

# WAIROA REPORTING AREA 2018

Includes Franklin Local Board

## STATE OF AUCKLAND FRESHWATER REPORT CARD

### WATER QUALITY



### HYDROLOGY



### HABITAT QUALITY



### BIODIVERSITY



The grades are made up of the following indicators:

**Water quality:** Water samples are tested for a range of parameters including temperature, pH, dissolved oxygen, nutrients and E. coli. The results for each site are compared against reference sites for Auckland to produce a water quality index.

**Hydrology:** Stream reaches are assessed for how well connected they are to upstream and downstream reaches, and the floodplain.

**Habitat quality:** The diversity and quality of habitats both in the streams and in the riparian margins is assessed.

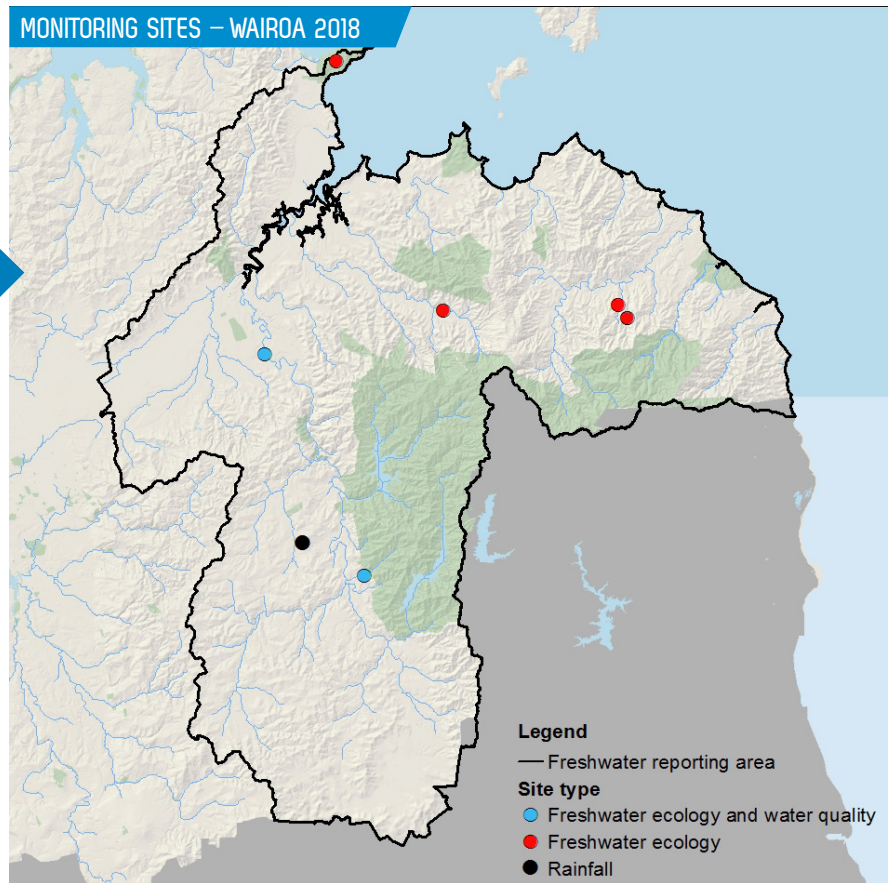
**Biodiversity:** Field assessments are made to determine the type and amount of native plants and animals. Stream macroinvertebrate samples are also collected to assess the diversity and tolerance levels of the macroinvertebrate community.

Each indicator is made up of several parameters. These grades represent a summary of indicator results from 2016 and 2017 from individual sites which are amalgamated for each reporting area to provide an indicator grade.

