



# 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](mailto:environmental.reporting@mfe.govt.nz).

## Second National Environmental Reporting Forum

The Ministry for the Environment and Statistics New Zealand jointly hosted the second National Environmental Reporting Forum on 17 April. Nearly 100 participants attended from central and local government, health agencies, Crown research institutes, the Office of the Parliamentary Commissioner for the Environment, and other agencies with an interest in environmental monitoring and reporting.

This second national forum builds on the pilot forum, held in August 2008, and also replaces an earlier National Environmental Statistics Users' Group. 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.

Presentations were given on several reporting initiatives including: Statistics New Zealand's upcoming report measuring [sustainable development](#); the Ministry's National Cyanobacteria Guidelines; Tiakina te Taiao's iwi-led cultural monitoring of river health in Nelson/Motueka; and Landcare Research's presentation on the challenges in achieving consistent monitoring and reporting of soil health in New Zealand.

Following feedback from the pilot forum, two targeted workshops were held. They focused on how to achieve:

- greater consistency in freshwater monitoring and reporting

- a more integrated approach to environmental monitoring and reporting (ie, at the international, national, regional and local levels).

A number of actions came out of the workshops including:

- developing a data stocktake of current council monitoring of fresh water
- convening a freshwater working group led by the Ministry, and involving the National Institute of Water and Atmospheric Research (NIWA), the Institute of Geological and Nuclear Sciences (GNS Science), and regional councils, with the aim of achieving greater consistency in freshwater monitoring and reporting
- progressing a web-based environmental indicator library, where a stocktake of environmental indicators at the national, regional and local levels can be easily accessed.

Progress on these actions will be reported back to the next National Environmental Reporting Forum, scheduled for October. For more information contact Janine Smith at (04) 439 7542 or [janine.smith@mfe.govt.nz](mailto:janine.smith@mfe.govt.nz).



**PARTICIPANTS  
AT THE SECOND  
NATIONAL  
ENVIRONMENTAL  
REPORTING  
FORUM**



## RMA survey now available

The 2007/2008 Resource Management Act (RMA) biennial survey was released on 11 June. The survey (the ninth in the series) is carried out by the Ministry for the Environment and covers activity in the year of 1 July 2007 to 30 June 2008. The purpose of the survey is to provide core information about local authority implementation of the RMA and a measure of comparative performance. The survey was sent to all 85 councils and 84 responded. The key findings are as follows:

- In 2007/08, a similar number of resource consent applications were processed (51,960) as in 2005/06. As in past years, the majority of these consent applications (61 per cent) related to land use.
- Most consent applications were non-notified applications (93 per cent), similar to past years. However, the proportion of consent applications notified in some way (ie, notified or limited notified) was the highest in 10 years.
- Less than 1 per cent of all consent applications were declined, a similar result to past years. The proportion of consent decisions appealed (1.4 per cent) and objected to (2.0 per cent) increased compared to the last survey in 2005/06.
- Local authority officers made the majority (85 per cent) of consent decisions, consistent with earlier surveys. There was a notable increase in the proportion of decisions made by independent commissioners.
- Changes to consent conditions continued to grow, with 45 per cent more changes processed in 2007/08 than in the last survey, and three times more than in 1999/2000.

- In 2007/08, 69 per cent of consent applications were processed on time. This is a decrease from the previous survey (73 per cent) and is the lowest result in the past 10 years.
- In 2007/08, 28 per cent of consent applications processed had their time limits extended by section 37 of the Resource Management Act. This is an increase from the previous survey (17 per cent) and continues an increasing trend (nine-fold over the past 10 years).
- Average charges by regional councils and unitary authorities increased for non-notified consent applications, dropped for limited notified consent applications, and were variable for notified consent applications.
- Average charges by territorial authorities increased for notified and limited notified consent applications, but dropped for non-notified consent applications.
- Seventy-nine per cent of the resource consents that required monitoring were monitored. This is an increase of 35 per cent from the last survey and is the highest result over the past five surveys. Of these monitored resource consents, 84 per cent were compliant with their conditions – the highest result over the past five surveys.
- Complaints about alleged breaches of the RMA continued to increase, with 47 per cent more complaints received in 2007/08 than in the last survey.

