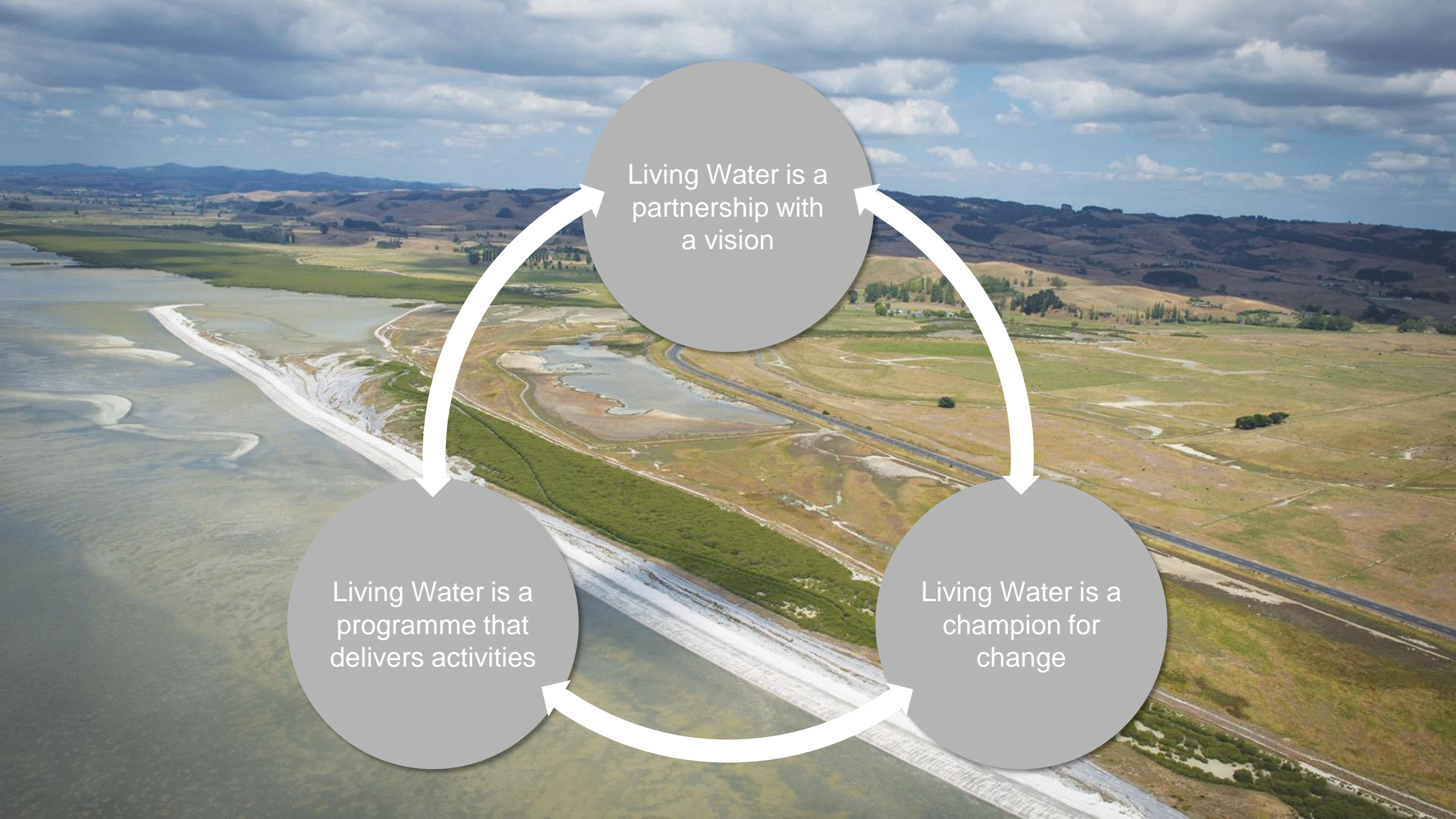


WAIRUA STRATEGIC PLAN

LIVING
WATER

Dairy and freshwater thriving together

An aerial photograph of a water treatment facility, likely a desalination plant, featuring a long, straight concrete channel with a low wall, surrounded by green fields and distant hills under a cloudy sky. Overlaid on the image is a circular diagram with three grey circles connected by white arrows in a clockwise cycle.

