Frequently Asked Questions

LIVING WATER

Fonterra Dairy for life | Department of Conservation Te Papa Atawbai

What is Living Water?

- Living Water is a 10 year, $20 million partnership between Fonterra and the Department of Conservation
- Living Water brings farmers, scientists, councils, communities and Mana Whenua together to identify and implement game-changing solutions that will enable farming, fresh water and healthy eco-systems to thrive side-by-side.

What's the problem Living Water is trying to solve?

- Dairy farming is central to New Zealand's economy, but how we are farming is having an impact on our lowland freshwater ecosystems.
- Our streams, lakes, rivers, lagoons and coastal estuaries are being impacted by high levels of nutrients, sediment, effluent and other pollutants. Freshwater ecosystems have been reduced and degraded. We need to change this because water is a key part of our national identify and New Zealanders expect to be able to swim, fish and gather kai in our waterbodies.

Fonterra and DOC seem unlikely partners – what was the genesis of the partnership and what is their common vision and purpose?

- Fonterra and DOC both recognise that fresh water and healthy ecosystems underpin New Zealand's environmental health, community well-being and economic prosperity.
- Between us, we are custodians of nearly 40 percent of New Zealand's land, and we both have a responsibility to look after our land and water for future generations.
- Both organisations are committed to finding solutions that enable farming, fresh water and healthy eco-systems to thrive side-by-side.
- By working together and using our collective strengths, we can get better results.

When did it start?

- The partnership began in 2013.
- Our initial focus has been on establishing relationships, investigating and assessing local challenges, and piloting projects to determine what solutions will significantly reduce farming impacts on freshwater and improve ecosystem resilience.

So it's 2017 - what's happening now?

- Our focus is on practical implementation as well as the monitoring and evaluation of solutions at multi-farm and catchment scale.
- Our approach is to show people what sustainable dairying and healthy freshwater ecosystems look like thriving together; identify what capability, capacity and support is required to achieve it across New Zealand; and calculate the cost of conversion so farmers, communities and the agricultural industry can plan for future investment.

How important is this partnership to DOC?

- DOC is charged with protecting and restoring New Zealand's unique biodiversity. Freshwater ecosystems and species are a key part of this work.
- Living Water is a critical partnership in DOC's strategy to 'Grow Conservation with Others', and partnering with Fonterra opens up access to another 8% of New Zealand's land and 10,500 land stewards to help work towards New Zealand's conservation goals.

- Living Water will demonstrate that New Zealand can have a strong dairy industry, economic prosperity and thriving ecosystems together.

How important is this partnership to Fonterra?

- Fonterra understands the importance of healthy eco-systems to New Zealand's environmental health, community well-being and economic prosperity.
- Living Water is a core part of Fonterra's 'Sustainable Co-op' strategy, and sits alongside other environmental initiatives around climate change, the R&D less footprint programme, and the Tiaki sustainability service for farmers.
- Living Water will demonstrate that New Zealand can have a strong dairy industry, economic prosperity and thriving ecosystems together.

How does Living Water work alongside Fonterra's Tiaki Sustainable Dairying Programme?

- Tiaki is Fonterra's sustainable dairying programme designed exclusively for their farmers. Tiaki means to look after, to guard, to care for, keep and nurture.
- The Tiaki programme enables farmers to tap into specialised regional knowledge, expertise and services to support best practice farm management, proactively stay ahead of regulatory requirements, and satisfy evolving consumer and market expectations.
- Living Water is designing and trialling solutions for freshwater management on farms that will be shared with Fonterra farmers via the Tiaki programme.

How does Living Water fit with Fonterra's '50 Catchments' Initiative?

- In mid-2017 Fonterra announced an aspiration to work with others to restore 50 catchments across New Zealand.
- The lessons learnt from the Living Water Partnership help inform the development of the '50 Catchments' initiative.

How does Living Water fit with DOC's freshwater stretch goal?

- DOC has a suite of stretch goals for 2025, one of which is '50 freshwater ecosystems are restored from mountains to the sea'.
- The five Living Water catchments are part of the 50 freshwater ecosystems identified by DOC for restoration, and our activities are contributing to wider restoration efforts in the catchments.

Why were these five catchments chosen?

- Each catchment presents a variety of challenging situations providing breadth and depth when it comes to scoping solutions for New Zealand-wide application.
- Each of the five catchments is in a significant dairying region and has ecological and cultural significance.
    - **Wairua River, Northland** flows into the Kaipara Harbour which is a significant nursery ground for commercial and recreational fisheries. The harbour is New Zealand's largest estuarine ecosystem and its sand dunes, seagrass, freshwater and estuarine wetland ecosystems are some of the rarest in New Zealand.
    - **Miranda-Pūkorokoro, Hauraki** is internationally protected under the Ramsar Convention. It is home to around 40 different types of birds including the godwit – a migratory bird that travels from Miranda to Siberia each year. It also includes one of the world's finest examples of a rare coastal land form, a chenier plain made up of a bank of shells.
    - **Areare, Ruatuna and Rotomanūka Peat Lakes, Waikato** are part of a unique collection of peat lakes in the heart of Waikato dairy country. They're of scientific interest and important both culturally and spiritually.

