

HOWICK REPORTING AREA

Howick Local Board

STATE OF AUCKLAND FRESHWATER REPORT CARD

JULY 2014

AREA
GRADE

F

QUICK FACTS

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.

THE REPORTING AREA COVERS

70KM²
 REPRESENTING 1.4%
 OF THE REGION

LAND COVER IS MAINLY URBAN

(62%)

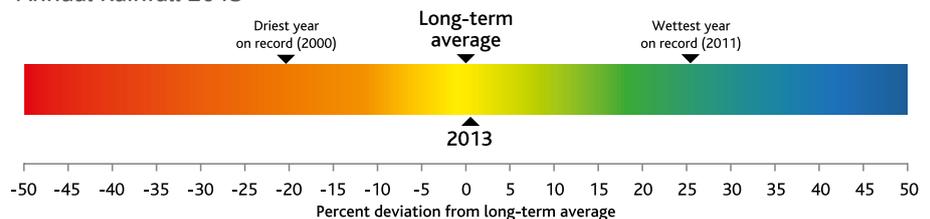
BUT IT ALSO CONTAINS
 LARGE AREAS OF PASTORAL
 VEGETATION (30%)

THE IMPERVIOUS SURFACE (HARD SURFACES) IS VERY HIGH

(51%)

WHEN COMPARED
 WITH THE REGIONAL
 AVERAGE OF 9%

Annual Rainfall 2013



Total rainfall in 2013 (1159 mm) was 0.5% more than the long term average (1153 mm). There are 24.7 years of rainfall record from the Pakuranga rain gauge.

HOWICK 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 health of Howick's rivers is considered to be impaired. Urban development has led to a high level of impervious surface in the area, which prevents rainfall from soaking into the ground. This has follow-on effects for rivers in the area leading to high water temperatures, changes to the natural flow patterns and increased pollution from contaminated stormwater.

WAI CARE HOWICK

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 Howick during the 2013/2014 financial year.

Achievement	Total Howick 2013/2014	Total Auckland 2013/2014
Active groups	9	138
Sites monitored	7	142
Monitoring sessions	22	246
Education sessions	26	198
Students involved in education	1262	7704
Action events	4	82
People involved in action	113	2274
Native trees planted	1400	16,140



Photo: Pakuranga stream is an outdoor classroom for Macleans college. Around 500 students per year learn about urban streams through a unit developed by Wai Care and teachers.

Highlights

During 2013/2014, Mission Heights Junior School Wai Care students ran a 'Stream Focus Day' for their school. The group has since been joined by other classes in the school to investigate water quality in two local catchments.

In 2013/2014, Macleans College Wai Care group, which comprises 270 year 9 students, developed a large restoration project in partnership with Parks South and formed a new school Enviro-group.

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.