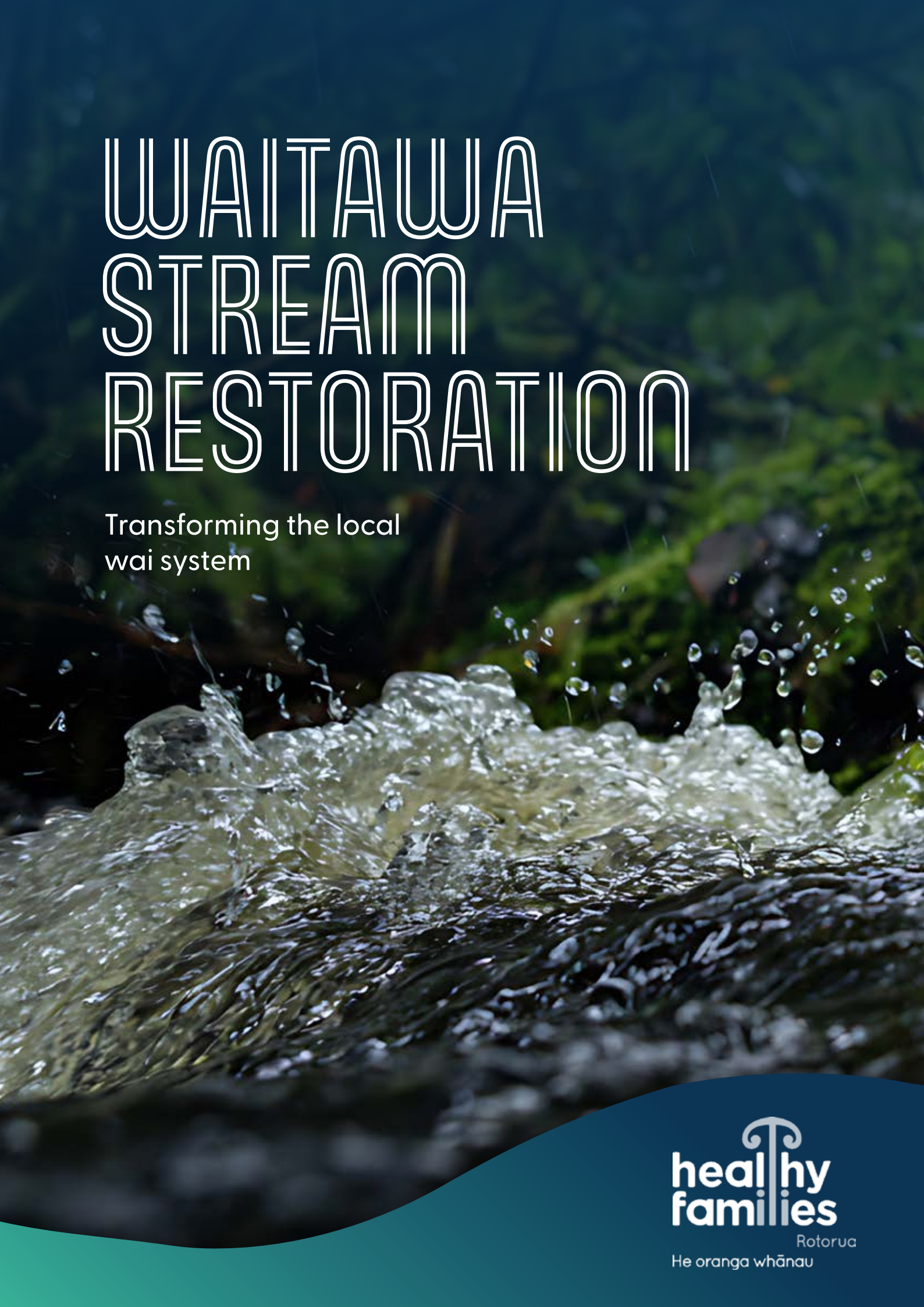

WAITAWA STREAM RESTORATION

Transforming the local wai system

healthy families Rotorua
He oranga whānau

MIHIMIHI

Acknowledgements

E mihi ana ki a koutou o Ngāti Hurunga-te-rangi/Ngāti Whakaue,
te whānau Poupoasa me Hall, ngā whānau o Ngāpuna, ngā kura,
me ngā ringa raupā e hapai ana i tēnei kaupapa.
Kāre e kore, kāre i eke tēnei kaupapa i tua atu i a koutou.

We would like to take this opportunity to thank Ngāti Hurunga-te-rangi, the village of Ngāpuna, local schools and businesses who have contributed to this project and report. Without your voices and insights there could be no community initiative.

"Mā koutou te kaupapa e whakaraugatira ai."

healthy families Rotorua
He oranga whānau

RĀRANGI UPOKO

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WHAT IS HEALTHY FAMILIES?

Healthy Families NZ is a large scale prevention initiative that brings community leadership together in a united effort for better health in the places we live, learn, work and play.

