Issued
1 June
2022

Auckland Hydrology Situation Report

Research and Evaluation Unit | RIMU | Auckland Council

Rainfall | Soils | Rivers | Aquifers

Regional summary

The New Zealand Drought Index for the Auckland Region is below the lowest category of Dry. Regional monthly rainfall for May was nearly equal to the long-term average (only 5% below). All soil moisture sites are in the Normal or higher range. River flows are all above the mean annual low flow (MALF). Groundwater levels are similar to previous reports, with most sites in the southern aquifers 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 0.56 (28 May 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.

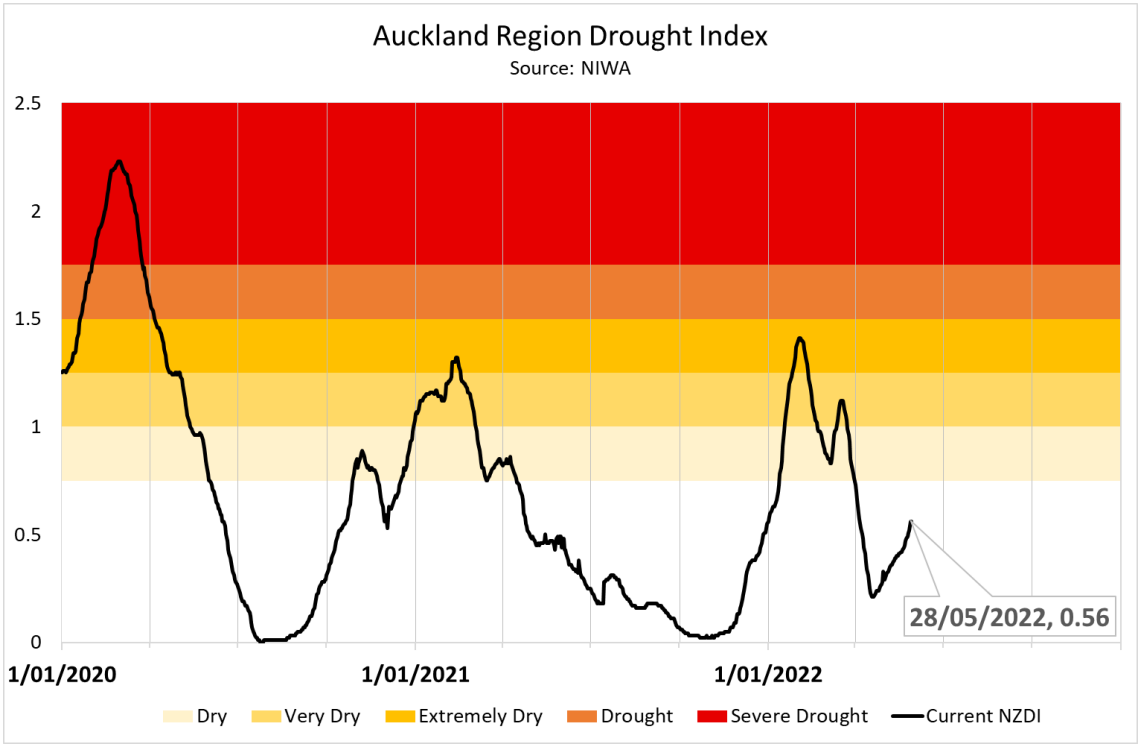

Figure 1: Auckland Region Drought Index 2020-2022 (data source: NIWA).

Rainfall

Rainfall for May 2022 ranged from 48mm to 152mm with a regional average of 94mm, approximately 95% of the long-term regional average for May (Figure 2).

