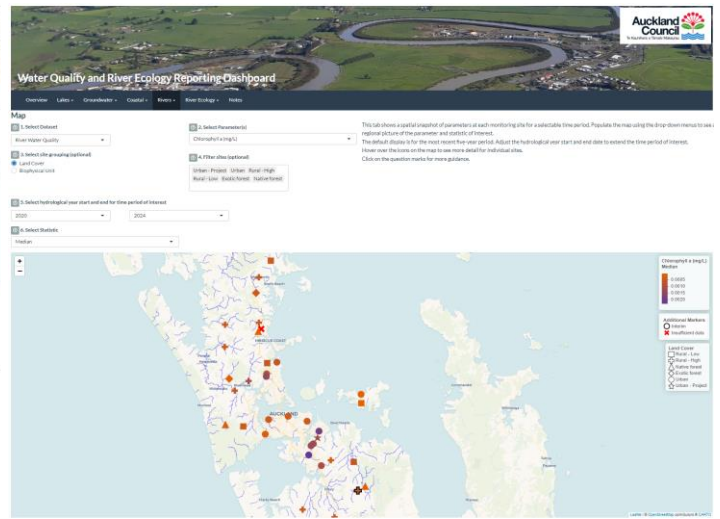
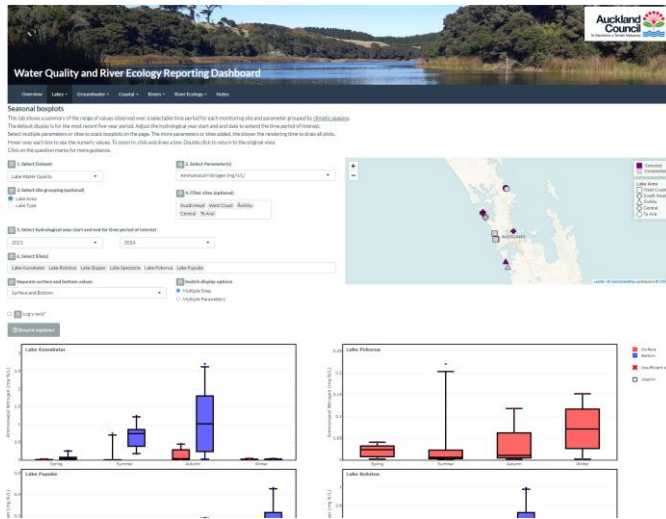


THE AUCKLAND COUNCIL WATER QUALITY & RIVER ECOLOGY REPORTING DASHBOARD

AUCKLAND, NEW ZEALAND



Example screen shots of the Auckland Council Water Quality and River Ecology Reporting Dashboard showing (left) seasonal box plots of water quality and (right) spatial variability in water quality through the Auckland region

PROJECT INFORMATION:

Location: Auckland, New Zealand
Client: Auckland Council
Project Date: 2024

SCOPE OF WORK:

- Water quality data analysis
- R Shiny web app development
- UX Design
- Backend development

PROJECT DESCRIPTION:

The Auckland Council Environmental Evaluation and Monitoring Unit (EEMU) monitors the state of the environment from the mountains to the sea, to measure the health of the environment, track changes over time, and identify emerging issues. ORCAS developed an online interactive dashboard provides an interactive summary of long-term water quality and freshwater ecology data across Tāmaki Makaurau / Auckland's rivers, lakes, groundwater, and the coast.

The app provides interactive graphs to describe temporal and spatial variability in water quality 5 different environments:

- Lakes
- Groundwater
- Coastal
- Rivers
- River Ecology

The app provides, box plots, tables, maps seasonal box plots, time series plots, depth profiles and stratified conditions plots for the different environments over the latest year and for previous years. The app offers significant future timesaving by automating the reporting process. In future years, the app can be updated by simply updating the backend dataset.

The app also features ability to drill down through plots, save images and save filtered tabular datasets. It also allows for filtering by groupings such as biophysical unit, land cover, coastal exposure among others.