Our goal is for all New Zealanders to enjoy health promoting social and physical environments that enable healthy food and physical activity choices, being smokefree, drinking alcohol only in moderation and increasing mental health, resilience and wellbeing.

The Healthy Families NZ approach focuses on addressing the underlying conditions that impact our health and wellbeing, in order to reduce the risk of preventable chronic disease. All of the Healthy Families NZ localities are connected through this common approach and principles, which creates our prevention movement.

We seek to uncover the journey that leads to chronic disease, understanding the lived experience of whānau and communities so that we can determine together how best to address the conditions that lead to experiencing preventable chronic disease.

HEALTHY FAMILIES NZ PRINCIPLES

Implementation at Scale
Strategies are delivered at a scale that impacts the health and wellbeing of a large number of the population, in the places where they spend their time - in schools, workplaces and communities.

Adaption
Strengthening the prevention system requires constant reflection, learning, and adaptation to ensure strategies are timely, relevant and sustainable.

Collaboration for Collective Impact
Long term commitment is required by multiple partners, from different sectors, at multiple levels, to generate greater collective impact on the health of New Zealanders. Knowledge is co-created and interventions co-produced, supported by a shared measurement system, mutually reinforcing activities, ongoing communication and a 'backbone' support organisation.

Experimentation
Small scale experiments provide insight into the most effective interventions to address chronic disease. These experiments are underpinned by evidence and experience, and are monitored and designed to then be amplified across the system - if they prove effective.

Leadership
Leadership is supported at all levels of the prevention effort, including senior management, elected officials, and health champions in our schools, businesses, workplaces, marae, sporting clubs, and other settings in the community

Workforce
A dedicated prevention workforce who are embedded within their local community, driving and supporting systems change. Healthy Families NZ kaimahi are skilled in systems thinking, creating adaptive responses to complex issues in local and cultural settings, and are able to identify prevention activity with potential for sustainable outcomes.

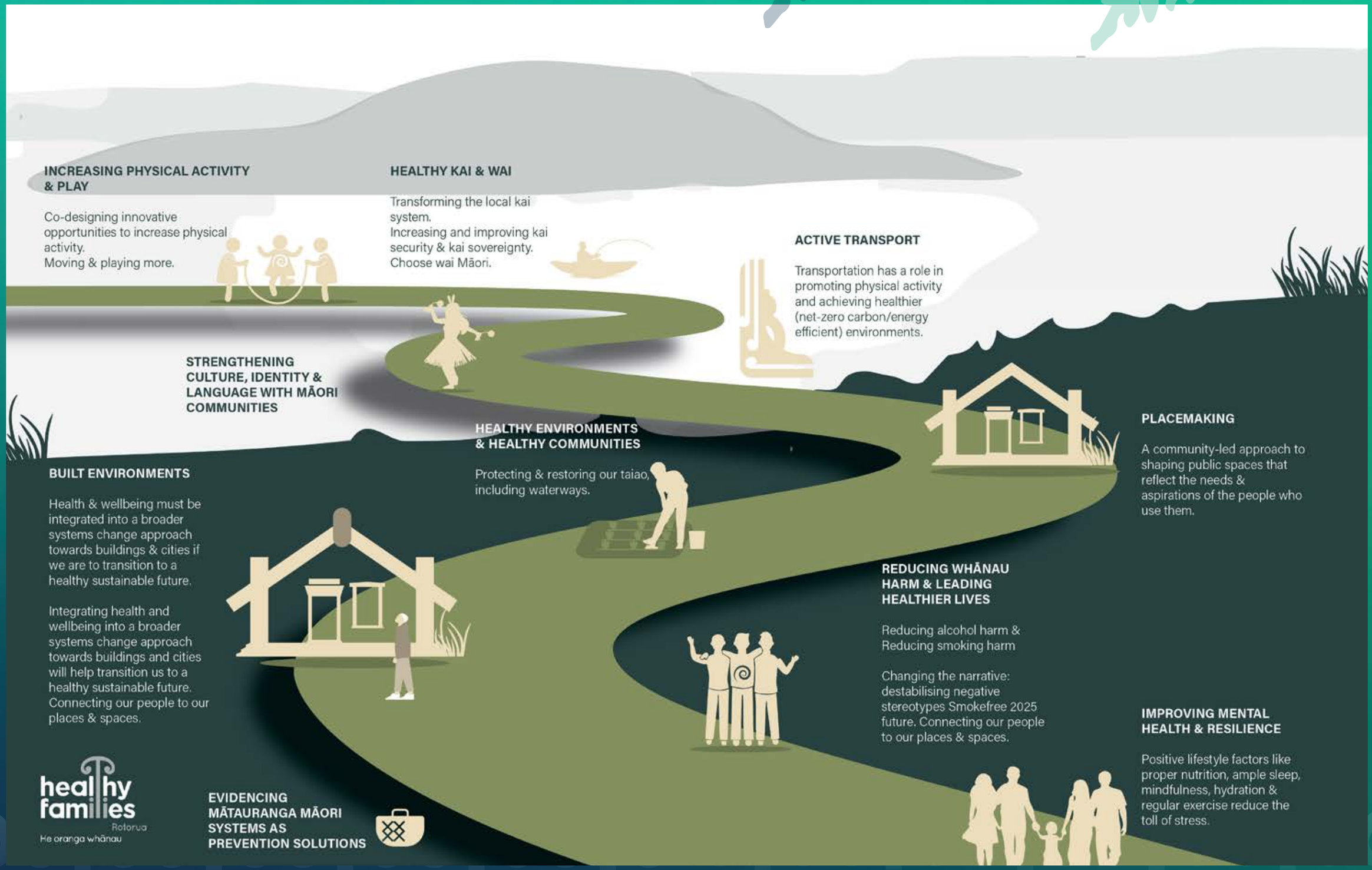
Equity
Health equity is the attainment of the highest level of health for all people. Equity recognises that different people with different levels of advantage require different approaches and resources to achieve equitable health outcomes. Healthy Families NZ will have an explicit focus on reducing inequities for groups at increased risk of chronic diseases

