

15. WHAREKORINO WETLAND ENHANCEMENT PROJECT ENHANCING A SIGNIFICANT SITE OF PLENTY

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Ngā mihi

Pūniu River Care Inc – a marae-based organisation

Ngā uara – our values

Important indigenous species for Pūniu River Care
philosophy

Wharekorino Wetland enhancement project

Key steps for planning and implementation of wetland
restoration

Want to learn more?



He aha te hua o te whenua, mo te iwi i tēnei ao hurihuri?

**What are the fruits of the land for the people
in this everchanging world?**

Bryan Newton (Ngāti Maniapoto,
Ngāti Raukawa)

Previous page: Te Māra Taiohi marae-based native plant nursery. Mangatoatoa Pā, Tokanui, Kihikihi, Waikato.
Photo: Pūniu River Care Inc.

Kaimahi undertaking wetland enhancement planting at the base of Maungatautari mountain ranges, Pukeatua, Waikato. Photo: Pūniu River Care Inc.

Acknowledgement must first be given to Te Awa o Pūniu and its surrounding mauri and taonga, which this kaupapa strives to protect and preserve.

*Kei warewaretia tō mātou whakaohooho tō mātou kaitiaki
– Te Awa o Pūniu – me tōna katoa o runga, o roto hoki, me
ngā tūpuna e tāwharau nei i a ia.*

KO AU KO TE AWA, KO TE AWA KO AU

Our kaumātua, kuia and tūpuna who supported Shannon Te Huia and gave Pūniu River Care Inc (PRC) the opportunity to utilise a small patch of land at Mangatoatoa Pā to grow the first harvest: Reuben and Phylis Te Huia, Jock Roa, Harrold Maniapoto, Valerie Ingley, Bryan Newton, Derek and Moe Roberts, and Hone Hughes.

Our four pā and papakāinga of Te Awa o Pūniu: Mangatoatoa, Rāwhitiroa, Aotearoa and Whakamārama.

Acknowledgements to all our funders throughout the years who have helped support and encourage the growth of PRC – Te Kaunihera ā Rohe o Waikato (Waikato Regional Council), Waikato River Authority, Manatū mō te Taiao (Ministry for the Environment), Momentum Waikato, Waikato-Tainui, Te Papa Atawhai (Department of Conservation), Mercury Energy, Whaingaroa Harbour Care, Waipa District Council, Te Puni Kōkiri (Ministry of Maori Development), Sustainable Coastlines, and Ara Poutama Aotearoa (Department of Corrections).

– Ngā mihi, nā Talitha mātou ko Shannon, ko Quinton,
ko Bryan



PŪNIU RIVER CARE INC. A MARAE-BASED ORGANISATION

Pūniu River Care Incorporated (PRC) is a marae-based initiative with a mission to enable local hapū (subtribes) to be involved in the restoration of the Pūniu River catchment, Waikato region. In 5 years, we have grown our marae-based nursery, called Te Māra Taiohi, operation from producing 4,000 trees per year to 300,000 trees per year and have been able to employ and upskill local hapū members who have become a part of **Te Kāhui a Hiwa** as **Ngā Kaitiaki o Te Awa o Pūniu** (the name given to the guardians of the Pūniu River).

Our vision is to create **he wāhi haumarū, he wai koiora, he iwi hauora** – **safe places, healthy waters, healthy people**, which encourages the concept that as Māori we naturally connect to our whenua (land) to give us a sense of belonging and purpose.

Being a marae-based organisation means our marae (Māori social and cultural centres) have the final say on who sits on our governing board, and who helps steer and guide the kaupapa (initiatives) to carry out the mission and vision of the organisation.



PŪNIU RIVER CARE INC.
A REGISTERED CHARITY

*He wāhi haumarū, he wai koiora,
he iwi hauora – safe places,
healthy waters, healthy people*



Kaimahi processing native seeds in the kāuta (kitchen), Te Māra Taiohi nursery, Mangatoatoa Pā. Photo: Pūniu River Care Inc.

