

RAMSAR CONVENTION WEBINAR – 12 July 2022

The Living Water Partnership: Dairy and Freshwater Thriving Together

FONTERRA.

We are a New Zealand Co-operative made up of 10,000 farming families and 20,000 dedicated staff, working together to do good for people and planet.

We are the world's largest exporter of dairy products, and Aotearoa New Zealand's largest company. We want farming in New Zealand to continue for generations to come, and that is why we are committed to farming in a way that regenerates our farms, the environment and local communities.

An aerial photograph showing a vibrant green landscape. The top half features a dense forest of various trees, with a prominent cluster of yellow-green trees in the center. A dirt path winds through the forest. The bottom half of the image shows a calm body of water reflecting the sky and the surrounding greenery. A white rectangular frame is superimposed over the center, containing the text 'LIVING WATER'.

LIVING

WATER

Dairy and freshwater thriving together

Te puāwai ngātahi a te mahi pāmu me te wai māori

**Living Water is a 10-year partnership between Fonterra
and the New Zealand Department of Conservation.**

**Our focus is to trial scalable solutions that will
enable farming, freshwater and healthy ecosystems to
thrive side-by-side**



Department of
Conservation
Te Papa Atawhai

*He waka hourua, He waka eke noa
A waka with two hulls bound by a common Kaupapa*

OUR WHY



Lead in Sustainability

Our business is dependent on healthy freshwater. We create value for our farmers and for Aotearoa New Zealand from our unique environment. We have a leadership responsibility in New Zealand and the world.

We both recognise Aotearoa New Zealand's success depends on healthy freshwater.



Papatūānuku Thrives

We are charged with protecting and restoring Aotearoa New Zealand's unique biodiversity. Our goal is that by working with others, ecosystems and species across Aotearoa are thriving from mountains to sea.



THE KEY ISSUES THE PARTNERSHIP IS TRYING TO ADDRESS

Pastoral farms cover 50% of Aotearoa New Zealand's land. What happens on pastoral farms is vital to restoring the full spectrum of native biodiversity and ecosystems in New Zealand.

10% of New Zealand's land area is estimated to be artificially drained, developed over many years to make lowland areas productive for agriculture.

Key issues for the dairy sector that impact on biodiversity and ecosystem health include:

- **Water hydrology management** - use, diversion, drainage
- **Water contaminant management** - inputs, filtration, sedimentation
- **Habitat loss** – freshwater and terrestrial lowland habitats
- **Poor ecosystem function** – lowland freshwater, terrestrial and estuarine ecosystem function
- **Legacy impacts** - cumulative impacts over 150 years of productive land use (e.g. contaminant build up in lakes)
- **Climate change** – mitigation, adaptation and nature-based solutions.

