

RONGOMAIWAHINE
IWI TRUST



MAHIA

TE PUNA WAIORA O NUKUTAUURUA

Māhia Freshwater Plan

February 2025



Te Puna Waiora o Nukutaurua, the Māhia Freshwater Plan, has been prepared by Rongomaiwahine Iwi Trust, for the purpose of protecting and restoring our taiao.

Rongomaiwahine Iwi Trust and the team that compiled the report wish to mihi all those who contributed to this document. The information has been sourced from the people of Māhia, from research, expert insight, and data measurement. The sources of data are detailed by the accompanying workbook.

*"Ka ora te wai, Ka ora te whenua
Ka ora te whenua, Ka ora te
tangata."*



DISCLAIMER: Rongomaiwahine Iwi Trust has made its best efforts to ensure the accuracy of the information in this document at the time of publication. The information within this document is of a general nature and is not intended to address the circumstances of any particular individual or entity. No one should act on such information without appropriate professional advice after a thorough examination of their particular situation.

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Te Puna Waiora o Nukutaurua | Māhia Freshwater Plan

Our tipuna and tangata whenua of Rongomaiwahine lived from the fruits of the whenua and moana from the year 1400. The abundance of kai was protected through shared mātauranga that maintained the balance of our taiao.

Rongomaiwahine tipuna arrived at Te Māhia-mai-tawhiti, a place imbued with deep spiritual connections to both moana and whenua. These connections affirm the intergenerational commitment of our iwi to our taiao. The concept of mana moana and mana whenua underpins our people's kaitiakitanga, safeguarding these resources for future generations.

The balance in our taiao has been broken.

To restore the balance for future generations, we have led the development of Te Puna Waiora o Nukutaurua – a Freshwater Plan for Māhia that aims to bring kaitiaki together to ensure that the mauri of Te Māhia-mai-tawhiti is restored to what it once was. The life force is still there, it is different now but it still exists.

"He mana ako te koura I kore ai"

Te Puna Waiora o Nukutaurua is a 100-year shared restoration journey to ensure the physical and spiritual health of the environment is maintained, protected and enhanced.

Te Mana o Te Wai: The Government's Essential Freshwater programme was established in 2022 to protect and improve our rivers, streams, lakes and wetlands. The National Policy Statement for Freshwater Management (NPSFM-2020) gives effect to Te Mana o Te Wai, enabling plans to cascade from a national level to regional, bringing catchment plans for individual land blocks.

Te Puna Waiora o Nukutaurua is our multi-catchment guide for regeneration to restore and revive our freshwater for future generations.

The plan recognises that freshwater is a taonga that embraces all living things. Taiao is one system, and restoration of our wai is a big part of it.

This document captures the taiao transition from untouched abundance and degradation over the last 200 years to its state today. The degradation process must be reversed now before it's too late.

Te Puna Waiora o Nukutaurua celebrates the actions of many who have shown the way towards a revival journey. It is a collection of voices captured to highlight what is working and where more focus is needed.

Te Puna Waiora o Nukutaurua is a new phase of our taiao journey which is underpinned by He Mahere Rautaki.

We must honour our heritage and uphold our responsibilities as kaitiaki of our whenua, moana and wai to ensure the prosperity and wellbeing of our future generations. We must respect and protect our natural environment, including our waterways, geothermal features, and significant ecological areas within our rohe. Protection and preservation of wāhi tapu, taonga, and kōiwi are fundamental to our iwi.

Tohungia i te mātauranga | Guided by knowledge

"Our tipuna lived the best way of life. Their values let us share, nurture and grow together. Maanaki, mana moana and mana whenua, mātauranga, and whakapapa are all important pou, they all intertwine and work together. Revitalising our values will let our people be in a better place, mind, body and soul."

"Ko te wai te ora o ngā mea katoa, water is the life-giver of all things. Papatūānuku depends on our wai. I've seen our wai change over my lifetime.

Our tipuna were kaitiaki of our wai. When we were young, the wai that our tipuna left for us was pure. Our wai in Māhia have sustained our place and all of our people. Everything relates back to our wai.

Over time, people have changed how they think about water. Many of us have moved from being kaitiaki to using and taking water.

You see how muddy it is at Whakateretere (Old Man's Hat). If you tune the water up, you see it gets murky, and that's from those hills. You can see the waipiata has changed a lot. It was a lot wider back then and full of mahinga kai.

Te Puna Waiora o Nukutaurua will take us back to being kaitiaki and guide us to protect our taiao for our mokopuna."

Terence 'Porky' Maru, Snr (Mana whenua, kaumātua)



Whakarongo ki te taiao, tirohia ki te whenua | Listen to the environment, observe the land

The 30-year outcomes our people have embraced provide the focus for our decisions and mahi. Achieving these outcomes reinforces the values that underpins what it means to be Rongomaiwahine.

Taiao

Our aspirations are:

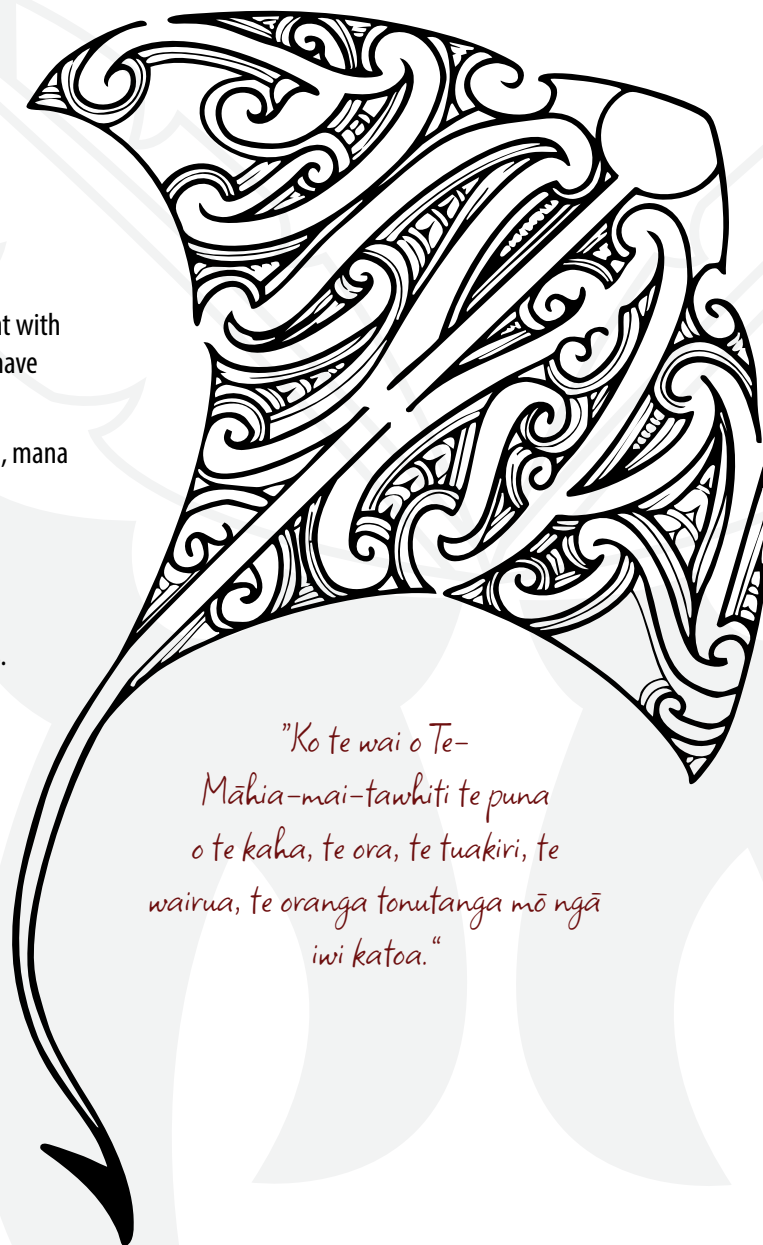
- That our taiao is looked after and every experience shared gives back to our taiao and Rongomaiwahine.
- Te Māhia-mai-tawhiti is restored to what it was 200 years ago.
- Our peninsula is pest-free.
- Kaimoana, mahinga kai, rauemi, rongoā is plentiful.



Te timatanga o te haerenga | The starting of the journey

Five fundamental observations from the engagement with our people, and assessment of where we are today, have defined the starting point for the journey i.e.

- Māhia is our taonga. Our wai is important to both, mana whenua and tangata whenua.
- Water holds mauri. The mauri of our taiao has decreased significantly over the last 200 years. All ecosystems in Māhia require improvement.
- Our taiao has not declined as much as other areas. Māhia is taking action to improve our taiao and the quality of our wai before it degrades further.
- Māhia already has a platform for the journey, that involves our people, mātauranga and sharing capability from seven success stories, and the existence of more than 20 endangered species that are still present.
- Change now is urgent, to provide our mokopuna, the stable taiao that they deserve.



*"Ko te wai o Te-
Māhia-mai-tawhiti te puna
o te kaha, te ora, te tuakiri, te
wairua, te oranga tonutanga mō ngā
iwi katoa."*

Te haerenga ki te angitu | The journey to succeed

The journey to restoring our abundance of taonga is living in tune with nature. The fuel for our success is:

- The journey will be guided by the wisdom of our tīpuna and pakeke, as well as the hopes of tamariki and rangatahi.
- The experience from this generation, mātauranga, passion and understanding of living in tune with nature can make the journey happen.
- Numerous ecosystems and streams in Māhia are well along in revitalisation. This can help guide future activity.
- Environmental and water system challenges, progress, and future directions differ across Māhia. To address this diversity, we can apply tailored strategies that respond to the unique needs of each catchment. Revitalisation can occur at community or catchment level.
- Our taiao, wai, prosperity, and wellbeing are all linked together. Revitalising our taiao and our wai revitalises the entire system.
- The success of revitalisation work relies on people sharing mātauranga and resources, a process seen throughout projects in Māhia. Connecting whakaaro serves as an important stepping stone.

Whakaoreore te mahi | Mobilising for action

The information for this plan has been sourced by capturing the kōrero from our people across Māhia, along with research, expert insight, data measurement and aspirations for our wai.

Alongside this, we highlighted the unique features of our diverse catchments. This has helped us to surface challenges, causes, current mahi, values and ideas to expand a positive impact on our ecosystem as a whole.

The following priorities have been developed as the next stage of our taiao journey.



