# **REIMAGINING MATAURA PROJECT**



## REIMAGINING MATAURA PROJECT STEERING GROUP

Working together to consider a reimagined Mataura River system, based on the bringing together of the catchment by design methodologies and Mātauranga Māori Murihiku Rūnaka Representatives:

- Gail Thompson Awarua
- Terry Nicholas Hokonui
- Evelyn Cook Waihōpai
- Muriel Johnstone Ōraka/Aparima

Te Rūnanga o Ngāi Tahu Representative

Sue Corby

#### **Funding Partners**



Cain Duncan

Michael Green



Director - Megan Reid

Programme Coordinator – Louise Dennison



## BACKGROUND

- The Mataura River is located in the Murihiku region and is approximately 240km long. The river's headwaters are located in the Eyre Mountains to the south of Lake Whakatipu.
- From there it flows southeast towards Gore, where it turns southward. It passes through the town of Mataura and enters the Pacific Ocean at Toetoes Bay on the southern coast of the South Island. Much of its channel is braided.
- Prone to flooding and ad hoc responses by local Government, there is a need to reconsider the current flood investment and floodplain management to move towards a climate-resilient platform in support of enhanced cultural, economic, biodiversity, and community outcomes.









### WHAT WE WANT TO ACHIEVE

- We have an eye for the future and ensuring the Mataura River is a special place, culturally, environmentally and economically.
- We will gather information regarding what is planned along this catchment, what is underway, and where there are gaps.
- We want to inspire our people, communities, stakeholders, and agencies to contribute meaningfully to the vision.

# PURPOSE

To reimagine the Mataura River System by bringing together the catchment by design methodologies and Mātauranga Māori in order to build cultural, environmental, and economic resilience in the catchment.

# PROGRAMME OUTLINE

The high level programme

WORKSTREAM	CORE OBJECTIVES	DESCRIPTION OF WORK	QUARTER 3 22/23			QUARTER 4 22/23			QUARTER 1 23/24			QUARTER 2 23/24			QUARTER 3 23/24			QUARTER 4 23/24		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Workstream 1: Site Specific Projects	<ol> <li>We will identify up to three projects to pilot, test and trial across different aspects of the river system.</li> <li>We will engage regionally and locally to manage and monitor the site-specific projects.</li> <li>We will implement ecological system-focused site- specific projects.</li> <li>We will create and implement a prioritisation framework that supports our decision making for future project investment.</li> </ol>	Cattle Flats site-specific project																		
		Balfour site-specific project																		
		Gore site-specific project																		
Workstream 2: Data and Information	<ol> <li>We will become a key connector in the collection, utilisation, and visualisation of geospatial information to support projects and programmes across the Mataura River.</li> <li>We will enable the prioritisation and justification of appropriate short, medium, and long-term investments.</li> <li>We will actively work towards filling information and data gaps to enable effective decision making.</li> </ol>	GIS Webviewer																		
		Hydrological Data																		
		Sites of interest desktop exercise																		
Workstream 3: Wetland Establishment	place or underway to inform and guide how these work in practice, including the opportunities, challenges and lessons learned. 2. We will develop and socialise a framework to support decision making that draws together the data and information workstream and case studies, along with	Case studies																		
		Wetland decision making framework																		
		Prioritisation of sites																		
Workstream 4: Engagement schedule and approach	<ol> <li>We will collaborate with Crown agencies, including relevant councils, to understand local and regional priorities to provide input into our programme planning and approach.</li> <li>We will engage with community groups, industry, and the private sector supporting and enabling them to be active participants in all phases of the Reimaging Mataura project.</li> <li>We will have a flexible engagement model that includes the most appropriate mix of stakeholders, partners, and providers. We will look to further foster and create mutually beneficial partnerships and</li> </ol>	Stakeholder map and communications plan																		
		Engagement schedule developed																		
		Supporting mediums																		
	influence the effectiveness of the investments that are made. 4. We will support the community's understanding of our kaitiaki role, and the cultural, environmental, and economic significance of the Mataura River.																		_	

## COMMUNITY CONNECTIONS





### ON THE FLY MATAURA RIVER FESTIVAL

What is great about the Mataura River?

