## **Our progress** 2021/2022







Working towards a

### common

of dairy and freshwater thriving together

# 35,000 ha

We are working with farmers, scientists, councils, mana whenua and local communities across 35.000 hectares in five catchments around New Zealand



of Fonterra farms in Living Water catchments have Farm Environment Plans 50%

of Fonterra farmers in Living Water catchments are implementing freshwater improvement actions over and above regulations

up from 72% in 2021

up from 48% in 2021

## **Designing and trialling solutions**

in five catchments

70

projects underway or completed



trials to see what can be scaled to improve freshwater



solutions that have been scaled or are being used by others



case studies completed about our trials

## **Championing change**

to mindsets, approaches, systems and aspirations

**60** 

partners and groups we're working with to improve freshwater

2506

social media followers across all platforms

up from 1975 in 2021

projects supporting iwi and hapū as kaitiaki and integrating mātauranga māori

12

\$17m

additional funding leveraged for freshwater projects since 2013

www.livingwater.net.nz

### Wairua, Northland

Pūkorokoro-Miranda, Hauraki

#### Waikato Peat Lakes

# **Catchment highlights** 2021/2022



Waituna Lagoon, Southland



#### Wairua River/Te awa o Wairua, Northland

Sediment and nutrient reduction: Waimā Waitai Waiora is wrapping up its five year freshwater improvement funded project to reduce sediment entering the Wairoa River. 137 farm plans, over 8kms of fencing and 350,000 native plants have been planted over the life of the project. The Kaipara Moana Remediation (KMR) programme will continue to build on this work, with a longer-term plan to halve the amount of sediment reaching the Kaipara Harbour.

**On-farm support:** Living Water has now completed on-farm activities in the Okarika pocket, delivering 13 Farm Environment Plans (76% of Fonterra farms in the pocket), 100,000 native plants in the ground and fencing of 5km of waterways.

Mātauranga Māori: Te Kawa Waiora focused on bringing people together through wānanga, to discuss a new pathway of ecological management based in mātauranga Māori. A final report was recently published, concluding that the only way for tangata whenua and their awa is work that is led by those who whakapapa to the area and can drive grassroots action alongside their communities. A major part of the project was ensuring that the communities who participated in the research were able to build the skills and capacity to continue their own discovery. This will be the key to ensuring that the findings can translate into action and Living Water is supporting Kaitiaki Networks to continue this mahi.

#### Pūkorokoro-Miranda, Hauraki



Mountains to sea: Living Water and the Western Firth Catchment Group co-designed a project to create a freshwater biodiversity corridor through farmland from hilltop to the coast. The catchment prioritisation tool (CAPTure) has identified priority areas for interventions to improve freshwater. Funding Farm Environment Plans (FEPs) for large land blocks and creating hybrid FEPs for smaller blocks (under 20ha) has provided more options/flexibility for landowners to make changes. In the last year 17,000 natives have been planted and significant gains have been made through the predator trapping programme.

Partnering for progress: The Tiaki Repo ki Pūkorokoro Trust was established in 2019 to manage the farmland purchased to expand critical shorebird habitat as adjacent reserve. The Trust includes community members who are working together to determine the best way to manage and restore the reserve. An initial restoration plan was developed in June 2019 and the Trust has recently passed a resolution to develop the site for shorebird habitat, continuing to work with The Nature Conservancy (TNC) around Blue Carbon credit development and managing drainage through the reserve for upstream landholders while meeting restoration objectives.

#### Lakes Areare, Ruatuna and Rotomānuka/Ngā roto o Areare, o Ruatuna, o Rotomānuka, Waikato

Catchment scale change: The Manga-o-tama Ōhaupō Peat Lakes to Waipā River Connection project brings together Iwi partners, farmers and stakeholders in a catchment-wide approach to improve water quality and restore habitat along the Manga-o-tama stream. In 2021 the Waikato River Authority approved \$388,000 of funding for a two-year work programme. The project will maintain 30 hectares of planted areas, bring pest weeds under control, retire two hectares of farmland, install 8kms of fencing to protect riparian waterways and plant 16,000 natives. Four primary schools around the catchment participated in planting days in 2022 with representatives of Ngati Apakura.

Real time water quality monitoring: Two continuous water quality monitoring sensors were installed in the Manga-o-tama catchment in May 2022. This is a trial to see if the sensors can help identify sources of nutrients and sediment so that interventions can be prioritised for the catchment-wide project. The sensors collect data hourly on nitrate, sediment, temperature, conductivity and dissolved oxygen and send information to an online dashboard.

Mātauranga Māori: Eleven varieties of harakeke/flax are thriving in the Pā harakeke rongoā education trail run in collaboration with Ngati Apakura. Additional rongoā species have recently been planted and Pā harakeke maintained. The harakeke is still a year or two away from being ready to harvest but arrangements will be made to link this site into lwi cultural harvest plans to ensure ease of legal requirement for weavers to access this resource.

#### Ararira-LII River/Te awa o Āraiara, Canterbury

Catchment scale change: We worked with Te Taumutu Rūnanga, Selwyn District Council, LII Drainage Committee and Environment Canterbury to take a catchment approach to redesigning the Ararira-LII drainage network to recognise that waterways have values beyond drainage, such as supporting native biodiversity including fish, invertebrates and aquatic plants and to highlight that healthy waterway networks are essential for overall ecosystem resilience. As well as producing a catchment plan that reimagines the drainage network, the project also developed a guide to support the implementation of the catchment plan. The implementation guide identifies organisational and institutional changes, funding options and delivery arrangements that are needed to bring about change.

Sediment and nutrient reduction: Trials of in-stream sediment traps are complete and have proven to be a cost-effective way to reduce sediment. They require minimal maintenance with clearing required roughly once a year. Excess sediment can be used on-farm or easily removed.





#### Waituna/Waipārera, Southland

**Transforming Waituna Creek:** Evidence from 8 years of fish population monitoring shows that the large woody structures installed on the stream bed have significantly improved habitat for native fish at the trial sites. 11,600 native plants have been planted along the stream edges. A report published on the 2-stage channel presented evidence that this is an effective way to control bank erosion and thereby reduce sediment inputs to Waituna Lagoon, without compromising fish habitat.

Sediment and nutrient reduction: Farm Environment Plans for all Fonterra dairy farms in the catchment have now been completed. The plans include an assessment of the industry agreed good farming practices being achieved and recommendations for edge of field treatments and other initiatives to reduce contaminant losses. The trial of four Peak Run Off Control structures installed in April 2021 in the Carrans Creek sub-catchment shows promising results, after the two earthen bunds were redesigned and rebuilt after flood damage. These will continue to be monitored through the next year.

Partnering for progress: Through the collective efforts of Whakamana Te Waituna, a further 16.5 hectares of land was purchased in 2022 to begin the process of acquiring suitable land on the western side of the catchment for a large scale constructed wetland. The site has several ecological features on it, including one of the few remaining areas of podocarp forest on the western side of Waituna. Approximately half the land is in mature or regenerating natives with stands of rimu and kahikatea. This piece of land forms one piece of land in a larger acquisition that would be required to develop a 100ha+ wetland in the lower Waituna Creek Catchment.