Living Water is a
partnership with
a vision

Living Water is a
programme that
delivers activities

Living Water is a
champion for
change

OUR VISION

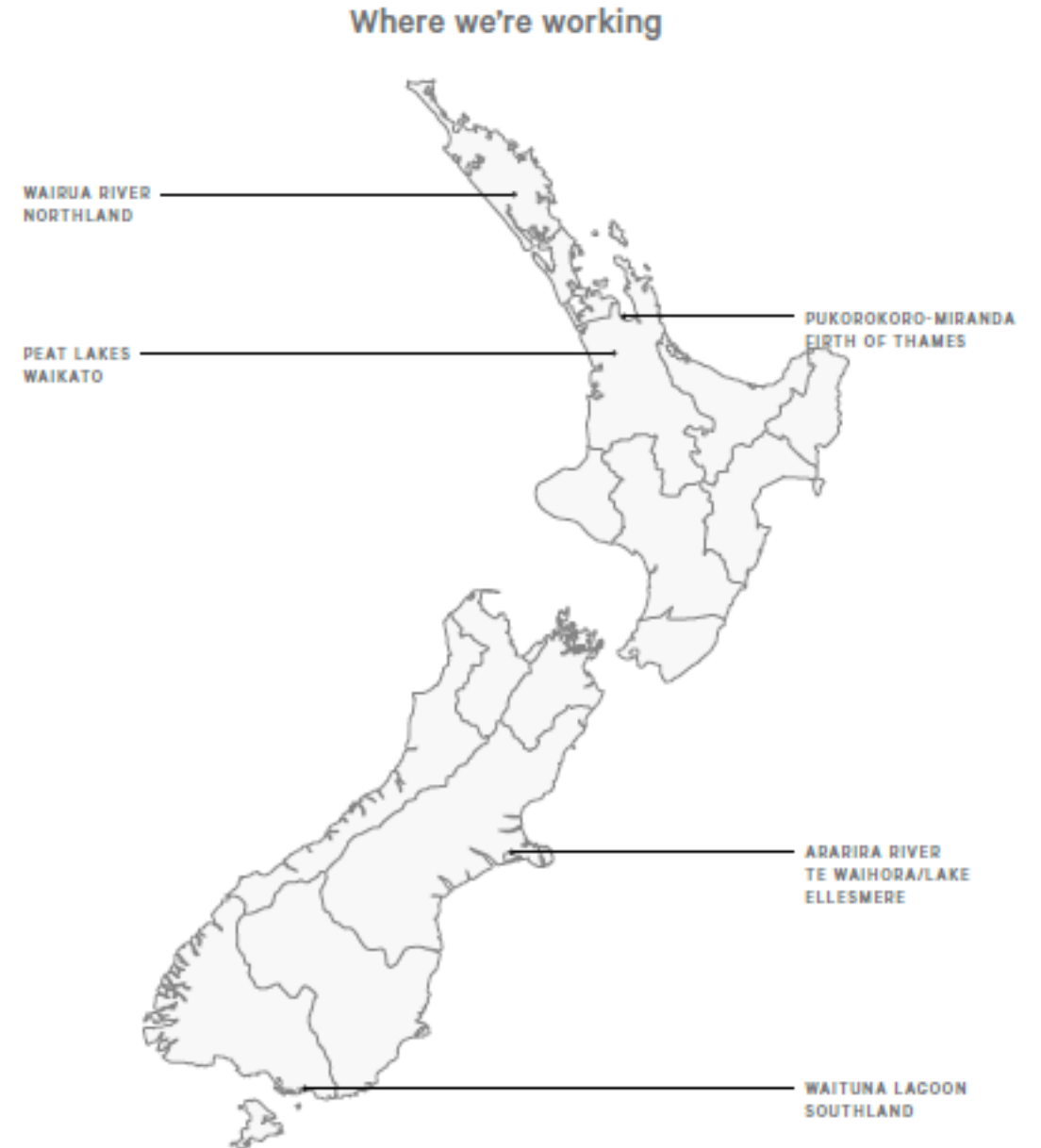
A sustainable dairy industry is part of healthy
functioning ecosystems that enrich
the lives of all New Zealanders