- $\checkmark$  Easy access for recreation
- $\checkmark$  Proximity to townships
- $\checkmark$  Connection to the local area
- $\checkmark$  Safe flow and depth for public users
- $\checkmark$  Important part of the local ecosystem
- $\checkmark$  Habitat for native and non-native species
- ✓ Offers good scenery, vistas, and views
- $\checkmark$  Attraction for families and children
- $\checkmark$  Popular for fishing

What are the issues with the Mataura River?

- **x** Water quality
- × Erosion
- × Nitrate leaching
- × Flooding
- × Issues with silt and gravel
- $\boldsymbol{\mathsf{x}}$  Channelisation
- × Bank stability
- × Not always safe to swim in
- × Toxic algae, bacteria, and pollution

# How do you think we can make the Mataura River as great as it can be?

- Improving awareness about the river
- Monitoring of water quality and fish populations
- Increased planting, particularly natives
- Limiting discharges into the river, and monitoring those that are permitted
- Creation of wetlands and larger riparian areas
- Less straightening of the river and its tributaries
- Provide the public with more information about native species
- Adding more recreation amenities around the river (walking and cycling tracks, picnic areas)
- Increasing community involvement how do we do this?



## STUDENT OPINIONS





## SITE-SPECIFIC PROJECTS

Testing and trialling river system improvement works

## BALFOUR PROJECT – GLENGORDON WETLAND

#### Working with local farmers Andrea and Chris Bulleid



- Thriving Southland, Reimagining Mataura, and E3 Scientific
- Constructed wetland on-farm project
- Aim to hold back water during high rainfall events and filter sediments
- E3 Scientific is developing a wetland restoration plan for the site



### PROPOSED SITE FOR CONSTRUCTED WETLAND



# CATTLE FLAT PROJECT

#### Phase | Deliverables:

Gain site access and conduct a full site visit.

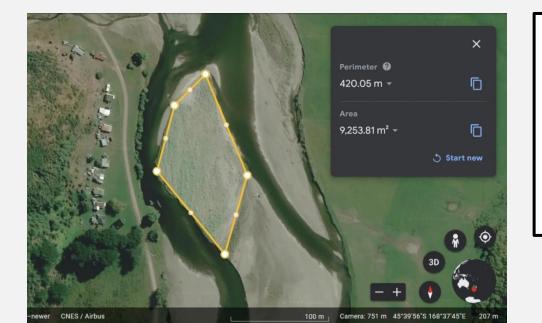
Removal of vegetation from gravel beds.

#### Phase 2 Deliverables: Ongoing hydrological monitoring above and below the vegetation removal site.

#### **Phase 3 Deliverables:**

Ongoing restoration of farmland to wetland, working in collaboration with the landowner.





Vegetation removal area in the centre of the Mataura River at the Cattle Flat site