Arotahi ki te whai hua o te wai | The immediate focus is to benefit our water

Māhia-wide

- Programme coordinator and a working group to coordinate actions
- Connect to national, regional and local catchment groups
- Website, social media, pānui
- Mobilising across catchment groups to collaborate on immediate actions around taiao, farming, forestry, and decision-making/rules/compliance
- Māhia whānui - Māhia wide collaborative revitalisation work, at catchment level, needs to be supported by securing and sharing whakaaro and resources
- Water testing and monitoring
- Detailed catchment mapping of land use and geological features
- Māhia-wide invasive pest programme
- Wilding pine eradication
- Māhia native nursery
- Identify and trial new solutions (Researching into our wetlands and geothermal exploring silt solutions, and riparian area protection, using stormwater etc)
- Planting for other uses (Rongoā, maara kai, fruit trees, riparian areas, mānuka, kānuka honey, debris for mulch or biofuel etc)
- Engage whānau and manuhiri in our taiao (fitness, health, mental health and gatherings, visitor trails and experiences etc)

Councils

- Feed plan into District & Regional Council plans (freshwater, infrastructure, pest management)
- Establish decision-making processes for freshwater decision-making

Farm groups

- Access to low-cost plants
- Catchment funding
- Provide access to technology,/digital/ data
- Pilot projects in Māhia (e.g. silt capture, wetlands)

Forestry groups

- Alignment with national policy
- Māhia-wide harvest plans
- Riparian margin projects



Ka ora te taiao, ka ora te tangata | The environmental is well, the people are well

Our people have expressed their wishes for future generations through the four pou.
It is this generations responsibility to unite together to make this work happen.

Mātauranga

Our Rongomaiwahinetanga is enhanced with fluent and learning Te Reo Māori speakers.

Our Marae kawa is strengthened with active Marae, full paepae, kaikaranga and waiata.

Rongomaiwahine history is archived, our reliable stories and history is shared for all mokopuna.

Mana Moana and Mana Whenua

Whānau are healthy and secure in their own homes, on their whenua.

Kaimoana is plentiful and nourished.

Te Māhia-mai-tawhiti is predator- free which means our Maara kai is rich and our whānau are fed.

Whakapapa

Our marae are looked after and running smoothly.

Community Events to celebrate us. Ahurei/ Whakawhanaunga/History wānanga. An iwi in which whānau are proud of and are in active participation.

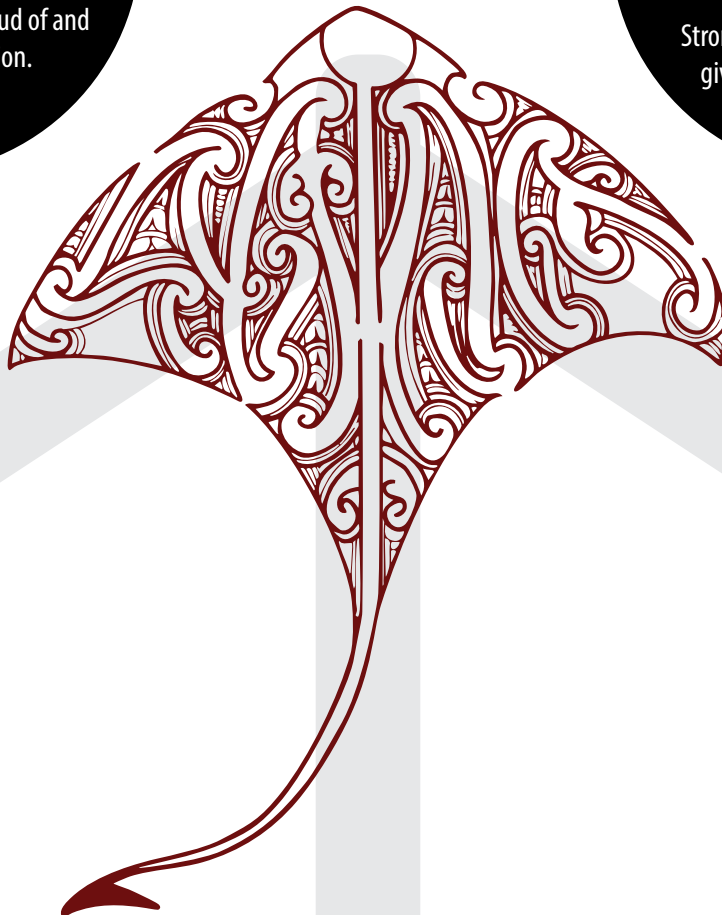
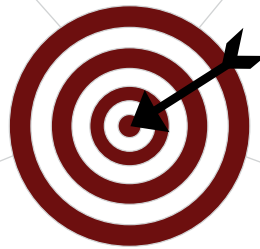
Manaaki

Sustainability within our hapu and iwi.

Active employment for all whānau.

Hauora, health systems in place to manaaki all ages of life.

Strong foundations of learning to give our people the resources to achieve.





Tuahuru Marae

Natives will be planted over our whenua and maara kai will be flourishing for our community.

“We will have control over our moana and whenua”.



Kaiuku Marae

Whānau will practise conscious living on our whenua. Our whenua and moana will be abundant with animal life and maara.

“We will have control over our moana and whenua”.



Ruawharo Marae

Natives will be planted over our whenua and maara kai will be flourishing for our community. Our whenua will be beautified and will display our identity.

“We will have control over our moana and whenua”.



Māhanga Marae

Our whenua will be utilised with home, whare wānanga and puna reo. Wāhi tapu sites will be acknowledged.

“We will have control over our moana and whenua”.



Whakarauora | Revitalisation

Whānau in Māhia are focused on a vision for the future where the health of our taiao is central. Their priority is to restore the mauri of their taiao, acknowledging that healthy waterways are the lifeblood of the moana and the broader taiao.

They see this restoration as essential not just for the land, but for the people of Māhia. By ensuring their water is clean and vibrant, they believe they will create the foundation for a thriving community – one that has access to abundant kai, meaningful work, and a sustainable future.

The vision is simple yet profound: “the best water sustains the best place.” This focus on balance in our taiao, ensures that our future generations will benefit from the same resources that sustain their way of life.

“Our people have shared their whānau vision for the future. It’s our job to make this happen.”

Wai Tuawhiti

An abundance of healthy water sources in our streams, aquifers, wetlands, and springs is essential.

Wai Haumaru

Improved surface & ground water quality. It’s simple. We eventually expect our wai to be safe to drink and swim in.

Mauri

Our wai, flowing freely like it did for our tīpuna.

Nōhanga

Anything that lives in our wai, being allowed to thrive in our taiao.

Taiao

Show mana to all species that Māhia sustains, improvements must be accelerated.

Moana

The health of our moana is the result of our awa and whenua.

Mahi

When we give back to Papatūānuku, she may provide avenues of meaningful mahi in return.

We need to collaborate, share mātauranga, support our network of whānau, work smart, and celebrate the improvements.

Te nui o te kai

Increasing abundance of kaimoana, mahinga kai and rongoā because that is how we live in Māhia.

Ngā wairua, ngā tikanga me ngā oranga o Te Māhia

We want our taiao restoration to lift wairua and empower our whānau to exercise rangatiratanga over their freshwater needs, develop and implement whānau and hapu aspirations with mātauranga Māori.

Kaitiakitanga

Safeguarding the mauri of our wai is imperative and is part of our role as kaitiaki.

Whakanekeneke mō te heke mai | Mobilising for our future

Our whenua is being devoured, our riverbanks consumed and our moana is suffering the aftermath. Revitalisation is a long journey. The journey requires shared purpose, great people, collaboration, patience and relentless mahi.

Our catchments and the situations they face are different, but our people in the catchments share common mindsets. Our people have said:

- Status quo is not an option
- There is an importance of the cultural and historical connection with the vision of what our peninsula offers.
- There is a wide understanding of the decline, recognition of future threats and urgent need for action
- Mobilising will involve working, collaboration, knowledge, resources and funding

The complex system of the small streams in our catchments and coastal foreshore areas was consolidated into 12 catchment areas that shared similar attributes. Each catchment area has a different history, stream types, topology, land use, species range, and environmental health status. Each catchment area is in very different stages in the restoration journey.

Te Puna Waiora o Nukutaurua recognises:

- The diversity of our catchments and the environment for each catchment
- The connection of the health of our freshwater to our ecosystem is in the history of Māhia, opportunities and wellbeing of the people
- The contribution that our individual catchments can make across the whole area in Māhia and between catchment areas

Understanding this, the picture has informed the indicative priorities for each catchment with the expectation that each catchment will further define its priorities and plans.

The focus for action in this plan is to protect and restore the mauri of our wai and whenua. It is based on the insights from our people in the catchments and the analysis of the current state of each catchment. Insights have been used to define five groups with similar needs and potential approaches to the protection and restoration journey.



Catchment diversity requires a different approach in each catchment.

The approach responds to the needs of our environment, progress made, and the resources available, including the network of people in the catchment in each location. The key to success will be a combination of enabling the different work and ways of working in each catchment plus creating a network over the 12 catchments to work together.

Kōpuawhara

💧 Freshwater status:

Significant stream bank and stream bed degradation. Relatively healthy stream water supports small populations of at-risk species.

Conclusion:
Priority
Catchment

🗣️ Key message:

Largest catchment, with increasing risk. The key is bringing people together to shape the journey.

Māhanga

💧 Freshwater status:

Inferior quality with multiple connected issues.

Conclusion:
Targeted
Action

🗣️ Key message:

The status quo is not suitable to sustain future generations. Collaboration is needed to restore the balance and support small revitalisation projects. Solutions are needed for better wastewater infrastructure.

Ōpoutama

💧 Freshwater status:

Very unhealthy streams with a combination of high volumes of sedimentation and fertiliser runoff with low populations of fish and other living species.

Conclusion:
Priority
Catchment

🗣️ Key message:

Rapid action is needed to reverse the decline.

Ōpoutama wetland and surrounding environments

💧 Freshwater status:

Varies across nine different micro-environments.

Conclusion:
Special
Significance

🗣️ Key message:

The combination of nine distinct environments, each with essential features, requires special attention.

Te Māhia

💧 Freshwater status:

Inferior quality (varies across four small streams)

Conclusion:
Targeted
Action

🗣️ Key message:

Immediate action is required to address e-coli risks. Support is needed for a group of small revitalisation projects. Te Māhia is an important hub for sharing knowledge.

Whangawehi

💧 Freshwater status:

Improving (reduction in fertiliser runoff and silt will take time)

Conclusion:
Build on
Success

🗣️ Key message:

Very important for Māhia freshwater that the programme is sustained and lifted to the next level, and that knowledge from the Whangawehi Catchment Group is shared.

Nukutaurua

💧 Freshwater status:
Inferior quality

🗣️ Key message:

Activity to protect and revitalise the whenua and wai is at a very early stage of the process.

Conclusion:
Priority
Catchment

Taiporutu

💧 Freshwater status:
Improving

🗣️ Key message:

Partly encompassed into the 10-year whānau-led programme. Future opportunities for knowledge sharing.