- **Ararira-LII River, Canterbury** flows into Te Waihora-Lake Ellesmere, New Zealand's fifth-largest lake and its largest coastal lagoon. The lake has 166 species of birds, a number of wildlife reserves, a large tuna (eel) fishery and a diverse range of other native fish.
- **Waituna Lagoon, Southland** was the first site in New Zealand to be named a Ramsar site, recognising it as a wetland of international importance. It is home to over 80 bird species (including the threatened Australasian bitten) and is part of the 20,000 hectare Awarua-Waituna catchment that includes the coastal lagoon, extensive peat lands, swamps, and freshwater streams.

What is happening in the catchments?

WAIRUA RIVER CATCHMENT:

- There has been a significant loss of wetland and freshwater ecosystems. Water quality is poor due to high levels of suspended sediment. Much of this has been caused by various productive land uses in the catchment and modification of the waterway, wetland and peat soil hydrology for drainage purposes.
- Living Water's key focus is on reducing sediment loads into the Wairua River by using solutions that improve hydrologic functioning and ecological resilience in the catchment.
- We are doing this by partnering with Northland Regional Council and others to accelerate the development of Farm Environment Plans, create a Sediment Management Toolbox for farmers, and work with farmers and iwi to co-design priority freshwater improvement projects in the Okarika sub-catchment as a sustainable dairying and healthy freshwater demonstration.

AREARE, RUATUNA and ROTOMANŪKA LAKE CATCHMENTS:

- The lakes have elevated levels of nutrients, sediment and pathogens, and considerable nutrient stores within lake sediments. This has been caused by the various productive land uses in the area and the highly modified hydrology and drainage systems. Enhancement of water quality in these lakes is extremely difficult and will require a range of remediation measures.
- Living Water's key focus is restoring the unique peat ecosystems, enhancing habitat around the lake margins, and transforming agricultural drains into healthy waterways.
- We are doing this by developing Farm Environment Plans for all Fonterra farms in the catchments, trialling sediment traps and floating wetlands to remove contaminants before they enter the lake, restoring lake-margin habitats and investigating innovative in-lake restoration options.

PŪKOROKORO-MIRANDA CATCHMENT:

- The shorebird area and habitat at Pūkorokoro-Miranda has been significantly degraded and reduced in size. Water quality is poor due to increased levels of suspended sediment. Much of this has been caused by various productive land uses in the catchment and the highly modified hydrology and drainage system that has been put in place to reduce inundation and flooding for landowners in the lower catchment.
- Living Water's key focus is protecting and expanding the shorebird habitat, reducing sediment loads and connecting on-farm biodiversity via 'mountains to sea' blue corridors.
- We are doing this by supporting community-led catchment planning processes, developing Farm Environment Plans for all nine Fonterra farms in the catchment, facilitating a land purchase and restoration project at the Miranda and Pūkorokoro stream mouths, and supporting farmers to restore and reconnect biodiversity corridors along waterways.

ARARIRA-LII RIVER CATCHMENT:

- There has been a significant loss of wetland, freshwater ecosystems and lowland habitat in this catchment. Water quality is poor due to high levels of suspended sediment, nutrients (phosphorous) and faecal coliforms. Much of this has been caused by various productive land uses in the catchment and modification of the waterway, wetland and lagoon hydrology for drainage purposes.
- Living Water's key focus is transforming the drain and water network into a healthy freshwater ecosystem in this productive agricultural landscape.
- We are doing this by developing Farm Environment Plans for all nine Fonterra farms in the catchment, supporting farmers to implement nutrient and sediment reduction interventions on farm, and working with strategic partners on a catchment-wide drain and water network improvement concept.

AWARUA-WAITUNA CATCHMENT:

- There has been significant loss of wetlands and freshwater ecosystems and lowland habitat in this catchment. Water quality is poor due to high levels of suspended sediment, nutrients (P and N), and phosphorous; and waterways are highly modified for drainage impacting on the hydrology of the wetland and lagoon
- Living Water's focus is on designing and implementing a catchment-wide approach to nutrient and sediment management as part of the Whakamana Te Waituna integrated freshwater improvement programme.
- We are doing this by mapping, prioritising and designing nutrient and sediment interventions at a catchment scale, developing detailed Farm Environment Plans for all 43 Fonterra farms in the catchment; creating a Nutrient and Sediment Management Toolbox for farmers; and implementing the Lower Waituna Creek Transformation Project as a demonstration site.

How are you measuring results?

- We are implementing an interdisciplinary outcomes framework along with a monitoring and evaluation system that will provide comprehensive results on the effectiveness of the partnership and our approaches and solutions.
- All the results will be on our website so others can also learn from them.

How supportive are farmers of Living Water?

- Farmers rely on the land and fresh water for their livelihoods so they are actively supporting Living Water.
- They enjoy working with others and are excited to see how evidence-based initiatives can be up-scaled to make a real difference to the health of New Zealand's freshwater ecosystems.

The Living Water partnership is $20m over 10 years. What happens after this?

- Living Water lessons and solutions will be embedded into Fonterra and DOC's operations and shared with the agriculture industry, land managers, central and local government, iwi and communities.

To find out more about Living Water, please visit www.livingwater.net.nz