

Issued
7 September
2022

Auckland Hydrology Situation Report

Research and
Evaluation Unit

RIMU



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Regional summary

The New Zealand Drought Index for the Auckland Region is currently zero. Regional monthly average rainfall for August was 150mm, approximately 17% above average. Most soil moisture sites have a status of Normal to Very High. River flows are all above the mean annual low flow (MALF). Groundwater levels are similar to the last report. Most sites in the southern aquifers are at a Low or Very Low status, including shallow volcanic aquifers.

Current drought index

The New Zealand Drought Index (NZDI) is used to determine the severity of drought conditions across the country. The latest NZDI value for Auckland was 0.00 (3 September 2021), which is below the lowest NZDI category of Dry (0.75-1.00). A chart of the NZDI for the Auckland region is shown in Figure 1.

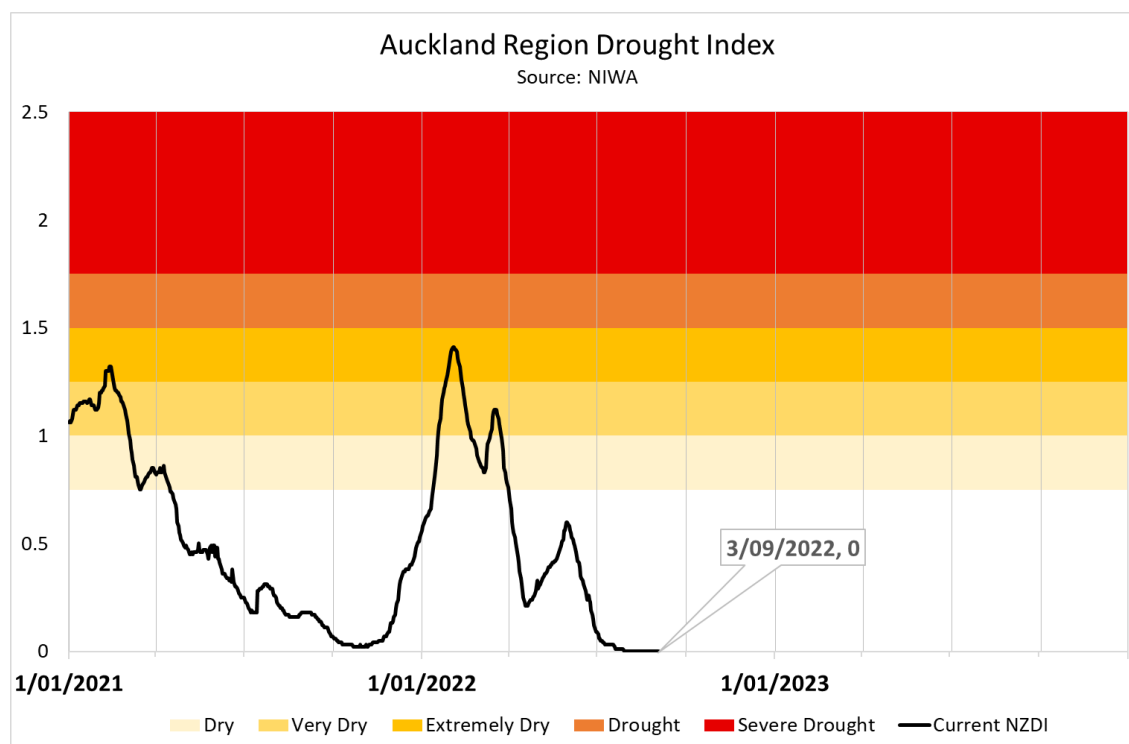


Figure 1: Auckland Region Drought Index 2021-2023 (data source: NIWA).

Rainfall

Rainfall for August 2022 ranged from 97mm to 212mm with a regional average of 150mm, approximately 17% above the long-term regional average (Figure 2).

