



Working for Lake Rerewhakaaitu

The project was inspired six years ago when several Lake Rerewhakaaitu dairy farmers were at the Ballance Farm Environmental Awards and heard about the Progress Ngongataha group that had been undertaking a stream restoration project since 1999.

The Ngongataha project is a voluntary community initiative with plants donated by local nurseries. There has been extensive riparian and wetland restoration landscaping enhanced further with public walkways.

The farmers visited the Ngongataha project and were impressed. Group chairperson Anne Koopal recalls saying "this is great, we can do this along the Awaroa Stream".

So she organised a group of willing volunteers – mainly other local farmers – and they have toiled and planted at regular working bees.

Initially they cleared masses of blackberry and other unwanted vegetation along three hectares on one side of the stream and have replanted it in natives with initial funding from the Sustainable Farming Fund and now funding from Bay of Plenty Regional Council's Environmental Enhancement Fund.

The long-term goal is to plant the stream edge all the way to Lake Rerewhakaaitu – about one kilometre – and then create a track for the community and school pupils to use as a walkway and cycle way.

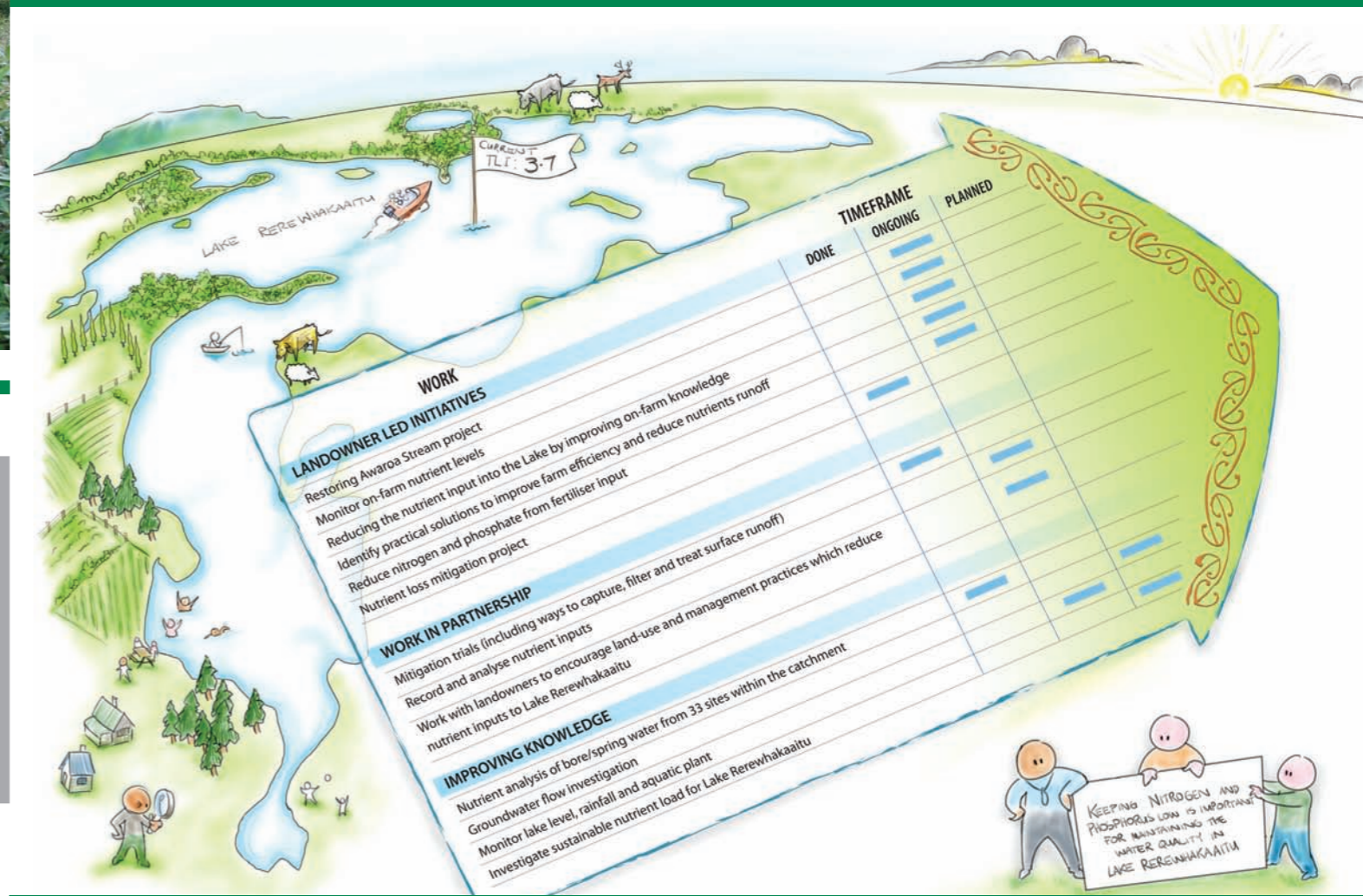
This will have an added benefit of children being able to avoid the adjacent Rerewhakaaitu Road, which is becoming dangerous to negotiate due to increasing logging traffic.

“The long-term goal is to plant the stream edge all the way to Lake Rerewhakaaitu - about one kilometre - and then create a track for the community.”