Conclusion:
Support

Tawapata

💧 Freshwater status:
Inferior quality (varies
across streams)

🗣️ Key message:

Momentum needs to be accelerated to reverse the decline.

Conclusion:
Support

Onenui

💧 Freshwater status:
Important location for
endangered species.

🗣️ Key message:

Is a key part of Māhia and its success story.

Conclusion:
Special
Significance

Kinikini

💧 Freshwater status:
Relatively healthy
(Varies by location)

🗣️ Key message:

A small number of farms, isolation, biodiversity, and momentum create a platform for acceleration.

Conclusion:
Build on
Success

Māhia Beach

💧 Freshwater status:
Inferior quality

🗣️ Key message:

Immediate action is required to address infrastructure issues. Action in Māhia could include holiday homes.

Conclusion:
Targeted
Action

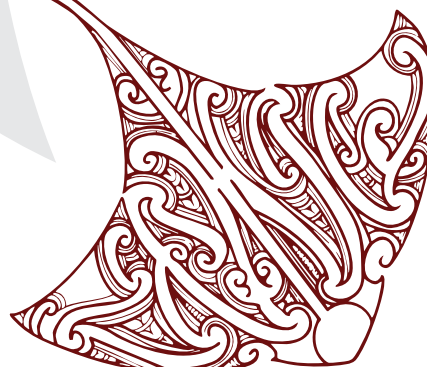
Waikawa Islands

💧 Freshwater status:
Important location for
endangered species

🗣️ Key message:

Key part of our success story in ecosystem protection.

Conclusion:
Special
Significance



Ngā kete o te mātauranga | Basket of knowledge

Kete of knowledge, ideas and resources that groups can access when they need to.

Engage:

Communicate with our people and groups

Sharing of information via newsletters, social media, website, pānui, regular hui and signs to share success, plans and activity (Māhia-wide communication and support for group communication).

Funding for revitalisation mahi

Work with stakeholders to identify and secure funding for the journey.

(This includes funds for Māhia-wide activity and communication, catchment group coordination and engagements, access to knowledge, small project funding).

Make connections

Connect Māhia's network of people, groups and partners to enable action. Connect to regional and national groups.

Plans and coordination

Develop Māhia and catchment plans. Establish working groups and provide resources to sustain the group's activities. (Resources include coordinators, systems, digital tools, planning templates, etc).

Influence plans and decisions

Provide input into local, regional and relevant national plans and changes in freshwater management and activities (e.g. groups are informed, input into decisions from Councils etc., is in coordination and collaboration).

Build recognition for the mahi

Collate and share the success stories with external organisations to gain recognition for the work. (Includes presentations, awards and other engagements that help secure support and resources (e.g. Pest free status, recognition of Ōpoutama ecological area, connection of all coastal forest areas, national conservation recognition, global recognition).

"Our generation can revitalise our ecosystem so that future generations may experience what we and our ancestors have experienced."



Share:

Collate and share mātauranga

Online hub for collation and accessing knowledge, knowledge-sharing events and activities and one-on-one sharing, e.g.

- Collect and share our history and mātauranga
- Collaboration network
- Access to knowledge, training and advice, sharing experiences
- Science research (National Science)
- Planting and fencing guides
- School programme and rangatahi and kaimahi training
- Share with other regions

Shared information and analysis

Shared information, measurement and tool kits to understand the freshwater and taiao health to support plans and the work

- Digital maps, fenced areas, soil moisture, water, floodwater flow mapping and flood risk, water quality, invertebrate populations, aquifer levels



Coordinated action:

Protect special places

Identify and protect key places, e.g., Ōpoutama Wetlands, urupā, and water with cultural significance (e.g. waterfalls).

Reduce pest damage

Integrated plans and contracts to reduce and control pests, e.g., expand trapping (possums, rats, stoats, goats, geese), remove stream and estuary debris, clear wetland and stream bank invasive plants, clear wilding pine.

Programmes to restore flora and fauna

Secure resources for: eco-source seeds, plant nursery, insect and invertebrate breeding and recovery, freshwater fish breeding, breeding environment areas, and repopulation (e.g. koura).

Provide resources for restoration

Sharing or supply of low-value equipment: tool shed and tools, water testing kits, digger for whānau use, free seedlings, mulch for planting, silt trap resources.

Manage key activities

Monitor “issues” and work with Councils to ensure action is taken to change behaviour, e.g., compliance with freshwater rules and regulations (building site soil, wastewater from homes), close access to sensitive environments (e.g. vehicle use in the stream), rāhui for at-risk species, changes in land use, e.g. wetland clearing, camping in sensitive areas.

Infrastructure

Provide leadership, input, and resources for critical taiao freshwater projects. Māhia catchment groups’ role may include spreading awareness through regular engagement with their surrounding community, with an overarching committee of decision-makers or avenues to funders. This could consist of: improved freshwater or wastewater (Ōpoutama, Māhia Beach and Māhanga), cleaning septic tanks, Māhia beach stormwater e-coli from homes), reinstate old water channels (Ōpoutama, Māhia, Māhanga), protect/improve roads from storms, and build protection for flows on stream corners.

Small restoration projects

Knowledge and resources for farm and catchment-level projects: springs protection (includes plants), small wetland projects, stream bank and bed restoration, dry creek bed protection, stormwater drains, trenches, solar for electric fencing and floodproof fencing.

Support for farmers

Support access to knowledge and Māhia-wide data or collaboration across farms, e.g. farm plan support, regenerative farm practices, wetland redevelopment, stock water supply, riparian margins, retirement and erosions, planting and fencing, soil restoration & moisture, retention, carbon sequestration and carbon credits programme.

Support our foresters to understand the needs of our taiao.

Support access to knowledge and Māhia-wide data or collaboration across forests, e.g.

Whole of Māhia Forest planning including mixed forest (Exotic and Indigenous, etc.)

Riparian zone width enabling ecological connections.

Forest harvesting best practice (track, loading zone, slash clear).

Forest fire breaks and water for forest fires.

To tātou kaupapa | Our purpose

Our generation can revitalise our ecosystem, allowing future generations to enjoy the mahi we put in.

Ao tūrua - What we imagine is restoring our taonga to its natural character.

Waiti is sustaining all living organisms on papatūānuku.



To tātou haerenga | Our journey



He Mahere Rautaki and our four pou are the foundations of the journey that restores our taonga.

Our four pou connect us to the māramatanga of our tipuna. These pou steer us to our future. These pou guide every decision and action we take.

Manaaki

Restoring the mauri in our ecosystem and wai to be protected and honoured.

Restoration kaupapa to be at the centre of all we do together.

Will guide the unique action for each wāhi taonga.

Rongomaiwahine are humble people, deriving value from our caring and nurturing treatment of others. This characteristic is embedded into our wairua and exemplified through our kawa.

Mana moana and mana whenua

Papatūānuku will give us the fruits and will be realised in the long run.

Kia uru kahikatea ki tū.

Our tipuna were pre-destined to arrive at the shore of Te Māhi Mai Tawhiti. This spiritual connection to moana and whenua commits our iwi to the intergenerational relationship with our Taiao. Our connection to the whenua and moana defines our kaitiakitanga.

Mana moana, mana whenua.



Our pou that guide us

Mātauranga

Taiki te mātauranga - Guided by our knowledge.
Mātauranga of our Pakeke, kōrero tuku iho and tipuna.
Revival of mātauranga from hau kāinga and ngā tangata.

Ngā kete o te mātauranga - Expand on our understanding of what works for our rohe. Interpret and examine outside knowledge to apply.

Kōrero tuku iho has been passed down through our tipuna, connecting us back to our first whare wananga on Waikawa.

Rongomaiwahine mātauranga links us to all corners of Aotearoa.

Our knowledge of whenua and moana enables us to exercise our kaitiakitanga.

Whakapapa

Support our network of whānau tangata.

Success through unity of purpose.

Every wai has whakapapa.

The weaving of iwi, waka and tipuna came to the birth of Rongomaiwahine.

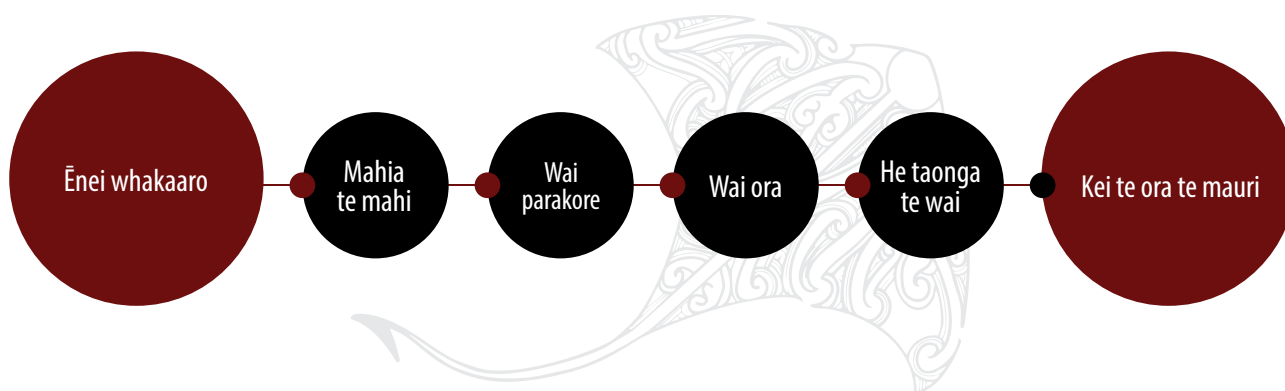
I raro i tana maru kotahi tatou, he whanau Rongomaiwahine te whaea o te motu e.

Ko te mōhio ko te ahunga whakamua ka Māhia | Knowing progress is being made

The wellbeing of our hapori is directly related to the wellbeing of our taiao.

Restoration success will be measured against the 12 factors that describe “what we must see in the future”. This will include a combination of the response from the hapori, key groups and quantitative analysis. The measures focus on understanding that progress is being made and identifying opportunities to accelerate or enhance the journey.

Ka ora te wai, ka ora te iwi



Wai Tuawhiti

- Few streams run dry
- Reducing the effects of stormwater
- Protect against droughts and extreme weather

Nōhanga

- The length of stream beds and banks are improving and providing a home for more native species
- Sensitive environments, including springs and wetlands, are improving
- Forest areas are adhering to policies and implementing best practices
- The restoration journey supported by farm plans and freshwater management units

Mauri

- Streams with higher numbers of invertebrates
- Our wai start to re-welcome more freshwater species

Wai Haumaru

- Reduced days when swimming is unsafe (due to e-coli)
- No communal water is unsafe to consume
- Enhanced water quality for our awa (Dissolved phosphate, silt, nitrate, etc.)