Line of Sight
The line of sight provides a transparent view on how investment in policy is translated into measured impacts in communities, ensuring best value from every dollar spent on prevention.

Te Tiriti o Waitangi
Healthy Families NZ is committed to fulfilling the special relationship between Māori and the Crown under Te Tiriti o Waitangi (Te Tiriti).

Healthy Families NZ prioritises the inclusion and protection of mātauranga Māori as an important enabler of Māori health and wellbeing. We collaborate with partners across our communities to improve Māori health outcomes and active pae ora. Māori participation and decision-making at all levels of planning and implementation is critical.

PREVENTION SYSTEM ROADMAP



PURPOSE

Restore the mauri of Waitawa and surrounding whenua by reframing wai as taonga, revitalising ecological health, and embedding kaitiakitanga and Te Tiriti-aligned practice through community-led action.

BACKGROUND / CONTEXT

The rohe (traditional homelands) of Ngāti Hurunga-te-rangi, a hapū of Ngāti Whakaue, stretches from Ōhinemutu through to Waingaehe. At the heart of this rohe lies Ngāpuna, the primary base for Ngāti Hurunga-te-rangi. The name Ngāpuna means "many springs," a reflection of the land's unique character, where countless freshwater puna (springs) and ngāwhā (geothermal features) have sustained life for generations. These waters are not only a physical resource but also carry immense spiritual, cultural, and historical significance.

For centuries, Ngāpuna has nurtured the people of Ngāti Hurunga-te-rangi, providing kai, materials, and healing resources vital for both physical sustenance and spiritual wellbeing. The puna and streams acted as food baskets, bathing places, and sites of cultural practice. They also carried deep whakapapa connections, linking the people with their whenua and atua. This relationship with water is not just practical but profoundly spiritual, shaping identity, tikanga (practices and procedures), and kaitiakitanga (guardianship).

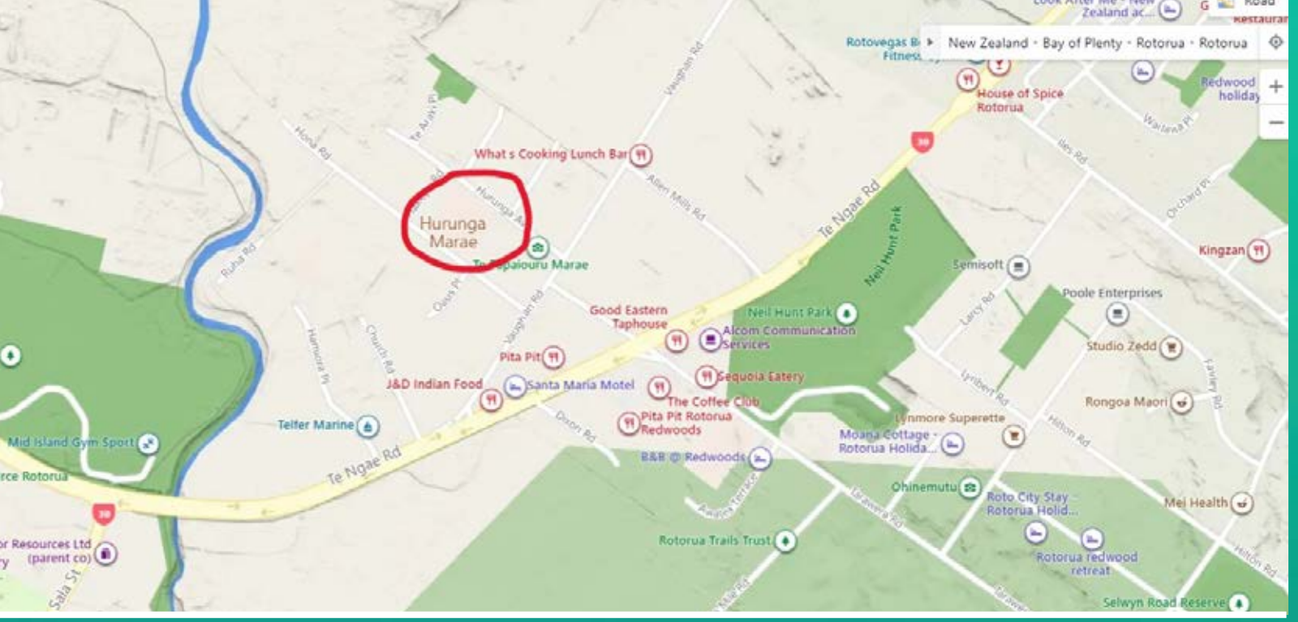
The Puarenga Stream flows through both Whakarewarewa and Ngāpuna, an area once abundant with pristine puna, waiariki (hot springs), and clear running waters. These waterways have long been woven into the daily lives of the people, serving as places of gathering, healing, and spiritual renewal. Over time, a deep relationship has formed between Ngāti Hurunga-te-rangi and their wai (water), one that extends far beyond utility to encompass reverence and guardianship.

