



TIAKI WAI | CARING FOR LAND & WATER

Catchment Solutions – Enhancing Rural Capability to Achieve Essential Freshwater Outcomes

A 3-years collaborative project focused on co-learning, exchange, and outreach

for targeted and effective water quality mitigation measures





Collaborators

TIAKI WAI | CARING FOR LAND & WATER



FARMED
LANDSCAPES
RESEARCH
CENTRE



Iwi/ hapū - Ngāti Kauwhata; Ngāi Tahu
Makakanui; and Ōkahu-Inuāwai hapū



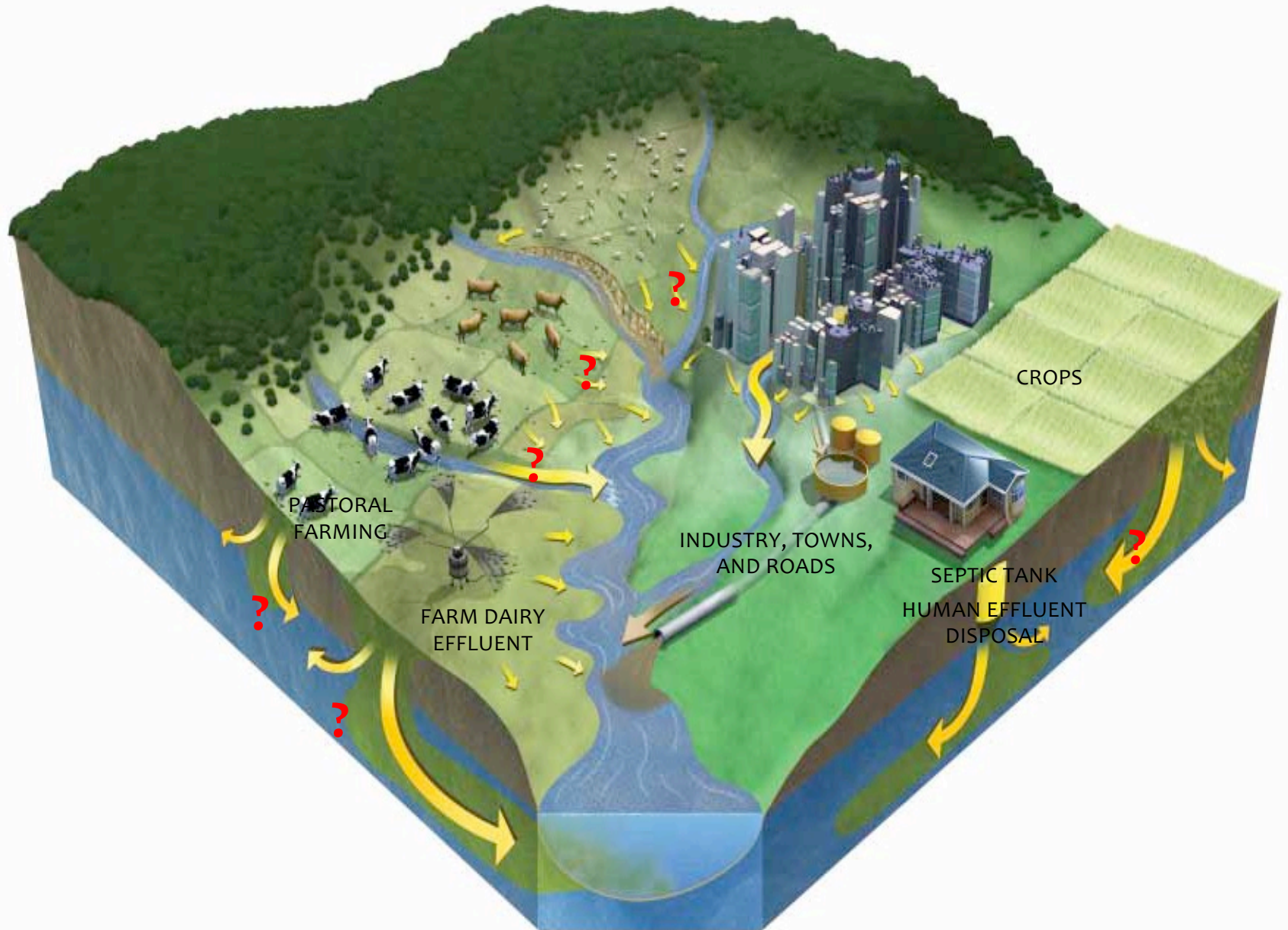
AIMS & OBJECTIVES

- Use catchment biophysical and water quality data and analysis to facilitate **co-discovery, co-learning and co-innovation** to inform targeted water quality mitigation practices
- Build, via a series of field days and masterclasses, **the capability and expertise required by both the broader farming community, and rural support providers** to attain freshwater outcomes
- Develop digital resources to **share learnings and insights** from catchment groups, catchment science initiatives, innovative in-field and edge-of-field practices, and catchment-scale mitigation strategies

FOCUS CATCHMENTS

- Haynes Creek catchment and Mangaone East catchments - Manawatu River Catchment Collective (MRCC) & Ngāti Kauwhata
- Maharakeke and Porangahau catchments - Watch Our Water Maharakeke and Porangahau (WOW MAP) & Ngāi Tahu Makakanui
- Waingongoro River catchment - Taranaki Catchment Communities (TCC) & Ōkahu-Inuāwai hapū

Focus on critical flow pathways



Source: Environment New Zealand 2007, MfE.

Focus on Edge-of-field technologies and practices