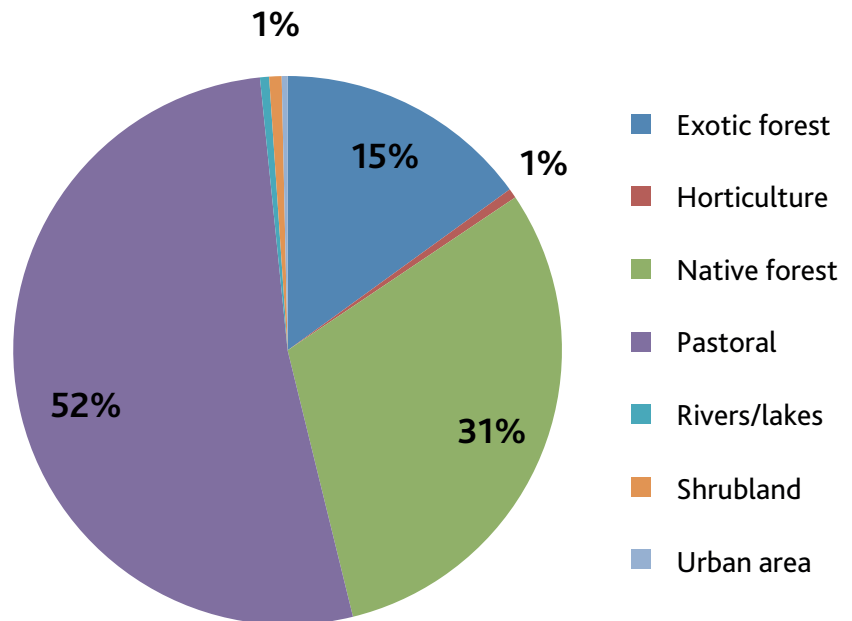
These report cards are not designed to track trends or report on National Policy Statement for Freshwater (NPS-FM) attributes which relate to specific parameters and bands. Note that grades given to amalgamated results or indicators here do not relate to the grades assigned to individual parameters in the NPS-FM.

More detailed analyses on sites and trends are presented in technical reports available on Knowledge Auckland.

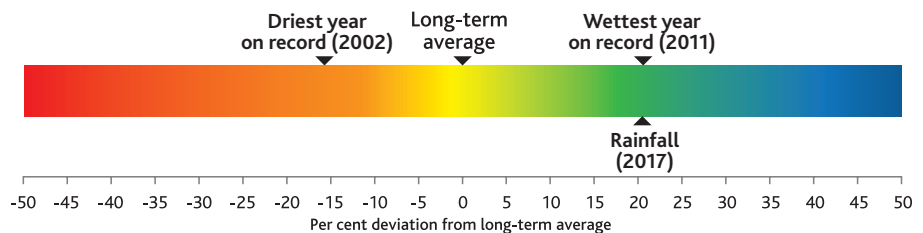
### MONITORING SITES – WAIROA 2018



### WAIROA LAND COVER



### WAIROA RAINFALL



Mean rainfall in 2017 (1860 mm) was 21 per cent greater than the long-term average (1539 mm). The longest rainfall record in the Wairoa reporting area is three years at the Clevedon showgrounds.

## MONITORING BACKGROUND AND INTERPRETATION

Auckland Council's State of the Environment (SOE) monitoring 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.

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

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

### SPOTLIGHT ON WAIROA



The most improved river for E.coli award with the Hunua Falls in the background

The Wairoa River may not be pristine but E.coli levels have improved enough for it to be recognised as Auckland region's most improved river in 2017 and the third most improved in New Zealand. The 2017 awards measured and compared improvements in monthly E. coli concentrations over the past decade.

The judge noted that the cumulative effect of many small actions by the community in the Wairoa catchment has contributed to a significant trend of 11.9 per cent per annum improvement in E. coli levels.

The award was accepted by the recently formed Friends of Te Wairoa Inc, an amalgamation of all parties that have worked to improve the Wairoa's health over the years, including the former Wairoa River Steering Group and the Wairoa River Landcare. Many landowners have taken positive steps to protect remnant stands of native vegetation, and to replant and fence riparian margins, taking advantage of programmes such as Auckland Council's Trees for Survival programme and Waterway Protection Fund.

### FIND OUT MORE

This report card is part of a series prepared by the Auckland Council's Research and Evaluation Unit, which undertakes monitoring and research to provide information and evidence to inform the council's activities and reporting. More report cards can be found at: [aucklandcouncil.govt.nz/environment](http://aucklandcouncil.govt.nz/environment). The report card series includes reporting on freshwater, terrestrial, marine, air, soil, capacity for growth, demographics and quality of life.

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: [aucklandcouncil.govt.nz](http://aucklandcouncil.govt.nz)