OUR INVESTMENT

We are working in five sites across New Zealand, starting with \$20m over 10 years

DOC and Fonterra staff work together, side by side on the ground

We actively seek collaboration with other partners to bring together skills, ideas, and additional funding



OUR PURPOSE

To implement game-changing and scalable solutions that demonstrate sustainable dairying in healthy freshwater ecosystems



OUR SCOPE

We are focused on the interface between dairy farming practice and freshwater ecosystems.

We prioritise on-farm actions, improving freshwater quality, and reconnecting lowland habitats via freshwater corridors.

Our work needs to contribute towards advancing sustainable farming systems in New Zealand's agricultural sector.

OUR LONG TERM OUTCOMES

Environmental

healthy resilient lowland freshwater ecosystems

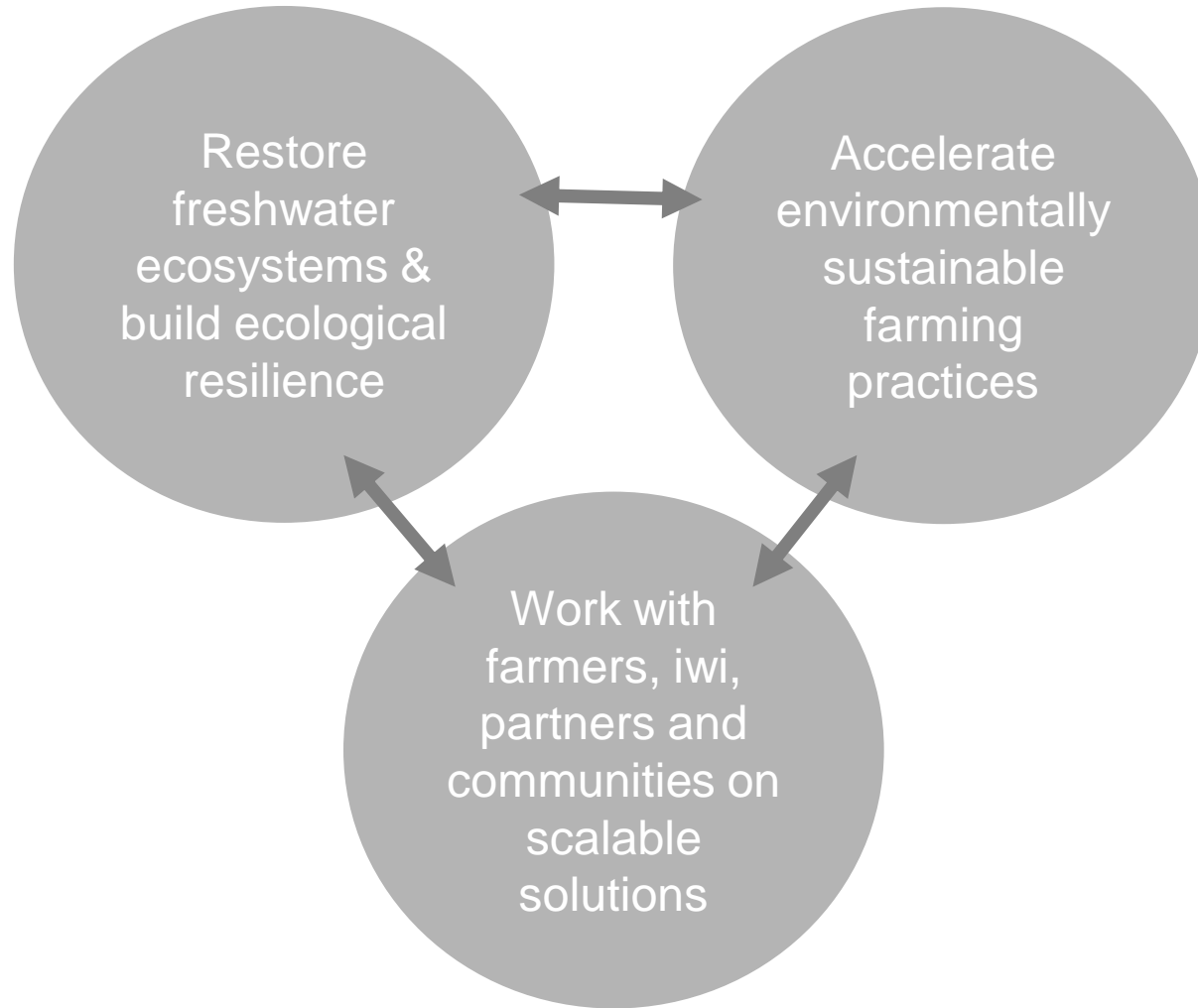
Economic

profitable responsible dairying

Social and Cultural

a shared understanding of the interdependence of
agriculture, economy and environment

OUR STRATEGIC OBJECTIVES & APPROACH



GUIDING PRINCIPLES

Collaborate and Partner | Integrate Mātauranga Māori | Create Connections
Above and Beyond Regulation | Measurable and Repeatable | Learn and Share

OUR IMPLEMENTATION CONTEXT – AGRICULTURE IN NEW ZEALAND

ENHANCED CURRENT STATE

Individual sites (public & private)
Good management practice
People taking action to meet current or
future regulatory limits within current
economic tolerances

TRANSITIONAL STATE

Sites as part of a catchment
Prioritised actions based on 'best bang for
buck' and contribution to catchment
outcomes
Communities working together towards
voluntary targets / aspirations

UNKNOWN FUTURE STATE

Diversification / disruption
Socio-ecological resilience
Climate change adaptation
NZ's opportunity in changing global
markets

Living Water is adding ecological
considerations into FEPs and funds
acceleration & restoration projects

Living Water is ground-truthing the theory,
freshwater-farming demonstrations at
multi-farm scale, contribute to integrated
catchment projects, calculate costs of
implementation

Living Water is contributing to
conversations led by others and
providing evidence / learnings