Pūniu River Care board members and kaimahi on the mahau (porch) of Te Maru o Ihoa whareniui, following a strategic planning exercise, Mangatoatoa Pā. Photo: Pūniu River Care Inc.



NGĀ UARA OUR VALUES

An important aspect to guide decisions for any operation is the creation of organisational values. Working within a kaupapa Māori framework (approach underpinned by Māori values) enables us to make decisions based on what is important to us as Māori, while also helping shape and guide the culture and build the mauri (life force) of the organisation.

'We must hold onto the founding principles of our tūpuna'

Bryan Newton (Ngāti Maniapoto, Ngāti Raukawa)

Our values have developed from a karakia (prayer) through the growth of a kākano (seed) to a well-established rākau (tree) – our values represent the stages and life of a plant.

TUPU TE KĀKANO

TUPU TE TAKETAKE

TUPU TE PIHINGA

TUPU TE MAHURI

TUPU TE RĀKAU

KO AU KO KOE, KO KOE KO AU

TĪHEI MAURI ORA



Boosting a new life force into a sustainable world

Kākano – The literal translation is seed. This can also mean a provider of new growth. New growth means new life. We are also trying to clean up our rivers and our waterways. Water is life, or a life force. We, as people, and everything breathing have a mauri.

Keepers of our waterways, rivers, whānau, and home

Taketake – The root of all things growing. For a tree to thrive, it needs a good root system and to be carefully nurtured from inception. This can also be reflected within the home where, if we want the best for our younger ones, we must first ensure they are well grounded. With the right care and nurturing in a safe and healthy upbringing, they will strive to be all they can be. We also do what we can to ensure we lead by example and show we can be guardians of our waterways, our families, and our homes.





WHANAUNGATANGA

Strategic relationships and empowering whānau

Pihinga – Seedlings. As each seedling comes into the world, with it comes a colony of other members of its species. As we grow as people, we find ourselves surrounded by whānau (families) – and then we find more whānau. We find new relationships and make new friends and before we know it, we find ourselves in partnerships we might never have thought possible.



RANGATIRATANGA

Self-determined to take the lead for a sustainable world

Rākau – The fully established tree that has stood its ground from the humble seed. A giant kauri tree is a sight of pride and power and has control and self-governance. For people to become and feel the same as this rākau, they will only know that feeling when they have met a challenge to the best of their ability. From buying food for the cupboard to buying our own home, having a sense of ownership, and knowing and understanding who we are and where we fit in in this world by being self-governed will give us a sense of Rangatiratanga (right to exercise authority).

To know your place in a sustainable world

Māhuri – A young tree at an adolescent stage of life. This is a stage where youth are trying to find themselves and where they think they can contribute to life. To be sure of why we do what we do, we also need to figure out certain things in life and in what we do and ensure the significance of what we do is also understood by those in our circle.

Limitless generosity acknowledging the celebration of life

Celebrating and acknowledging life, and being grateful for the opportunities that arise. For PRC, it is to give without receiving, to contribute with endless generosity, and to nurture all that is life. We see it as the fully grown rākau, which produces more seed for the whenua to regenerate.



MĀRAMATANGA



KOHA

IMPORTANT INDIGENOUS SPECIES FOR PŪNIU RIVER CARE PHILOSOPHY

It is important in any restoration project to remember what drives and motivates you, what you are fighting for. We have focused on six key taonga species: tuna (freshwater eels; *Anguilla* spp.), harakeke (NZ flax; *Phormium tenax*), karamū (*Coprosma robusta*), kōura (freshwater crayfish; *Paranephrops planifrons*), mānuka (*Leptospermum scoparium*), and tūī (*Prosthemadera novaeseelandiae*):

