

# LIVING

# WATER

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

WAIKATO PEAT LAKES SITE FOCUS: Restoring unique peat lake ecosystems

## Critical Issues

- Significant loss of wetland and freshwater ecosystems and lowland habitat
- Highly modified hydrology, drainage systems and management practices to support intensive land use means high nutrient inflows and high levels in-lake
- Peat Lakes are naturally low nutrient ecosystems now isolated from other biodiversity
- Modification of the landscape in the catchment has impacted on cultural identity and activities
- Society has increased expectations of farmers/agricultural land owners in relation to water quality
- Landowners have an opportunity to engage more about this at a catchment level

## Inputs

- DOC & Fonterra staff
- Funding \$300k/year
- Technical input
- Network of participating farmers
- Participation of key stakeholders, incl. iwi, National Wetland Trust, communities and councils

## Activities

- **In-lake:** Address legacy nutrient and sediment levels in one peat lake
  - **Lake-margin:** Trialling interventions that intercept and reduce sediment and nutrients entering the lakes and that create a self-sustaining native lake environment
  - **Catchment:** Trialling solutions to achieve a reduction in sediment and nutrient point-source inputs to one lake
  - **Strategic partnerships:** working with mana whenua, operational agencies and others
  - Monitoring progress, telling our story and championing change
- Baseline assessments and in lake trials
  - Fencing, access paths, native planting of lake margins, weed and pest control
  - Intervention trials
  - Farm Environment Plans
  - Farm management solutions, edge of field and catchment interventions
  - Memorandums of understanding, Mana Enhancing Agreement management agreements
  - Sharing learnings through website, social media, professional forums, community events

## Outputs

## Outcomes/Impacts

### Short term (by 2020)

- Approach identified to address water quality in one lake via an in-lake intervention
- Lake margins are becoming increasingly dominated with native plant species and pests and weeds are being controlled
- The benefits of sediment traps are understood
- Nutrient and sediment point sources into Lake Ruatuna have been identified
- Mana whenua are actively involved in Living Water projects and mātauranga māori is integrated into our work

### Medium term (by 2023)

- In-lake intervention demonstrates improving water quality in one lake
- Improved habitat for native wetland birds
- Interventions in the catchment result in a reduction of sediment and nutrient inflows into Lake Ruatuna
- Communities and landowners in the catchments value the special characteristics of the peat lakes and are actively involved in their protection and enhancement
- Living Water tools and solutions have been scaled up to other peat lake catchments

## Long Term Outcomes

Healthy lowland freshwater ecosystems

Responsible profitable dairying

A shared understanding of the interdependence of agricultural, economy and environment (by the broader community)

