



Environmental Indicators Quarterly



Welcome to *Environmental Indicators Quarterly*, the Ministry for the Environment's e-newsletter linking you to information on what's happening in the realm of environmental reporting. We hope you find this newsletter useful and informative. We welcome your ideas, feedback and suggestions – please contact us at environmental.reporting@mfe.govt.nz.

Environmental databases now freely available

Two key environmental databases have recently been given a new lease of life. As part of its leadership role in providing accessible, high quality information on the state of the environment, the Ministry for the Environment recently made the Land Cover Database (LCDB) and Land Environments New Zealand classification (LENZ) available online, for free and with a Creative Commons attribution licence.

The new licence allows the public to freely use, share and distribute these databases. It also gives users permission in advance to use the data in different ways. This work ties in with a goal of the New Zealand Geospatial Strategy: that government geospatial information and services can be readily discovered and accessed. It also fits with work currently underway by the State Services Commission on an all-of-government approach to opening up public sector copyright material for re-use.

The LCDB is a digital map of New Zealand's land cover derived from satellite imagery. Land cover describes the types of features present on the surface of the earth (eg, pastures, lakes or forests). The LCDB provides information for a number of national environmental indicators such as land cover, land use, erosion risk and native land under legal protection.

The LENZ maps areas of the New Zealand landscape that have similar environmental characteristics, for example, similar species and biological interactions and processes. It uses 15 climate, landform and soil factors that are considered likely to influence the distribution of animal or plant species. Based

on these factors, land environments can be used as a surrogate for ecosystems. LENZ can be used at four levels of detail to map 20, 100, 200 or 500 land environments. It is used to report on the national environmental indicators for biodiversity.

The Land Cover Database and Land Environments New Zealand are both available at www.koordinates.com.

Third National Environmental Reporting Forum

The Ministry for the Environment and Statistics New Zealand will jointly host a third National Environmental Reporting Forum on 20 October 2009. The aim of the forum is to build a 'community of interest' in environmental monitoring and reporting across the country, by bringing together a national network of people to share technical information and best practice. Nearly 100 participants from a broad range of agencies attended the last forum. The forum will include a number of workshops, with one focusing on the Ministry's Land Use and Carbon Analysis System (LUCAS). For more information on the next forum, contact Janine Smith at (04) 439 7542 or janine.smith@mfe.govt.nz.

Algae trends in New Zealand rivers

The Ministry for the Environment will soon publish a technical report updating information on the state of New Zealand's rivers. This follows the June publication of reports on [river water quality trends](#) and [freshwater fish communities](#).

The new report will assess trends in nuisance algae (periphyton) at New Zealand National River Water Quality Network sites between 1990 and 2006. This is the first time this data has been analysed and reported at a national level. Algal growth in rivers can be a nuisance for recreational users and affects fish and insect life. For more information contact Tanya Gray at (04) 439 7489 or tanya.gray@mfe.govt.nz.

Environmental Domain Plan

Statistics New Zealand is developing an Environmental Domain Plan in conjunction with the Ministry for the Environment and the Department of Conservation to assess the current state of national-scale environmental data in New Zealand, and propose initiatives for filling the gaps. Domain plans are an important part of the Official Statistics System and provide a structured, systematic approach in areas that span the statistical collections of several agencies or sectors.

The Environmental Domain Plan will:

- identify the key enduring topic areas that need to be informed by Official Statistics
- undertake a data stocktake to identify the national-scale data sources that currently inform these topics
- assess the existing national-scale data and identify data gaps

- set out priorities to strengthen Official Statistics in the environment sector.

The Environmental Domain Plan aims to:

- provide a transparent overview of activity within the statistical system
- lead to increased knowledge of that activity
- provide opportunities for collaboration
- lead to improved quality and availability of data in the future
- be a valuable communication tool.

