

LIVING WATER

A decorative horizontal line consisting of two curved segments. The left segment is green and the right segment is blue, meeting at a central point.

Dairy for life



Department of
Conservation
Te Papa Atawhai

FY17 Strategic Achievements

- Development of confirmed strategic direction for remaining 6 years of the partnership
- Building a refreshed identity to support telling our story and the new strategic direction
- Used 'Google' SPRINT process to develop strategic plans for 3 of our 5 sites – trying to not be 'business-as-usual'
- Completing all baseline research requirements for sites so robust freshwater improvement project planning and implementation can take place
- Building 'One-Team' – DOC and Fonterra staff now just work side-by-side
- \$6.5m of government funding leveraged by Living Water supporting three MfE Freshwater Improvement Fund projects in Northland, Canterbury and Southland
- Forming strategic partnerships (Canterbury University and Regional Councils)
- Incubator phase of Fonterra's 50 Catchments aspiration

FY17 Project Examples

- Best practice riparian planting project in Hikurangi
- Support for iwi-led tuna research and management improvement project in Hikurangi
- Support for pest management and the transfer of kiwi into protected native bush blocks on farms in Hikurangi
- Installation of large scale sediment traps at the Waikato Peat Lakes
- Completion of co-funded Waikato Peat Lake modelling research project
- Development of enhanced public access to Pukorokoro-Miranda shorebird viewing facilities
- Facilitation of flagship land purchase agreement in Pukorokoro-Miranda to support the extension of coastal wetlands reserve area
- Support for biodiversity capacity building within Selwyn District Council to assist with Yarr's Lagoon restoration project and agricultural drains transformation project
- Completion of large scale on-farm riparian planting sites at Waituna Creek
- Installation and monitoring of Nitrogen and Phosphorous filter trials in Waituna