LIVING WATER AIMS TO BUILD A RESILIENT LANDSCAPE READY FOR ANY FUTURE PRODUCTIVE LAND USE

OUR IMPLEMENTATION FRAMEWORK

Build it

show people what a Living Water farm could look like

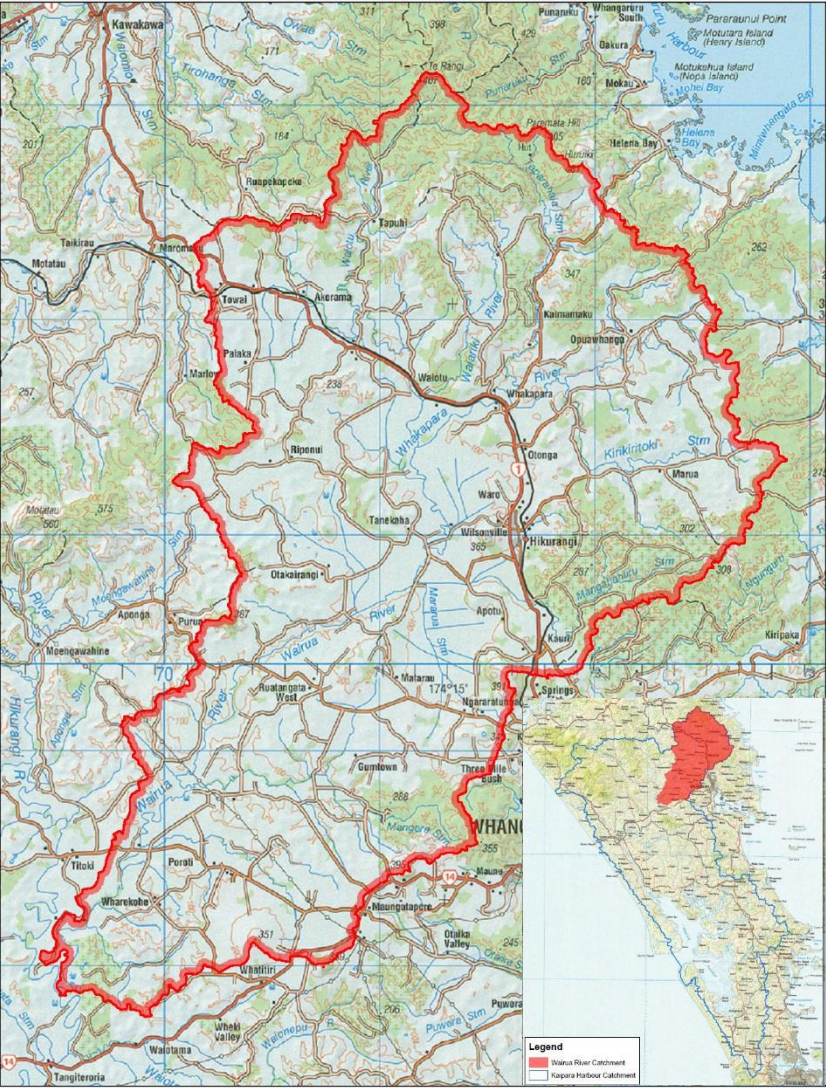
Operationalise it

what capability, capacity and support does the farming sector and communities need to get there