Te nui o te kai

- An abundance of kaimoana, mahinga kai and rongoā
- Freshwater species are protected until they thrive
- Presence of Kāeo, Kākahi, and other taonga species

Mahi

- The mahi created is of greater value and meaning
- Celebrate accomplishments
- Catchments and groups are mobilising
- Pūtea and resources for restoration

Kaitiakitanga

- Kaitiaki in our taiao are being embraced and strengthened

Taiao

- Populations of at risk or endangered freshwater fish, birds and plants are improving, with key locations being restored

Moana

- To see less sedimentation travelling through our streams and reaching our moana

Ngā wairua, ngā tikanga me ngā oranga o Te Māhia

- Tangata whenua of Māhia are reconnecting to our taiao and see development is being accomplished

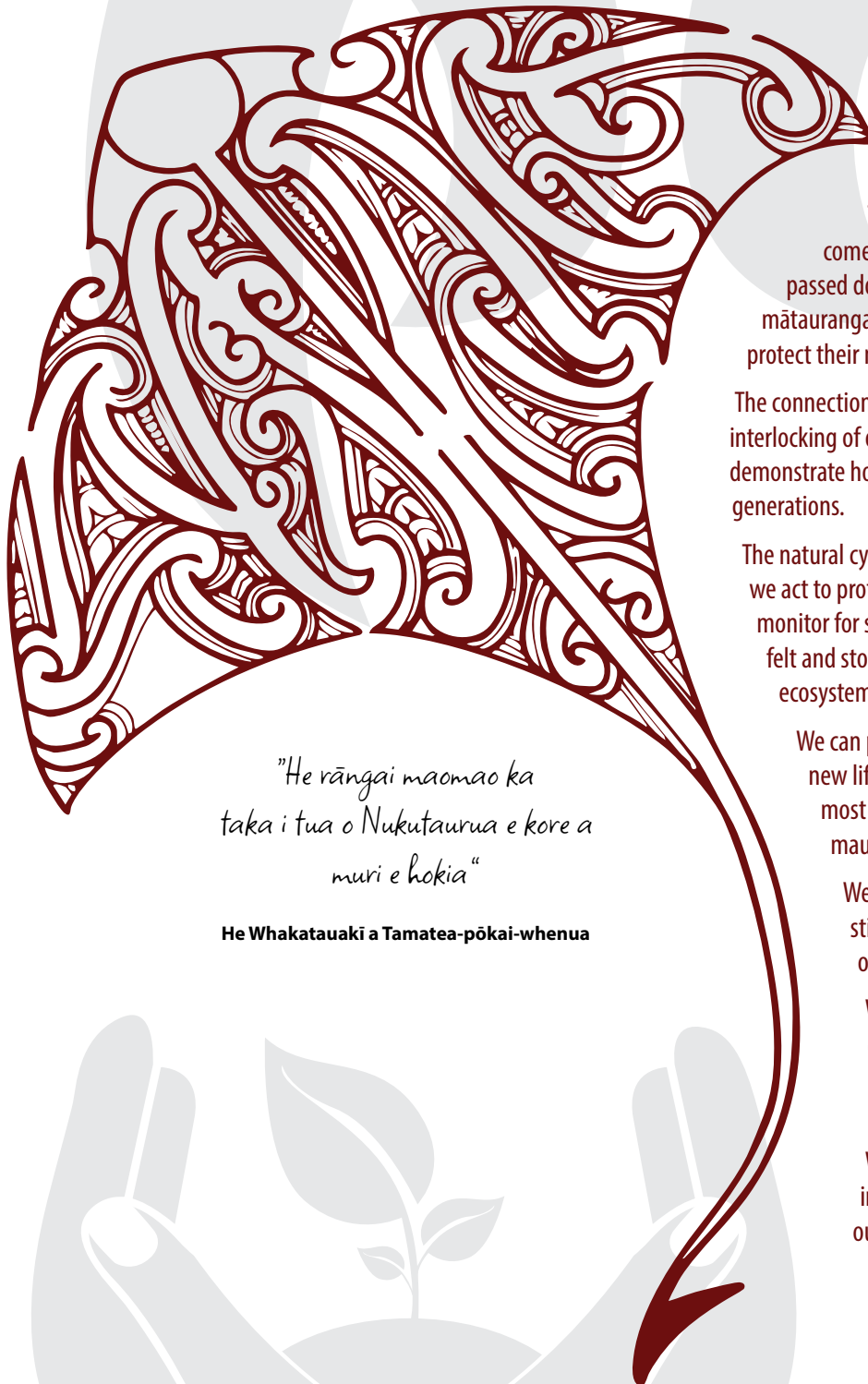
Note: Detailed baseline assessments will be completed at the end of year 1 of the journey to help reshape the plan based on the learning from the first year.

Ngā mahi e whai ake | Our next steps

The journey to restore our taiao combines input from our people. This living document will be reshaped each year to reflect progress experience and new knowledge.

- Share the story of our taiao with all people of Te-Māhia-mai-tawhiti
- Secure pūtea for a rangatira in our taiao
- Present the mātauranga of our taiao, to our key stakeholders
- Establish taiao working groups
- Share whakaaro within the catchments
- Develop plans for priority projects in each catchment (see following pages)
- Communicate the taiao revitalisation story, plans and success stories (social media, newsletters, catchment discussions and signs)
- Secure resources and pūtea for priority projects
- Work with the catchments and working groups to prepare restoration journey maps. Initiate one to two priority projects in each catchment or with each group (new projects or existing programs)
- Connect all groups in the catchments to mahi tahi
- Measure water quality and presence of key species
- Establish Māhia native nursery
- Develop the Regional Council infrastructure plan, resource management, freshwater management units (FMU's) and long term planning
- Develop the District Council infrastructure reserve management plans and long term planning
- Establish groups and processes for taiao decision-making in Māhia
- Ensure the environmental importance and the success in Māhia is recognised
- Build the capability of the catchment and key groups, such as forestry and farming
- Support implementation of projects with access to mātauranga and resources
- Secure pūtea for Māhia-wide restoration projects
- Consolidate key Māhia-wide protection, restoration and revitalisation projects in our taiao
- Accelerate the action of the catchment and other groups
- Complete the Māhia-wide programme for fencing, springs protection, stormwater and stream headwaters
- Secure long-term funding for Māhia-wide (20,000 ha) pest control and taiao revitalisation, including investment to grow the population of the endangered species and reintroduce species of national importance
- Build infrastructure for water, wastewater, stormwater and roads
- Develop and implement solutions to respond to extreme weather, droughts, fires and flooding
- Continue the journey toward a future that reflects taiao and freshwater that our ancestors experienced, that today's generation can remember, and that is good for future generations

Ngā mohiotanga o te iwi o Rongomaiwahine | What Rongomaiwahine already know



*"He rāngai maomao ka
taka i tua o Nukutaurua e kore a
muri e hokia"*

He Whakataukī a Tamatea-pōkai-whenua

The essence of life in Māhia comes from our tīpuna. Taonga tuku iho passed down from our tīpuna, capture our mātauranga, and our intrinsic duty is to restore and protect their natural life-stabilising processes.

The connection of life in Māhia, is reflected in the shared interlocking of our maunga, awa, and moana which demonstrate how to protect the ecosystem for future generations.

The natural cycle of life determines how and when we act to protect these valuable connections. We can monitor for signals of risk before negative impacts are felt and stop where there is a risk of damaging our ecosystem.

We can protect the places that support and give new life, and we can take little from where it is most sensitive and then share after we restore mauri.

We should protect the abundance that we still have and put protections in place for our declining taonga.

We can take action in response to emerging change, and we can apply our nature-based approaches to fix what has not worked.

We will grow mātauranga from working in service of te taiao, allowing her to guide our actions for our future mokopuna.



Everything in our ecosystem relies on a healthy freshwater system.

Our wai is at the centre of our Rongomaiwahine cultural, spiritual identity and wellbeing. Our goal is to ensure the mauri of Rongomaiwahine flows through our taiao.

Our people can remember when healthy freshwater allowed the ecosystem to thrive. This has supported our way of life for centuries.

Sadly, our tīpuna and kaumātua witnessed a 100-year decline in our freshwater systems and ecosystem. Human action is responsible for the decline, and with intervention, human action can ultimately reverse it. Accelerating climate change means we must now act with urgency.

Communities in our different catchments are coming together to ensure a thriving, life-sustaining future. This project promotes Kotahitanga for the people of Rongomaiwahine and community of Mahia by co-developing a journey to revitalize and protect our freshwater systems and ecosystems.

Te Puna Waiora o Nukutaurua aims to weave mahi together to guide the next 200-year journey. This creates the opportunity to work together towards a future where our ecosystem and our people should thrive in this special place we call home.

"Everyone has a role to play. We need to create balance to ensure the mauri within our environmental systems is prospering for future generations to experience."

Terence 'Porky' Maru, Snr (Mana Whenua, kaumātua)



Across 26,600ha, our ecosystem and its connections are a diverse taonga, with 48 streams and their tributaries and outlets flowing into our moana, geothermal features, and significant ecological areas within our rohe, wāhi tapu, taonga, and kōiwi.

The current land use includes large portions of native forest, farmland and exotic forest.

All freshwater in Māhia has changed dramatically in line with land use changes. There is now evidence of a declining taiao, although the amount of degradation in many catchments of Māhia is less than in other parts of Aotearoa.

Māhia still has large portions of native forest and a special natural ecosystem, which is home to many rare and endangered freshwater fish, birds and plants.

Our wai connects our maunga to our marae and moana for whānau to enjoy. The connections of our ecosystem is strongly linked to our people, history, culture and way of living.

Our people in Māhia care about the future of the environment, and there is an opportunity to accelerate the rate of recovery.

Through the coordination of collective action and collaboration, we can make change.

Waiti

Approximately 372km of streams, which includes 48 streams comprising 18 main streams and tributaries.

Our freshwater systems include approximately 291ha of wetlands, springs, aquifers, geothermal features, and 28 stream outlets to our moana.

The systems are sensitive to erosion, fertiliser, e-coli, silt, streambank collapse, woody debris and waste from residential areas.

Moana

Māhia is surrounded by 116km of coastline and moana.

Whenua, Land use, Native forest & scrub

Approximately 2,500ha indigenous forest and approximately 3000ha mānuka, kānuka and other native scrub.

There are changes in our water quality due to flooding and the presence of invasive plant species and pests.


Exotic forestry

Approximately 6,000ha of exotic pine forest. Risks include our freshwater unable to reach native plants and species, waterways, inability to harvest and woody debris mobilisation.

Farmland

Approximately 14,200ha of farmland.

The risks for farming in Māhia are erosion, headwater floods, droughts, headwater and water table loss causing our groundwater to no longer be able to sustain worms, insects, and bugs.



Whakarongo ki te taiao, Matakitaki ki te whenua | Listen to the environment, Observe the land

Through kōrero, our people shared their stories of what was beginning to work well and discussed the urgent actions needed to target problems.