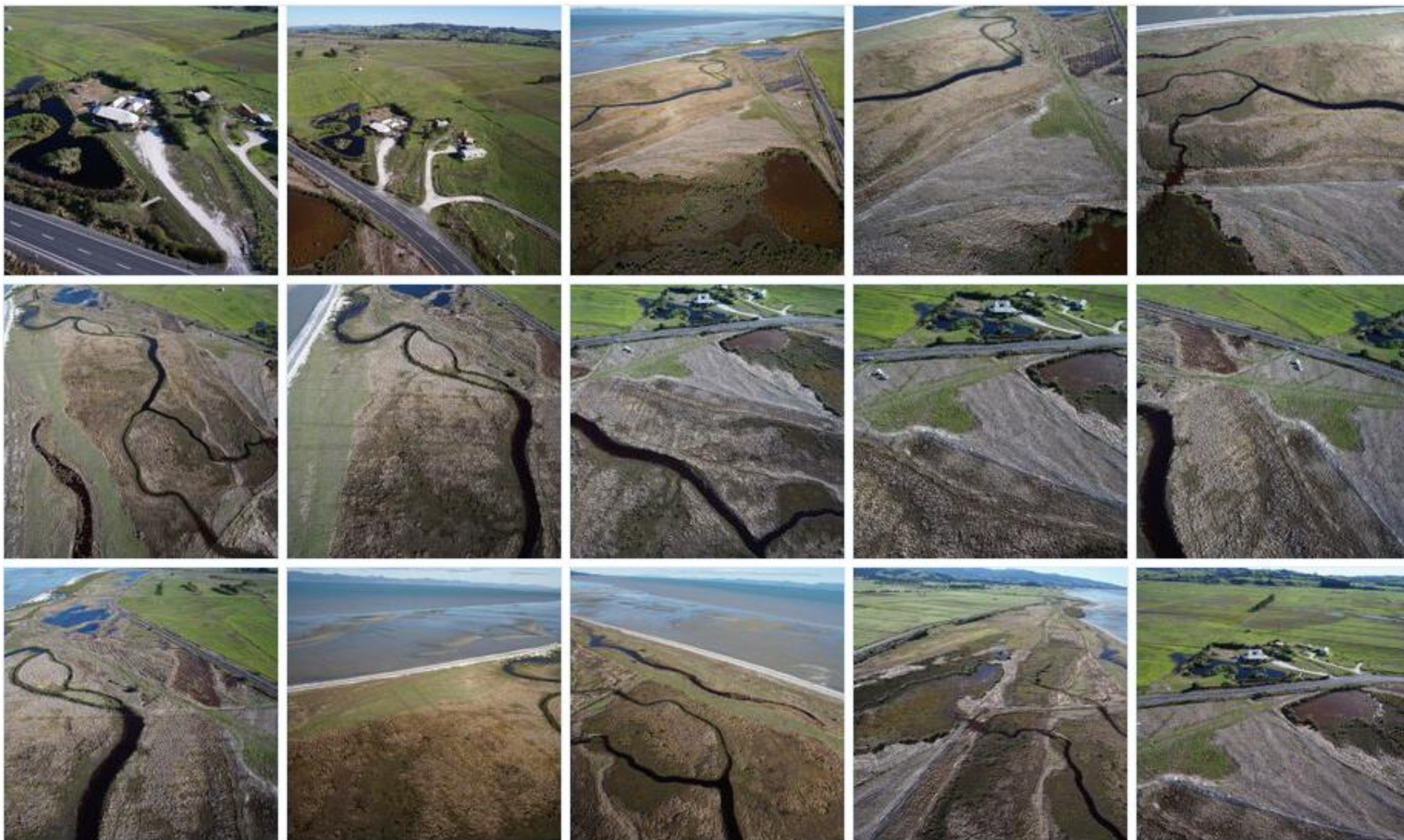


Leveraging the partnership workforce and getting the job done!

Planting on Brad and Leslie Roberts farm – Riponui Road, Hikurangi.

Staff from Kauri Dairy Factory, Farmsource Store Whangarei, Farmsource Northland, Living Water, and the Roberts farm pitched in to get 3000 plants into the riparian zone.

Drone footage at Pukorokoro-Miranda – visual monitoring of progress





Bitten Sanctuary on a dairy farm
in Northland
Fonterra farmer – Ian Upton



Pirongia School – experiential learning about wetlands and peat lakes (classroom and then fieldwork)





Waituna Creek Fish Survey in March 2017 - DOC, Environment Southland, Fish and Game, TAMI, Landcare group, and Cawthron Institute. Approx 35 people in total over 5 days

The Nitrate Catcher Trial: Drakes Hill Farm

Capturing nitrate from farm runoff



- 1 Existing tile drain
- 2 Flow distribution pipe
- 3 Woodchip
- 4 Sediment trap & inlet
- 5 PVC liner
- 6 Outfall line

This field trial tests an innovative wood chip filter to remove nitrate from agricultural runoff. It aims to provide a cost-effective and practical tool for farmers to reduce their environmental footprint and help to improve the health of the Waituna Lagoon.



Funded by **LIVING WATER**
 CLEAR WATER PRODUCTIVE LAND
 DairynZ
 Delivered by **AURA**
 Supported by **Environment Canterbury**



N and P passive filter trials in Waituna have been completed, awaiting final report from DairyNZ



Signing biodiversity MoU with Selwyn District Council – building capability and capacity to work on freshwater issues and projects in the Ararira-LII catchment



Kerr Farm in Ararira-LII: Thomas Kerr re-battering the waterway with contractor Steve Brailsford overseeing the work. Carex planted and awaiting planting of shrubs (planting was finished in June). Photo-monitoring marker stake in foreground so visual progress can be tracked.



Figure 1: management areas

A&E Lindsay dairy farm runoff, Hikurangi/Wairua. One of three farms in the area where QEII Covenants have been established based on LW's Biodiversity Assessment on Farms initiative.





Irvine farm in Ararira-LII: ephemeral spring fed waterway which has now been re-battered, fenced and planted with *Carex secta* and a variety of native shrubs. The waterway dried up in the 16/17 summer but is flowing again now. The grass was left in the bed of the waterway to filter any sediment run-off.

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Our ecosystem restoration work around the Peat Lakes of Ruatuna and Rotomanuka has opened up these sites to the local community and inspired them to take pride the natural assets on their back doorstep. Local schools use them as outdoor classrooms. We have built a strong collaborative relationship with Waipa District Council, the National Wetland Trust, and the catchment landowners



Simpson's farm, Five Springs – Silverstream: Spring-fed waterway where LW has been maintaining the plantings for the past 3 years. This is one of Canterbury University's 10 CAREX Project demonstration sites across the region.

