

# WARKWORTH REPORTING AREA

Rodney Local Board

AUGUST 2016

AREA GRADE

B



## STATE OF AUCKLAND FRESHWATER REPORT CARD

### WHAT MAKES UP THIS GRADE?



### 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.

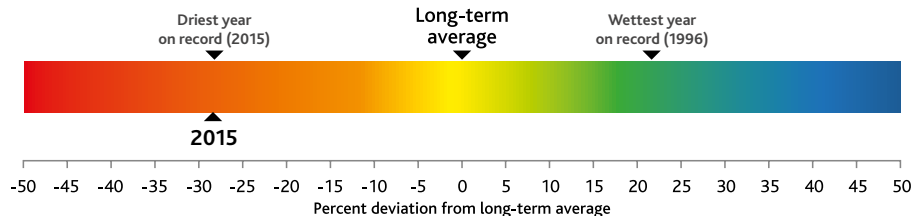
### QUICK FACTS

THE REPORTING AREA COVERS  
**654KM<sup>2</sup>**  
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%)

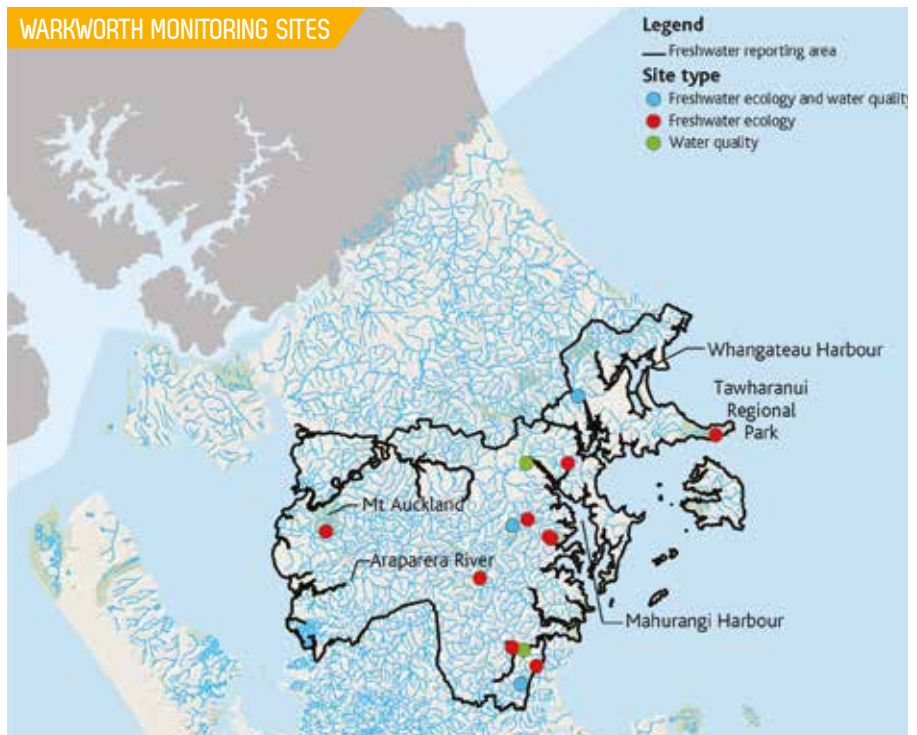
THE EXTENT OF IMPERVIOUS SURFACE (HARD SURFACES) IS LOW  
**(3%)** WHEN COMPARED WITH THE REGIONAL AVERAGE OF 9%

### Annual Rainfall 2015



2015 was the driest year on record. Total rainfall (1056mm) was 28.9% less than the long-term average (1486mm). There are 20.5 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 2015/2016 financial year.

Achievement	Total Rodney 2015/2016	Total Auckland 2015/2016
Active groups	18	152
Sites monitored	57	256
Education sessions	71	373
Students involved in education	1943	11118
Action events	5	106
People involved in action	555	4217
Native trees planted	970	28577



Giant koura found in Rodney stream.

For more information on Wai Care, or to view site data for your area, go to [waicare.org.nz](http://waicare.org.nz) or call 09 301 0101 and ask for Wai Care.

### FIND OUT MORE

This report card is part of a series prepared by Auckland Council's Research and Evaluation Unit (RIMU), which provides the mandatory and critical evidence to support the council's decision-making, activities and reporting. Report cards and the latest full State of the Environment Report can be found at [aucklandcouncil.govt.nz/stateofauckland](http://aucklandcouncil.govt.nz/stateofauckland)

To view technical publications visit [aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/technicalpublications/Pages/home.aspx](http://aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/technicalpublications/Pages/home.aspx)

For more information: e-mail [RIMU@aucklandcouncil.govt.nz](mailto:RIMU@aucklandcouncil.govt.nz) or call us on 09 301 0101.

### GET INVOLVED

Auckland Council provides more than 20 environmental programmes across the region that you can get involved in. To find out more on how you can help visit the Auckland Council website.