

Waikato Regional Council Integrated Catchment Management Newsletter

Welcome to the Autumn issue of Integrated Catchment Management News.

It's been a great summer for growing grass and milk flows to the factory have reflected this. The good growing weather also means cows will be going into winter and spring calving in good condition.

In this issue we highlight the recent Little Waipa catchment event and a recent algal bloom on a Waikato River hydrolake.

Little Waipa event

Around 55 local farmers gathered at the Little Waipa Reserve in March as Waikato Regional Council put on a BBQ to say thanks to all those in the Little Waipa catchment who have participated in the integrated catchment management pilot project.

Council staff reported back to the community on the findings of the pilot which has been going for five years. Ross Abercrombie talked about how changes made to infrastructure and farm practices included expansion of effluent areas, removal of winter applied nitrogen, further riparian planting, the building of effluent ponds, adjustments to stocking rates to more closely fit feed supply and closer examination of the economics of supplementary feeding. Low cost options that reduced expenditure and increased profit were generally the first changes to be made on farm. However, Ross noted some considerable environmental protection-related investments had been made on some farms.

The many changes made have improved nitrogen efficiency on farms and a lowering of nitrogen loss to ground water. Amongst Little Waipa catchment farmers in the pilot, average nitrogen leaching loss has moved from 37 kg N/ha to 35 kg and average phosphorus loss from 1.3 kg P/ha to 1.1 kg.

Ross indicated the one-to-one farm planning approach between council staff and farmers was well received and was important in helping make nutrient management decisions.

The next phase of the pilot project will be extended to some 1400 farmers in the upper Waikato River catchment. Council staff numbers haven't changed so new ways of working will see greater involvement of industry bodies and rural professionals.

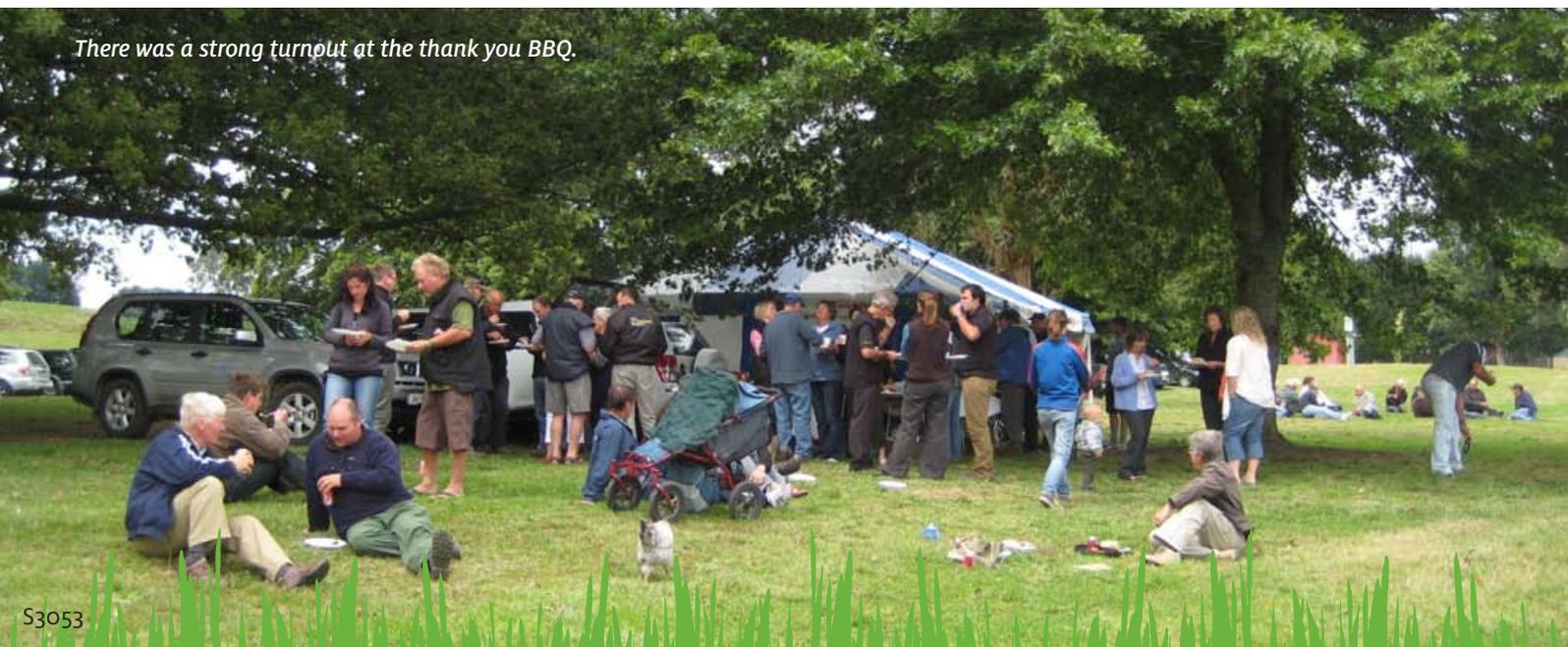
Meanwhile, local farmer Jos van Loon talked of the changes he and his wife had made on their farm during the project. This included a huge investment in effluent storage and effluent irrigation. A new pond has been built and effluent pipe size upgraded to better handle the application of effluent when the grass was growing at its best. His farm showed the greatest modelled drop in nitrogen leaching in the catchment during the pilot.