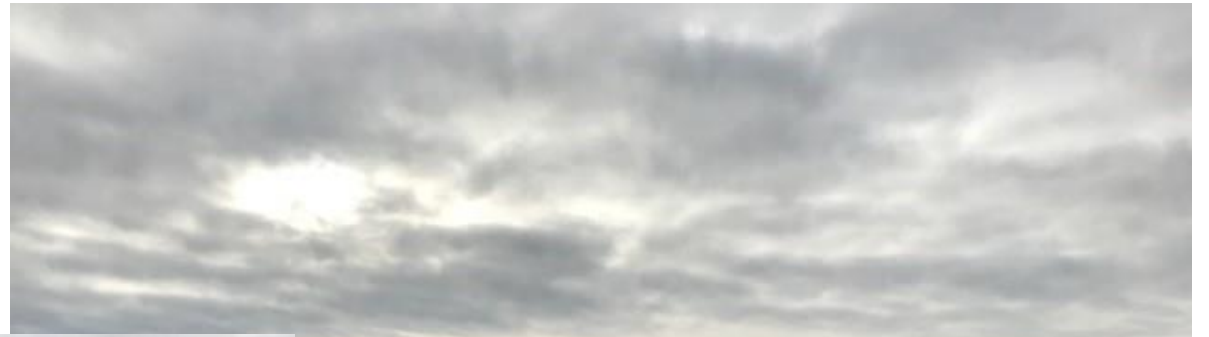


Completed Riparian Management Plans covering critical source areas for 19 farms in Waituna – these will be transferred into the Farm Environmental Plan tool as soon as it is available. The remaining 28 Fonterra farms in the catchment will have FEPs completed in early FY18.



Whitebait Connection facilitator doing Wairua River water quality testing with students from Maungaturoto School





Demonstration of the fertiliser 'Fine Particle Application' method (compared to granular method). Trial has been underway for 6 months (14 month demonstration). First farmer field day will be 10 October. Photos taken during monthly monitoring - grass cut, weigh in and fertiliser application.



Tarerekautuku/Yarrs Lagoon in Ararira-LII catchment: local farmers, Selwyn District Council staff, Boffa Miskell staff (including Craig Pauling, Te Taumutu) and Living Water staff discussing the opportunities to restore/enhance Yarrs Lagoon as a significant wetland in the heart of the Ararira catchment.

A 'drain' running through Yarrs Lagoon. Note the dead willow on the waterway margin sprayed by SDC in 2013 AND the naturally regenerating *Carex secta* and other native trees and shrubs. LW has been providing support to SDC by means of commissioning a report (through Boffa) on the reserve's values and opportunities and challenges for restoration/enhancement



Yarrs Flat, Ararira-LII: Lincoln Primary School Enviro-group children carrying out monitoring (bug counts) as part of the school's adoption of the wetland reserve as an 'outdoor classroom'. LW has planted about 4000 wetland plants in a modified part of the reserve to enhance the wetland habitat and showcase the values and local community engagement at this lakeshore reserve.



Telling our Story: 30 case studies under development for new website – some examples

General

- How we chose our catchments – lessons learnt
- Biodiversity Assessments on Farm pilot
- Ecosystem Services Project
- Providing Funding to Third Parties – results & lessons learnt
- Sprint Planning Process
- Farm Environment Plan App
- QEII Partnership
- Iwi engagement across the five sites
- FIF Applications and Partnerships
- Approaches to engage with rural families and communities in order to increase focus and update of freshwater improvement work

Hikurangi:

- Tradescantia trial
- Detention Bunds trial

Waikato:

- Floating wetland and silt traps
- Peat Lake restoration activities
- Hydro-seeding trial

Pūkoro-Miranda:

- Coxhead land acquisition & community trust approach

Te Waihora:

- Silverstream/CAREX
- SDC biodiversity capacity building partnership

Waituna:

- Physiographic work
- Filters (P and N) on tile drains
- FPA