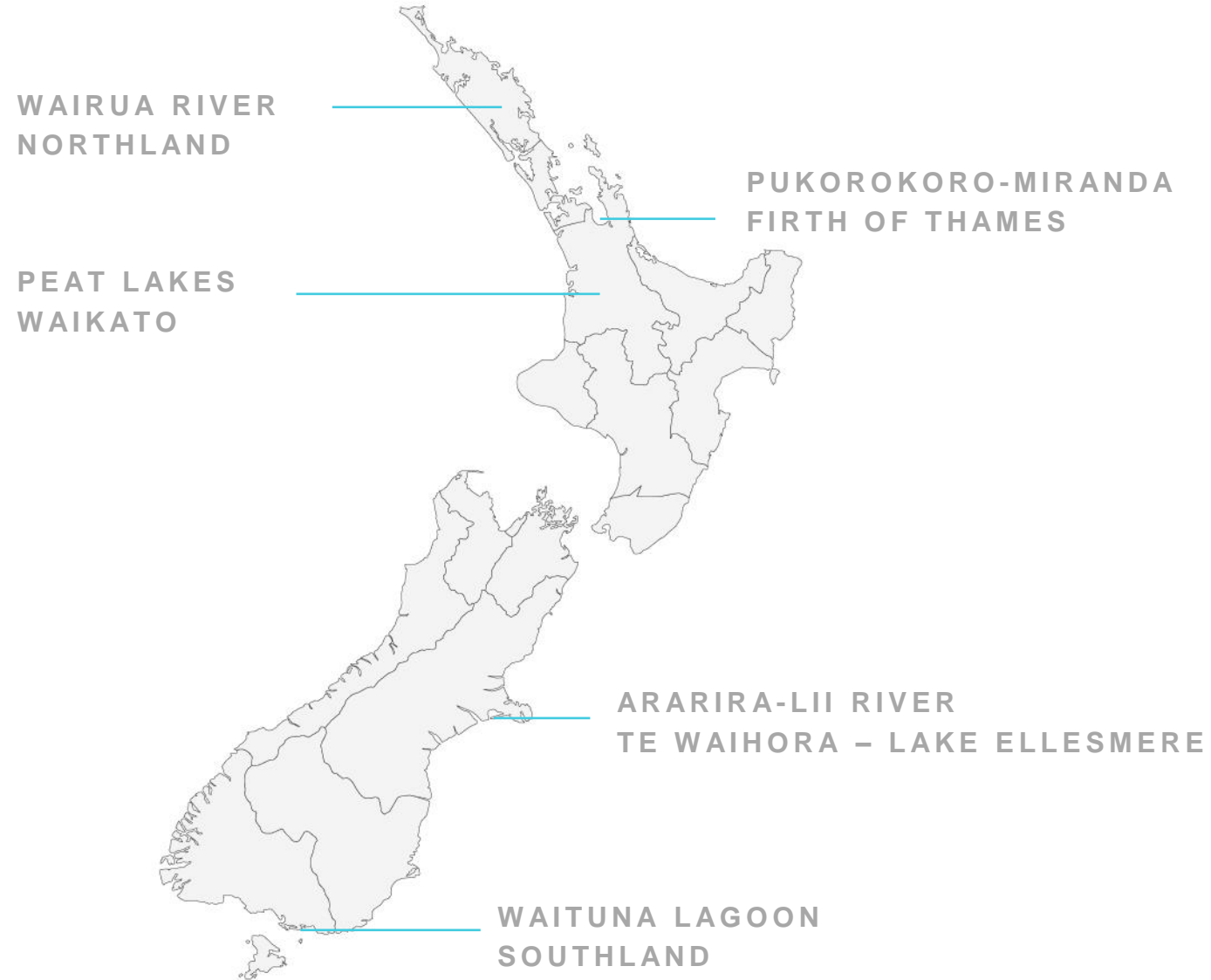
THE SHAPE OF THE PARTNERSHIP



The partnership has three core pillars:

- **We are a partnership with a shared vision** – we believe in a long-term prosperous future, have measures of success for our 10 years together, and we are learning about how to partner as large, influential organisations
- **We have a programme of activity on the ground** – we are trialling tools & solutions, measuring what our work is achieving environmentally, socially and economically, and we are sharing and scaling our lessons learnt
- **We stand together as champions of change** – we know that farming and land and water management needs to be different in the future and we will develop shared principles or advocacy positions that we will stand behind and share with others

OUR LOCATIONS / ROHE



It starts here...
38631

70 PROJECTS

5 REGIONS

1 VISION




FARM SCALE



A Mitigation Tool: Fine particle fertiliser application – 50% reduction in fertiliser use, same pasture growth, less nitrogen loss to waterways