One such waterway, the Waitawa Stream, once a living, flowing source of sustenance, has now been altered by council works and converted into a storm drain. This transformation is symbolic of the challenges faced by the people of Ngāpuna where the natural life systems that once supported generations have been modified or diminished in the name of urban development. Despite these changes, the connection to the wai remains unbroken.

As expressed in the Cultural Impact Assessment (2008):

"Whakarewarewa and Ngāpuna are settlements along the Puarenga Stream, where a combination of ngāwhā, waiariki, and naturally clean streams flow from what were once numerous puna. Over time, our people have developed a close relationship with our wai, and a deep appreciation for its life-sustaining properties. A kaitiaki role was a natural calling in our minds, hearts, and wairua. This is our tikanga."

For Ngāti Hurunga-te-rangi, kaitiakitanga is not a choice but an inherited responsibility. It is a living expression of their tikanga—anchored in centuries of interaction with the wai, guided by respect for its mauri, and motivated by a duty to ensure its wellbeing for future generations. Ngāpuna is more than a geographical place; it is a living taonga, a source of identity and mana (strength), and a reminder of the enduring relationship between people and water.



KAUPAPA DESIGN CHALLENGE:

Overview

Waitawa restoration initiative is about activating community responsiveness to transform the local wai system and restore the mauri of the wai (water) and whenua (land).

How might we support community aspirations to improve and restore Waitawa to its former state of mauri ora?

In 2021, we began a dedicated journey to better understand the historical and environmental impacts connected to the Waitawa Stream. Recognising that the health of this waterway is deeply intertwined with the wellbeing of the community and its cultural heritage, our research sought to uncover both the past and present realities of the stream. As part of this process, we engaged with mana whenua, Ngāti Hurunga-te-rangi, whose ancestral relationship with the Waitawa extends back generations. Their knowledge and lived experience provided invaluable insight into how the stream once functioned as a source of sustenance, connection, and identity, and how its mauri has been altered over time.

We also reached out to local residents, who offered personal stories and observations of the stream's changing state. Many spoke of their memories of swimming, gathering kai, or simply living alongside a waterway that once flowed more freely, compared with the modified, stormwater-driven channel seen today. To complement these perspectives, we worked alongside taiao (environmental) experts, whose technical knowledge helped us to trace the ecological shifts in water quality, biodiversity, and hydrology. Their assessments, when combined with oral histories and community observations, painted a fuller picture of the cumulative impacts on the Waitawa Stream.

Together, these voices formed a multi-layered narrative—interweaving whakapapa, lived experience, and scientific evidence. This approach not only deepened our understanding of the changes that have taken place over the years but also highlighted the enduring cultural, ecological, and community importance of restoring and protecting Waitawa.

APPROACH: TE MANA O TE WAI

Te Mana o te Wai is a guiding principle within Aotearoa New Zealand's freshwater management system, introduced through the National Policy Statement for Freshwater Management. Its purpose is to honour the life-giving essence of water by ensuring that the health and wellbeing of freshwater (wai) remain at the heart of all decisions.

Councils are legally required to "give effect" to Te Mana o Te Wai in their freshwater planning.

The framework is built on a clear hierarchy of obligations:

1. Protecting the health and wellbeing of the water itself.
2. Meeting the health needs of people, such as safe drinking water and sanitation.
3. Enabling communities to support their social, cultural, and economic wellbeing.

This approach reflects a holistic understanding: when the wai thrives, so too do people and the environment.