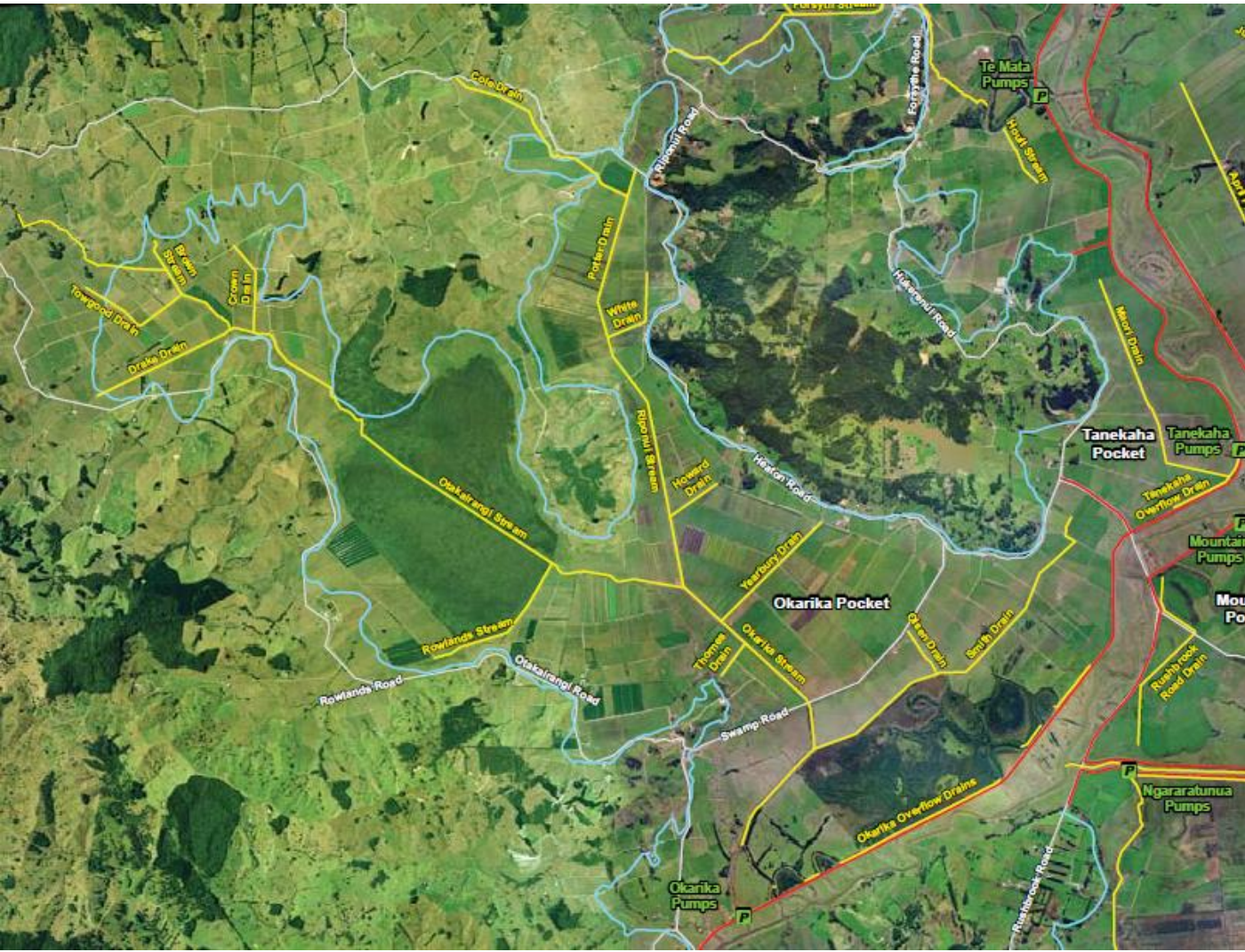
Cost it

what is the cost of conversion (farm, catchment and national scales) so farmers and communities can plan for future investment

ARARIRA-LII CATCHMENT



Wairua River Catchment





WAIRUA: THE MAIN ENVIRONMENTAL PROBLEMS

Significant loss of wetland and freshwater ecosystems

Poor water quality - high levels of suspended sediment

Highly modified hydrology in the lower catchment
(swamp scheme) to reduce the threat of flooding for
landowners in the catchment

WAIRUA: SOCIAL AND INSTITUTIONAL CONTEXT

Environmental limits

Fonterra supplier standards are generally above regulatory requirements, so farmers are less motivated to find new solutions

Mixed use catchment

Predominantly rural catchment with mixed use across dairy, forestry, horticulture and arable cropping so cross-sector collaboration is critical

Water management

Whangarei District Council utilises a Swamp Scheme Committee to oversee drainage management, with the committee made up of representatives of landowners who pay a drainage levy. The scheme is currently in debt, so there is a strong focus on prudent spending and less focus on environmental improvements.

ASPIRATION FOR THE KAIPARA HARBOUR / WAIRUA RIVER CATCHMENT

*Integrated Kaipara Harbour Management Group Vision -
Creating a healthy and productive Kaipara Harbour*

Kaipara Moana

He Mahere Rautaki Whakakotahi

Integrated Strategic Plan of Action

2011-2021

Final
Creating

a healthy and productive Kaipara Harbour

November 2011