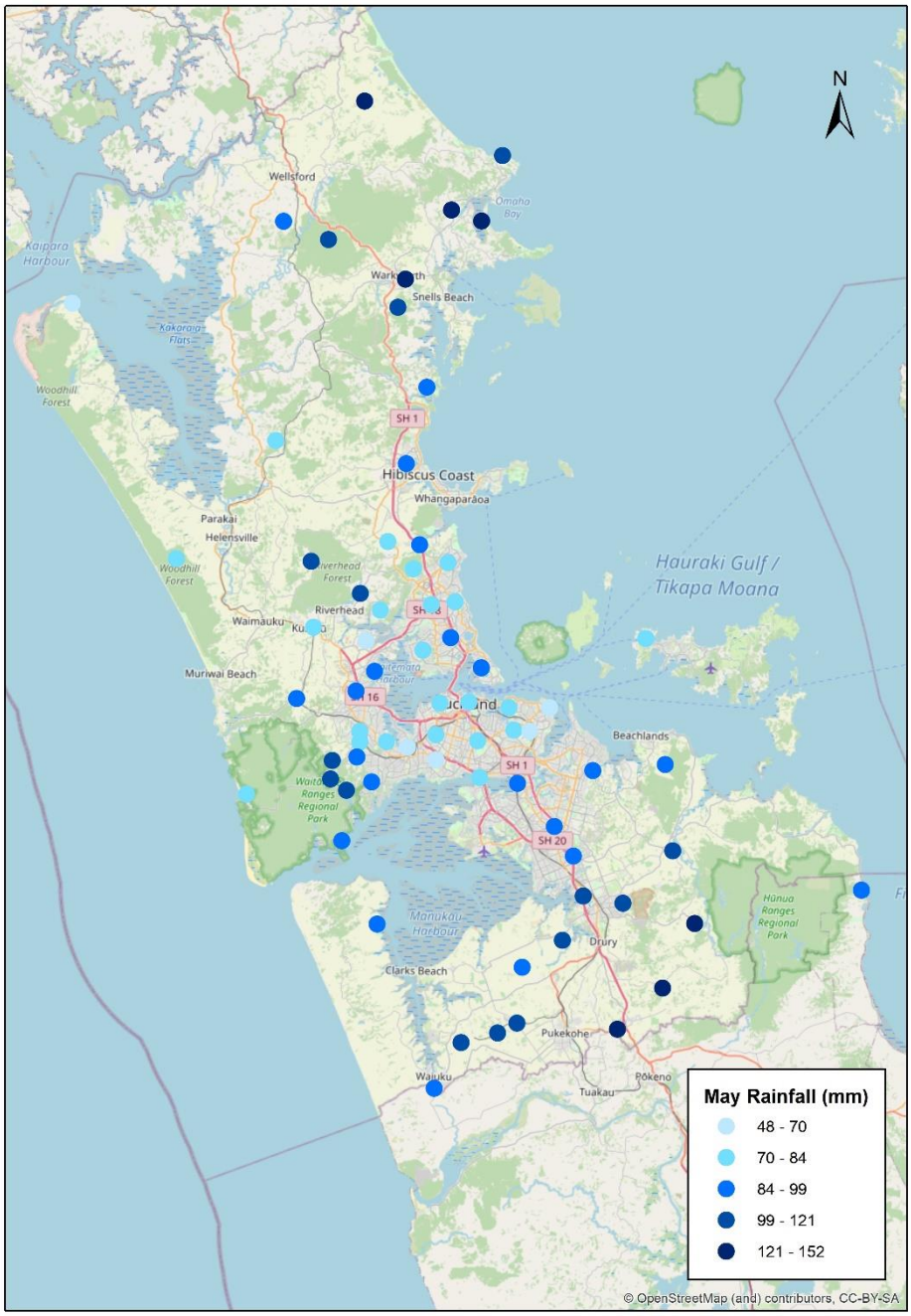

Figure 2: Total rainfall (mm) for May 2022.

Soil moisture

All soil moisture sites are in the Normal range or higher. Soil moisture sites are shown in Figure 3.