TE MANA O TE WAI REPRESENTS:

- Rebalancing the relationship between human activity and natural ecosystems.
- Embedding kaitiakitanga into laws, policies, and everyday practice.
- Building climate resilience by protecting catchments, wetlands, and aquifers that act as natural defences against floods, droughts, and extreme weather.
- Intergenerational justice, ensuring our mokopuna inherit water that is clean, plentiful, and life-sustaining.
- A shift in worldview, from treating water as a commodity to recognising it as a living entity essential to identity, wellbeing, and life itself.
- Ultimately, Te Mana o te Wai is a transformative framework. It asks Aotearoa to reshape its relationship with water—guiding policies, industries, and communities to uphold the mauri of wai above all else.

OUR CURRENT REALITY: WHAT WE FOUND

Over time, the Waitawa Stream came to be viewed by many in the local community not as a natural waterway, but as little more than a stormwater drain. This shift in perception reflects both the physical alterations made to the stream and the way urban development often relegated natural waterways to infrastructure roles, designed primarily for flood control and stormwater management rather than for ecological or cultural purposes.

As a result, the stream's mauri (life force) and its identity as a taonga were diminished in the public eye, overshadowed by its role as a functional drainage system.

Before the 1960s, the land surrounding the stream was largely undeveloped, with no industrial buildings or major infrastructure impacting its flow. The Waitawa, alongside nearby puna (springs) and other tributaries, supported ecosystems that were cleaner, healthier, and more resilient. However, with the expansion of Rotorua's suburbs and supporting infrastructure, significant changes occurred. Notably, the construction of a sewage pipeline crossing the stream to service the eastern suburbs fundamentally altered both the physical landscape and the cultural values attached to the waterway.

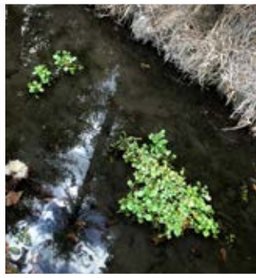
This kind of development marked a turning point in how the stream was managed and perceived—shifting from a natural water source to a conduit for urban infrastructure.

Historically, the Waitawa Stream followed a natural course that meandered through three Rotorua suburbs: Ōwhatiura, Lynmore, and Ngāpuna. Along this path, it played a vital role in shaping the local environment and the lives of those who lived nearby. The stream once linked these communities through a shared waterway, supporting biodiversity, providing access to wai for daily use, and reinforcing cultural practices tied to the land and water. Over time, urban development, stormwater engineering, and land modifications altered this natural flow, reducing both the ecological connectivity and the visibility of the stream in the lives of the people.

WHAT IT MEANS FOR OUR COMMUNITIES:

Putting Te Mana o te Wai into action encourages communities to:

- Restore and protect waterways so rivers, lakes, and aquifers are safe for swimming, gathering kai, and supporting diverse ecosystems.
- Rethink how water is used, shifting the focus from extraction and pollution to sustainable practices that safeguard long-term resilience—even when this challenges current industries such as farming, forestry, or tourism.
- Deepen cultural connections, recognising the special role of iwi and hapū, for whom wai is a taonga with whakapapa and mauri. This strengthens indigenous rights and responsibilities as kaitiaki (guardians).
- Shape local decision-making, ensuring that community aspirations– particularly those of mana whenua—are central to how councils and agencies manage water.
- In practice, this could mean restricting harmful activities, investing in better infrastructure, and fostering stronger partnerships between iwi, councils, and communities.



WHAT ELSE DO WE KNOW?

The hapū of Ngāti Hurunga-te-rangi recall a time when the Waitawa Stream was central to daily life and cultural practice. Tikanga Māori and kawa associated with wai—such as rituals of cleansing, gathering kai, or acknowledging the mauri of the stream—were once carried out along its banks. Today, these practices are no longer actively observed in Waitawa due to the degraded state of the waterway. The loss of these traditions not only represents an environmental decline but also a cultural one, as the stream's role as a living space for tikanga has been interrupted.

Waitawa was once rich with kōura (freshwater crayfish), tuna (eels), kōaro (native fish), and trout, providing both sustenance and opportunities for whānau to gather kai. These species thrived in the cool, clean waters of the stream, forming part of the natural food basket that sustained the community.

Today, however, their presence has been drastically reduced. Habitat degradation, changes in water quality, and the impacts of urbanisation have left only a fraction of this once-abundant life. The decline in these taonga species reflects the wider environmental challenges faced by the stream.

For local communities, Waitawa was also a source of plant-based kai, such as watercress (wātakirihi) and wild blackberries that grew in and around the stream. These plants were once freely harvested and formed an important part of local diets. Now, their growth has significantly diminished, with only small or sporadic patches remaining. This reduction is not only a loss of accessible kai but also a loss of customary practices tied to gathering and sharing food from the local environment.

