<https://www.mfe.govt.nz/environmental-reporting/about-environmental-reporting/reporting-partnerships/environmental-monitoring-reporting-guidelines.html>

# Environmental monitoring and reporting guidelines and protocols

As part of our coordinating role we develop tools and guidelines for other agencies to use in collecting and managing their environmental information. This helps ensure we collect consistent and high quality environmental information. This page provides information on these tools and guidelines.

## Air quality monitoring guidance

We have developed guidance publications for councils and industries to improve quality and consistency in monitoring and managing air quality in New Zealand.

For a list of publications see [air quality best practice guides and guidelines](https://www.mfe.govt.nz/publications/air/index.html#guides).

## Transport monitoring guidance

'The Monitoring and Data Management Protocol: Environmental Indicators for Transport' provides user-friendly guidance on the collection and use of transport indicators to allow consistency over time and within different organisations.

The protocol provides local government, environmental managers, and road controlling authority managers with a step-by-step process for collecting, analysing, managing and presenting indicator information, using four environmental indicators for transport.

## Water quality and environments monitoring guidance

### Lakes

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| Trophic level index | * [Protocol for Monitoring Trophic Levels of New Zealand Lakes and Reservoirs](https://www.mfe.govt.nz/publications/water/protocol-monitoring-trophic-levels-mar-2000/index.html) (Burns et al 2000) |
| LakeSPI | * [LakeSPI Technical Report, LakeSPI User Manual and Plant Identification Sheets](http://www.niwa.co.nz/our-science/freshwater-and-estuaries/lakespi-keeping-tabs-on-lake-health/outputs) [NIWA website] |

### Rivers

#### Biological monitoring

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| Macroinvertebrate Community Index (MCI) | * [User guide to the MCI](https://www.mfe.govt.nz/publications/water/mci-user-guide-may07/) (Stark and Maxted 2007) * [Protocols for Sampling Macroinvertebrates in Wadeable Streams and Protocol sheets](http://freshwater.science.org.nz/index.php/publications/books/protocols-for-sampling-macroinvertebrates-in-wadeable-streams/) |
| Percentage of the total abundance comprising Ephemeroptera, Plecoptera and Trichoptera taxa (%EPT) | * [Protocols for Sampling Macroinvertebrates in Wadeable Streams](http://freshwater.science.org.nz/index.php/publications/books/protocols-for-sampling-macroinvertebrates-in-wadeable-streams/) |
| Periphyton | * [Stream Periphyton Monitoring Manual](http://www.niwa.co.nz/our-science/freshwater/tools/periphyton) (Biggs and Kilroy 2000) [NIWA website] |
| Fish | * [New Zealand Freshwater Fish Sampling Protocols – Part 1: Wadeable rivers and streams](http://www.envirolink.govt.nz/PageFiles/31/New%20Zealand%20Freshwater%20Fish%20Sampling%20Protocols.pdf) (Joy et al 2003) [PDF 9.4 MB] |

#### Physical and chemical parameters

See the recommendations in [Freshwater monitoring and quality assurance: National Environmental Monitoring and Reporting (NEMaR) Variables Step 2](https://www.mfe.govt.nz/publications/ser/freshwater-monitoring-protocols-qa-nemar-variables-step-two.html) (Davies-Colley et al 2012).

#### Recreational waters

Councils monitor beach water quality at sites throughout New Zealand, using the [Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas](https://www.mfe.govt.nz/publications/water/microbiological-quality-jun03/index.html) (2003) produced by the Ministry for the Environment and the Ministry of Health. This monitoring allows councils to monitor and manage the health risk to the public from primary contact recreation (such as swimming or surfing).

[Bathewatch](https://www.mfe.govt.nz/publications/water/microbiological-quality-jun03/) has been specifically designed to help councils determine the Suitability for Recreation Grade of swimming spots.

## Kaimoana (seafood) survey guidelines

The [Kaimoana Survey Guidelines for Hapū and Iwi](https://www.mfe.govt.nz/publications/ser/kaimoana-oct03.html) provide hapū and iwi with information and a suggested process for undertaking a survey of kaimoana (seafood) resources. The guidelines were prepared by Otaraua Hapū in partnership with Shell Petroleum Mining Ltd and were published by the Ministry for the Environment.

## Cultural Health Index

The [Cultural Health Index](https://www.mfe.govt.nz/publications/water/cultural-health-index-for-streams-and-waterways-tech-report-apr06/index.html), developed by Ngai Tahu under their Treaty Settlement, is a tool that Māori can use to assess and manage waterways in their area. A [Cultural Health Index user guide](https://www.mfe.govt.nz/publications/water/cultural-health-index-for-streams-and-waterways-feb06/index.html) has been prepared that explains the way the Cultural Health Index works, how it can be used, and how tangata whenua may use the information produced.

<http://www.mfe.govt.nz/publications/water/macroinvertebrate-protocols-wadeable-streams-nov01.html>

# Protocols for sampling macroinvertebrates in wadeable streams

November 2001  
SMF 5103

This protocol identifies and describes standardised protocols for use by agencies throughout New Zealand for macroinvertebrate biomonitoring. Aquatic macroinvertebrates are universally accepted indicators of pollution in freshwaters, but they are sampled and used in widely differing ways nationally. The use of standard methods enables more defensible and consistent biomonitoring regionally and nationally, increases consultation between water agencies, facilitates national state of the environment reporting and is an important pre-cursor to developing consistent national databases.

Availability:

* Download PDF [1 MB]
* Printed copies are not available