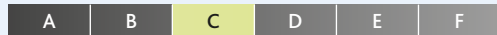


# NORTH EAST REPORTING AREA 2018

Includes Rodney Local Board

## STATE OF AUCKLAND FRESHWATER REPORT CARD

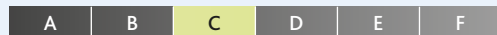
### WATER QUALITY



### 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.

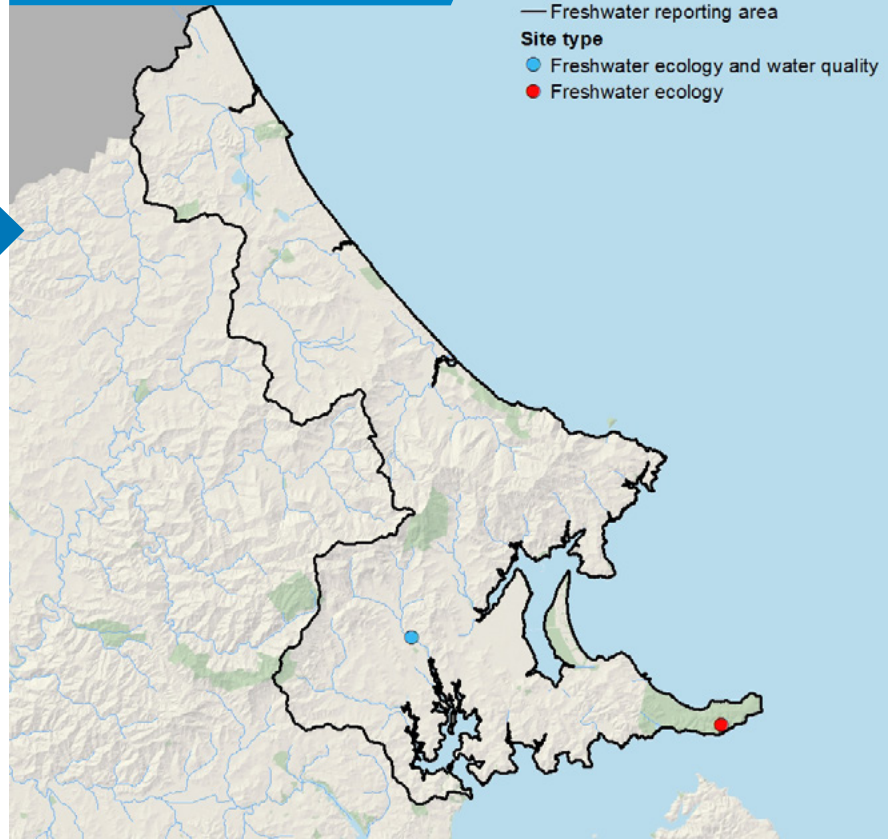
**Biodiversity:** Field assessments are made to determine the type and amount of native plants and animals. Stream macroinvertebrate samples are also collected to assess the diversity and tolerance levels of the macroinvertebrate community.

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.

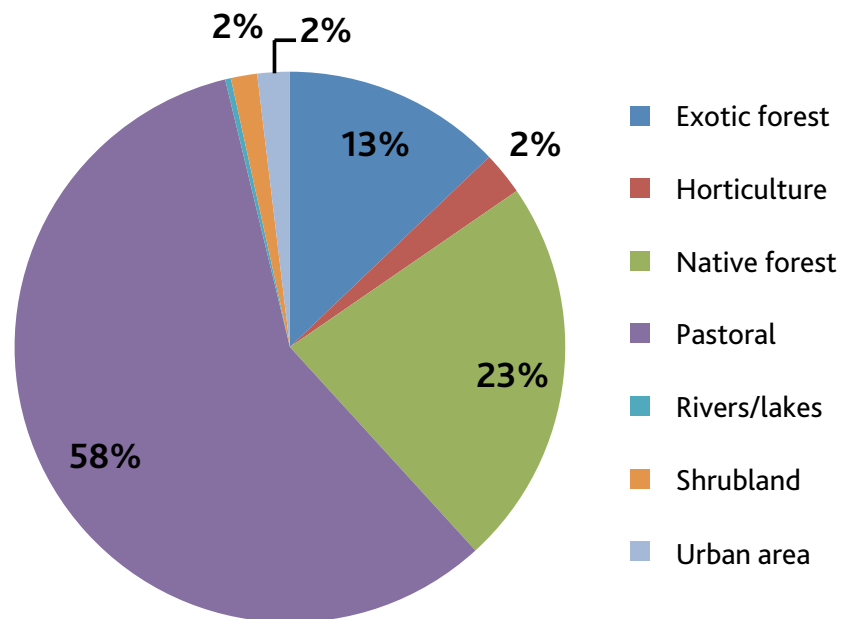
These report cards are not designed to track trends or report on National Policy Statement for Freshwater (NPS-FM) attributes which relate to specific parameters and bands. Note that grades given to amalgamated results or indicators here do not relate to the grades assigned to individual parameters in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

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

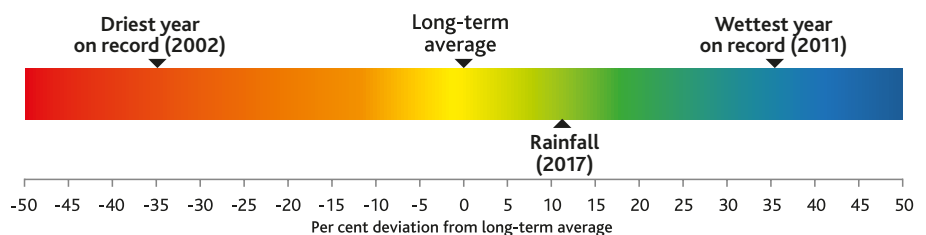
### MONITORING SITES – NORTH EAST 2018



### NORTH EAST LAND COVER



### NORTH EAST RAINFALL



Mean rainfall in 2017 (1613 mm) was 12 per cent greater than the long-term average (1438 mm). The longest rainfall record in the North East reporting area is 49 years at the Leigh rainfall station.

## 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 North East reporting area is predominantly pastoral land, but large forested areas still remain. As a result, the health of the areas rivers is generally average. Rivers in this reporting 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 NORTH EAST

Ngāti Manuhiri are in year two of a three-year programme to protect and restore the Ngaroto Lakes area (Lakes Tomarata, Slipper and Spectacle). They are working with the local community to plan and carry out a programme of work across both public and private land that includes fencing and planting with native species appropriate to the area, monitoring, cultural interpretation and animal and plant pest control. Over time they hope to see water quality improvements, increased biodiversity and increased community and mana whenua connection to

the area. Planting days were held in winter 2018 with around 10,000 native species planted over four days with the support of the local community, Tomarata School and Department of Conservation staff. Alongside this, an additional 7000 plants were planted by landowners. This equates to over 15,000 m<sup>2</sup> of land being planted which is a great result. The ongoing monitoring programme developed will show how this, and the other work around the lakes achieves the desired outcomes.



Aerial photograph of the North East lakes (2003)



Volunteers hard at work at a community planting day in August 2018

### 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)