

2018 Annual Report



Community action key to improving fresh water



David Ashby, Waimakariri Water
Zone Committee Chair

Throughout 2018 the Waimakariri Water Zone Committee has focused on reflecting the views of the wider community in our final version of the Zone Implementation Programme Addendum (ZIPA), which was received by both Environment Canterbury and the Waimakariri District Council in December 2018.

We've held 60 community meetings, workshops and feedback sessions over the last two years and it's clear that we must reduce our impact on the environment to improve Waimakariri's water quality and quantity.

No matter where we live or how we use our land, we all need to work together to create the changes we want to see for future generations. With around 350 farms and 3500 small blocks

we all have a part to play when it comes to reducing our environmental footprint.

We're not waiting for the Plan Change to come into effect to make changes; instead we're actively working together with industry partners, farmers, environmental groups and the wider public to create real change through on the ground actions.

Projects such as the joint ECan-WIL infiltration trial and the zone committee's ongoing support of the Ashley Rakahuri Rivercare Group's outstanding efforts to enhance the environment for braided river birds show what can be achieved when we move forward together towards a better future for our waterways.

Key achievements 2018

- The committee has produced a challenging suite of ZIPA recommendations, based on some difficult decisions. The result is a document that seeks improved environmental outcomes that will restrict further intensification in land use, and set challenging targets to achieve over time.
- The emergence of leadership through this year's ZIPA engagement, from the likes of the Next Generation Farming Group, demonstrates what's required to achieve the community outcomes at the heart of the zone committee's work.
- The committee allocated \$65,710 of Immediate Steps biodiversity funding across 3 projects in 2018 – Easterbrook Road Community Planting, Kānuka remnant project (near Eyreton), and the Dagnum dryland project (near Burnt Hill).
- A partnership between Waimakariri Irrigation Limited, a landowner, and ECan led to the successful start to a 3 year infiltration trial aimed at developing a cost-effective solution to reducing nitrates in the Sliverstream.

Twelve lifestyle block owners and farmers on Easterbrook Road have teamed up to restore a 1.8 kilometre waterway which flows from a springhead near the Number Four Drain to Fernside Road. The group received \$49,710 of Immediate Steps funding from the Waimakariri Zone Committee for the purchase of native plants, plant guards and maintenance.



Delivering the community's vision for freshwater

The Canterbury Water Management Strategy (CWMS) puts finding solutions for freshwater management in the hands of the community, with support from councils, Ngāi Tahu, and others. The strategy sets out freshwater goals and targets to deliver the community’s vision for freshwater.











“To gain the greatest cultural, economic, environmental, recreational and social benefits from our water resources within a sustainable framework both now and for future generations.”

Each of the ten community-led water zone committees work collaboratively to develop freshwater recommendations to ensure council plans give effect to these goals and targets.

Within each target area there are several specific time-bound targets to be achieved and these are monitored and reported on to ensure progress is being made.

The target areas are shown below – read some of the stories about what is being done in the zone to deliver on these on the next page.

CWMS Targets

	Ecosystem health and biodiversity		Kaitiakitanga		Recreational and amenity opportunities		Irrigated land area		Regional and national economies
	Natural character of braided rivers		Drinking water		Water use efficiency		Energy security and efficiency		Environmental limits

App boosts Silverstream knowledge

A stream walk app has been used to map over 12 kilometres of Silverstream and its tributaries to provide a broader understanding of the waterway’s ecosystem.

Environment Canterbury principal biodiversity officer Jason Butt and a colleague gathered a wealth of data during the two weeks they spent mapping Silverstream from Silverstream subdivision through to the springhead east of the Eyre River diversion.

“We collected data on macrophytes (aquatic plants), sediment, vegetation and fish species. Gathering this information gives us an understanding of what sort of management practices could improve the health of the stream.”

Jason says the stream walk app provides consistency and allows scientists to compare data in the future.

“In a few years when we return, we can revisit points of interest along the stream and see if actions we’ve taken have resulted in better outcomes for the stream because we have the original data at our fingertips.”

