

Environment Waikato

Integrated Catchment Management

Newsletter

Co-management coming

Steph O'Sullivan, Raukawa's environment group manager and Treaty claims negotiator, comments on Waikato River co-management between iwi and the Crown, and what this will mean for ICM catchment farmers.



Steph at home in her rural Tokoroa surrounds.

What does co-management mean to you?

Co-management means Crown and iwi protecting the Waikato River and its tributaries for current and future generations so all can enjoy it.

What are Raukawa's aspirations for the Waikato River and surrounding catchment?

Our aspiration is that the river is restored to a state where we can swim, fish and play in the river, and know that its ecosystems, including fish and plant life, are also restored.

How are Raukawa and other iwi working together on co-management?

Raukawa, Te Arawa river iwi and Ngati Tuwharetoa have been working extremely closely together, and have collectively negotiated the co-management framework for the upper Waikato River (Karapiro to Huka Falls). There is only one piece of legislation for the upper river

And how does this dovetail with regional council responsibility?

Raukawa has a memorandum of understanding with the regional council and sees the co-management framework as adding value and clarity to this relationship.

Where do farmers' private property rights meet public and iwi rights of management?

The co-management framework recognises and provides for the rights of Raukawa as a treaty partner. It has been developed within existing laws, such as the Resource Management Act and the Local Government Act, and does not create any changes in farmers' rights. The more general conversation of public good versus private benefit in the use of water and water quality is one for a much wider forum.

How long do you think will farmers be given to undertake any changes required to improve water quality?

This is a crucial question. We know that our goals are an ultimate target to be achieved over 80 to 100 years. We will need to set milestones that are achievable and economically viable to work towards along the way.

How much money is allocated for the river restoration?

An initial \$210 million has been set aside for restoration work over 30 years. This fund is not to fund existing works or work agencies or individuals should already be carrying out. It's to enhance, augment and speed up river restoration. It is a fully contestable fund that anyone can apply to.

How will co-management affect individual farms?

There are already a suite of issues and pressures affecting farm activities. All land users (not just dairy farmers) will be encouraged to use best land management practices.

What are the main changes needed for Upper Waikato farmers?

Reducing nitrogen leaching and phosphate runoff, getting stock out of waterways, reducing sedimentation, improving dairy shed effluent management and improving – and utilizing more effectively – farms' riparian areas. We particularly need to look for gains in the headwaters of sensitive catchments. Reducing the use of inputs such as energy and water – which is already over-allocated – is also important. We need to be smarter with the resources we have to be both more profitable and more sustainable.

Are Maori farms lifting their environmental standards?

Absolutely. This is one of the major challenges many of our farms now face after decades of many other unique challenges to Maori land development.

Water flow and N loss

Nitrogen (N) is an essential ingredient for milk and meat protein production but it's also important to manage N efficiently to protect waterways.

New Zealand farms currently have an N efficiency rating of 25 to 40 per cent. Improving N efficiency will see more N in product and less N lost to groundwater and waterways.

Greater concentrations of nitrate in rivers and groundwater have increased the risk of unwanted algal growth so increasing N efficiency on farm will reduce this threat.

Nitrate is highly soluble so is found in soil water. It cannot be adsorbed (held) to the surface of organic matter. It therefore slowly moves down into ground water. (However, nitrogen also exists in the ammonium form which can be retained in soil.)

One source of nitrate occurs when bugs break down plant and dung material in the soil. This breakdown process speeds up as bugs get more oxygen when, for example, a paddock is cultivated.



Standing cows off pasture when soils are cold and saturated can help prevent N leaching.

Other useful techniques include not using effluent irrigators when soils are saturated; preventing pugging and compaction of soils; not leaving cultivated paddocks fallow over the winter; matching nitrogen demand with nitrogen availability when planting and growing crops such as maize; and not applying nitrogen fertiliser before heavy rain.

For more information call Don Harford on 0800 800 401.

Another well-known source of nitrogen is cow urine. This nitrate will be taken up by pasture when growing conditions are good but, when ground temperatures are low and pasture growth slows, water will carry the nitrate out of reach of the plants roots and into deeper groundwater.

Practices that can prevent nitrogen leaching to water include standing cows off pasture when soils are cold and saturated and collecting their urine for land application when pasture growing conditions are good.

Other useful techniques include not using effluent irrigators when soils are saturated;

Seeing the light

When undertaking riparian planting of trees, it is essential young seedlings get their share of the sun during the spring growth period.

Removing the weed and grass growth around them helps ensure this happens. This can be done by hand or by using spray around the base of the plant.

If using herbicides be careful not to spray the seedling, or over the water itself. EW recommends using a spray guard and can provide details on some simple but effective options. Phone Paul Smith on 0800 800 401.



Clearing away weeds helps young seedlings see the light.

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