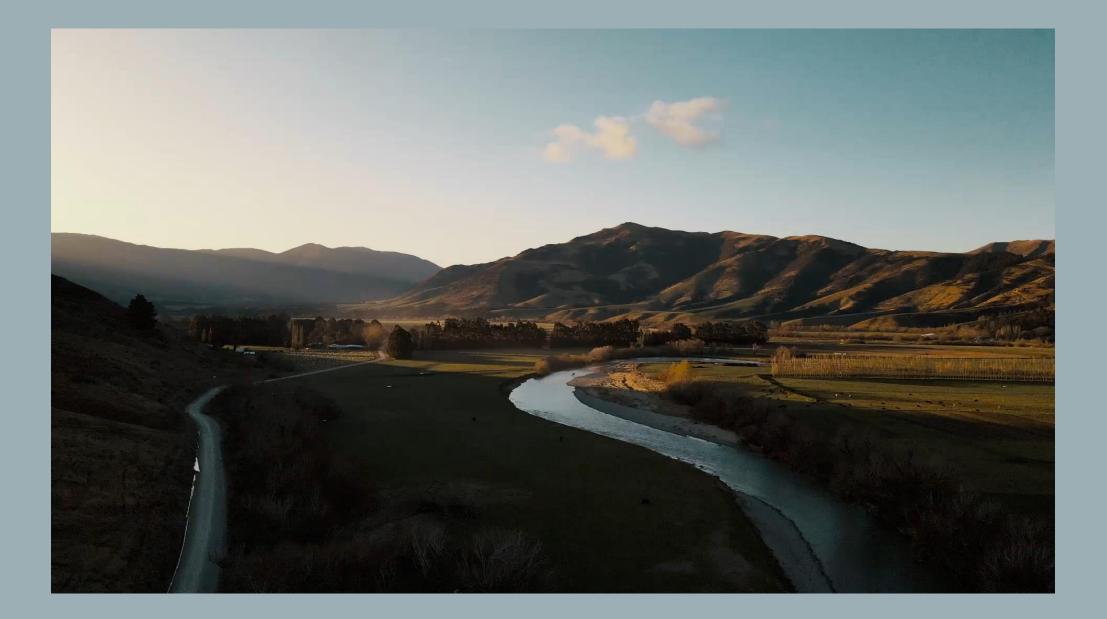
Establishing ongoing water quality monitoring upstream and downstream of the vegetation removal site

## The Mighty Waka

The Waka is housed in a modular floating unit made from Recycled Milk Bottles. Using IoT technology to gather data, the hydrodynamic design enables the Waka to sample in any condition.

SWARM of Char pH C° +/- O2 Tu Sadabis W Of Char better pH inter consection constrainty Deschard Dogue Tubidity







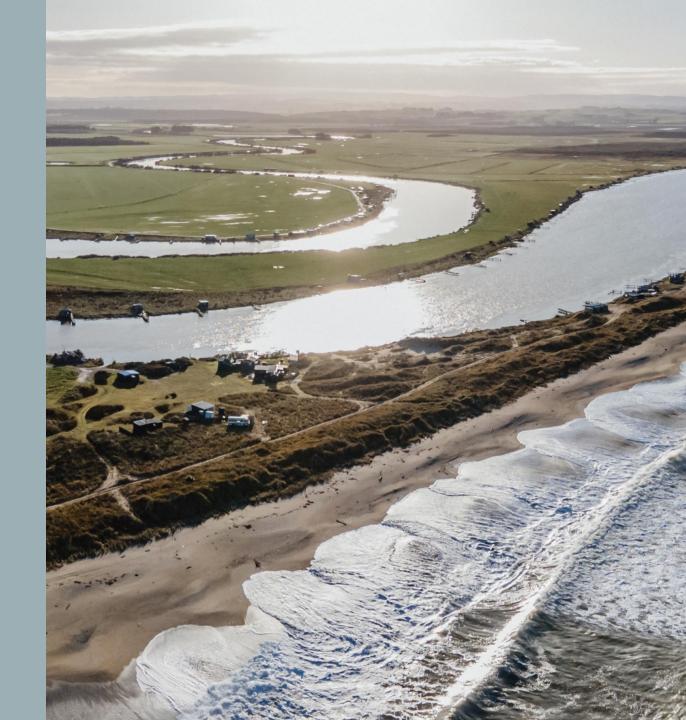


# FUTURE DIRECTION – SO WHAT'S NEXT?

- Research, test, and trial small-scale projects across the four key workstreams
- Find ways to enhance cultural, economic, biodiversity, and community outcomes within the project
- Drafting of a discussion document to determine how we scale projects and consider the catchment as a whole system
- The discussion document will provide options/recommendations for the next phase of the project
- Governance



## SUMMARY



## CONTACT

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# MATÁURA RIVER