- **Tuna** spend the early part of their lives in the freshwater systems of our awa (rivers) and roto (lakes), as tunatuna (glass eels). Here they grow slowly and, once they are of breeding age, migrate to the moana (marine environment) where they all meet in the Pacific Ocean to breed and then die. Their babies float back on the currents of the ocean to the rivers where their parents came from and start the cycle all over again.
- Before heading to the ocean, tuna live in repo (wetlands), which are the strongholds of **harakeke**. Harakeke is also a food source for the tūī, which loves to sip the nectar of their flowers during spring and summer.
- The **karamū** can also be found within wetlands, especially among the swamp forests that wrap

around harakeke and the sedges (grass-like plants) and rushes. They are also found on the banks of tributaries (riparian margins) along with sedges such as the pūrei or pūrekireki (*Carex secta*). As the karamū is a hardy and versatile plant, it can also be found among scrub on dry lands dominated by mānuka and kānuka (*Kunzea ericoides*).

- Underneath the protective cover of the pūrekireki that hang over stream banks with karamū, can be found stocks of **kōura**. These delicate little crustaceans are valued food sources for the tuna, and for our people!
- In the Waikato, **mānuka** is also found on the drier edges of peat and fen wetlands, forming an important nursery for other native plant seedlings.
- Hovering over all these spaces are the **tūī** – these native birds fly across awa, roto, along coastlines, and, as highlighted earlier, can also occupy spaces in wetlands. They are found both in our cities, and among native bush blocks along ranges and mountains.

Look closely at the interactions according to how we understand and value them within Te Ao Māori (Māori worldview). For example, our six key taonga species – tuna, harakeke, karamū, kōura, mānuka, and tūī – are often treated as being creatures from separate habitats, and so are rarely considered together when focusing on restoration projects. However, as shown in the illustration (Fig. 1), the ecosystems occupied by each are not as separate as some might believe.