North Canterbury zone manager Andrew Arps says the stream walk app is an excellent tool which supports ongoing projects to improve Silverstream’s water quality.

“We’re protecting and enhancing springheads through fencing and riparian planting. We’re also working with landowners to create wetlands in an area of under-utilised farmland. This will help resolve high nitrate levels at the upper reaches of Silverstream while restoring critical biodiversity values.”

This project addresses the priority catchment of Silverstream, which is a key focus area for the zone committee due to elevated nitrate levels in the stream. It also provides an insight into ecosystem health and biodiversity.

| Environment Canterbury Biodiversity Officer, Jason Butt, using a stream walk app to gather data at Silverstream Reserve.





Infiltration trial could solve Silverstream's nitrate issues

A three-year infiltration trial being carried out by Environment Canterbury and Waimakariri Irrigation Limited (WIL) aims to reduce Silverstream's nitrate levels by introducing more water into the stream.

The trial is operating on a WIL shareholder's farm using a trench connected to an irrigation race which receives water from the Browns Rock intake of the Waimakariri River. The trench, which is located seven kilometres west of Silverstream, is 1.5 metres deep and 150 metres long.

Environment Canterbury senior hydrogeologist Zeb Etheridge says initial results from the first eight weeks of the trial are promising.

"We knew within the first week that it was a really good infiltration location as we're getting at least 80 litres of water per second into the trench.

"We've also recorded a drop from 9-10 mg/L to 4.5 – 5mg/L of nitrate at the piezometer located next to the trench which is really positive."

This project furthers the zone committee's commitment to achieving the targets of improving ecosystem health and biodiversity, along with water use efficiency.



Environment Canterbury senior hydrogeologist Zeb Etheridge and WIL environmental manager Paul Reese discuss initial results from an infiltration trial designed to reduce Silverstream's nitrate levels.



Community feedback key to improving waterways

Over 80 people attended two drop-in sessions at the Ohoka Farmers Market in October to provide feedback on Waimakariri Zone Committee's draft recommendations for solving water management issues. These sessions were part of several rounds of engagement hosted by the Zone Committee from April to October in 2018.

Attendees provided feedback on the draft Zone Implementation Programme Addendum (ZIPA) which covers topics such as: reducing nitrate, phosphorus and sediment losses, managing environmental flows and improving ecological and cultural values.

Concerns raised by residents included: low flows in the Ashley/Rakahuri River, cows accessing local streams, assistance for farmers to reach new nitrate limits, access to clean rivers and streams for safe swimming and recreation, and high nitrate levels at Silverstream and in groundwater. Attendees were pleased to see on-the-ground action being taken to improve local streams and rivers but believed more needed to be done to reverse the damage to Waimakariri's waterways.

North Canterbury zone manager Andrew Arps says it's great to see locals getting involved in the process and they will have a further opportunity to provide submissions on the Waimakariri Plan Change when it is notified in mid 2019.



People attending a drop-in session at the Ohoka Farmers Market received a ribbonwood/manatu seedling for sharing their thoughts on the Waimakariri Zone Committee's draft recommendations for addressing water issues.



Lifestyle block owners keen to protect environment

Swannanoa couple Daniel and Michelle Power have gained a fresh insight into best management practices for their lifestyle block during a lifestyle block environment project run by the Waimakariri Zone Committee.

There are over 3500 lifestyle blocks in Waimakariri, and while they are not significant contributors to water quality issues in the area, collectively they do have an impact on the environment.

The pilot project covered topics such as animal welfare, riparian planting, waterways, pasture growth, feed requirements and fertiliser use.

Daniel and Michelle were reassured to discover that their regular soil testing programme is helping them to get the best use of their 20-acre block.

"One thing we're doing differently now is graphing all of our soil test results so we can see if there are any trends developing over time.

"Soil testing makes sense because it gives you the facts you need to make decisions about what to use on your land."

This project advances the zone committee's goals of everyone doing their bit in meeting environmental limits and promoting water use efficiency.