Purpose built-in contaminant attenuation capacity - Potential to control, treat and harvest and reuse critical (high nutrient concentrations) runoff and drainage waters, for example



Drainage



Controlled drainage



Drainage harvesting & reuse



Wetlands



Woodchip bioreactor treats drainage waters



Sediment detention bunds

We aim to deliver collaboratively, as follows:

- A **comprehensive analysis of catchment biophysical and water quality data, stream health assessments**, and learnings from *iwi/hapū perspectives* to identify key water quality issues in the study focus catchments.
- A **series of catchment specific analysis workshops** to co-develop suitable edge-of-field mitigation options in the focused catchments.
- **Co-design and co-implement 7-8 pilot demonstrations** of identified edge-of-field structures
- Organise a **series of field days (6) and annual workshops (3)** to facilitate co-learning across catchment groups and share and promote the functioning and effectiveness of these novel mitigation.
- Nationally promote the learnings from the project to New Zealand's farmers, landowners and rural professionals via **digital resources online (e.g. video demonstrations and virtual field trips)**.
- Develop and deliver a **series of trainings (masterclasses)** to share knowledge, tools and skills required to identify, design and implement these novel edge-of-field mitigation options.



IDENTIFICATION OF WATER QUALITY OUTCOMES

- *Community aspirations*
- *Iwi/Hapū perspectives*
- *Collective catchment biophysical and water quality data analysis, including stream health assessments*