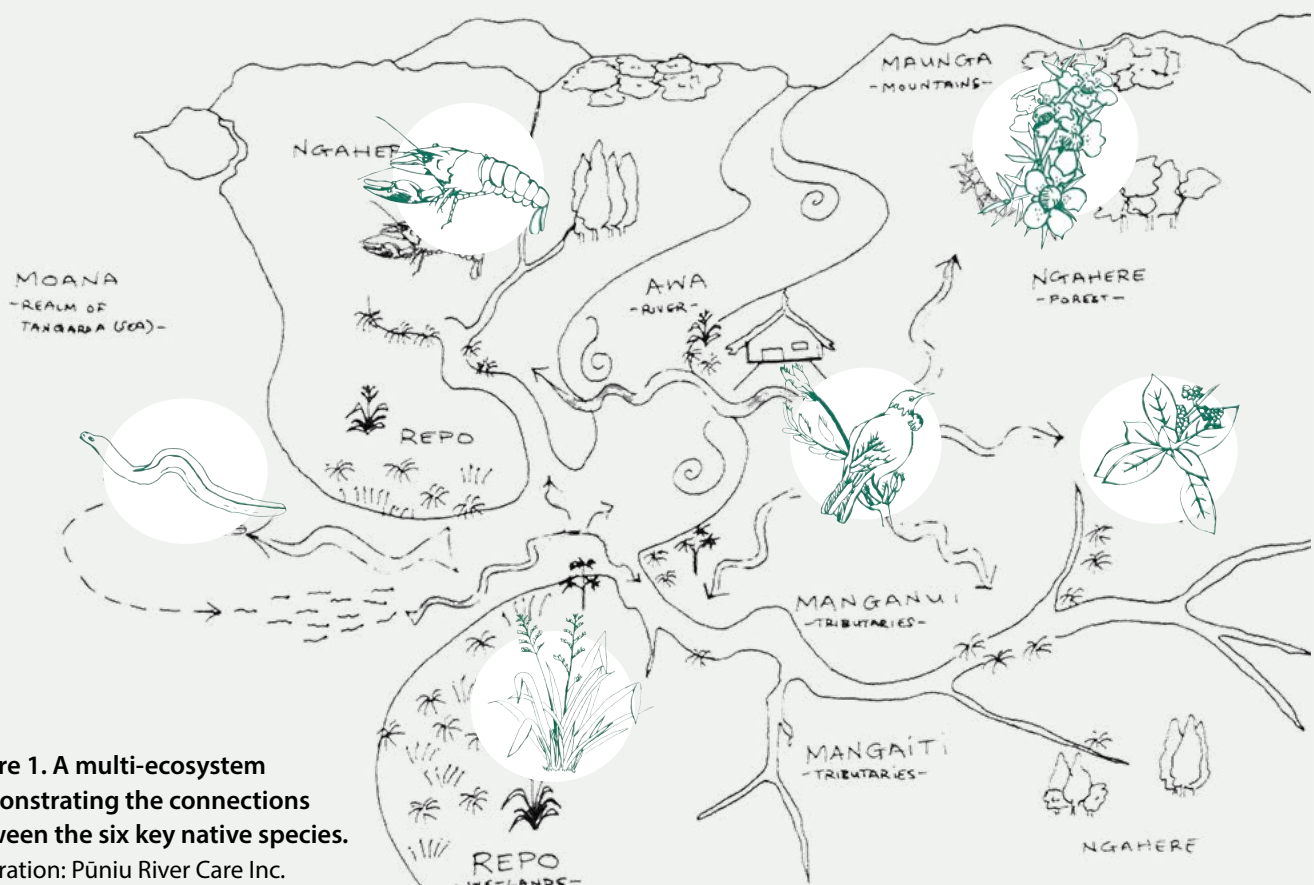


Figure 1. A multi-ecosystem demonstrating the connections between the six key native species.

Illustration: Pūniu River Care Inc.

WHAREKORINO WETLAND ENHANCEMENT PROJECT

One of our first projects (November 2016) was the Wharekorino Wetland, located south of Te Awamutu, in Tokanui, Kihikihi (Waikato), on a stream that feeds into Te Awa o Pūniu (Pūniu River). Known for its pā tuna (eel weir) spots where we would always find good tuna stocks, it was a rich source of kai (food) and wai māori (freshwater) for our tūpuna (ancestors). Another activity performed here was the practice of whaikōrero (formal speech). One of our koroua (elder), Bryan Newton, explained that he often heard his father down at Wharekorino Wetland practising manu kōrero (oration). This is where he too practises manu kōrero to this day.

This wetland was an obvious place for us to begin our restoration, with the area being identified as a 'Potential Significant Natural Area' in the Waipā District Plan Appeals Version (2014).



Dense willow growth throughout the Wharekorino Wetland. Photo: Pūniu River Care Inc.



Kaimahi being taught tikanga practices to up-hold the kaupapa of Pūniu Rive Care, Mangatoatoa Pā. Photo: Pūniu River Care Inc.



Members of Te Kāhui-a-Hiwa potting up whanake (*Cordyline australis*; also known as tī kōuka) juveniles at Te Māra Taiohi nursery, Mangatoatoa Pā. Photo: Pūniu River Care Inc.

Building best practice for wetland restoration projects

The wetland restoration at Mangatoatoa Pā is an ongoing exemplar of best practice for restoring a safe wetland area. The wetland is sited on the southern side of the Pūniu River below Mangatoatoa Pā (Fig.2). The project reintroduced native plant species that had historically provided kai for our whānau as well as habitat for wetland native fish and birds. Plant species that support rongoā Māori (traditional medicine), mahinga kai (cultivated foods), and toi Māori (traditional art) have also been selected to create a seed source for other local wetland restoration projects. This 2-year project led to 32,000 native species planted, 560 m of fencing, and 3.5 ha of willow (*Salix* spp.) and weed control within and around the repo.