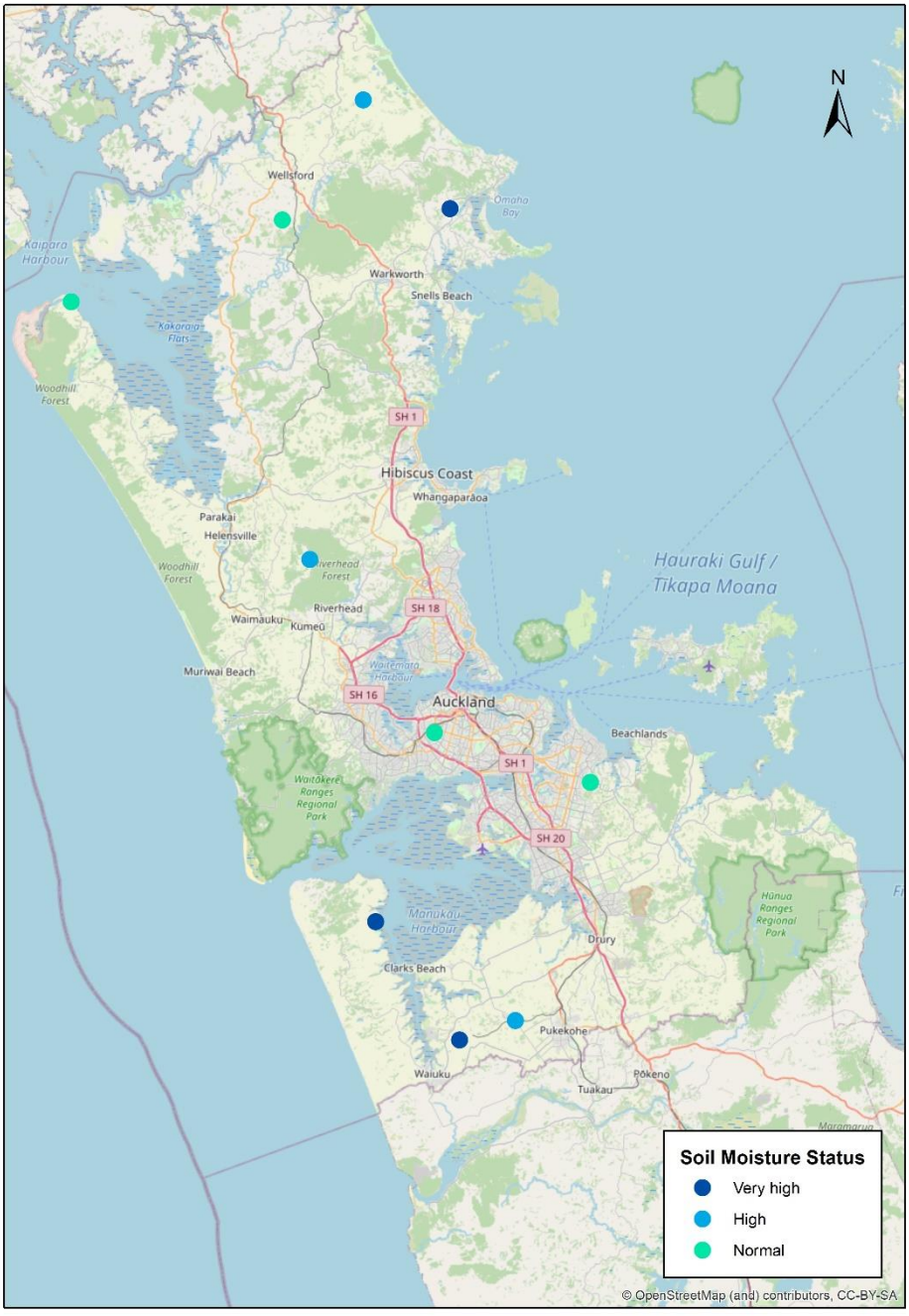

Figure 3: Soil moisture category relative to long-term statistics on 1 June 2022.

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.