INTEGRATED KAIPARA HARBOUR MANAGEMENT GROUP OBJECTIVES THAT LIVING WATER ACTIVITIES WILL CONTRIBUTE TOWARDS

To protect and restore biodiversity

To protect and restore the mauri of the Kaipara

Integrated co-management of Kaipara ecosystems, catchment and harbour

INTEGRATION OF LIVING WATER INTO KAIPARA HARBOUR IMPROVEMENT WORK PROGRAMMES

ORGANISATIONS WORKING TO IMPROVE THE KAIPARA HARBOUR

IKHMG:

Inter-agency integrated management of the Kaipara Harbour

NRC:

Freshwater manager, focused on sediment as main contaminant

AC:

Freshwater manager, focused on sediment as main contaminant

WDC:

Flood scheme manager, focused on efficacy of system

NKONWM:

Hapu collective working together as local kaitiaki

RECONNECTING NORTHLAND:

Large scale ecological restoration

LIVING WATER ROLE:

Liaise
Support community aspirations
Enable their involvement in LW planning and co-design
Enable community-led delivery where appropriate

LIVING WATER ROLE:

Partnering on WQIP Pilot Project
Partnering on an MfE Freshwater Improvement Fund application focused on rolling out FEPs across the Wairoa catchment to address sediment issues

LIVING WATER ROLE:

Liaise and share learnings
Potential partner on a “Grants for farmer projects” pilot project

LIVING WATER ROLE:

Liaise and share
Enable their involvement in LW planning & co-design
Identify partnering opportunities

LIVING WATER'S FOCUS IN WAIRUA

Reducing sediment loads into the Wairua River using solutions that both improve hydrologic functioning and build ecological resilience of the catchment