Māhia is home to some of the most endangered and unique forests in Aotearoa. Our wai feeds the Kinikini, Onenui and Mōrere low-lying coastal forests.

Kōpuawhara Stream is the longest stream with the most significant catchment and unconfined aquifer in Māhia. The catchment remains relatively healthy and home to many of Aotearoa's most endangered freshwater fish.

Maungawhio Lagoon is a hot spot for many of Aotearoa's threatened sea and shore birds. To thrive, they need improved water quality with less sediment, woody debris and rubbish in their habitat.

The 32km Waipiata (Ōpoutama) Stream offers challenges and opportunities. By restoring native vegetation like reeds and scrub, we can support insects and birdlife. This revitalisation will ensure safe drinking and swimming conditions, and allow for the harvesting of inanga, tuna, and koura, as enjoyed by our ancestors. Healthier freshwater and groundwater in the catchment will also benefit local farmers and enhance their prosperity.

The Whangawehi Stream and catchment group is a globally recognised example of mahi that revives whenua and wai. Sharing knowledge and success from Whangawehi can guide the pathway for other catchments in Māhia.

800ha of Moemotu farm in Kinikini has been retired and has triggered a 100-year restoration journey to return back to the ecosystem that our ancestors would have experienced.

The 3,200ha Onenui Station (Tawapata South Inc.) has 38km of small streams with outlets that flow into our moana. Onenui's integrated 20-year programme, including fencing, coastal protection, land retirement, changing farming practices, pest control and partnerships, shows a revival journey pathway.

The Ōpoutama wetlands are a vital part of a remarkable ecosystem. In Aotearoa, there are few locations left like this. Ōpoutama features three wetlands, Maungawhio Lagoon and the Kōpuawhara Stream, all bordered by two stunning beaches.

Waikawa (Portland) Island is home to the critically endangered Dotterel (Tūturiwhatu). The translocation of the birds to the island demonstrates a pathway of restoration that is possible with knowledge and people.

Te kōrero o ngā uri o Rongomaiwahine | The conversation of Rongomaiwahine descendants

Our people passionately care for our taiao. Te Puna Waiora o Nukutaurua has been informed by what we have heard from our people. A small sample of what we heard has been condensed and is included below.

- We care, we have the passion
- Lets acknowledge Te Tiriti obligations to support the right of tāngata whenua to define, protect and determine what happens to their taonga
- It is our intrinsic duty
- We see positive restoration mahi in other catchments
- We can share what we have done
- It's for our mokopuna
- This is where our waka landed
- We know the places that are important to us
- It's embedded into our history
- We built homes where there was freshwater
- A number of streams don't flow anymore
- There is not enough water for waka and boats.
- We would drink from the springs
- We could get paua and cray on the way to school without getting wet
- We lived off of our streams and sea
- We would swim in the lagoon
- You could always hear the birds in the forest
- Things were simple back then
- We did not see this happen - the change was slow
- Urupā and taonga are being washed away before our eyes
- How are we letting te taiao rest?
- How do we get to the source of damage?
- Is our water safe to use for growing kai, drinking and swimming?
- We care for our special places
- How do we stop silt and sediment harming our crayfish?
- A number of our streams are unhealthy
- Nothing is alive in a lot of our streams
- We have very smart people in Māhia
- How will our moko know our stories in the future?
- How can we share our mātauranga?
- Certain solutions may work elsewhere, but Māhia and our area is different
- How can we share what we've learnt in our streams?
- How can we fix the erosion and silt?
- How do we create a Māhia nursery? How do we develop a garden?
- What are others doing in Aotearoa?
 - Where are the expert people who can help us?
 - We can see things working now
 - Our people are thirsty to make things happen
 - How do we finish what we've started and keep this going sustainably?
 - We can't do this without resource
- Our people are getting tired – they need some new help
- We want to do it our way
- We should look after our own streams in our areas
- Regulations are making it hard to fix things
- We should work together,
- Let's do the little things first and start somewhere
- We should start by giving our taiao and wai resources, a good rest.
- A number of our streams dry out
- Stock don't get water
- There are cows in our wai
- Visitors don't care or don't know
- The streams that are treated like drains smell bad
- This will get worse with climate change
- We know what works here, we just have to bump heads and share knowledge

"He pukenga wai, he nohonga tāngata, he nohonga tāngata, he putanga kōrero."

Ko au te wai, ko te wai ko au | I am the water, the water is me

The assessment of our freshwater system highlights the decline over the last 200 years and our future risks. The evaluation also highlights many extraordinary and vital ecosystems in our environment that can be revitalised. This includes freshwater fish, plants, birds, and invertebrates in the ground and forests.

The health of our wai enables the prosperity of Māhia. The critical commercial activities include residential, construction, farming, forestry, fishing, tourism and the space industry.

Highlights in our freshwater system are Kōpuawhara Stream (109km), Whangawehi Stream (52km), Kinikini Stream (42km), Ōpoutama Wetland, and Maungawhio Lagoon.

Māhia comprises many streams and catchments stretching from Māhanga south to Waikawa Island. The way our wai flows in Māhia is a taonga.

Each area is ecologically unique and has a unique connection to our people. Each of the 12 catchments has different issues and is in various ecosystem protection and restoration stages.

The catchments have been grouped to reflect the different requirements for the revitalisation of the environment, i.e

- Catchments to build on success, learn from and provide support for acceleration: Whangawehi, Kinikini, Onenui, and Waikawa
- Priority catchments needing urgent action: Kōpuawhara, Ōpoutama and Nukutaurua
- Locations needing targeted action: Māhanga, Te Māhia, Māhia Beach
- Catchments for support and assistance: Taiporutu, Tawapata
- Locations of special significance: Ōpoutama wetland and the surrounding wetlands

A 100-year freshwater journey can be built on a collection of successful projects that could lead the way. i.e;

- Ōpoutama wetland restoration
- Whangawehi Catchment Group
- Kinikini coastal forest protection (DOC Reserve)
- Moemotu Station Retirement
- Onenui Station integrated restoration programme
- Waikawa Island protection
- Hawke's Bay Regional Council pest management, erosion control

Our focus areas are:



Residential and holiday homes infrastructure



Our Marae



Our beaches, rocky foreshore, walkways, forests, and reserves for recreation

Te mātauranga, kōrero, tautoko, mahi tahi me te angitu | Knowledge, talking, support, collaboration & success

"Mahi tahi!"

The building blocks to restore mauri are:

- Collaborative catchment groups based on the whenua linked to a stream or group of streams flowing out to the ocean (Catchments based on geological systems). Each catchment requires a different approach that responds to the needs of our environment, progress made, and the resources available, including the network of people in each location. The key to success will be a combination of enabling the different work and ways of working in each catchment, plus creating a network over the 12 catchments to work together.
- Coordination of the catchment groups working as one, with collective responsibility, commitment, and a shared focus.
- Securing and sharing pūtea, mātauranga and resources to be used by the catchment groups

Pūpū ake rautangi, ka mau te wawaro ki runga o Maungakāhia"

Each catchment is a unique taonga that requires our mātauranga to succeed. It is recognised that each catchment is at a different stage of the revitalisation journey.

Revitalisation needs to be community-led and each catchment working in small groups is the most effective way of making progress.

Resources and information must be accessible in a flexible manner with the sharing of mātauranga, a powerful tool for revitalisation.

This plan encourages cooperation and teamwork while also recognising the need for support for facilitation and assistance in the management and funding of catchment programmes.

We need to empower those who are part of the catchment by embracing whakawhanaungatanga, establishing relationships and relating well to others.

We need strategic and coordinated leadership with a moral foundation, and we need to provide flexible access to knowledge, ideas, and resources for the catchment groups. We need to develop a kete of mātauranga, ideas and resources that catchment groups can access when required. Our people will be able to delve into a kete of mātauranga and resources, including interacting with others, with Rongomaiwahinetanga guiding the restoration mahi.

"Whaowhia te kete mātauranga."

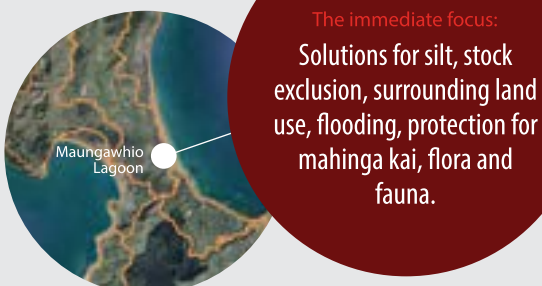
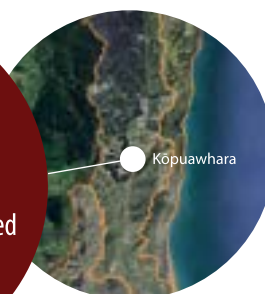


Te nekehanga o te wai | Flow sources, pathways of water moving through the catchments

Kōpuawhara

The Kōpuawhara Stream and its catchment are crucial for the sustainability of our ecosystem. As the largest freshwater system in Māhia, it spans 109km, covers 6,250ha, and contains our biggest aquifer. Despite its rich history and relatively healthy freshwater conditions, the catchment faces risks of decline. Historically, the Kōpuawhara flowed into the sea passage that formed Māhia, where the Takitimu waka landed at Ōraka. Generations of Rongomaiwahine have depended on this awa for life-source resources like kutai, kohiti, and tuna. Today, the wai supports endangered freshwater fish species, and fishing still occurs in some areas. The catchment is vital for economic prosperity, contributing to farmland and the aquifer.

The immediate focus:
Stream bank protection (includes forestry), stock exclusion projects, endangered freshwater species



The immediate focus:
Solutions for silt, stock exclusion, surrounding land use, flooding, protection for mahinga kai, flora and fauna.

Maungawhio Lagoon

The stream and lagoon face drought risks in the small tributaries, floods, forest fires, rising sea levels, erosion, silt, changes in water flows, stock bank collapse and the ability of all living things to survive.

The risks are magnified by limitations of resources, and teams to turn the clock back at speed.

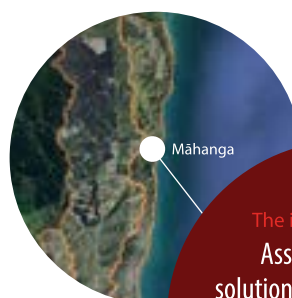
Māhanga

Māhanga's catchment is very small and includes four short streams with outlets into our moana. One of the four streams, Hinerauri Stream, is named after the daughter of Rongomaiwahine and Tamatakutai. This stream was tidal and historically, the wai carried an abundance of mahinga kai. After colonisation, Māhanga was subdivided and developed into a residential and holiday area.