The survey is available at [www.mfe.govt.nz/publications/rma/annual-survey/2007-2008/index.html](http://www.mfe.govt.nz/publications/rma/annual-survey/2007-2008/index.html). For more information contact Josh Fyfe at (04) 439 7529 or [josh.fyfe@mfe.govt.nz](mailto:josh.fyfe@mfe.govt.nz).

## Land Use and Carbon Analysis System

The Land Use and Carbon Analysis System (LUCAS) is a programme of work set up to measure and monitor the carbon stocks of New Zealand's forests and soils. This information is required for New Zealand's reporting requirements under the Kyoto Protocol and the United Nations Framework Convention on Climate Change (UNFCCC).

To provide this information, the LUCAS team at the Ministry for the Environment is producing a map which shows the aerial extent and spatial location of land use in New Zealand for 1990, 2008 and 2012, based on satellite imagery and aerial photography. To date, the 1990 land-use map has been completed and work is under way on the 2008 comparative map. Orthorectification and spectral reflectance standardisation of the 2008 satellite imagery was completed in May – work is now under way to classify land-use categories for the 2008 map, with the objective of determining land-use change between 1990 and 2008 by the end of July.

For more information on the LUCAS programme go to [www.mfe.govt.nz/issues/climate/lucas/index.html](http://www.mfe.govt.nz/issues/climate/lucas/index.html) or email [lucas@mfe.govt.nz](mailto:lucas@mfe.govt.nz).

## Updating the Land Cover Database

The Land Cover Database (LCDB) is a national database used to support environmental decision-making. The LCDB is a digital map created by grouping similar types of vegetation and other land cover identified from satellite images. At present, there are two versions of the LCDB that map land cover in 1996/97 and 2001/02.

A new land cover database project is proposed (called LCDB3) that will map land cover for 2007/08, capitalising on existing satellite imagery from the LUCAS programme (see opposite). A series of workshops was held with stakeholders around New Zealand in last December and February to scope the requirements for the new LCDB. Since then, a cross-sectoral design team has been convened to explore LCDB design options and also develop a business case, which will set out costs, funding options and determine the timelines for the project. The business case will be completed in July and then the Ministry and other key stakeholders will consider the options presented.

For more information contact Karl Majorhazi at (04) 439 7455 or [karl.majorhazi@mfe.govt.nz](mailto:karl.majorhazi@mfe.govt.nz).

## New environmental report cards

Two new environmental report cards have been released recently – household consumption expenditure and vehicle kilometres travelled by road (see below). Three more report cards are nearing release – energy supply and demand, waste composition, and freshwater recreational water quality.

### Household consumption expenditure

Household consumption expenditure is a key component of the New Zealand economy, accounting for around 60 per cent of all expenditure on goods and services in New Zealand each year. In general, as household consumption expenditure increases, so too does the use of natural resources (eg, land and water), energy and transport; the generation of waste and greenhouse gas emissions; and air, water and soil pollution. As such, household consumption expenditure represents a pressure on the environment.

The report card on household consumption expenditure provides information on the volume of expenditure on goods and services by New Zealand households for the March 2007 and 2008 years. Although recognising the economic and social aspects of the indicator, the information in the report card is assessed from an environmental perspective. The report card shows similar findings to *Environment New Zealand 2007*: New Zealand's total household consumption expenditure continued to increase, as did expenditure per household and per person. However, the increases were not as large as in previous years, and household consumption expenditure is expected to decline in the March 2009 year due to a number

of factors including the global recession. The household consumption expenditure report card is available at [www.mfe.govt.nz/environmental-reporting/report-cards/household-consumption/hce-report-card-2009.pdf](http://www.mfe.govt.nz/environmental-reporting/report-cards/household-consumption/hce-report-card-2009.pdf).

