



FACT SHEET

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COMMUNITY BASED FRESHWATER MONITORING

Community-based freshwater monitoring engages both landowners and the public in freshwater monitoring. It is a powerful tool, linking communities with decision-makers and developing a partnership for sustainable freshwater management.

Key Messages

- Monitoring the health of freshwater is important to evaluate long-term trends in ecosystem health and identify freshwater quality issues early.
- You can't manage what you don't measure. If we want to manage our freshwater resources better, we have to measure it.
- How healthy is your stream? SHMAK the New Zealand Stream Health Monitoring and Assessment Kit has been designed to help you find out.
- On-farm monitoring gives farmers the confidence that their actions reap benefits and also demonstrates leadership in sustainable practices.
- By working at the catchment or sub-catchment scale, farmers identify unique characteristics (e.g., soil type, topography, rainfall) and design monitoring and mitigation strategies that best fit their needs and values.

Why monitor freshwater quality?

Monitoring the health of freshwater is important to evaluate long-term trends in ecosystem health and identify freshwater issues early. Monitoring data helps understand environmental stressors, like sediment or nutrient runoff from the land, and allows landowners to adapt their practices to manage these impacts on aquatic ecosystems.

Community-based freshwater monitoring engages landowners and the public in freshwater monitoring. Increasingly, community-based monitoring efforts are relied upon to support decision-making. We can even combine monitoring data from multiple catchments, to help us better understand our freshwater at a regional or national level.

Why is a catchment-based approach necessary for freshwater monitoring?

Monitoring is more meaningful at the sub-catchment scale (as opposed to farm scale as the effects may be too subtle to detect). B+LNZ encourages farms to work together in catchment community groups, to understand that actions in a catchment will have cumulative impacts on other areas downstream and that a holistic approach to freshwater management is important. By working at the catchment or sub-catchment scale, farmers identify unique characteristics (such as soil type, topography and rainfall) and design monitoring and mitigation strategies that best fit your needs and values. Catchment groups are also more likely to secure long term funding and provide a more effective platform for communicating results than farmers working alone.





What stream health indicators should we monitor?

A key component to the success and longevity of catchment groups is to ensure that their monitoring goals are well-thought out and their monitoring plans are carefully designed. If not, monitoring activities can quickly become resource (time, money and people) heavy. On top of that, a well-thought out monitoring plan will help to resolve challenges around legal responsibility and a healthy relationship between farmers and resource managers can be established.

The Stream Health Monitoring and Assessment Kit (SHMAK) has been developed by NIWA in partnership with Federated Farmers of New Zealand. It provides standardised protocols for stream monitoring. This includes attributes such as visual clarity (an indicator of suspended sediment levels) and specific bugs (which act as biological indicators of ecosystem health).

The specific attributes you choose to monitor - and how often you choose to monitor - will depend on the values and goals of your catchment group.

Over time, these attributes will help you develop a deeper understanding of your streams. It is important to note that the most meaningful trends are seen when measurements are spread over a long term, preferably 5 to 10 years or more. It is also important to remember that the monitoring data you collect will not replace compliance monitoring and other monitoring by local and central government.

Where to go from here?

- If you are interested in setting up a catchment group, talk to your neighbours and others in your community. Discuss the environmental issues of concern in your catchment. These discussions will help you to develop your freshwater quality goals and long term vision.
- You can involve local or regional council, schools, DOC, Landcare Trust, local hapu or other interested groups. You can keep your discussions informal or hold public meetings. There is not a one-size-fits-all model for how to approach your catchment group.
- Your Beef + Lamb New Zealand extension manager can assist you with this process. Visit www.beeflambnz.com or phone 0800 233 352

Further information

Stream Health Monitoring and Assessment Kit

<https://www.niwa.co.nz/freshwater/management-tools/water-quality-tools/stream-health-monitoring-and-assessment-kit>

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