Stephanie O'Sullivan, of the Raukawa Charitable Trust and the Waikato River Authority, spoke on river settlement legislation and Raukawa's aspirations for the river. She noted iwi members were farmers and said the environmental challenges they faced over water quality protection were the same as the Little Waipa farmers. They too are working to balance economic and environmental aspirations, she said.

DairyNZ's Dave Clark described Scott farm trial work where profitable dairy farming and sound environmental practices are very much part of the operational fabric.

Dave noted the improved genetic merit of cows and the adjustments in stocking rate that is needed to ensure the genetic potential of cows is reached. He talked of the current limitations of ryegrass in the Waikato and the improvements in ryegrass breeding that would be needed for the future. He also acknowledged the role legumes and herbs play in a pasture sward. (continued overleaf)

There was a strong turnout at the thank you BBQ.





Lake Ohakuri algal bloom

Bright green algal blooms were clearly visible on both sides of the Whirinaki arm of Lake Ohakuri (above), one of the hydrolakes on the Waikato River, during a recent flyover.

This part of the lake is prone to blooms due to factors such as nitrogen loading from geothermal springs, higher water temperature and low flow rates.

It provides a window of what lake future degradation could look like in other hydrolakes if nutrient leaching and runoff from farms is not well managed.

Having a nutrient budget and nutrient management plan are steps towards being responsible about nitrogen and phosphorus leaving the farm through urine spots and fine sediment particles.

Rural professionals trained in nutrient management can advise on ways farmers can improve nutrient efficiency to prevent such algal blooms.

(Continued from overleaf)

Dave spoke of the stand-off trial at Scott Farm which had seen a significant reduction to overall annual nitrogen leaching. He also spoke of the need to grow grain at home and the benefits of lower replacement rates.

A future vision Dave has, based on current farming technology, is a farm with a stocking rate of 2.2 cows per hectare, with an average cow live weight of 550 kg, producing 1200kg milk solids and leaching only 25 kg N per hectare. However, Dave understands that change takes time and his vision may take some time to achieve.

NIWA scientist John Quinn discussed water quality trends during an afternoon boat ride on the lake. He talked of the increasing

levels of nitrogen being added to Lake Karapiro from the Little Waipa Stream, where concentrations have been measured over the last 19 years.

John outlined how weed and algae growth, which can be encouraged by nutrients from farms, depletes the oxygen in water and how this leads to a deterioration of aquatic life and the health of lakes. He answered many questions about land intensification and its affect on water quality over time.



A group listening to the land-water connection story from a senior NIWA scientist John Quinn

Healthy Farms, Healthy Rivers

Finally, the Integrated Catchment Management brand for nutrient management in the Upper Waikato is to be replaced by "Healthy Farms, Healthy Rivers." We hope that this more closely describes the work we do and the strong connection that exists between land and water.

Till next time.