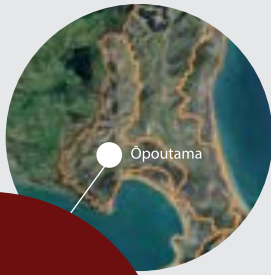
Issues include e-coli, non-performing septic tanks, limited drinking water, development pressure, vehicles in streams and changes to the stream flow. There are also wider issues, including beach erosion, dune changes, wilding pines and lack of protection of the habitat for migrant shorebirds and the whenua for two of Aotearoa's most endangered plants. The health of Hinerauri Stream is impacted by a combination of vehicles driving through the stream and changes in the flow of water through the stream. When combined, these issues are of real concern.

The catchment is beginning a new phase where it must give back to its ecosystem to restore the balance between people and Papatūānuku. Work is starting with passionate whānau in Māhanga who can make change happen with the right resources. Māhanga has strong whakapapa and pūrākau, that describe seven tōhōra being kaitiaki of this area

Projects include working with the Wairoa District Council at solutions for water infrastructure and protection of the stream beds, sand dunes to the high tide mark. The Department of Conservation holds Māhanga wetland in a crown covenant, Hawke's Bay Regional Council has been responsible for the shorebirds and vegetation, coastal erosion, and recreational bathing monitoring.



The immediate focus:
Assess septic tank solutions, realign stream to natural flows, small riparian planting projects, develop options for water and wastewater.



Ōpoutama

The health status of the 32km Waipiata (Ōpoutama Stream) and the 2,534ha catchment is a concern. Ōpoutama has been home to whānau for decades. Initially, drinking water, whare, wānanga, birdlife, mahinga kai, maara kai, and kaimoana drew whānau to Ōpoutama. Water also created travel links, including the dock and rail link, secure anchorages, small boats and waka being able to traverse through the streams. The poor state of wai in the catchment and stream today includes the accelerated erosion of the stream banks and changes in the stream bed, springs, and physical flow of the streams. Debris, fertiliser, and silt make survival difficult for all living things. Today, kai and resources are scarce. There are fewer freshwater flora and insects. It is often unsafe to consume the water or swim in the stream. The stream cannot be navigated. Droughts, floods, erosion, diminished biodiversity, and road closures are now among the water-related dangers.

The immediate focus:

Springs and drinking water protection, stream bank protection (includes forestry), develop wastewater options.

Ōpoutama Wetlands

The Ōpoutama Wetlands are the heart of a spectacular ecosystem. This area was part of the ocean passage that transformed Māhia Peninsula from an island to being connected by an isthmus through which migratory whales could pass. Today, the ecosystem is connected to three wetlands, Ōpoutama Stream, Kōpuawhara Stream and Maungawhio Lagoon, a dune system and two beaches. The system is home to a long list of endangered species. The mahi of the Native Forest Restoration Trust and QEII is helping to protect the wetlands, and the opportunity now is to go further and establish the 750ha as a location of national importance.



The immediate focus:

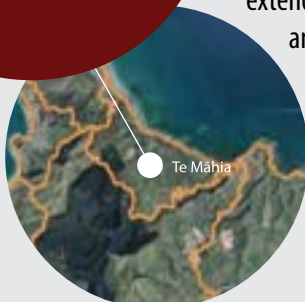
Integrated management plan, endangered species measurement, integrated invasive pest (animal, plant and pine), stock exclusion.

Te Māhia

Te Māhia catchment is physically small but is important for our kōrero tuku iho). The 760ha catchment includes four small streams with a total length of just 9km, each with their own whakapapa. The Tākitimu waka landed at Waihakeke below Kaiuku Marae. Whakarewa provided an abundant pataka kai. The Waitepatu Stream tells the history of freshwater koura and whānau having specified areas for soaking kina. Te Māhia has natural springs providing freshwater, extending from Waihinahina to the Whangawehi mouth. The locations between Kaiuku Marae and Tuahuru Marae were linked to abundance in mahinga kai. Currently, there are issues of concern for the wai. The streams have high levels of silt and fertiliser or high levels of e-coli from septic tanks. The springs are less of a source of drinking water. The increased frequency and severity of weather events impacting the whenua, is concerning. The two marae, small community and the primary school, make Te Māhia a place where ideas can quickly be turned to action because whānau want to share mātauranga and work together.

The immediate focus:

Develop options for wastewater (Septic tanks), springs and stormwater, revegetating, and marae.

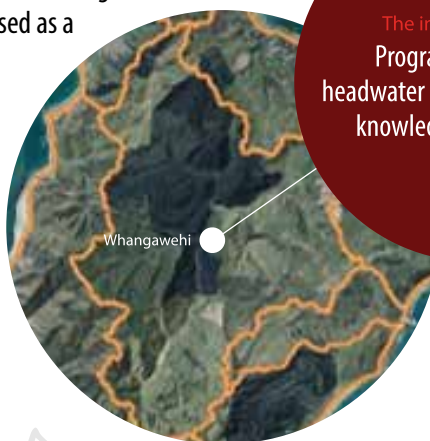


Whangawehi

The 52km Whangawehi Stream and 3,600ha catchment area has an important revival programme. Pre-1890, water made the catchment a vital area with many pā along the stream. It was also an area for a seasonal collection of freshwater and estuarine fish.

Today, the catchment includes native forests (Kinikini Reserve), high-producing grassland, sustainable exotic forests, protected or retired whenua, and improved habitats. The Whangawehi Catchment Management Group has led the recent changes in the catchment. The 12-year restoration project is recognised as a national and international success story.

The collaborative work of the Whangawehi Catchment Management Group and farm stations, such as Pongaroa, has included retiring land, fencing, planting, exclusion of stock from waterways, pest control protection of springs, and re-establishing wetlands. The impact of the programme is seen in restored soil, stream beds and stream banks. Birds, insects, and native fish populations are now recovering. The catchment group is committed to the continued restoration of the stream. This includes the management of erosion and silt in the top end of small tributaries and reducing the dissolved reactive phosphate levels in the stream. Focused support is now required to ensure continued programme success in the face of new difficulties such as project weariness, financing limits, agricultural regulation, increased protection costs, and more severe climate events. Whangawehi shows a path for revival initiatives in Māhia, giving all programmes a head start.



The immediate focus:
Programme funding,
headwater solutions, soil health
knowledge and support.

Nukutaurua

The 1,800ha catchment of Nukutaurua includes Wainui Stream and four other small outlets to our moana. Rongomaiwahine and her Maunga-a-kāhia pā, is in Nukutaurua and is at serious risk. There is a need for revitalisation of the entire ecosystem, predominantly revegetation and research into the untreated eroded gully at Kahutara.



The immediate focus:
Maunga-a-kāhia
pā protection, Te-pari-o-
kena waterfall restoration,
Wainui stream protection,
Protect stream-to-ocean
outlets (Including stock
exclusion).

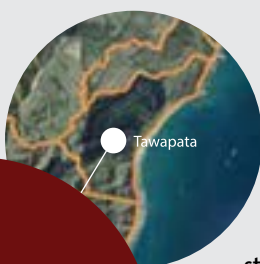
The catchment area includes pā and many other sites of significance that have connections to our wai. The catchment also includes a large area of Māori land (400ha in 11 primary holdings). These features magnify the importance revitalisation will have in protecting the area as a joined-up system. Relative to Onenui and Whangawehi, revitalisation in the Nukutaurua catchment is in its infancy. Over 90% of the whenua is dedicated to pasture, and the majority of the streams are unfenced and eroded, with limited restoration work having been initiated. The knowledge from Māhia's seven successful revitalisation initiatives is ready to be applied in the Nukutaurua catchment in a way that gives back to the history of our ancestors and the connection they had with Nukutaurua.

Taiporutu

The 440ha Taiporutu catchment has a single 7km stream with multiple tributaries. A revitalisation journey has been underway for many years. Over time, the narrow valley and clean water have supported many whānau. There are three pā sites, urupa and other sites of significance. Today, the majority of the whenua is in pasture for farming. Revitalisation activity is whānau-led. The revitalisation applies a mix of mātauranga and leading Western science resources. The multi-year programme another example for Māhia. This demonstrates the value of whānau-led initiatives.



The immediate focus:
Access to knowledge.



Tawapata

The Tawapata catchment highlights the diversity of our freshwater system.

The 3,600ha catchment includes six streams flowing in a 5km rocky foreshore. These streams have an average length of just 2km. The steep slopes, narrow gullies, mixed forest and pastureland use with limited resources, creates challenges for revitalisation.

These challenges are reflected in low levels of investment in protection, erosions, high silt loads, stream bank collapse and higher levels of fertiliser leaching into our wai. There are also challenges around access to drinking water and wastewater septic tanks.

The immediate focus:
Access to knowledge.

Onenui

The 3,400ha Onenui Catchment has 38km of waterways across four main streams and another nine small streams flowing into our moana. Many of the small streams dry out over the summer. Tawapata South Inc. now owns and manages the entire catchment. Rongomaiwahine descendants' whakapapa to the whenua at Onenui and that relates back to pre-colonisation. Revitalisation for Onenui began 20 years ago and continues to evolve with changes in land use. The ecosystem and freshwater improvement initiatives are influenced by the area's diverse, challenging topography and exposure to the weather. The primary goal is to sustainably use 50% of the land for farming while giving back to the ecosystem. Decisions on land retirement or development for enhanced pasture are guided by insights into the ecosystem's needs. Key components of the programme include protecting endangered coastal forests such as Ngā Whenua Rahui, retiring specific land areas, fencing along the coastline and waterways, and implementing pest control measures. Changes in pasture composition and farming practices are crucial for transforming the ecosystem. The next phase will focus on solutions for livestock water access, reducing fertiliser leaching, and enhancing erosion control. A significant challenge is managing the silt load in steep, short streams during storms that impact when flowing into our moana. The Onenui ecosystem highlights the importance of teamwork and achievable outcomes. It reflects a 100-year decline, 20 years of dedicated efforts, a ten-year focus for the upcoming phase, and a commitment to 100 years of work for future generations.



The immediate focus:
Headwater solutions, stock water solutions, soil health knowledge and support, Māhia-wide coastal forest group.

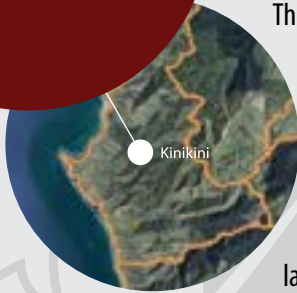
Kinikini

The 3,120ha Kinikini catchment has eight small streams with a total length of 42km.

The topography, freshwater system, and ecosystem is similar to the Onenui catchment. The streams are short, steep, and prone to erosion during high rainfall events. The streams are healthy, except for high levels of dissolved oxygen in some locations and the risk of drying out over the summer.