THEORY OF CHANGE / CHANGE JOURNEY (UNDER DEVELOPMENT)

OUR TARGETS (under development)

50% increase in on-farm freshwater/fish habitat

50% sediment load reduction

100% Fonterra farms engaged

IMPLEMENTATION

| ACTIVITIES / PROJECTS | RESTORE Freshwater Ecosystems | ACCELERATE Sustainable Farming | PARTNER With Others | GAME CHANGER | SCALABLE |
|--|-------------------------------------|--------------------------------------|------------------------|-----------------|----------|
| Tradescantia Control Trial in partnership with Landcare Research | X | | X | X | X |
| Detention Dam Pilot Project | | X | | | X |
| Water Quality Improvement Plan Pilot Project in partnership with Northland Regional Council | X | X | X | | X |
| Okarika Pocket Transformation Project in partnership with farmers and Ngā Kaitiaki O Ngā Wai Māori | X | X | | | X |
| Wairoa Freshwater Improvement Project in partnership with farmers, Northland Regional Council, Integrated Kaipara Harbour Management Group, and Ngā Kaitiaki O Ngā Wai Māori | X | X | X | X | X |

OUR ROADMAP

- Baseline biodiversity inventory for the catchment and management strategy for Wairua wetland
- On-farm biodiversity assessments and enhancement projects
- Best practice riparian management demo
- Mudfish and tuna restoration projects
- Oxbow restoration projects
- Funding of community initiatives

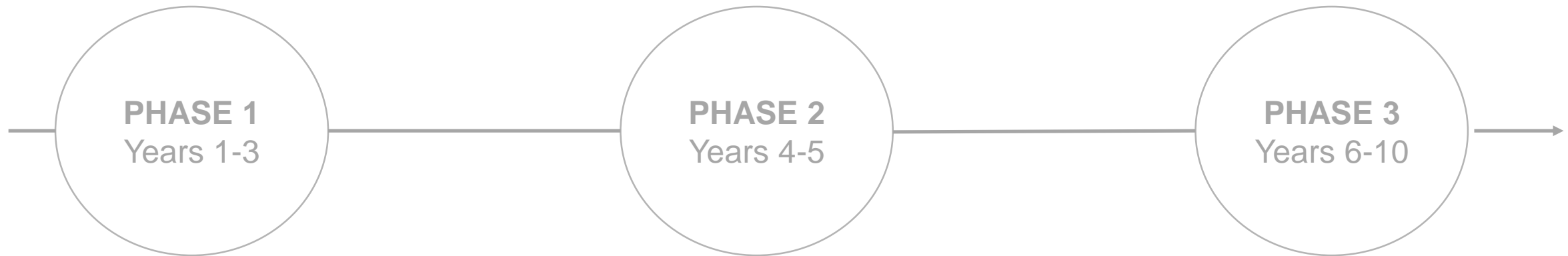
- Complete detention dam and tradescantia trials
- Complete Water Quality Improvement Plan pilot with NRC
- Plan and design Okarika pocket project
- Co-design the Wairoa Freshwater Improvement Project

- Deliver Okarika pocket project
- Develop sediment management tool box
- Participate in the Wairoa Freshwater Improvement Project

PHASE 1
Years 1-3

PHASE 2
Years 4-5

PHASE 3
Years 6-10



OUR INVESTMENT

WAIRUA CATCHMENT

‘ENHANCED’ CURRENT STATE

- Best practice riparian management demonstration
- On-farm biodiversity assessments and enhancement projects
 - Oxbox restoration projects

TRANSITIONAL STATE

- Partner in NRC’s Wairoa Freshwater Improvement Project
 - Deliver Okarika pocket project
 - Develop sediment management tool box

‘UNKNOWN’ FUTURE STATE

- Participate in regional discussions led by NRC, WDC, NKONWM, IKHMG, and Reconnecting Northland

RESOURCES

FY14-17: \$800,000
FY18-23: \$200,000

RESOURCES

FY14-17: \$31,000
FY18-23: \$1,650,000

RESOURCES

FY14-17: N/A
FY18-23: Staff Time

LIVING WATER



Department of
Conservation
Te Papa Atawhai