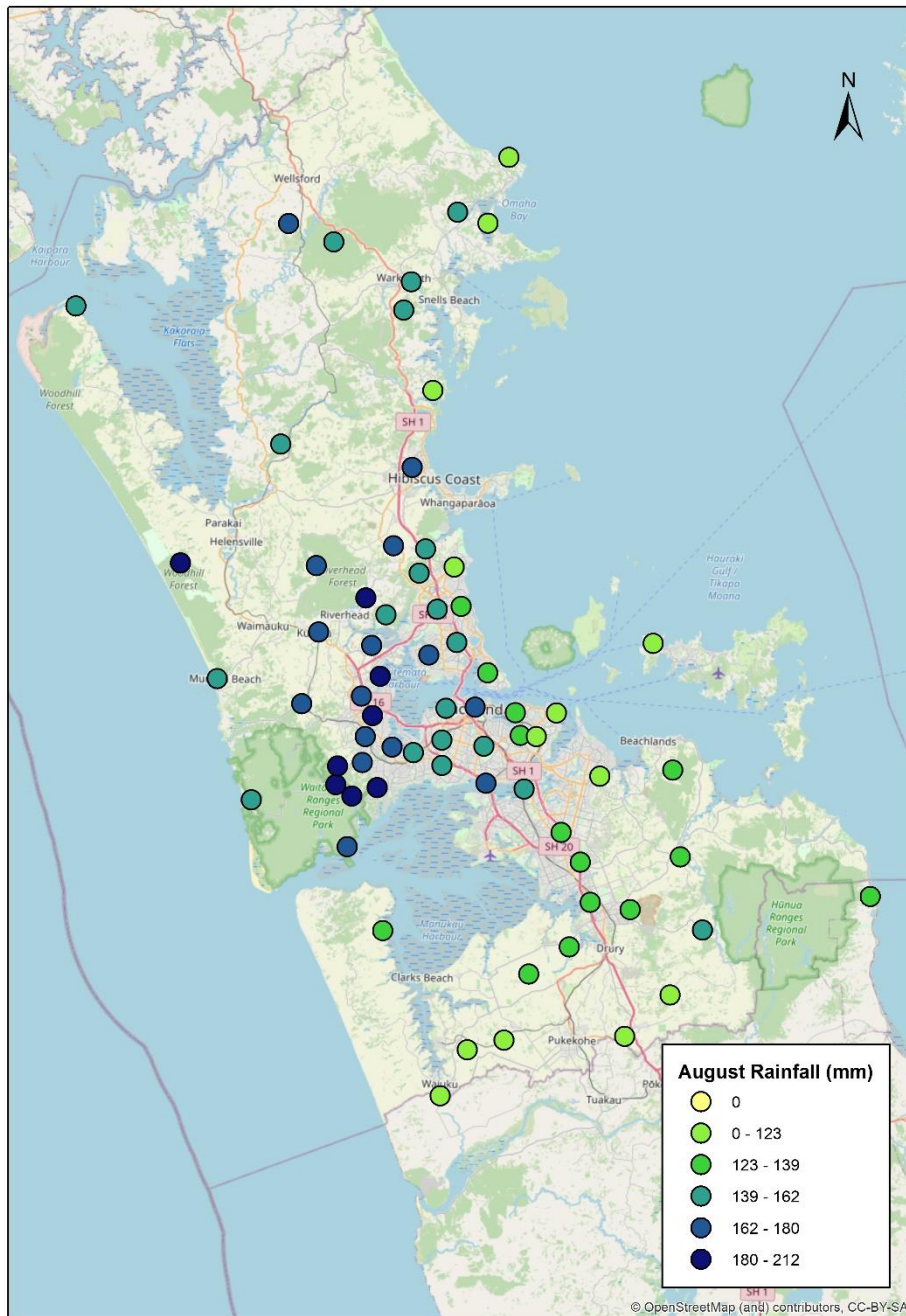


Figure 2: Total rainfall (mm) for August 2022.

Soil moisture

Soil moisture varies across the region. Most sites had a soil moisture status of Normal to Very High. One site in Patumahoe had a low soil moisture status. Two sites have an indeterminate status and are under investigation for data anomalies. Soil moisture sites are shown in Figure 3.