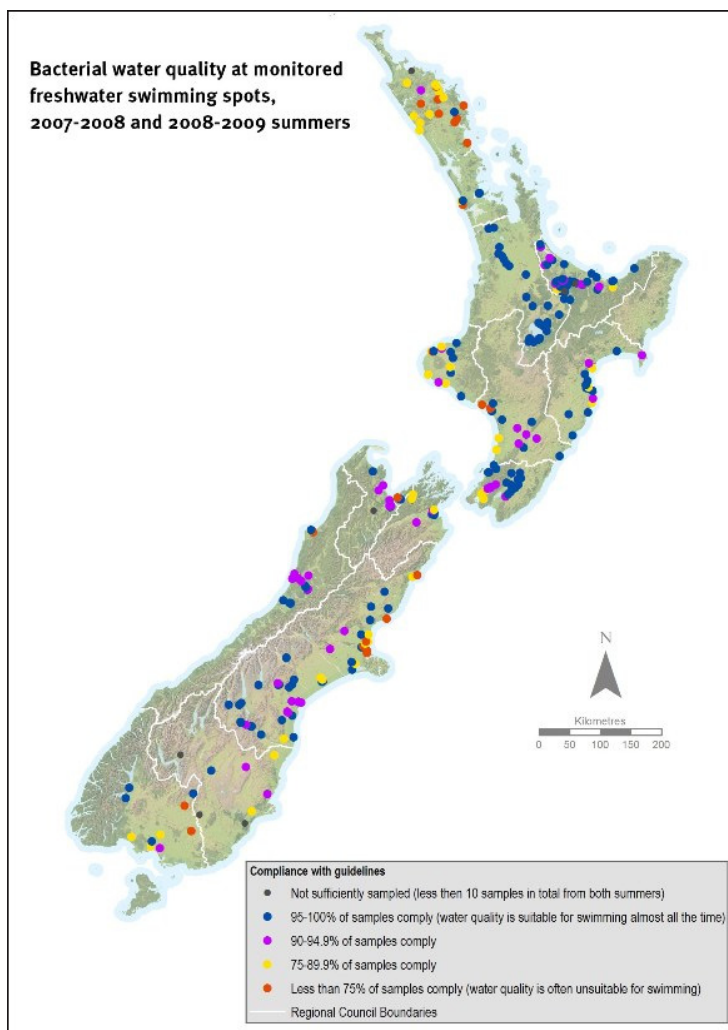
The key enduring topics have already been identified, and the data stocktake is currently under way. The Environmental Domain Plan is due for completion in 2010. For more information, email environment@stats.govt.nz with Environment Domain Plan in the subject line.

Water quality at freshwater and coastal swimming spots

The Ministry for the Environment recently released a web update of water quality at freshwater swimming spots in New Zealand. A web update of water quality at coastal swimming spots is also due for release soon. Water quality data is reported against the *Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas*, a health-based guideline used to determine whether or not a site is safe for recreational use.

The freshwater swimming spot web update covers bacterial water quality data for about 300 rivers and lakes for the 2007–2008 and 2008–2009 summers. Of those freshwater swimming spots that were monitored over these two summers, 58 per cent had bacterial water quality suitable for recreational use almost all of the time. Eight per cent had water quality that was often unsuitable for swimming.

Nationwide, recreational water quality at monitored freshwater sites has been relatively stable over the last six years. See www.mfe.govt.nz/environmental-reporting/freshwater/recreational/snapshot/index.html for more information.



Evaluation of the RMA survey of local authorities

The Resource Management Act (RMA) survey of local authorities provides core information about local authority implementation of the RMA and a measure of comparative performance.

The Ministry for the Environment is currently conducting an evaluation of the 2007/2008 RMA survey. All local authorities have been asked to participate in the evaluation. The Ministry would also like to hear from other organisations about how they use the results from the RMA survey and how the survey could be improved. The feedback received from the evaluation will be considered when preparing the next RMA survey.

The tenth RMA survey will cover the 2010/2011 period in order to capture the effects of the Resource Management (Simplifying and Streamlining) Amendment Bill, which is due to come into effect later this year. While we also want to continue to collect information about implementation of the RMA, we also want to look more broadly at resource management in New Zealand and consider ways to evaluate the performance of the system as a whole.

If you have an interest in the RMA survey and would like to participate in the evaluation, please answer the questions below and send your answers to Josh Fyfe at josh.fyfe@mfe.govt.nz by 18 September 2009.

Evaluation questions include:

- How does your organisation use the results of the published survey report?
 - ▶ What information from the survey report do you use the most?
 - ▶ What information from the survey report do you use the least?
- What information about RMA processes that is currently not collected in the RMA survey would be useful to your organisation?
- If the RMA survey collected qualitative information, what questions/issues would you most like qualitative information for?
- Does your organisation have any other feedback on how we could improve the RMA survey?
- To help us analyse the responses to this survey please indicate which of the following sectors your organisation best belongs to:
 - ▶ Professional association
 - ▶ Industry/business
 - ▶ Educational institution
 - ▶ Iwi/Maori
 - ▶ Central government agency
 - ▶ Environmental organisation/NGO
 - ▶ General public
 - ▶ Other, please specify.

National guideline for blue-green algae

The Ministry for the Environment will soon publish a New Zealand guideline for blue-green algae (cyanobacteria) in recreational fresh waters, jointly endorsed by the Ministry of Health.

The guideline is in response to requests from regional councils and public health agencies for best practice advice on monitoring algae levels, and managing and reporting bloom events in rivers and lakes. Toxic blue-green algae pose a threat to humans and animals in contact with water during recreational activities.

The guideline will:

- be a tool to help agencies develop monitoring protocols appropriate for local conditions and circumstances
- encourage the adoption of a nationally consistent approach to managing cyanobacteria risk in water used for recreational purposes
- provide useful information for national-scale monitoring and reporting on the state of fresh water in New Zealand
- improve understanding of the human-induced and natural factors influencing freshwater quality in New Zealand.

