison, who was involved in the tombola design/construction at Waitahanui, was also present at the hui.

The TMTB and TDC were advised what Poukura wanted to see as part of their lakeshore restoration:

- A safe place for our tamariki to enter in and out of the lake;
- Future-proofing and low maintenance ie a structure that would last 100 years;
- Must not cause damage to properties on either side of the structure;
- Land restoration to the original boundary - beyond the current timber wall.



Topographical survey showing the original boundary

4 November 2022.



Solutions offered by the TDC and TMTB were an Offshore breakwater structure and a rock revetment. An offshore breakwater would be further out in the lake, and would absorb most of the energy coming into the Poukura shorefront. The benefit of this structure is that it would protect all the whānau sections along the bay – not just the piece of whenua in front of the marae.

A rock revetment would allow for land restoration beyond the current timber wall out to the original boundary and could have steps built in for our tamariki to reach the lake.



*Hui at Poukura marae Friday 20th January - Nerissa Davison, Jahman Rapatini, Te Whaitama, Willow Davison, Jeffrey Addison, Cher Mohi, Sarah-Jane Cuthers, Greg Hadlee, Pompy Marshall*

The TDC and TMTB had been working closely with Tonkin & Taylor and highly recommended their services for the Poukura restoration project. Tonkin & Taylor were noted to be number 1 at coastal erosion and have created modelling software specific to our lake and foreshore, which would be invaluable in terms of assessing the forces, currents and energy our area of the lake is susceptible to.

The TMTB advised that they have spoken to Reuben from Tonkin & Taylor on behalf of Poukura, and they are ready and available to do an assessment for us when we need.

Tonkin & Taylor were approached on 27th January 2023 and confirmed their engagement on Friday 3rd February.

Following a korero with Reuben on 10 February, Tonkin & Taylor will assess the situation at Poukura and send through a report by 3rd March 2023.





Poukura marae, Friday 20th January 2023





Poukura marae Monday 13 February 2023





Poukura marae Monday 13 February 2023





Poukura marae Monday 13 February 2023