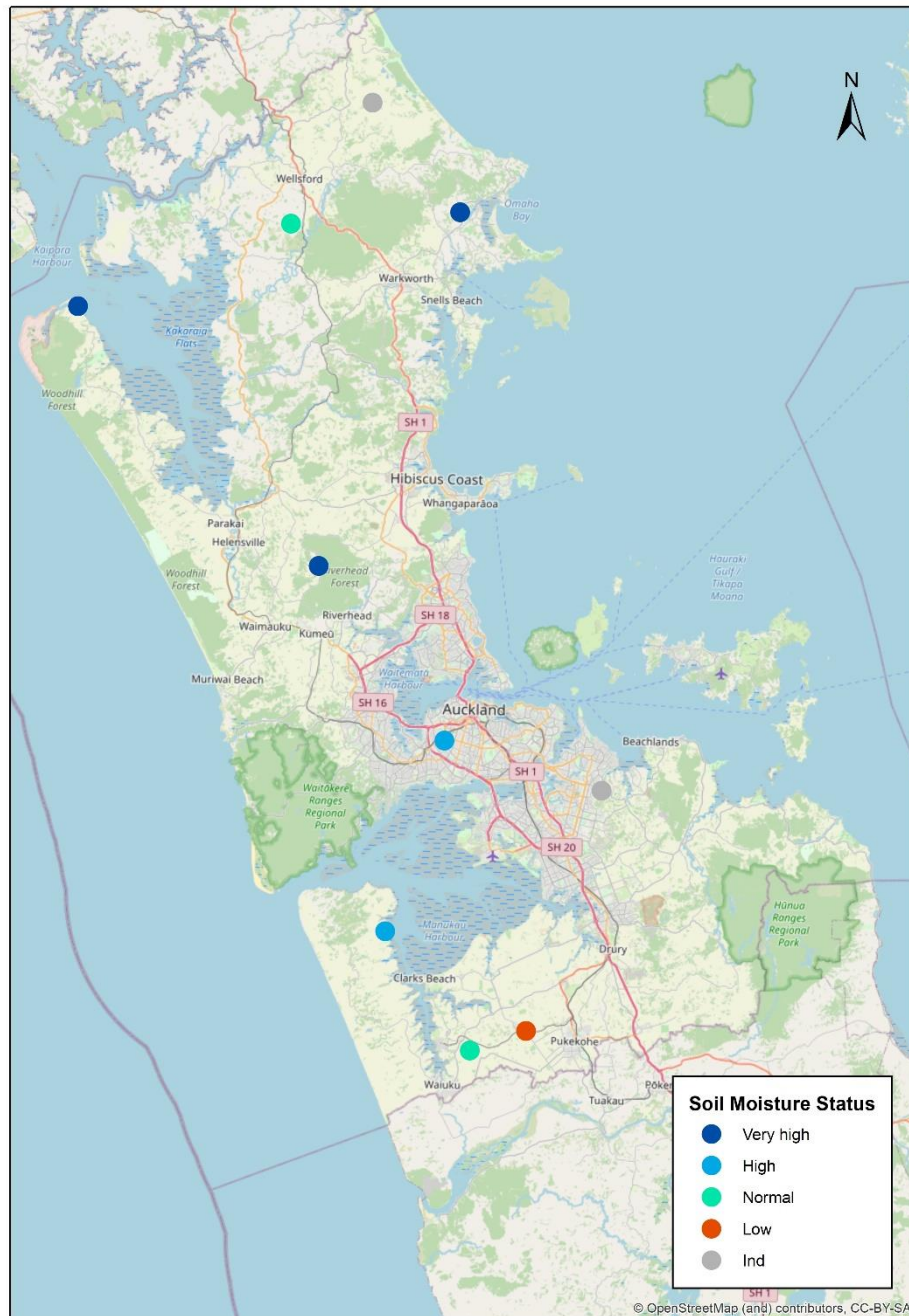


Figure 3: Soil moisture category relative to long-term statistics on 6 September 2022. Ind = indeterminate.

River flows

All river monitoring sites are above the mean annual low flow (MALF). The locations of sites and the flow relative to MALF are shown in Figure 4.