### Vehicle kilometres travelled by road

As New Zealanders, we rely on road transport to facilitate our daily routine: we use it get to and from work and we use it for educational, social and recreational activities. Road transport also supports our economic prosperity by enabling the movement of people and goods. While road transport provides many economic and social benefits, it also has environmental and health impacts.

The report card on vehicle kilometres travelled by road provides information on the total distance travelled on New Zealand roads for 2007. This indicator also reports on the type, age and fuel type of the vehicles travelling. Although recognising the economic and social aspects of the indicator, the information in the report card is assessed from an environmental perspective. This report card shows similar findings to *Environment New Zealand 2007* – that our use of road transport is intensifying. On average, New Zealanders are driving further, we own more cars, they are getting older, and their engines are gradually getting bigger. The report card on vehicle kilometres travelled by road is available at [www.mfe.govt.nz/environmental-reporting/report-cards/transport/2009/transport-report-card-2009.pdf](http://www.mfe.govt.nz/environmental-reporting/report-cards/transport/2009/transport-report-card-2009.pdf).

## New technical water reports

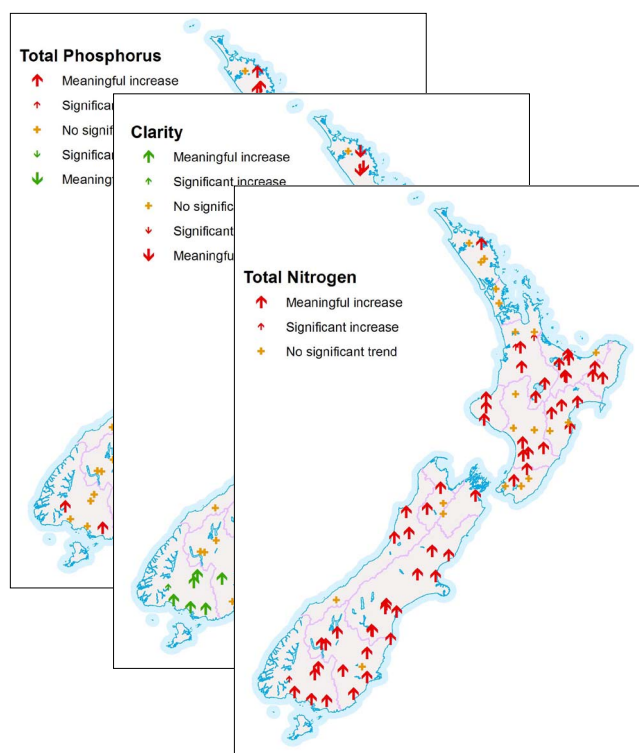
As part of the Ministry's National Environmental Reporting Programme, two technical water reports were published on the Ministry's website in June:

- [Water Quality Trends at National River Water Quality Network Sites \(1989–2007\)](#)
- [Temporal and Land-cover Trends in Freshwater Fish Communities in New Zealand's Rivers: An Analysis of Data from the New Zealand Freshwater Fish Database \(1970–2007\)](#).

The reports confirm that water quality is poorer in rivers surrounded by farming and urban land than rivers surrounded by native vegetation. This is consistent with the results presented in *Environment New Zealand 2007*. The reports are available on the Ministry's website at: [www.mfe.govt.nz/publications/ser/](http://www.mfe.govt.nz/publications/ser/).

The Ministry has commissioned a suite of new data and analysis to improve national-scale reporting on water quality. Upcoming publications include a report on trends in algal cover (periphyton) in rivers, a report on baseline water quality in dairying catchments (against which future changes in water quality can be compared), and a web-based update of the national environmental indicator for recreational water quality.

### TRENDS AT NATIONAL RIVER WATER QUALITY NETWORK SITES, 1989-2007



## In brief

---

### New environmental reporting web pages

The Ministry for the Environment's environmental reporting web pages continue to be revamped, to reflect feedback from the independent review of Environment New Zealand 2007. The review found that readers expect easier access to environmental information, more up-to-date data, online access to that data, and summary-level, plain English information.

Improvements are being made to the web pages' structure, navigation, and design. The new pages are more dynamic and interactive, and present information on a number of levels (eg, nationally and regionally). There are more graphs, and the underlying data is accessible online.

