



## Report from the **Waikato Biodiversity Forum**

Held at Lake Ngaroto, Waipa, Friday the 18<sup>th</sup> May

On Friday the 23<sup>rd</sup> of November 2018, over 60 attendees gathered at the Lake Ngaroto Sailing Club for the first ever combined Biodiversity Forum and Landcare Networking Day, with the theme appropriately being “community partnerships in environmental management”. This offered the opportunity to merge together a wide variety of the Waipa and greater Waikato community who are all working to ever improve biodiversity in our region. Aside for the fantastic networking opportunities offered, the day featured four esteemed speakers who all shared their experiences of range of different approaches and perspectives on collaborative biodiversity Mahi in the Waipa region.



### **Welcome and Whakapapa of Lake Ngaroto**

Barney Mania of Ngati Apakura and Ngati Maihi decent, began the day by welcoming all the attendees onto the site at Lake Ngaroto. The Lake had been occupied by his Apakura tūpuna at the time of the largest known battle to have ever taken place in Aotearoa, the battle of Hingakaka.

Barney explained that Ngati Apakura, were originally guided to this land by Uenuku, the sacred patron and icon of the tribe. This stone is reputed to hold one of the traditional gods of Maori people, Uenuku, and was brought across the Pacific Ocean to New Zealand in a canoe by some of the first Maori settlers of the Tainui tribe.

Uenuku had apparently been placed in Lake Ngāroto for safe-keeping during the battle of

Hingakaka and is now housed in the Te Awamutu Museum. The Battle of Hingakaka took place sometime between 1790 and 1803 on a ridge near Lake Ngāroto when an army of around 10,000 Maori warriors from several tribes from the lower North Island, led by Pikauterangi, a Ngati Toa chief, attempted to settle a long-running grievance over land and food resources, by destroying a settlement of 3000 people, mostly Ngati Apakura hapu, who lived on the shores and on the man-made island of Lake Ngāroto.

The shoreline dwellers used great stealth as well as familiarity with their local wetland and lake environment to kill many of the invaders, some of whom were forced to swim for safety in the lake, only to drown or be dispatched as they attempted to return to shore.

A century later, as the wetlands around the lake were drained and the lake water level decreased to support agricultural development, not only were the bones of many who drowned in the lake uncovered, but also a carving was discovered in which a stone was embedded.

This place is also the birthplace of King Pōtatau Te Wherowhero the first Maori King who grew up here and had his inauguration at Rangiāōwhia (now called Hairini) in 1858, which was attended by many officials including Governor George Grey.

Barney remarked that today Ngaroto is a place for people with thoughts of Kaitiakitanga (protecting our environment) who gather together to hear and see what is happening in the Biodiversity space. In particular to raise awareness of the functions and values of lakes and wetlands, through education, and awareness programmes.

### Overview of the restoration projects in Waipa district

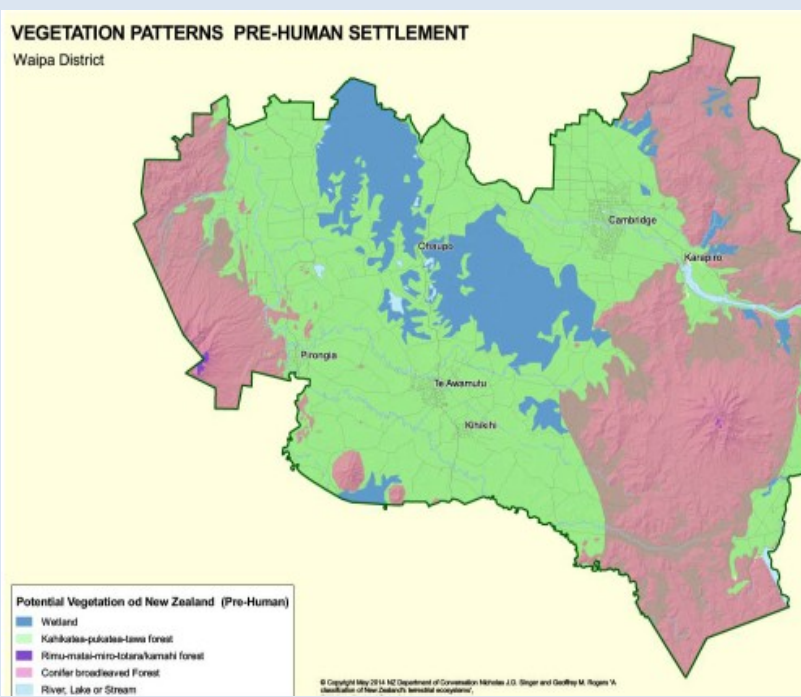
Waipa District Council heritage manager Tony Roxburgh started off the talk with a review of the natural and cultural history of the Waipa basin. Much of what he stated coincided with Barney Mania's korero.

Tony described how land use change in the Waipa basin has dramatically changed since

human settlement. Particularly post European settlement where wetlands were drained and forests felled, then eventually converted to pasture, which is now by far the dominant land-use in the area, as seen on the map.

Tony also described how the changes of land use have also resulted in a loss of pre-european cultural sites of significance. Despite this, from the map you can see that there are still a very significant number of identified cultural sites in Waipa. One of these of course being Lake Ngaroto, of which Barney Mania had described aspects of it's significance in detail previously.