The Kinikini catchment has a combination of native forest and pasture for farming. A highlight is 400ha of native coastal forest. This forest type is endangered. Kinikini has >1,000ha of the forest type seen in Onenui and Mōrere forests. Sheep and beef farming is difficult due to steep slopes, erosion, restricted water supply for livestock, and low-producing grass. This limits the ability to invest in revitalising the whenua. The amount of whenua has decreased to 1,200ha following the retirement of 800ha of Moemotu Station. Initiatives that wrap restoration efforts around the native forest and farming activities on adjoining land blocks are needed.

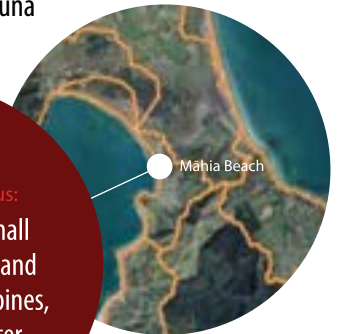
The immediate focus:
Small stream protection,
headwater solutions, Māhia-
wide coastal forest group.



Māhia Beach

The 500-ha Māhia Beach catchment includes the main area for residential and holiday homes, small areas of low-producing pasture and forest, and sandy beaches. Historically, there were mauri planted by our tīpuna for tōhōra. The first bach in Māhia Beach was built in 1910. The bach owners were attracted to a safe and clean sea and abundant kaimoana. Over 120 years, holidaying at Māhia has developed into a 'special experience'. The number of holiday homes has grown to approximately 500, and homeowners are now an important contributor to the economy, including building construction. The community contributes approximately \$3m of the Wairoa District Council's annual rates. The potential for additional housing is restricted by access to drinking water, the requirement for wastewater and stormwater infrastructure and negating the impacts on the natural environment. The current infrastructure does not meet the demands of the peak holiday population or cope with flooding events. New water solutions are required to address the gaps and be available for any growth. This is a critical issue to be resolved in the total plan for Māhia.

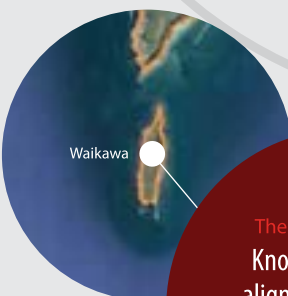
The immediate focus:
Stormwater and small
taiao drain and wetland
restoration, wilding pines,
plans for wastewater.



Waikawa

Waikawa (Portland) Island is located to the south of Onenui. The 124ha island is exposed, primarily flat and steep. It depends on regular rainfall to sustain the ecosystem. Waikawa encompasses a rich and intriguing history, including early Māori settlement and whare wānanga. Waikawa is also home to the critically endangered Aotearoa Tūturiwhatu (Dotterel). The remaining amount of Tūturiwhatu is approximately 240, with roughly 100 of them being located on Waikawa Island. The protection of the ecosystem and breeding population, plus the translocation of the birds, demonstrates a pathway that is possible with knowledge and partnerships with whānau, landowners, Tawapata South Inc., DOC, volunteers and supporters.

The immediate focus:
Knowledge sharing,
alignment with other
programmes (key species),
future species recovery, silt and
sediment solutions.



Ngā taonga mai i ngā maunga ki te moana | Taonga from the mountains to the sea

The diversity of each catchment's wai and ecosystems support an assorted range of living species. This includes vulnerable and endangered native freshwater fish, birds and plants. These crucial species that depend on our wai, make Māhia an essential location for Aotearoa's biodiversity and magnifies Māhia's important role in protecting these critical species.

Behind the scenes, lesser-known and less visible species are equally crucial to protect.

The health of these less-understood species is often the first thing that needs to be worked on for the birds and fish to thrive in each catchment. Alongside the native fish, plants, birds and insects that are part of our ecosystem, Māhia has invasive pest animals, plants and birds. Improving our freshwater quality in each catchment depends on managing these pests.



Taonga

Native plants, birds, insects and other living species are all sustained by our wai.

Our wai is interconnected with the soils and rocks beneath us, providing the moisture essential for sustaining all living organisms. Freshwater, both on the surface and underground, supports our native invertebrates, freshwater fish, birds, and plants. This includes over 20 species of fish, birds, and plants that are classified as vulnerable or endangered. In Māhia, you can find five types of freshwater fish: tuna (eels), inanga (whitebait), koura (freshwater crayfish), and kākahi (freshwater mussels). The estuaries of Māhia are home to the endangered pātiki mohoao (black flounder), as well as mullet and flounder. Māhia's natural ecosystem also features threatened coastal forests and wetlands.

Our mahinga kai includes different freshwater fish, aquatic plants, ducks, honey, and edible plants. The plants that are found throughout our catchments are a source for rongoā, cosmetic products, weaving, carving and construction. We grow vegetables such as kumara, which is now part of the maara. Healthy wai provides healthy soil to sustain the agrifood plants and animals, contributing to a prospering mauri. This includes annual crops (maize, wheat, etc.) and perennial plants (ryegrass, clover, etc.) for beef, lamb and deer farming. Farming practices in Māhia are changing to integrate regenerative farming protecting our wai, whenua and native species.

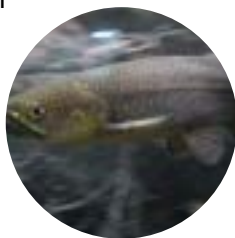
With this area increasing, there are now 6,000ha of exotic forest trees, mainly pine, in Māhia.

Kaimoana and species such as seaweeds from our moana are connected to our ecosystem through our wai.

Introduced species, including many pest animals, birds, and plants, contribute to the decline of our ecosystem and wai. These pests include possums, ferrets, stoats, weasels, feral cats, goats, deer, geese, and rooks.

Mahinga Kai

Historically, freshwater environments provided an abundance of species and were an important source of kai for our tīpuna. Today, they are still present but are nationally endangered. Across Aotearoa, 75% of the total 50 freshwater fish are threatened. There are five freshwater fish in Māhia: Tuna, Īnanga, Koura and Kākahi. Our estuaries contain Mullet, Flounder and the endangered Pātiki Mohoao.



Koura (freshwater crayfish)

Koura are native to Aotearoa. They live in our streams and lakes. The once plentiful fish is now in decline because of habitat destruction, erosion of stream banks, silt, weeds, depleted water flows and reduced sources of food.



Pātiki mohoao (black flounder)

Pātiki mohoao are endemic and only found in Aotearoa. They are seen in the Kōpuawhara Stream and Maungawhio estuary. To thrive in our wai, they need an abundance of small fish and bugs for their diet, and low levels of silt and protection of their habitat to be able to breed.



Kākahi (freshwater mussels)

There are three Indigenous Kākahi species. They are at risk and in decline. To survive they need healthy water that won't clog their gills. This makes them a very good indicator of water quality.



Īnanga (white bait)

Galaxias maculatus, Banded kōkopu, Galaxias fasciatus, Giant kōkopu, Kōaro and Shortjaw kōkopu species are found throughout our wai. There are five Īnanga species in Aotearoa, and four are endangered. Īnanga have a very complex life, and in particular, their spawning requires healthy water and the preferred vegetation for laying eggs.



Tuna (eel)

Tuna are one of our taonga species. Tuna, in Aotearoa, have adapted to many freshwater environments, but their numbers have fallen dramatically over the last 100 years. This decline is linked to reduced habitat, migration barriers, and commercial fishing.



Our sensitive water systems:

Wetlands: Ōpoutama, Kōpuawhara

Significant awa: Whangawehi, Waipiata, Kōpuawhara

Critical Beach systems: Māhia, Māhanga

Estuary: Maungawhio Lagoon, Whangawehi estuary, Waipiata estuary

Rocky coastal foreshore and shorebirds: Kinikini, Nukutaurua, Waikawa (Portland) Island



Our vulnerable and endangered manu:

Matuku-hūrepo

Tūturuatu

Pārera

Weweia

Karearea

Pied Shag

Black-billed gull

Caspian tern

Northern NZ dotterel

Wrybill

Red-billed gull

Branded dotterel

16 other manu are at risk

Mahinga Kai and Rongoā

Pikopiko, Mānuka, Pūhā, Kōwhiriwhiti, Tī kōuka, Raupō, Kawakawa, Horopito, Harakeke, Koromiko, Mamaku, reeds and sedges, Tōtara and other trees.

Introduced Species

Agriculture: Sheep, cows, deer

Domestic: Horse, dogs, cats, chickens

Horticulture: Kumara, fruit trees

Arable crops: Maize, wheat, oats etc

Pasture (includes species modified through breeding programmes): Ryegrass, clover, lucerne, gorse

Exotic trees: Pinus Radiata, Redwood, Douglas Fir, Eucalyptus, poplar, willow etc

Pests and invasive species

Animals: Possums, ferrets, stoats, weasels, feral cats, goats, deer, pigs

Birds: Geese and rooks

Plants

We have three of the most endangered types of forest in Hawke's Bay. Māhia Peninsula Scenic Reserve, Onenui and Kinikini are one of the last large tracts of lowland coastal forests left in New Zealand. There are 13 endangered plants in Māhia, like the endangered Pimelea Orthia.

Invertebrates

Invertebrates are the insects, worms and other living creatures that work behind the scenes.

Many of the 20,000 invertebrates in Aotearoa, are present in Māhia. Invertebrates are the unseen contributors to the ecosystem. They can be very sensitive to changes in the mauri of our wai, and the quality of water leaching into the soil that our plants and birds depend upon. The role of the invertebrates in the food chain means they are often the best measure of the health of our natural ecosystem.

Manu

>30% of manu in Aotearoa, are endangered or vulnerable. Six of these manu are found in Māhia: The critically endangered Matuku-hūrepo, Tūturuatu, endangered Pārera, Weweia, Karearea. Another seven manu in Māhia are vulnerable, and many other shore birds are at risk.



Endangered Ngahere:

Podocarp/Tawa-mahoe forest

Rimu/Tawa-kāmahi forest

Podocarp/Broadleaved forest



Endangered plants:

Raukumara

Pimelea Orthia

Pua o te reinga

Pingao

Prickly Couch

Tātaraheke

Hinarepe

Autetaranga

Māori Musk

New Zealand calceolaria

Bulb-leaf Orchid

Te oranga o te taiao | The wellbeing of our natural world

The following factors are the most significant contributors to our taiao in Mahia. Understanding these factors and their impact on local ecosystems, helps define priority projects that protect and enhance our natural heritage.

Agriculture

Water taking for irrigation in our farming economy is a part of one system and can't be separated. Historically, farming has been a main driver of our economy. The current 13,400ha of pasture, continues to contribute to incomes, employment and service jobs, but the farmland area and jobs are reducing with increased land retirement and forestry.

Historically, farming has been a big part of the decline in the mauri of our wai and our ecosystem as a whole in Māhia. This has included physical changes in streams with erosion, and unfenced stock. Silt and fertiliser have made it harder for our living species to survive which is depleting mauri.