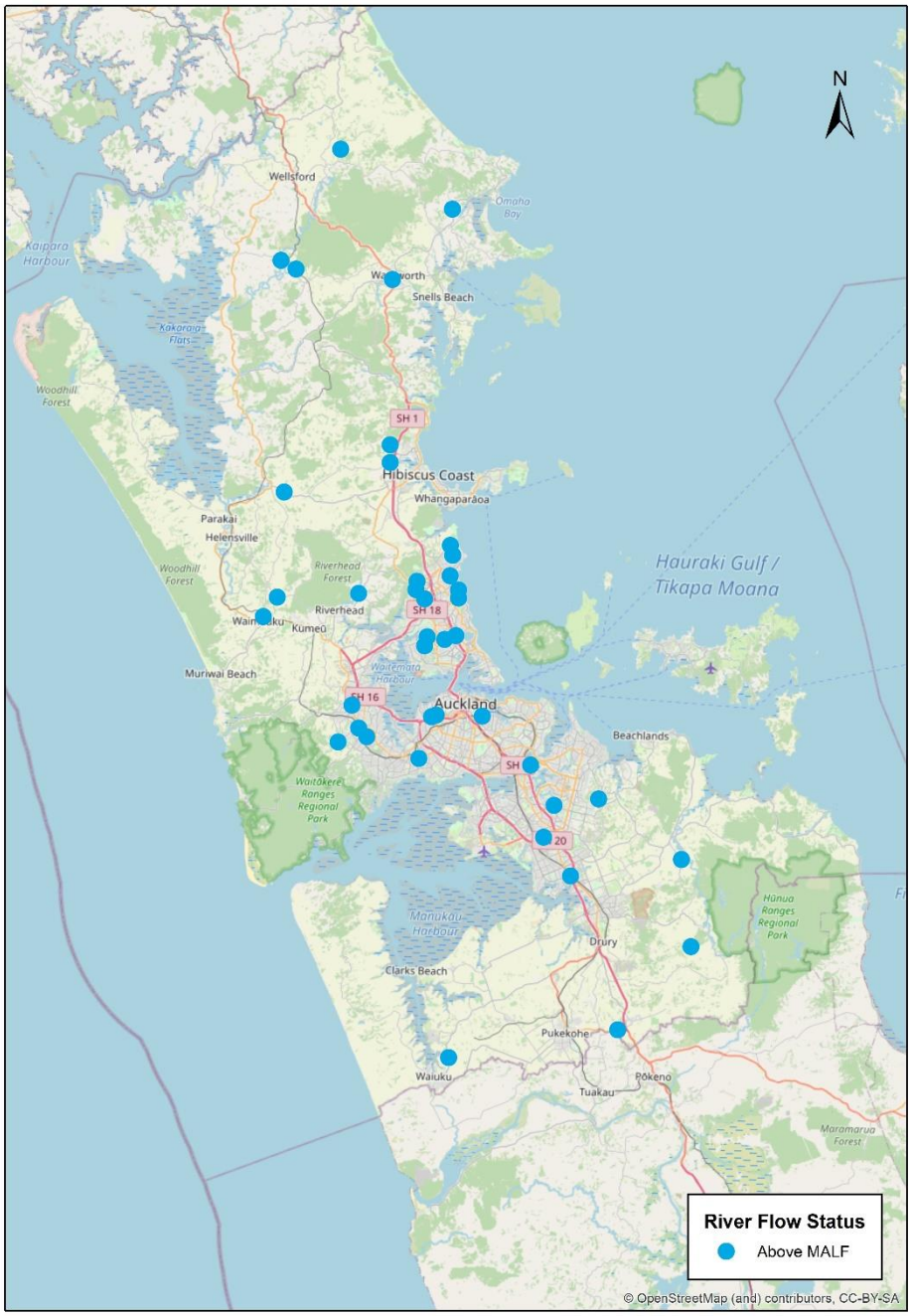

Figure 4: River flow on 1 June 2022 relative to the mean annual low flow (MALF).

Aquifer water levels

Groundwater conditions remain similar to previous reports. Many aquifer water levels are not recovering as much as they normally do for this time of year. This is particularly so for the southern aquifers. Groundwater levels in the Low and Very Low categories have persisted in deep Waitematā sandstones and Kaawa sand/shellbeds, but now low groundwater levels are being observed in the shallow volcanic aquifers as well. Groundwater monitoring sites and groundwater level category are shown in Figure 5.

