

Good water, good farming

A new approach to improving rural water quality

Advancements in improving water quality in Otago have been considerable. This has included making progress cleaning up point-source discharge quality from rural and industrial sources. Many farmers have also improved how they manage their land and effluent systems to reduce contaminants getting into rivers.

Overall water quality in Otago is excellent. However, in South and West Otago, it is under pressure, especially in intensively-farmed wetter areas with drainage. In some places, monitoring has revealed deteriorating water quality.

This degraded water quality, with raised levels of non-point source contaminants - such as nitrogen, bacteria, and sediment - commonly occurs in lower catchment areas. It follows that several rural streams and rivers no longer meet community or ecological expectations, because of the presence of contaminants in leaching, drainage, and runoff.

While good water quality must be protected, in degraded rivers and streams the quality needs to be improved. Agriculture has greatly benefited the Otago regional economy. However, we want to ensure that intensive land use does not lead to environmental degradation.

To meet this challenge, the ORC Rural Water Quality Strategy seeks to ensure Otago's waterways remain healthy. An urban water quality strategy has also been developed. Rules based around conditioned permitted activities will give effect to this strategy.

This approach allows farmers to choose how they operate their farms and in the process control the discharge of water contaminants originating from their land.

Photo: Steve Le Gal, NIWA



On-farm management of non-point source pollution

Farmers understand how local weather, soil, and topographic conditions can affect their operations.

Because every farm has different characteristics, the new approach allows individual farmers to decide how they will reduce their non-point source pollution in waterways.

ORC is proposing a water quality management approach centred on farmers and other land users assuming a leadership role in contaminant control.

This approach aims to encourage farmers to choose and take actions appropriate to their property, so that they comply with water contaminant discharge limits.

The approach is primarily concerned with farmers managing the effects of land use on water quality, rather than ORC controlling land use activities. There are two main components: Setting limits; and ensuring accountability.

Setting limits

Limits will be set for a range of contaminants found in discharge from land. These are: *E coli*; nitrogen; sediment; and phosphorus.

The limits will be determined using catchment assessments, and incorporate community expectations for water quality, ensuring people and animals can use water safely.

The limits apply to all permitted discharges coming off land, including:

- > runoff flowing directly overland to waterways;
- > drainage water flowing through tiles and drains to waterways, and;
- > leachate moving down to groundwater.

Ensuring accountability

Once limits are set, farmers must ensure that any discharges from their land do not exceed these. They can decide for themselves the best way of achieving this.

This approach will take several years to become fully effective. Consultants or the ORC staff will be available to provide farmers with advice.

Farmers will need to make on-farm changes such as:

- > understanding the limits and determining how discharge quality should be measured;
- > understanding how contaminants move from their land, and whether contaminant levels in discharge need to change in order to meet the limits for water quality;
- > determining how to alter their farm practices to ensure their discharges comply with the limits. This may include: reducing nitrogen application, fencing streams, controlling sediment, and investing in modern effluent collection, storage and irrigation plant.

The next steps

Otago Regional Council staff will work with farmers and other land owners to ensure the components of this new approach are well understood.

Public forums and field days will be held around the region where ORC staff will discuss the proposal with interested parties, and allow for public input and comment.

Your feedback will help us develop a system whereby farmers and other landholders can make their own decisions on how they use their land, and manage the effects of that use to meet water quality contaminant limits.

For more information about the rural water quality strategy, contact
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