You can check out the new web pages at [www.mfe.govt.nz/environmental-reporting/index.html](http://www.mfe.govt.nz/environmental-reporting/index.html).

---

### Measuring sustainable development

A report on sustainable development in New Zealand will be published by Statistics New Zealand in July 2009. The report follows on from their 2002 publication, *Monitoring Progress Towards a Sustainable New Zealand*.

Measuring progress towards sustainable development takes into account a variety of economic, social and environmental information. Consequently, a wide range of topics will be covered in the report including: population; biodiversity; air and atmosphere; water; land use; energy; innovation; living conditions; governance; transport; waste and pollution; economic resilience; work, knowledge and skills; health; social connection; and cultural identity and heritage.

For more on Statistics New Zealand's work on sustainable development go to [www.stats.govt.nz/environment/sustainable-development/default.htm](http://www.stats.govt.nz/environment/sustainable-development/default.htm).

---

### Good Practice Guide for Air Quality Monitoring and Data Management

The *Good Practice Guide for Air Quality Monitoring and Data Management 2009* was published by the Ministry in April. It replaces the good practice guide published in 2000. Since then, there have been a number of developments in air quality monitoring, including the introduction of the national environmental standards for air quality in September 2004.

The document provides best practice guidance on ambient air quality monitoring and data management in New Zealand. It describes a number of mandatory monitoring requirements as well as general good practice guidance for air quality monitoring.

The new guide is available at [www.mfe.govt.nz/publications/air/good-practice-guide-air-quality-2009](http://www.mfe.govt.nz/publications/air/good-practice-guide-air-quality-2009). For more information contact Rapunzel Mulawin at (04) 439 7776 or [rapunzel.mulawin@mfe.govt.nz](mailto:rapunzel.mulawin@mfe.govt.nz).

---

### Updated Hazen percentile calculator

The Hazen percentile calculator is a tool that calculates the percentile of water quality and other environmental data sets using the Hazen formula. The calculator has been updated recently to calculate different percentiles for up to 2000 data points per site for multiple sites simultaneously. The Hazen percentile method is used in the *Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas* and associated Bathewatch software.

The updated calculator is available on the Ministry's website at: [www.mfe.govt.nz/publications/water/microbiological-quality-juno3/hazen-calculator.html](http://www.mfe.govt.nz/publications/water/microbiological-quality-juno3/hazen-calculator.html). For more information contact Tanya Gray at (04) 439 7489 or [tanya.gray@mfe.govt.nz](mailto:tanya.gray@mfe.govt.nz).

---

### National Land Monitoring Manual

The National Land Monitoring Forum is a forum for regional authorities to share ideas and identify issues and solutions around land and soil information. One tool the forum is developing, with support from the Ministry for the Environment, is a land monitoring manual. The manual describes protocols and methods for state of the environment monitoring of soil quality, soil disturbance and land use. To date, the forum (together with research providers) has developed protocols for soil quality and soil disturbance monitoring, and work is under way on other aspects of land monitoring.

For more information contact Reece Hill at Environment Waikato, freephone 0800 800 401 or [reece.hill@ew.govt.nz](mailto:reece.hill@ew.govt.nz).

---

### Quality of Life Survey

The fourth *Quality of Life Survey* was released in April by the Ministry of Social Development and the 12 Quality of Life project cities. The survey is part of a wider Quality of Life project set up in response to growing pressures on New Zealand's urban communities and the effects of this on the well-being of residents.

The survey aims to measure residents' perceptions of their overall quality of life, and provide information to decision-makers to improve the quality of life in major urban areas. The information will be particularly useful for cities undertaking monitoring of progress toward achieving the community outcomes set out in their long term council community plans.

Topics covered by the survey include quality of life, health and well-being, crime and safety, community, culture and social networks, council processes, built environment, public transport, and lifestyle (work and study).

To view the *Quality of Life Survey* or find out more about the wider Quality of Life project visit: [www.bigcities.govt.nz/](http://www.bigcities.govt.nz/).

---