Michelle and Daniel Power moved to their Swannanoa lifestyle block to provide daughters Jess and Ashlee with a rural lifestyle.



Zone Committee, as listed below, David, Claire, Sandra, Judith, Carolyne, Grant, Michael, Gary, Cameron

Future challenges and opportunities

Having completed the ZIPA recommendations by the end of 2018, the committee is focused on priority ZIPA recommendations to advance actions on the ground in the zone. These priorities will include engagement on catchment management planning in select sub-catchments, the monitoring of water quality, an action plan for biodiversity, and ongoing support for projects such as the Silverstream infiltration trial.

Continuing to engage with the community is another priority in 2019, particularly with groups like the Next Generation Farming Group. Having committed to extensive community engagement on the ZIPA, and the community outcomes it is focused on, it is important to continue this

engagement if the community outcomes are to be achieved.

In mid-2019 the plan change based on the ZIPA recommendations will be notified with another round of public submissions on this plan change to follow this year.

The zone committee will also go through a 'refresh', this refresh was deferred to allow the current committee members to focus on their task of preparing the ZIPA recommendations by the end of 2018. The refreshed zone committee will take on the challenge of implementing these next recommendations and advance a solutions programme over the 3 years towards achieving the ZIPA's community outcomes.

Zone description

The Waimakariri Zone boundaries are similar to those of the Waimakariri District Council. The zone lies north of the Waimakariri River and extends from Pegasus Bay in the east to the Puketeraki Range in the west.

Much of the land to the eastern part of the zone is naturally subject to poor drainage and occasional flooding.

The rivers, streams, lagoons and wetlands have always been important places and a food basket for Ngāi Tūāhuriri. The zone is part of the Rūnanga's takiwā.

Zone committee membership

David Ashby, Chair,
Community member

Grant Edge, Deputy Chair,
Community member

Michael Blackwell,
Community member

Cameron Henderson,
Community member

Judith Roper-Lindsay,
Community member

Gary Walton,
Community member

Carolyne Latham,
Community member

Arapata Reuben,
Rūnanga representative
– Ngāi Tūāhuriri

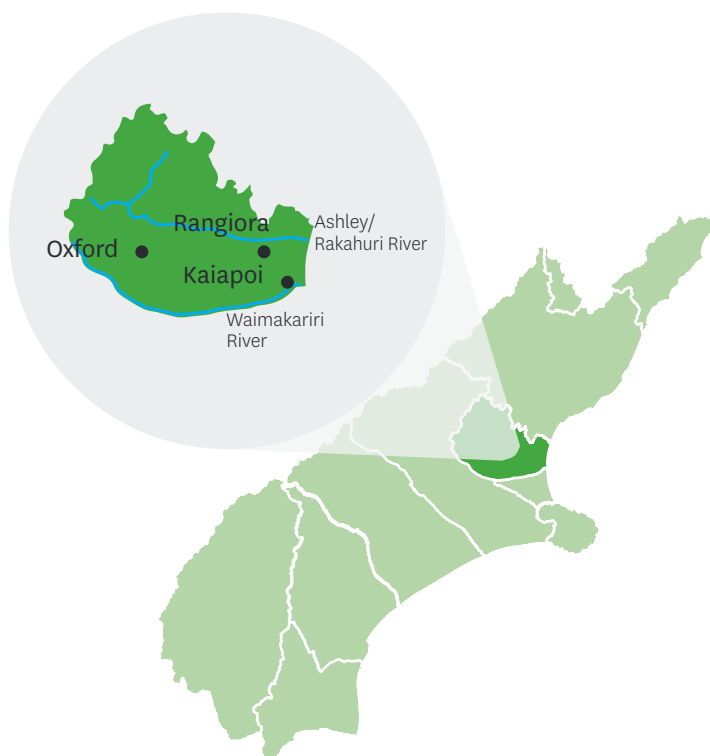
Sandra Stewart,
Waimakariri District Councillor

Claire McKay, Environment
Canterbury Councillor

Key Zone contacts

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The Waimakariri Water Zone Committee is a community led committee supported by councils.

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