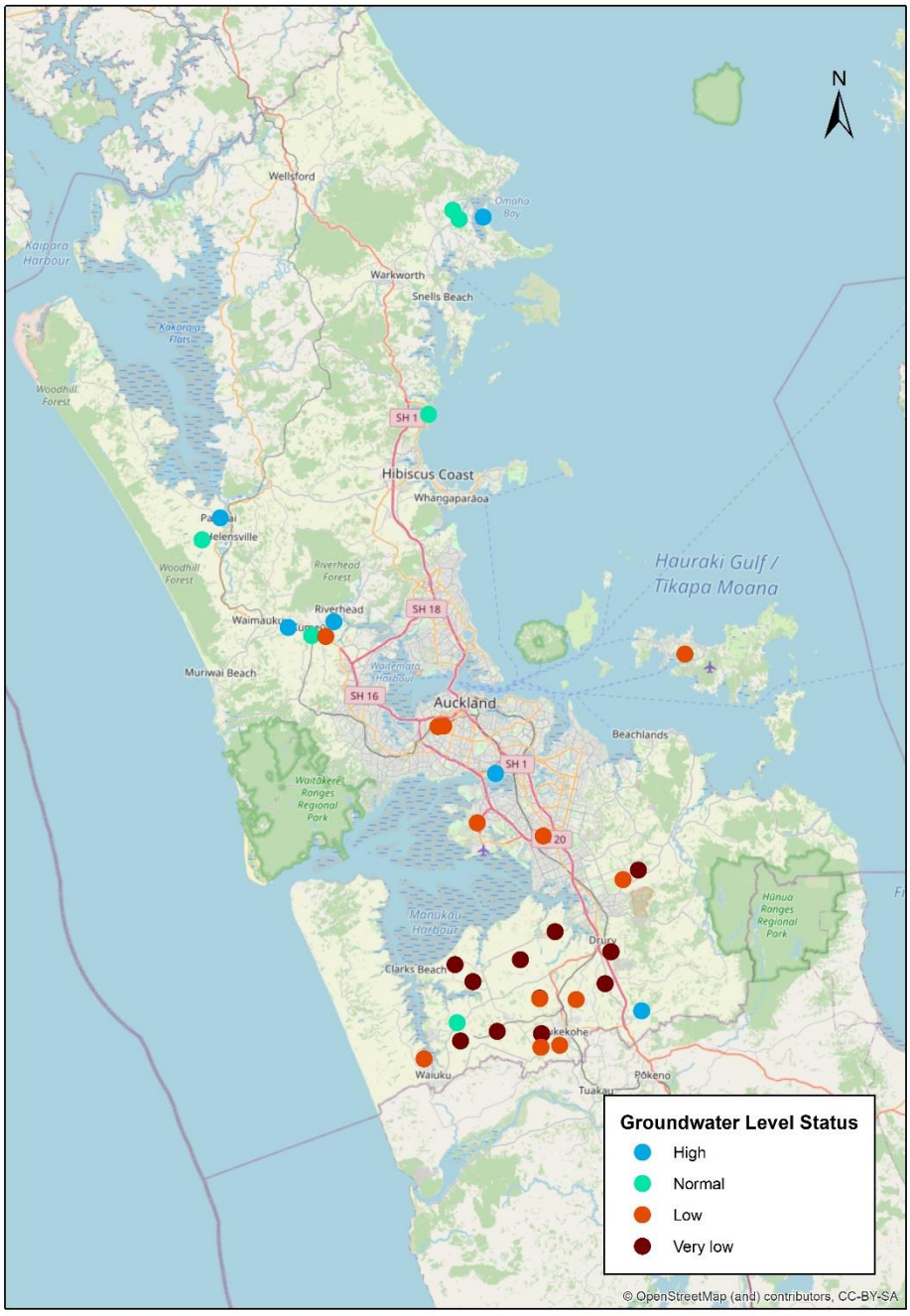

Figure 5: Groundwater levels relative to long-term statistics for 1 June 2022.

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.

Primary contact

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