Farming could instead take the lead to a positive recovery. This includes farming practice changes, improved soils and moisture retention, protection of steep slopes, stream headwaters and low-lying land restoration, targeted use of fertiliser, new sources of stock water, stream protection, fencing, planting and pest management. Any improvement to our wai that is driven by farming has become harder due to the decline in farming profits, rising costs, increased regulation and restricted farm practices. With increased volatility of the weather patterns and major drought and flood events, climate change adds to these challenges.



Forests

Our forestry sector includes our native forest, vegetation, pine, and other exotic forests. The total planted area is 12,500ha, including recently retired farmland. Forests are being planted for forest harvest, carbon credits, and ecosystem benefits. When managed well, the forest can contribute to revegetation, pest management, silviculture and harvesting. If our forests are not managed to a high standard, they have significant adverse environmental impact. The issues from our forestry sector include changes in the ground, making it hard for water to move through soil, particles and rocks leading to reduced biodiversity, woody debris, and silt flowing into our wai. The accelerating climate change increases the risk of both fire and floods. The current forest management standards vary across our catchments from world-class to poor management standards. The scale of our forest areas should require our forests to be integrated into all plans for catchment management to protect our wai and ecosystems.

Fishing

Our moana receives what flows from our awa, highlighting the vital connection between our mahinga kai and kaimoana and emphasising the crucial link between our freshwater systems and oceanic ecosystems. Our fishermen rely on this connection, as the conditions of our wai significantly affect the availability of fish and other marine resources.

"Our wai, moana, and whenua are linked together."

Tourism and visitors

Tourism and hosting include regular tourists and visits by whānau and friends. Most visitors are attracted to our peninsula and our stunning views. Some visitors, however, have diverged impacts which negatively impact our water system, interfering with endangered species and their habitat, wastewater, unhealthy stormwater and rubbish. These issues significantly contribute to the need for better infrastructure to mitigate effects to our wai.

Restoring our ecosystem will provide a dual impact of protecting our wai from the interference of visitors and attracting more manuhiri throughout the years.

Building and construction

A healthy environment and a vibrant community will act as a magnet for tourists. In Māhia, this automatically leads to economic building activity. The health of the environment drives the level of construction activity. Improved infrastructure is also key. The current water infrastructure, including reticulated water, wastewater, septic tanks, and stormwater, is not fit for purpose. This will limit the level of activity and creation of employment. It also has a detrimental impact on the health of our wai, moana and our ecosystems.

Retail and services

Our whānau, tourists, and all commercial activities support a combination of retail and small service enterprises that operate in Māhia. When we put the health of our wai and ecosystem first, and ensure that mauri is maintained and improved, more people will benefit.



Our four pou connect us to the
māramatanga of our tipuna.

These pou now steer us to our future. Every decision and
action we take is guided by these pou.

Mātauranga

Our mātauranga has been passed down through our tipuna, connecting us back to our first whare wananga on Waikawa. Rongomaiwahine mātauranga links us to all corners of Aotearoa. Our knowledge of whenua and moana enables us to exercise our kaitiakitanga.

Mana Moana and Mana Whenua

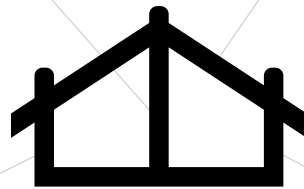
Our tipuna were pre-destined to arrive at the shore of Te-Māhia-mai-tawhiti. This spiritual connection to moana and whenua commits our iwi to the intergenerational relationship to our taiao. Our connection to the whenua and moana defines our kaitiakitanga. Mana moana, mana whenua.

Whakapapa

The weaving of iwi, waka and tipuna came to the birth of Rongomaiwahine. Under her maru, we are one. Rongomaiwahine is the Whaea o te motu. She connects and united us as people.

Manaaki

Rongomaiwahine are humble people, deriving value from our caring and nurturing treatment. This characteristic is embedded into our wairua and exemplified through our kawa. To treat our manuhiri and whānau well is worth more to us than a flash house.



Our pou that guide us

MANA MOANA

MANA WHENUA

WHAKAPAPA

MĀTAURANGA

MANAAKI

OUR FOUNDATION (OUR POU)

Hīkoi whakamuri, haere whakamua | Walking backwards into the future

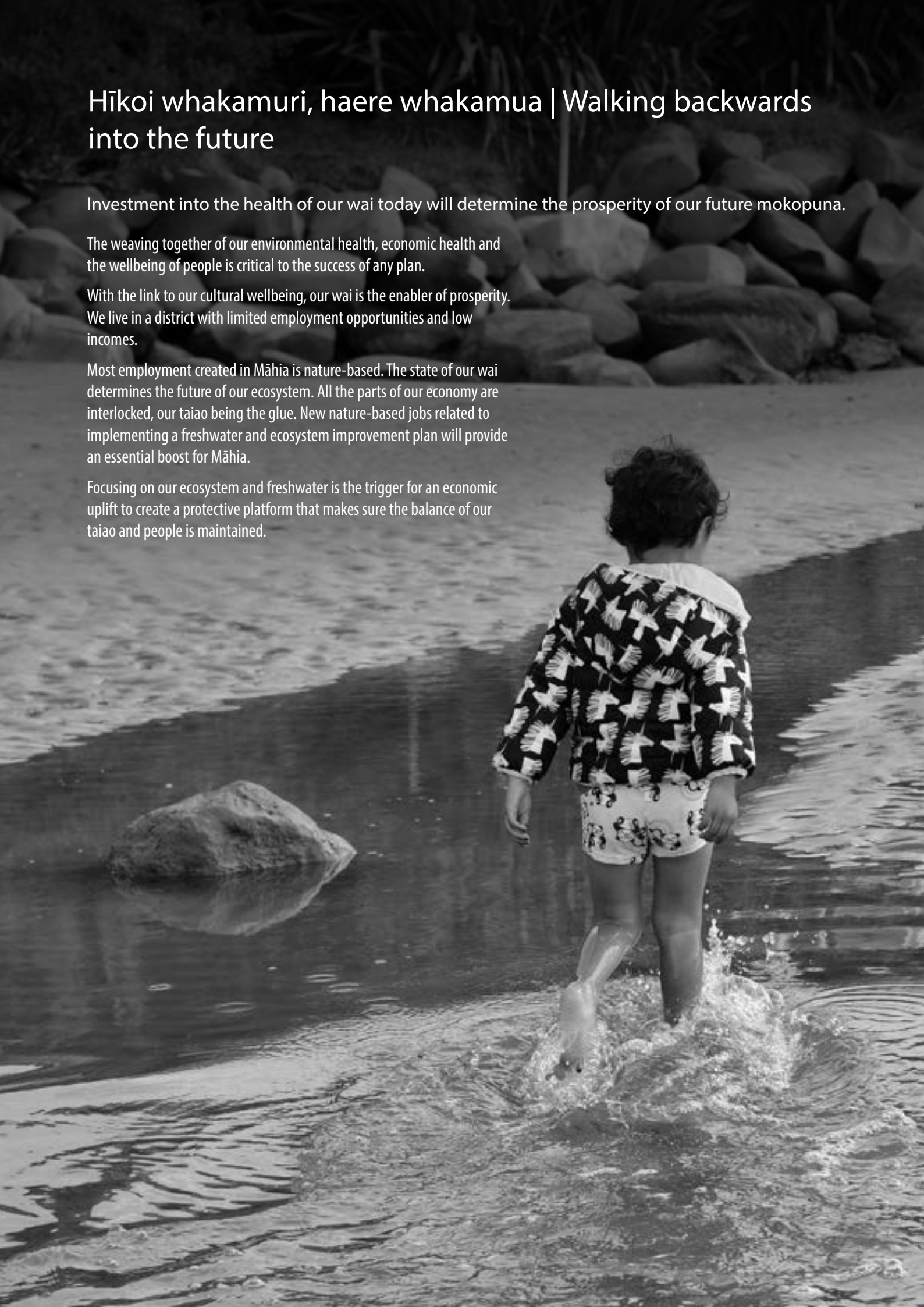
Investment into the health of our wai today will determine the prosperity of our future mokopuna.


The weaving together of our environmental health, economic health and the wellbeing of people is critical to the success of any plan.

With the link to our cultural wellbeing, our wai is the enabler of prosperity. We live in a district with limited employment opportunities and low incomes.

Most employment created in Māhia is nature-based. The state of our wai determines the future of our ecosystem. All the parts of our economy are interlocked, our taiao being the glue. New nature-based jobs related to implementing a freshwater and ecosystem improvement plan will provide an essential boost for Māhia.

Focusing on our ecosystem and freshwater is the trigger for an economic uplift to create a protective platform that makes sure the balance of our taiao and people is maintained.





*"Ka ora te wai,
Ka ora te whenua.
Ka ora te whenua,
Ka ora te tangata"*

Glossary of translations

Āheitanga - Capability

Angitū - Success

Ao tūrua - Natural world

Awa - River

Hapori - Community

Īnanga - Whitebait

Kaimoana - Seafood

Kākahi - Freshwater mussels

Karearea - NZ bush falcon

Koharatia - Passion

Kōrero tuku iho - Stories of our past

Koura - Freshwater crayfish

Kōwhitiwhiti - Watercress

Mahinga kai - Generally refers to freshwater species that have traditionally been used as food, tools or other resources.

Maramatanga - Understanding

Manu - Bird

Matau - Wisdom

Mātauranga - Knowledge

Matuku-hūrepo - Australasian bittern

Maunga - Mountains

Mauri - Spiritual life force or strength

Moana - Sea

Ngā tangata o Māhia - People of Māhia

Pāpatuanuku - Mother earth

Pārera - Grey duck

Pātiki mohao - Black flounder

Pou - Foundational support pillar

Pūtea - Funds

Rangatira - Leader

Ranginui - The sky father

Rauemi - Resources

Rawa - Resources

Taiao - Environment, nature, country

Tangaroa - God of the sea

Tangata whenua - People

Taonga tuku iho - Treasure handed down

Taurikura - Prosperity

Te haerenga - The journey

Te Māhia-mai-tawhiti - Mahia peninsula

Te Puna Waiora o

Nukutaurua - The Māhia freshwater plan

Ti kōuka - Cabbage tree

Tohorā - Whales

Tōhunga - High priest

Toiora - Wellbeing

Tuna - Eel

Tūturuatu - Shore plover

Urupā - Burial ground

Wai - Water/Waters

Waiti - Freshwater

Weweia - NZ dabchick

Whakaaro - Ideas

Whakarauora - Revitalisation work

Whakateretere - Old man's hat

Whakawhanaungatanga - Getting to know each other

Whanaungatanga - The 'glue' that holds people together in any whānau relationships

Whenua - The land or placenta





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