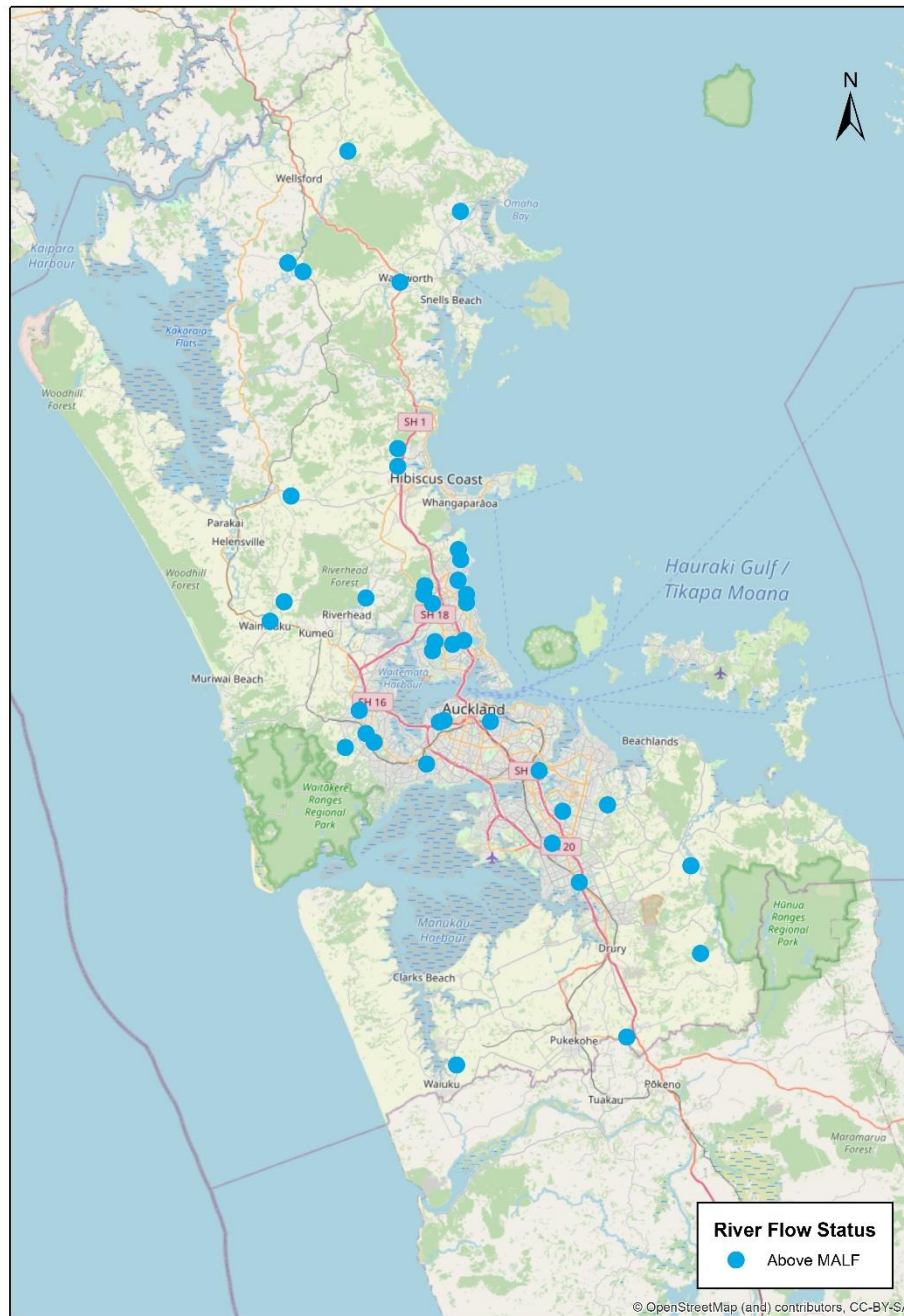


Figure 4: River flow on 6 September 2022 relative to the mean annual low flow (MALF).

Aquifer water levels

Groundwater conditions remain similar to previous reports. Groundwater levels in the Low and Very Low categories have persisted in deep Waitematā sandstones and Kaawa sand/shellbeds, and groundwater levels are lower than normal in some shallow volcanic aquifers as well. Groundwater monitoring sites and groundwater level category are shown in Figure 5.

