

Waterway Health Report Card 2017

Pūharakekenui/Styx River catchment

Christchurch city has more than 200 kilometres of waterways within five main river catchments – Ōtākaro/Avon, Ōtūkaikino, Pūharakekenui/Styx, Ōpāwaho/Heathcote and Huritini/Halswell. We assess the health of each catchment, testing water and sediment quality and monitoring habitat, algae, plants, insects and fish.



Source Harewood	Report score C	Elevation 1-19 metres above sea level	Land use Semi-rural (parks, reserves, lifestyle blocks and agriculture) and urban (residential, commercial and industrial)
Mouth Te Riu o Te Aika Kawa/ Brooklands Lagoon	Length 24 kilometres		



Assessing waterway health

We measure the health of each waterway using a Water Quality Index (WQI), a Sediment Quality Index (SQI) and the Quantitative Macroinvertebrate Community Index (QMCI).

See more at ccc.govt.nz/environment/water/waterways/waterway-monitoring

Water Quality Index (WQI) Score

We use a WQI specific to Christchurch waterways. Each monitoring site is scored against guideline levels for copper, zinc, pH, suspended solids, dissolved oxygen, temperature, ammonia, nitrogen, phosphorous, biochemical oxygen demand and *Escherichia coli*. The median across the catchment is graded:

- A = 90 – 100 (very good)
- B = 80 – 89.9 (good)
- C = 70 – 79.9 (fair)
- D = 40 – 69.99 (poor)
- E = < 39.9 (very poor)

Pūharakekenui/Styx catchment score: C

Sediment Quality Index (SQI) Score

We use a SQI specific to instream sediment of Christchurch waterways. This index is scored against guideline levels for copper, lead, zinc and polycyclic aromatic hydrocarbons. The median across the catchment is graded:

- A = 90 – 100 (very good)
- B = 80 – 89.9 (good)
- C = 70 – 79.9 (fair)
- D = 40 – 69.99 (poor)
- E = < 39.9 (very poor)

Pūharakekenui/Styx catchment score: C

The Pūharakekenui/Styx catchment overall score is C



Tuna /Eels



Giant Bulli

Credit: Aquatic Ecology Limited

Quantitative Macroinvertebrate Community Index (QMCI) Score

The QMCI assesses the macroinvertebrate species (organisms with no spine) present and their tolerance to pollution, to determine a waterway's likely water quality. The index values are converted to scores for grading the catchment:

- A = > 5.99 (excellent; clean water)
- B = 5.00 – 5.99 (good; likely mild pollution)
- C = 4.00 – 4.99 (fair; likely moderate pollution)
- D = < 4.00 (poor; likely severe pollution)

Pūharakekenui/Styx catchment score: C

Contact us

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