

WARKWORTH REPORTING AREA

Rodney Local Board

STATE OF AUCKLAND FRESHWATER REPORT CARD

JULY 2014

AREA GRADE

B

QUICK FACTS

THE REPORTING AREA COVERS

654KM²

REPRESENTING 13.4% OF THE REGION – THE SECOND LARGEST REPORTING AREA

THE LAND COVER IS MAINLY PASTORAL VEGETATION

(51.3%)

BUT ALSO CONTAINS LARGE AREAS OF NATIVE VEGETATION (29%) AND EXOTIC VEGETATION (17%)

THE EXTENT OF IMPERVIOUS SURFACE (HARD SURFACES) IS LOW

(3%)

WHEN COMPARED WITH THE REGIONAL AVERAGE OF 9%

WHAT MAKES UP THIS GRADE?

OVERALL GRADE



WATER QUALITY



FLOW PATTERNS



NUTRIENT CYCLING



HABITAT QUALITY



BIODIVERSITY



The overall grade is made up of five indicators:

Water quality: Water samples are tested for temperature, oxygen concentration, turbidity and the levels of pH, ammonia and nutrients (nitrogen and phosphorus). The results of this testing are compared against guidelines for Auckland to produce a water quality index.

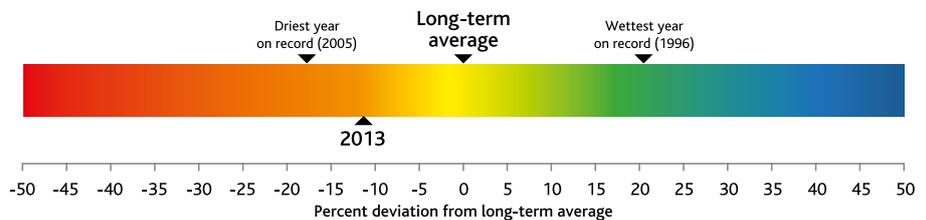
Flow patterns: This involves monitoring the hydrologic connectivity of the river to upstream and downstream reaches and the floodplain using the Stream Ecological Valuation (SEV), which is a method of assessing the ecological health of our rivers.

Nutrient cycling: This involves monitoring the inputs and processing of minerals, particulates and contaminants using the SEV biogeochemical functions.

Habitat quality: This involves monitoring the diversity and quality of habitats using the SEV habitat provision functions.

Biodiversity: Field assessments and samples are collected to assess the type and amount of native plants and animals using the SEV biodiversity functions.

Annual Rainfall 2013



Total rainfall in 2013 (1327 mm) was 11.8% less than the long term average (1505 mm). There are 18.5 years of rainfall record from the Mahurangi rain gauge.

WARKWORTH MONITORING SITES



MONITORING BACKGROUND AND INTERPRETATION

Auckland Council's State of the Environment (SoE) monitoring programme has been building a record of Auckland's environment for more than 25 years. This information is critical to the effective management of Auckland's natural environment, after all, you can't manage what you don't monitor.

The monitoring programme shows there is a strong relationship between the health of rivers and the type of land cover in the surrounding catchment. Rivers that drain through forested catchments (particularly native forests) typically have excellent water quality and ecology, while rivers that drain from urban catchments typically have poor water quality and ecology.

The Warkworth reporting area is predominantly pastoral, but large forested areas still remain. As a result, the health of the rivers is considered to be above average. Rivers in this area tend to have riparian margins with some trees and bush, which provide shade, leaf litter and woody debris to the stream and anchor the stream banks. The debris enhances the quality of habitat for flora and fauna, although some of the original riparian vegetation has been removed to allow more intensive land use. The low level of urban development means there is little channel modification or pollution from discharges or stormwater, although there may be diffuse sources of contaminants from the pastoral land use and physical damage from stock access.

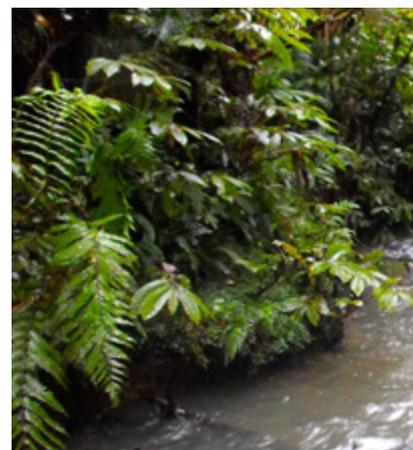
WAI CARE RODNEY

Wai Care is a water quality education, monitoring and action programme managed by Auckland Council, for schools and community groups in the Auckland region.

The programme aims to educate people about freshwater issues and encourage and facilitate action in the local community, from water quality monitoring to streamside planting and litter clean-ups.

The following table shows achievements of the Wai Care Programme in Rodney during the 2013/2014 financial year.

Achievement	Total Rodney 2013/2014	Total Auckland 2013/2014
Active groups	24	138
Sites monitored	49	142
Monitoring sessions	26	246
Education sessions	30	198
Students involved in education	1030	7704
Action events	0	82
People involved in action	0	2274
Native trees planted	0	16,140



Highlights

In January 2014, Wai Care Rodney was involved in the Whangaparaoa College Wetland Community Day. Wai Care ran sessions for the students throughout the day looking at water quality in the wetlands. Wai Care will be working with these students in the future to set up permanent monitoring at the site.

Wai Care Rodney also worked closely with CUE Haven in Glorit during 2013/2014, offering support for this inspirational project. Wai Care was involved in several school visits to the site, running sessions on water quality monitoring to compliment nursery/planting work undertaken by visiting students.

For more information on Wai Care, or to view site data for your area, go to www.waicare.org.nz or call 09 3010101 and ask for Wai Care.

FIND OUT MORE

This report card is part of a series prepared by the Auckland Council's Research, Investigations and Monitoring Unit, which undertakes monitoring and research to provide information and evidence to inform the council's activities and reporting. Auckland's environment must be healthy and resilient in order

to support life and lifestyle. More report cards can be found at: aucklandcouncil.govt.nz/stateofauckland. The report card series includes reporting on freshwater, terrestrial, marine, air, soil, capacity for growth, demographics and quality of life.

GET INVOLVED

Auckland Council provides more than 20 environmental programmes across the region for you to get involved with and improve your local environment.

► For more information: e-mail monitoring@aucklandcouncil.govt.nz or call us on 09 301 0101.