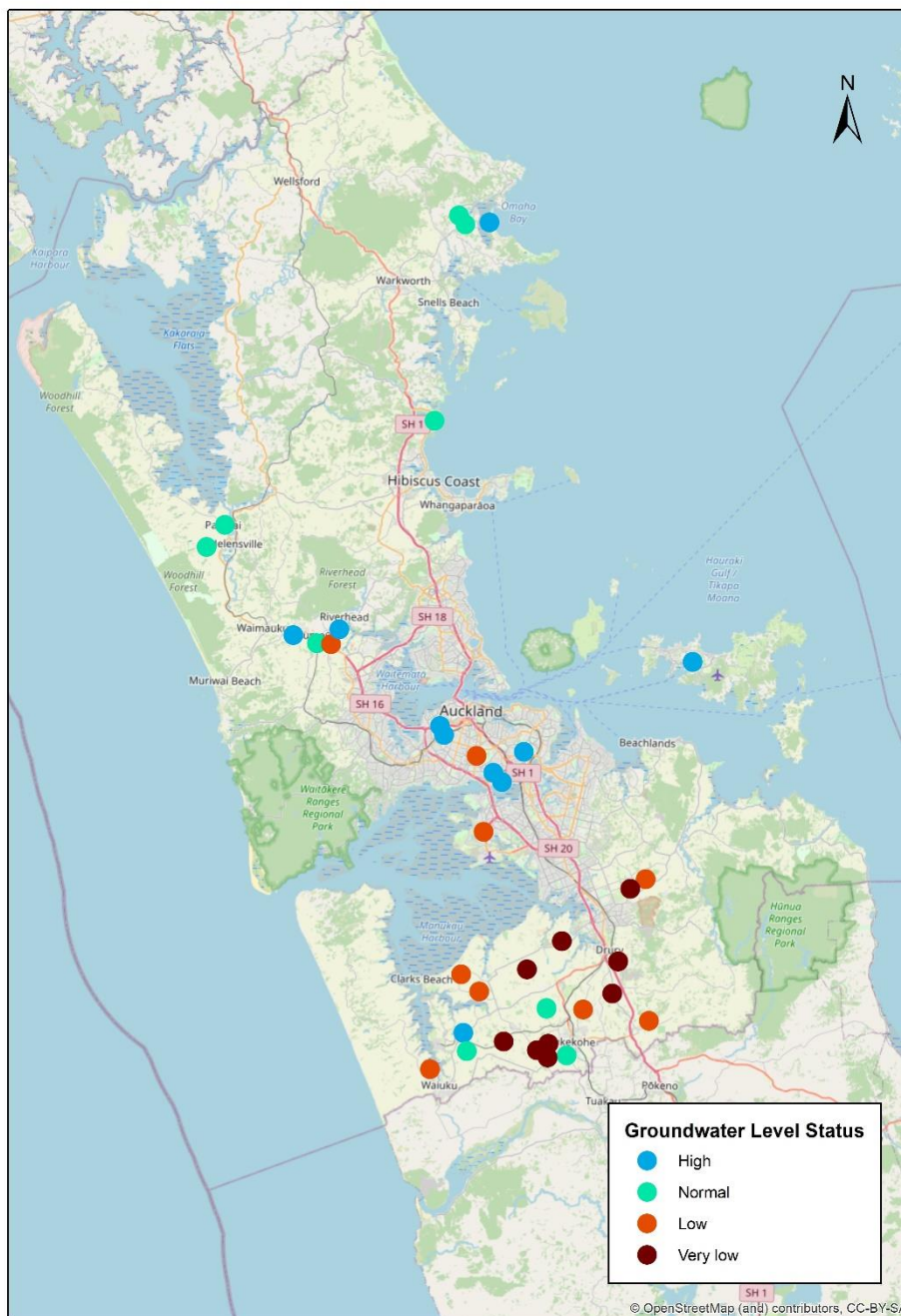


Figure 5: Groundwater levels relative to long-term statistics for 6 September 2022.

Disclaimer

This report contains provisional data and is intended for informational purposes only. For detailed questions concerning hydrometric data, please email EnvironmentalData@aucklandcouncil.govt.nz.

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