*Farm water testing surveys
(on-farm water sampling in
critical flow pathways)*





CO-DESIGN OF PILOT DEMONSTRATIONS AND THEIR MONITORING



Search



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Unlisted

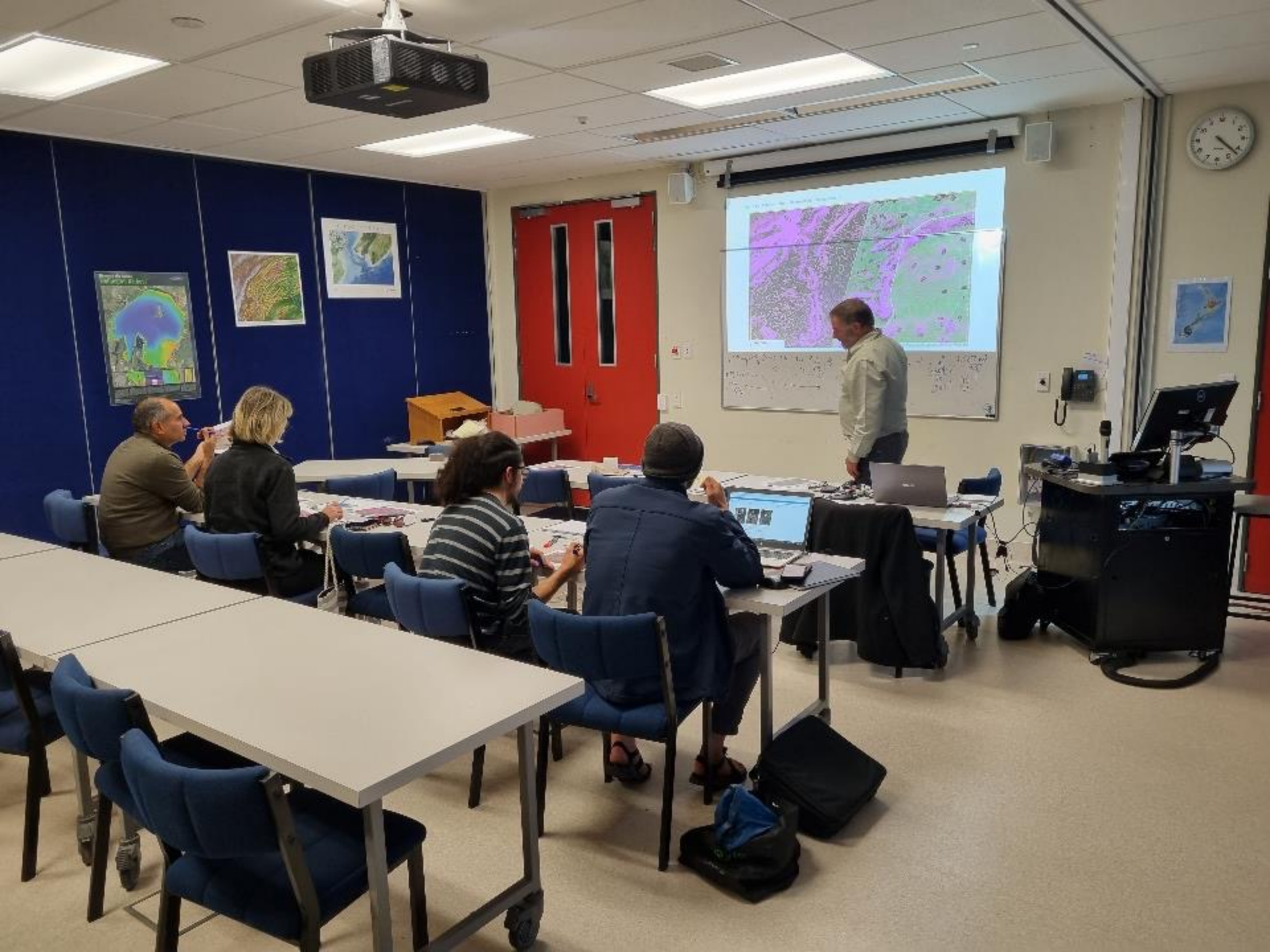
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FIELDAYS & TRAINING SESSIONS







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Thank You & Any feedback – questions/clarifications

Acknowledgements: Catchment Groups (MRCC, TLC - WOW MAP, TCC); Iwi/ hapū - Ngāti Kauwhata; Ngāi Tahu Makakanui; and Ōkahu-Inuāwai hapū

Waitatapia Farming; TeMaunga Farm

Ministry for Environment (Essential Freshwater Fund); Ministry for Primary Industries; Hawkes Bay Regional Council; Horizons Regional Council; Taranaki Regional Council

NZ Landcare Trust; DairyNZ; Massey University Farm Landscapes Research Centre