The wetland at Mangatoatoa Pā is subject to regular floods, the impact of which will be reduced when native trees and plants slow water flows. By restoring this wetland, native biodiversity will also be enhanced and important ecological services such as groundwater replenishment, sediment reduction, and nutrient retention will add ongoing value to ecological communities downstream.

The Wharekorino Wetland enhancement project is a great showcase for Pūniu River Care and a template for future wetland restoration projects. With Te Māra Taiohi, our marae-based native plant nursery, located on site at Mangatoatoa Pā, the Wharekorino Wetland will become even more significant. When the wetland establishes it will become the native seed sourcing area, as well as providing opportunities for intergenerational practices of rongoā Māori, mahinga kai, and toi Māori for our hapū. This project initiated marae-based employment and has given our hapū opportunities to be involved in the restoration of a significant natural wetland, which delivered ongoing benefits to the community.



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Figure 1. Location of Wharekorino Wetland alongside Mangatoatoa Pā and Te Māra Taiohi native nursery in the Pūniu River Catchment, Waikato region. Source: Manaaki Whenua – Landcare Research



Kaimahi getting ready to 'throw down' along Te Awa o Pūniu. Photo: Pūniu River Care Inc.



Prepping cell trays for native plants at Te Māra Taiohi nursery, Mangatoatoa Pā. Photo: Pūniu River Care Inc.

KEY STEPS FOR PLANNING AND IMPLEMENTATION OF WETLAND RESTORATION

When undertaking a project, we consider the following five key steps to help us plan and implement restoration at sites like Wharekorino Wetland.

Creating our vision: We identified tuna, harakeke, karamū, kōura, mānuka, and tūi as being important to our hapū and relevant to the entire Pūniu River catchment. Restoration at Wharekorino Wetland was a way to begin a staged process of restoration that would see the gradual return of these valued species, alongside our aspirations for improvements to the health of the awa.

Seeking knowledge: We then spent time with our whānau to gather mātauranga (knowledge) about what restoration means for our sites from within our worldview. By understanding the knowledge we already have, as we did for Wharekorino Wetland, we can then use it to guide our restoration priorities.

Understanding our cultural needs: This involved identifying our cultural landscapes and reviving our history. In the case of Wharekorino Wetland, we identified the following key needs for our awa and whānau: enhancing valued species, restoring and protecting the water quality of Te Awa o Pūniu, and reinvigorating our tikanga (cultural values and practices).

Generating sustainable partnerships: We identified the partners who could help make the vision a reality for our awa and whānau. We recognised that the Waipā District Council, Te Papa Atawhai (DOC), and the Waikato River Authority were key partners to help us with the resourcing and support necessary to achieve our vision.

Building the Journey: When we clearly understood our collective restoration purpose, we were then able to act in a way we felt best met our spiritual, cultural, and economic aspirations. This included building Te Māra Taiohi, our native plant nursery, and our capacity in horticulture for our tribal members to lead, plan, design, and undertake the mahi (work).



Out in the field, kaimahi undertaking technology training. Photo: Pūniu River Care Inc.

We have written a guidebook about our restoration experiences to help other communities with the same purposes and aspirations (released 2019). Downloadable versions in te reo Māori and English:

<https://puniuinc.org/get-involved-1-1>



WANT TO LEARN MORE?

Note: If you are having problems with the hyperlinks below try copying and pasting the web address into your browser search bar.

Useful websites

Pūniu River Care Inc.
<https://puniuinc.org>

Safe places, healthy waters, healthy people – A guide to assist marae and hapū to build their capacity in restoration
<https://puniuinc.org/get-involved-1-1>

He wāhi haumarū, he wai kōiora, he iwi hauora – He aratohu taunaki i nga hapū ki te whakawhanaka i a rātou ki ngā mahi whakaora taiao
<https://puniuinc.org/get-involved-1-1>

Wharekorino Wetland Restoration Project
<https://waikatoriver.org.nz/wharekorino>

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