Waitawa was once a place where children would swim, play, and connect with nature, and where whānau could gather along the water's edge. Its clear waters made it a safe and inviting place for recreation, contributing to the social fabric of the community. Today, those recreational uses have all but disappeared, as the stream has been altered into a stormwater drain, its waters no longer considered safe for swimming. This shift has changed the way younger generations experience and connect with their local environment, replacing opportunities for play and cultural connection with absence and disconnection.

THE INITIATIVE

In developing this initiative, we have gathered valuable learnings along the way. Partnering with mana whenua and key community leaders has enabled the Healthy Families Rotorua team to help restore the local stream and strengthen the surrounding environment. Through shared insights, research, and positive leadership, we have been able to challenge the status quo.

Our collaboration with Bay of Plenty Regional Council, Rotorua Lakes Council, Te Arawa Lakes Trust, and Ngāti Hurunga-te-rangi created a strong collective impact team, bringing together the skills, resources, and experience needed to drive meaningful action. Establishing tikanga and kawa from the outset provided clear boundaries and mutual understanding for all involved.

High-trust relationships have been essential to the successful activation of this kaupapa, creating space for robust conversations and solutions to ongoing challenges. From the beginning, we focused on engaging key decision-makers, which helped secure significant resources and formalise the Puna Ora Care Group agreement. This agreement provides three years of funding, with the first year exceeding $100,000 to support the planting of over 3,000 native plants.

Before restoration work began in December 2022, a karakia by Ngāti Hurunga-te-rangi kaumātua set the tone for a safe and respectful process. Ongoing consultation has been critical, including working alongside Rotorua Lakes Council and Infracore on the felling of trees at Neil Hunt Park, with resources such as wood and mulch distributed to local kaumātua, whānau, and marae. This initiative reflects the interconnected nature of systems change and the importance of a holistic approach for long-term success.

PROPOSED CHANGE

We acknowledge and deeply appreciate the time, energy, and commitment that everyone has contributed to the success of the Waitawa restoration initiative. Healthy Families Rotorua, together with Bay of Plenty Regional Council and Rotorua Lakes Council, worked tirelessly to create positive change for the health and wellbeing of our communities and our wai. We believe everyone in Aotearoa should have access to clean, safe wai – always.

Special recognition goes to the Puna Ora Care Group for their outstanding mahi in improving water quality and restoring the mauri of the stream. Our local champion, Lorraine Hall, has been instrumental in guiding the project's successes and remains a key kaitiaki for the care group.

WHERE THIS IS HEADING:
Sustaining and Embedding Change

Wai reframed as taonga
Wai is no longer regarded as a stormwater drain but recognised as taonga tuku iho with its own mauri.

Shared kaitiakitanga
The responsibility of care is now understood as a collective role of Tangata Whenua and Tangata Tiriti.

Shifts in thinking and practice
This reframing of wai as precious and living is influencing local schools, shaping whānau education, and guiding council approaches to urban stream management.

Strengthened partnerships
Iwi have built deeper, more strategic relationships with local and regional councils, supporting ongoing collaboration in the restoration and guardianship of wai.

MĀTAURANGA MAORI CONTRIBUTED TO THE MAURI MODEL

Nā Dr Kepa Morgan

Mātauranga Māori, through tools like Dr. Kepa Morgan's Mauri-o-meter, ensures that freshwater revitalisation is guided not only by science and economics, but by cultural and spiritual measures of wellbeing.

The Mauri-o-meter is a kaupapa Māori tool developed to assess the mauri (life force, vitality, wellbeing) of environments, communities, or initiatives. It's used as a decision-making and evaluation framework, integrating cultural, environmental, social, and economic dimensions. This time we've used it to assist us in this initiative in ways to revitalise.