Lake Rerewhakaaitu School's boundary backs on to the reserve and the school is using the restoration work as an educational project by operating a nursery for the native seedlings.

School Principal Patricia McGee says the reserve is a great opportunity for students to be involved in helping the environment and also gives them a sense of ownership in the project.

The students gather native seedlings and grow them in the school nursery which they then plant in the reserve. The restoration project will bring ongoing benefits for the stream, the Lake, the surrounding environment, the students and the safety of the wider community.



When a group of dairy farmers banded together to make practical changes in their farming practices to preserve the health of Lake Rerewhakaaitu, they began a project that is now being seen as a useful model for sustainable farming.

Lake Rerewhakaaitu is unique among the Rotorua lakes as being the only catchment where the main activity is dairying. Since the 1970s there has been steady intensification of dairying activities in the catchment. In 2001, Bay of Plenty Regional Council recorded water quality in Lake Rerewhakaaitu as satisfactory but noted that nutrient levels were increasing in streams flowing into the Lake.

Farmers within the catchment were concerned about the future condition of the Lake and the possible imposition of nutrient constraints on their farming operations. As a result the farming community has taken the lead by working together for the common goal of maintaining their farming businesses while doing everything possible to reduce nutrient flows into Lake Rerewhakaaitu through minimising effluent and nitrate contamination.

Working together to make changes

Lake catchment: 37 km²
 Location: At the base of the southern slopes of Mt Tarawera. The highest and southernmost lake of the Rotorua Lakes.
 Population: 230



“ Most of the farmers see the benefit in having their input on how they can change, rather than being told how to do so by someone else. ”



In 2003, the local farmers began Project Rerewhakaaitu. The project began with a small group of farmers collaborating to find ways they could make new decisions and reduce farm nutrient leaching into waterways and the Lake. The initial stage focused primarily on nitrogen management.

The farmers' efforts were supported through grants from Ministry of Agriculture and Forestry's Sustainable Farming Fund*, Fert Research, DairyNZ, and Bay of Plenty Regional Council. AgResearch has been the prime science provider.

Phase one of the project involved the farmers adopting the farm nutrient budgets model OVERSEER®** to get base data on nutrient flows in the catchment. This was achieved by combining all the farms' data. Despite some farmers showing initial reluctance and skepticism, after three years support had increased and most were using OVERSEER® and acting on recommendations by AgResearch to reduce nutrient loss.

The second stage of the project focused on phosphate and consisted of field trialling different mitigations to reduce phosphate loss using grass filter strips, slag socks and sediment traps. This

project numerically measured the size of the potential losses of phosphate in the catchment and the risk to the Lake.

An increasing number of farmers have implemented many of the findings, such as reducing autumn phosphate application, increasing the effluent (irrigation) area, not applying fertiliser to the effluent area and using OVERSEER® to determine fertiliser requirements.

By this stage almost all the farmers in the catchment had come on board with the project. This was because they could see how they could keep farming profitably in the catchment, while at the same time reducing the impact on the waterways and the Lake.

In response to the success of this farmer-led initiative and the commitment of the majority of farmers to improving the Lake's water quality, Bay of Plenty Regional Council Chief Executive Bill Bayfield met with the farmers in 2009 and offered to sponsor farmers' initiative. Together with the funding provided by the Sustainable Farming Fund, it supports the Rerewhakaaitu farmers to write their own catchment plan – which is phase three of the project.

Phase three focuses on each farmer preparing a plan for their farm, putting it into practice and then working together to develop a combined plan for the whole catchment.

Project Leader Bob Parker (Fruition Horticulture) believes that Project Rerewhakaaitu is the first of its kind in New Zealand as it has created a positive link between farmers and a local authority to work together on a specific catchment nutrient management plan. It is also the first time that the authority (Bay of Plenty Regional Council) has funded and supported farmers to write their own catchment plan.

“Most of the farmers see the benefit in having their input on how they can change, rather than being told how to do so by someone else,” Bob says.

“Rerewhakaaitu was never intended to be a showcase. The focus was on seeing how farmers could make changes in a practical way.”

Contrary to the unfortunate perception that dairying around waterways inevitably leads to contamination by effluent and nitrates, Lake Rerewhakaaitu is testimony to the fact that this is not necessarily so.

**The Ministry of Agriculture and Forestry's Sustainable Farming Fund has funded the Rerewhakaaitu farmers since 2003 under three separate projects. The SFF provides funding for groups of landowners to undertake applied research and education projects such as this one.*

***OVERSEER® is a farm nutrient budgets model developed by AgResearch and funded by MAF and Fert Research. It measures all farm inputs, assesses key management decisions and outlines nutrient losses from the farm. It is primarily meant to be a farm management tool.*

Community restoration project spreads the word

Extending their knowledge and skills beyond the farm gate has led to a group of local dairy farmers pitching in with a restoration project along the Awaroa Stream that runs into Lake Rerewhakaaitu.

Just as they do on their farms, they are helping protect the waterways and lake water quality through good farming practices. This community restoration group has set its sights on helping the Awaroa Stream, which is one of the main inlets into the Lake.



“ The focus was on seeing how farmers could make changes in a practical way. ”