Tony and Susan then moved their talk onto how Waipa District Council is working to protect and enhance both natural and cultural heritage of Waipa. There are a range of projects underway in the district which include; Kakepuku Recreation and Historic Reserve, Lake Mangakaware, Matakita Pa, Lake Rotopiko, Te Ara Wai and Lake Ngaroto, which is a great example of these efforts. The idea here is to combine efforts to preserve and enhance natural, cultural and recreational aspects of the lake simultaneously. This has resulted in a number of efforts. Namely to create boarded walkways around the lake to improve recreational value; a significant weed control, pest control and native planting programme around lake riparian margin; the installation of sediment treatment ponds; the future removal of Yacht club from Pa site and improved signage and protection of all cultural sites surrounding the lake.



Volunteers planting sediment ponds around Lake Ngaroto

## Stock take of pest control activities around peat lakes

Jenn Sheppard began by giving an overview of the Waipa District's 16 peat lakes, which make up just over half of 31 peat lakes found within the Waikato peat lake system. [The National Wetland Trust](#) have proposed to reintroduce Pateke into Waipa's Rotopiko East Lake, which has been protected with a Predator proof fence since 2013. So it became essential to investigate the state of predator abundance in the lakes which surround Rotopiko, where Pateke will hopefully proliferate.

Jenn's assessment was made up of two parts. The first being the predator control effort at each of Waipa's 16 lakes and the second being predator abundance. A survey was used to assess the extent of predator control effort with a range of agencies, care groups and land owners. Questions were based on the following criteria; Motivation for predator control; Duration of trapping; Trap and bait type; Trap catch data; Challenges and recommendations.

*The primary motivations identified for individuals to conduct predator control where;* to protect native wildlife; reduce predator numbers protect mallard ducklings; preserve habitat for future generations; participate in 2050 Predator free NZ

*The biggest challenges identified in conducting predator control where* - domestic cat concerns; a lack of research and monitoring; safe access around lakes; how to increasing trap effort and people; managing landscapes around lakes

*Recommendations identified* - to widen Timms traps by 20 cm to target cats; place traps higher in winter to avoid flooding ;drag carcass along bait line as lure; use variety of baits; check traps all year long; have additional traps in catchment; to reduce human scent and avoid

detering predators, check traps no more than every three weeks

*Predator control effort at Waipa peat lakes* - Around 50 people participate in control. They spend an average of 4.7 min per trap. Traps are usually checked every 3 weeks or 12 times a year. With around 400 hrs of trap checking taking place in total. Which is 50 working days (quite a bit of predator control!).

*Predator abundance results* - Predator control reduced predator detection by more than 50%, so we know predator control is working! Possums and mice are least targeted of predators but are present at most lakes. We also know they are predators of bird eggs and nestlings. Control reduced predator detection by more than 50%.

Trap data was assessed from 6 lakes and being that collection methods were not standardised so this made comparisons between sites difficult.

*Additional recommendations* - Place carpet under track to deter grass and overgrown vegetation. Raise A24's with 100 mm wedge so hedgehogs can roll off

*Final points* - 1. We need to conduct biodiversity monitoring. 2. Need to standardise reporting. 3. We Need to share results, know what works at nearby lakes, and obtain assistance from others at nearby lakes, and furthermore to form a collective group.



Jenn in action during her talk.

### **The power of group action: Great achievements start with small steps**

Pūniu River Care Inc. (PRC) is an incorporated society and New Zealand registered charity. Shannon Te Huia, the spokesperson for PRC began by explaining that core kaupapa (purpose) of the society is to enable local hapū to be involved in improving the water quality and replenishing taonga within the Pūniu River Catchment.

The Society was formed in 2015 by Shannon (Spatial Engineer-Maniapoto Māori Trust Board) under the mentorship of Harrold Maniapoto, John Roa (Kaumātua), James Bailey (Board member- Sustainable Coastlines New Zealand) and Sam Judd (founder and chief executive officer of Sustainable Coastlines, New Zealand).

Since the society was formed, it has grown not only in size but also in professional development of the staff and overall culture. Shannon remarked that in the beginning stages it was important for them to keep the training and development on the work site rather than sending staff of site to train as a way to speed up and be more efficient during their development stages. A prime example of this was that after constructing the basic nursery facility. Shannon then organised Wintec to run a horticultural course on-site for his staff, which meant that the important nursery work was getting done at the same time as their staff were being trained and qualified. Since that time PRC's plant capacity has grown from a humble 4,000 trees in the first year to 400,000 currently being propagated and grown for 2019 planting season .

Pūniu River Care Inc. provides local employment to help solve local problems (water quality/bank erosion/decline in biodiversity, just to name a few) while developing the skills and capability of tangata whenua.

Our vision: *Safe Places, Healthy Water, Healthy People* stems from the belief that by becoming a Kaitiaki (guardian) and connecting with your own whenua and awa it can enhance your wellbeing and help re align and strengthen your wairua. Safe Places is creating and identifying spaces where people can safely swim and enjoy the awa.



**Our field trip on the day included a guided walk around Lake Ngaroto to view and discuss restoration techniques and strategies.**