CATCHMENT SCALE



LandscapeDNA

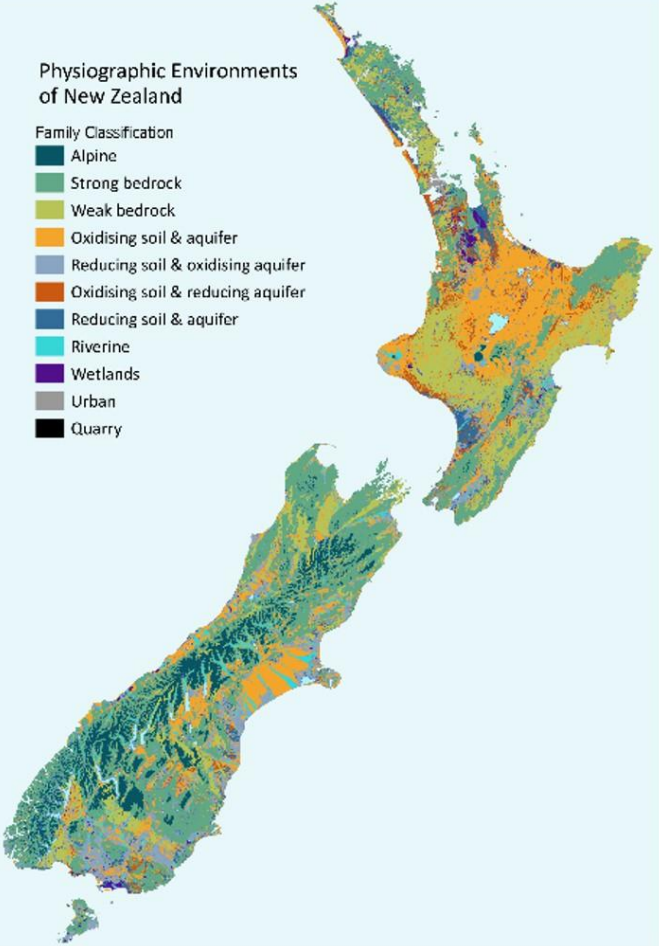
Integrating landscape properties and cutting-edge science to explain why water quality varies

- Science**
Learn about the interaction between water and the landscape and how it affects the quality of our waterways
- Maps**
View our Physiographic Environments classification to identify landscape controls over water quality
- Actions**
Identify which on-farm actions are best suited to your Physiographic Environment

Physiographic Environments of New Zealand

Family Classification

- Alpine
- Strong bedrock
- Weak bedrock
- Oxidising soil & aquifer
- Reducing soil & oxidising aquifer
- Oxidising soil & reducing aquifer
- Reducing soil & aquifer
- Riverine
- Wetlands
- Urban
- Quarry



A New Planning Tool: Putting the best science into the hands of land stewards so they can make the best decisions

An aerial photograph showing a river winding through a lush green landscape. The river is dark and narrow, surrounded by dense vegetation and trees. The surrounding area consists of rolling green hills, fields, and some scattered buildings, suggesting a rural or agricultural setting. The sky is bright and clear.

SYSTEM SCALE

A New Management Approach: Redesigning the water network so it is managed to meet biodiversity outcomes, restore mahinga kai (indigenous food gathering), improve water quality and continue to provide drainage for farming.

SOCIAL APPROACH



A New Way of Working: Using a *Mana Enhancing Agreement* to bring partners together through the indigenous principle of mana (an individual's life force and prestige). This drives a living connected relationship to manage the expectations, roles and responsibilities of the partners working together.

ECOLOGICAL RESTORATION



A Science-Based Solution: Partnered with the University of Canterbury to undertake waterway restoration trials in a unique pastoral landscape. These trials were then used to design solutions at a large catchment scale.

ADAPTATION



Creating space for nature: Retired farmland to take pressure off the sensitive receiving environment (RAMSAR coastal wetland) and to restore ecological functioning of lowland drainage systems

COLLABORATION



An integrated multi-party response: Whakamana te Waituna Trust was formed to oversee an integrated work programme for this internationally significant RAMSAR site. Activities include land retirement, catchment-scale contaminant management interventions, ecological restoration and increased access/connection to the lagoon for indigenous people and the community.

OUR LESSONS LEARNT SO FAR

1

Working at just farm scale can't fix the problems we are facing



2

Design with nature rather than squeezing nature in around farming

3

We need to 'reimagine' our productive landscapes for a resilient future

4

It's a people problem, even more than an environmental problem

5

We need all knowledge – indigenous, western science & farmers





LIVING WATER



Department of
Conservation
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www.livingwater.net.nz