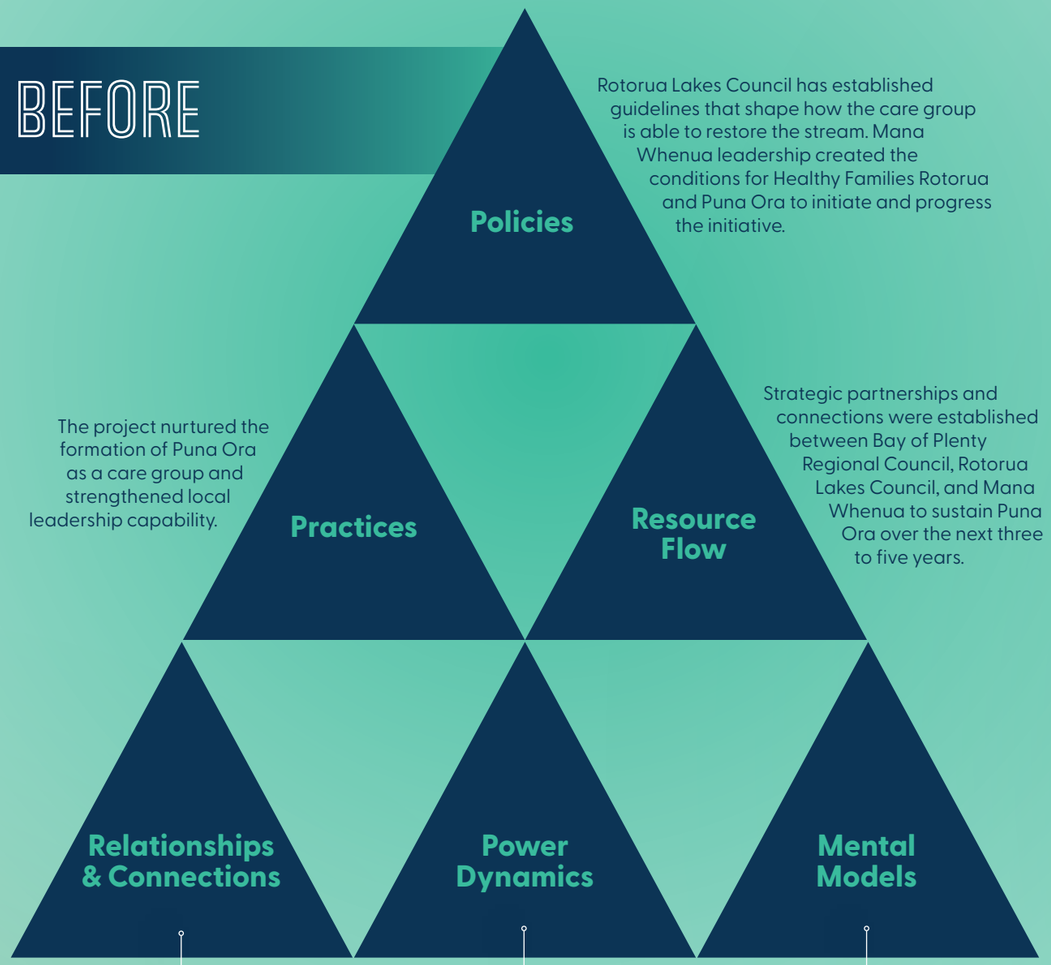
The Mauri Model complements *Te Mana o te Wai* by operationalising the concept of mauri. Where Te Mana o te Wai sets the hierarchy of obligations, the Mauri-o-meter provides a practical tool to measure outcomes.

Signs of degradation	Mauri-o-meter
What Happened: Rotorua Lakes Council's urban planning over decades led to the construction of both a suburb and an industrial zone on top of the stream. Much of the stream was piped underground or channelled into drains. **Impact on the Stream:** Instead of flowing as a natural waterway, Waitawa was physically altered, straightened, and in places buried – turning it into stormwater infrastructure.	**Mauri Implications**: In te ao Māori, a stream is a living ancestor with its own mauri. By being covered, channelled, and treated as a utility rather than a taonga, its life force was diminished. What was once an active, thriving awa became functionally invisible.
Shift in Perception: Locals stopped referring to it as a stream, instead recognising it as a drain. This language shift reflects more than words; it indicates a loss of connection, respect, and identity. **Ecological Consequences:** A drain does not sustain the same ecosystems as a stream. Polluted runoff from roads and industrial sites degraded water quality, making it inhospitable for freshwater species.	**Mauri Perspective:** When waterways are stripped of their ability to nourish and sustain life, their mauri shifts from mauri ora (flourishing) towards mauri noho (languishing) or even mauri mate (lifeless).
Ecological Signs of Decline: Kai species like watercress (wātakirihi), koura (freshwater crayfish), and tuna (eels) once thrived in streams like Waitawa. Their disappearance signals poor water quality, habitat destruction, and pollution. **Cultural Significance:** These taonga species are central to kai gathering practices and whānau traditions. Their absence is not just a loss of food but a loss of connection, practice, and knowledge.	**Mauri Indicator:** The inability of the stream to sustain kai is one of the clearest signs that its mauri had been severely compromised. A waterway with no kai is a waterway with little to no life force.
Disconnection from Mana Whenua: Traditionally, puna (springs) and streams are central to iwi identity, serving as sites of gathering, ceremony, and sustenance. **Colonial and Urban Impacts:** The piping, covering, and redefinition of Waitawa as a drain led to a breakdown in relationships between local iwi and their ancestral waterway. Without consultation, involvement, or co-management, the puna was forgotten by many.	**Mauri Dimension:** The absence of iwi presence and kaitiakitanga means the reciprocal relationship between people and wai was severed, leaving the puna without the cultural practices that uphold its mauri.
Overall State: Taken together, urbanisation, industrialisation, loss of species, and disconnection from mana whenua resulted in the collapse of the mauri of Waitawa Stream. **From Taonga to Utility:** What was once an ancestor, a provider of kai, and a place of cultural grounding became reduced to infrastructure for stormwater drainage.	**Spiritual and Ecological Loss:** In Māori worldview, when a waterway loses its ability to sustain life and connection, it is not simply 'polluted' or 'degraded' - its mauri has been extinguished or silenced.