This is the first time a guideline for blue-green algae has been produced in New Zealand. The non-mandatory guideline will be reviewed after a trial period and refined if necessary.

The guideline is due to be published on the Ministry's website by the end of October. For more information contact Mike Thompson at (04) 439 7552 or mike.thompson@mfe.govt.nz.

Water quality in dairying catchments

The Ministry for the Environment recently released a report on water quality in selected dairy farming catchments around New Zealand. The report draws together water quality and land-use information provided by regional councils, the National Institute of Water and Atmospheric Research (NIWA) Ltd and Fonterra. It establishes a baseline of water quality in these predominantly dairy farming catchments against which changes related to dairy management practices can be measured in the future.

The report shows that water quality is generally degraded in the catchments, particularly with respect to faecal and nutrient contamination. However, the extent and pattern of degradation is variable, both within and between catchments.

These findings are consistent with recent reports from resource management agencies and regional and national state of environment reporting: that streams in lowland pastoral catchments have poorer water quality than unmodified streams. It is likely the observed degradation is not solely due to dairying in all cases as some catchments have mixed land uses.

The report recommends the Ministry lead work to review:

- the existing catchment monitoring programmes
- the funding and resource arrangements for these monitoring programmes
- future reporting.

To view the report, go to www.mfe.govt.nz/publications/land/water-quality-selected-dairying-farming-catchments/index.html.

What's new

New air quality monitoring data available

The Ministry has recently published two new reports on ambient air quality. They report on air quality datasets for 2007 and 2008 from specific sites in Auckland and Christchurch. This monitoring constitutes New Zealand's contribution to the Global Environmental Monitoring System (GEMS).

The GEMS monitoring sites were established to measure key air pollutants associated with adverse effects on people's health and well-being. The sites include some of the longest running air quality monitoring sites in New Zealand.

The two new reports on ambient air quality are available at www.mfe.govt.nz/publications/air/gems.

New environmental report cards

Two new environmental report cards have been released recently on solid waste composition and energy supply and demand.

Solid waste composition report card

The solid waste composition report card estimates how the overall waste stream is broken down, by proportion, in to the various types of waste. The results show that organic waste was the largest of the waste streams, making up 28 per cent of waste sent to landfill, followed by rubble then potentially hazardous waste.

Between 2002–2004 and 2007–2008, the share of organic, plastic, glass, and nappies and sanitary waste increased in the New Zealand waste stream, while rubble, paper and metal waste decreased. These changes reflect changing consumption patterns, recovery rates of recyclable materials, and construction activity.

The solid waste composition report card is available at www.mfe.govt.nz/environmental-reporting/report-cards/waste-composition/2009/waste-composition.pdf.

Energy supply and demand report card

The energy supply and demand report card shows that, as a nation, our energy use is growing. While much of this growth can be attributed to population growth, we are also using more energy on a per person basis. In recent years, however, New Zealand's economic growth has exceeded growth in energy demand, indicating that our economy is relying less on energy to generate wealth than in the past.

The energy supply and demand report card is available at www.mfe.govt.nz/environmental-reporting/report-cards/energy-supply-and-demand/2009/energy-supply-and-demand.pdf.

Indicator reporting by other central government agencies

There is much in the way of indicator reporting currently underway by other central government agencies.

Statistics New Zealand released *Measuring New Zealand's Progress Using a Sustainable Development Approach: 2008* on 30 July. The new report consists of 85 indicators across 15 topics. Of those, 7 topics and 39 indicators relate to the environment.

Two-thirds of Statistics New Zealand's environmental-related indicators (26) are also reported by the Ministry for the Environment (17 of the 26 belong to the Ministry's core set of national environmental indicators). Of the remaining 13 indicators, more than half are similar to environmental reporting undertaken by the Ministry.

To view the report go to www.stats.govt.nz/reports/sustainable-development.aspx.

The **Ministry for Culture and Heritage's** report *Cultural Indicators for New Zealand* was released on 21 July. The report is produced under the Cultural Statistics Programme and follows the Ministry's first report in 2006. It consists of 24 indicators, 19 of which are populated (up from 14 in its first report).

A newly populated indicator, Heritage Protection, reports the proportion of sites either registered with the New Zealand Historic Places Trust, or listed as places with heritage value in territorial authority district plans that have been destroyed, relocated or partly removed during the period.

To view the report go to www.mch.govt.nz/publications/cultural-indicators/index.html.

The **Ministry of Economic Development's** 2009 *New Zealand Energy Data File* was also released in July. The report provides data and information on New Zealand's energy sector, including statistics on supply and demand by fuel types, energy balance tables, pricing information and international comparisons. The Ministry of Economic Development also publishes quarterly energy data.

The **Ministry of Health's** environmental health indicators report is due to be released later in August.

The **Ministry of Social Development's** eighth *Social Report* is due to be released in late September.

The **Ministry of Tourism** is completing a report on environmental indicators for tourism that is due for release early next year.