SIX CONDITIONS OF CHANGE

We have chosen to apply our Six Conditions of Systems Change framework to help make sense of what we have encountered throughout the development of this initiative. The framework provides a snapshot of the shifts we have seen – from where we began to where we are now. This journey has offered significant learning for our team and, importantly, for our community.

BEFORE



Policies

Rotorua Lakes Council has established guidelines that shape how the care group is able to restore the stream. Mana Whenua leadership created the conditions for Healthy Families Rotorua and Puna Ora to initiate and progress the initiative.

Practices

The project nurtured the formation of Puna Ora as a care group and strengthened local leadership capability.

Resource Flow

Strategic partnerships and connections were established between Bay of Plenty Regional Council, Rotorua Lakes Council, and Mana Whenua to sustain Puna Ora over the next three to five years.

Relationships & Connections

By leveraging existing resources and networks, the project supported the development of a care group with the capacity to sustain itself financially into the future.

Power Dynamics

Ngāti Hurunga-te-rangi, Rotorua Lakes Council, and Bay of Plenty Regional Council are working in partnership, sharing decision-making, authority, and responsibility.

Mental Models

The work is grounded in long-held beliefs and values around the health and wellbeing of the wai, with Mana Whenua at the centre.

AFTER

Policies

Policies are grounded in tangata whenua, with mana whenua values and principles guiding decision-making and practice.

Practices

Day-to-day practices are shaped by tangata whenua, with mana whenua values and principles embedded throughout the work.

Resource Flow

Te Tiriti o Waitangi is activated to ensure the full participation and leadership of tangata whenua and mana whenua in shaping outcomes.

Relationships & Connections

Strategic relationships have been built between Bay of Plenty Regional Council, Rotorua Lakes Council, and mana whenua, creating the foundation for puna ora to thrive.

Power Dynamics

Ngāti Hurunga-te-Rangi, Rotorua Lakes Council, and Bay of Plenty Regional Council share decision-making, authority, and responsibility in the stewardship of wai and whenua.

Mental Models

All wai is recognised as taonga tuku iho – precious and inherited – and an area where kaitiakitanga is actively practiced. This is understood as a shared responsibility of tangata

5 CONDITIONS OF COLLECTIVE IMPACT

It is important to include Conditions of Collective impact because they create the foundations of large-scale, sustainable social change. They are what make the difference between a collection of well-meaning initiatives and true system change movements.

01

Collective impact is about different organisations and communities aligning efforts around a shared agenda. In this kaupapa:

02

Shared Vision:
Mana whenua, councils, Healthy Families Rotorua, Te Arawa Lakes Trust, and the Puna Ora Care Group are united around restoring the mauri of Waitawa.

03

Mutually Reinforcing Activities:
Each partner contributes differently – councils provide resources and infrastructure, mana whenua provide tikanga and kaitiakitanga, Healthy Families supports systems thinking, and the community provides lived experience and action.

04

Continuous Communication:
High-trust relationships have been built through wānanga, hui, and ongoing consultation, which keeps the kaupapa moving forward together.

05

Backbone Support:
Healthy Families Rotorua initially held the backbone role, convening and resourcing the kaupapa. This has since transitioned to Puna Ora Care Group leadership, ensuring sustainability and local ownership.

WHAT'S NEXT FOR THIS KAUPAPA?

- The group is on a pathway to becoming self-sufficient, with just one more year before they will be fully independent and no longer require support from Bay of Plenty Regional Council or Rotorua Lakes Council.
- The responsibility for nurturing and sustaining this kaupapa rests with the group itself, who are deeply committed to protecting and enhancing this taonga.
- In 2024, Healthy Families Rotorua transitioned out of direct involvement with Te Puna Ora Care Group. The mahi is now led by Ngāti Hurunga-te-Rangi kaitiaki Lorraine Hall, who is guiding and supporting the operations with dedication and aroha.
- Lorraine is teaching our mokopuna about the sustainability of the puna, showing them the importance of caring for Papatuanuku. Through this, they are learning how to safeguard our taonga and the precious taonga species that live within the puna.
- Embed Te Mana o te Wai in local policy and operations consents.
- Co-design monitoring that blends mātauranga and science (e.g., regular mauri assessments, macroinvertebrates, habitat and planting survivorship).
- Targeted restoration actions: expand riparian and wetland plantings, shade/cooling, fish passage improvements, and sediment/runoff controls upstream.
- Infrastructure review: reduce contaminant loads and stormwater impacts affecting Waitawa's baseflows and habitat.
- Education & rangatahi pathways: formalise school partnerships, youth kaitiaki programmes, and whānau-based mahinga kai revival.

MIHIMIHI

E mihi ana ki a koutou i tautoko mai tā mātou kaupapa Whakaora i te puna o Waitawa. Me ngā tāngata e poipoia te puna o Waitawa.

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