



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

June 2023



TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

June 2023

Our run of drier weather got scuttled by what feels like a La Niña clinging to the door posts and lunging at us as it gets pushed out the backdoor. It was a wet June for Hawke's Bay. Rainfall was 250% of the month's average and closer to 300% in the ranges. It won't surprise anyone that, six months into the year, our sites have had near or above their average annual rainfall.

June's river flows were well above normal. Soil moisture levels were saturated again, after what was a lame attempt anyway to dry out over the last few months. Groundwater levels went the other way and dropped closer to what we'd expect for the time of year but June's rainfall will likely be reflected in July's results.

June was a good month for air quality. Rubbish weather helps. As do mild temperatures. Days were half a degree warmer than usual and overnight temperatures more than 2°C higher. The mild temperatures can stay but the blah weather can go.

Dr Kathleen Kozyniak
Team Leader Air and Land Science

SUMMARY June 2023

Short summary

Warm and wet.

July to September Forecast

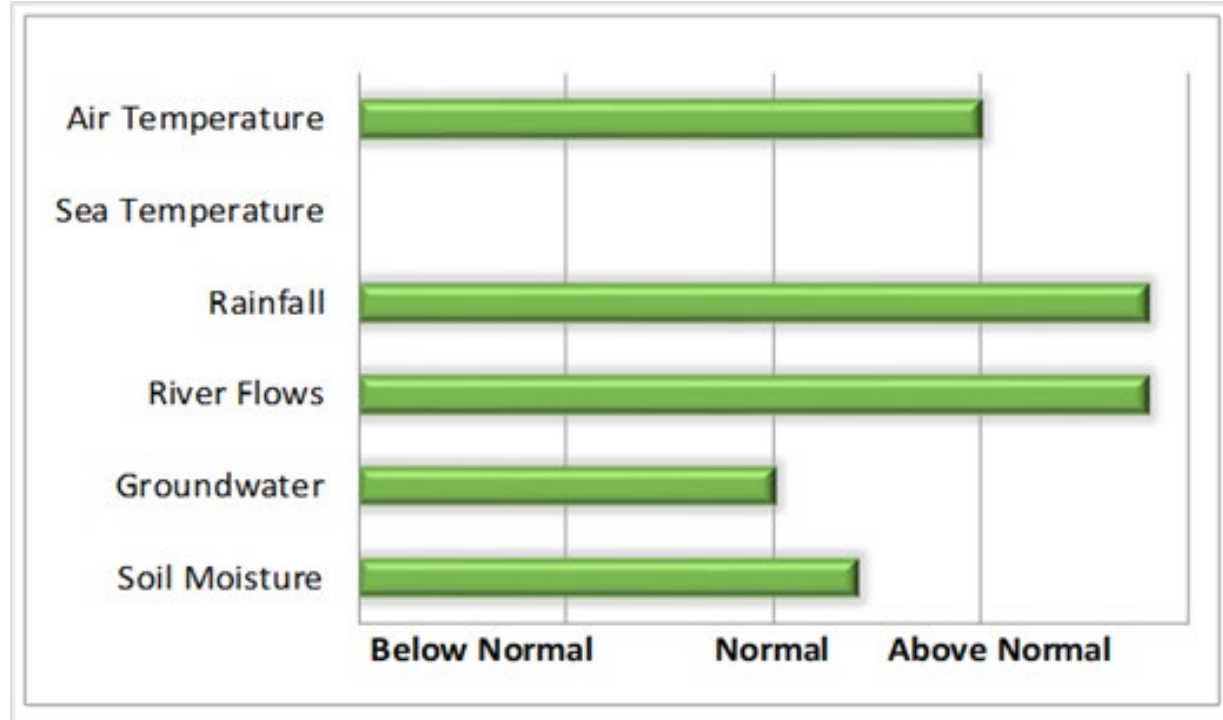
Temperature Near or above average
Rain Near normal
River flows Near normal
Soil moisture Near normal

source : NIWA

For more information

www.hbrc.govt.nz

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RAINFALL

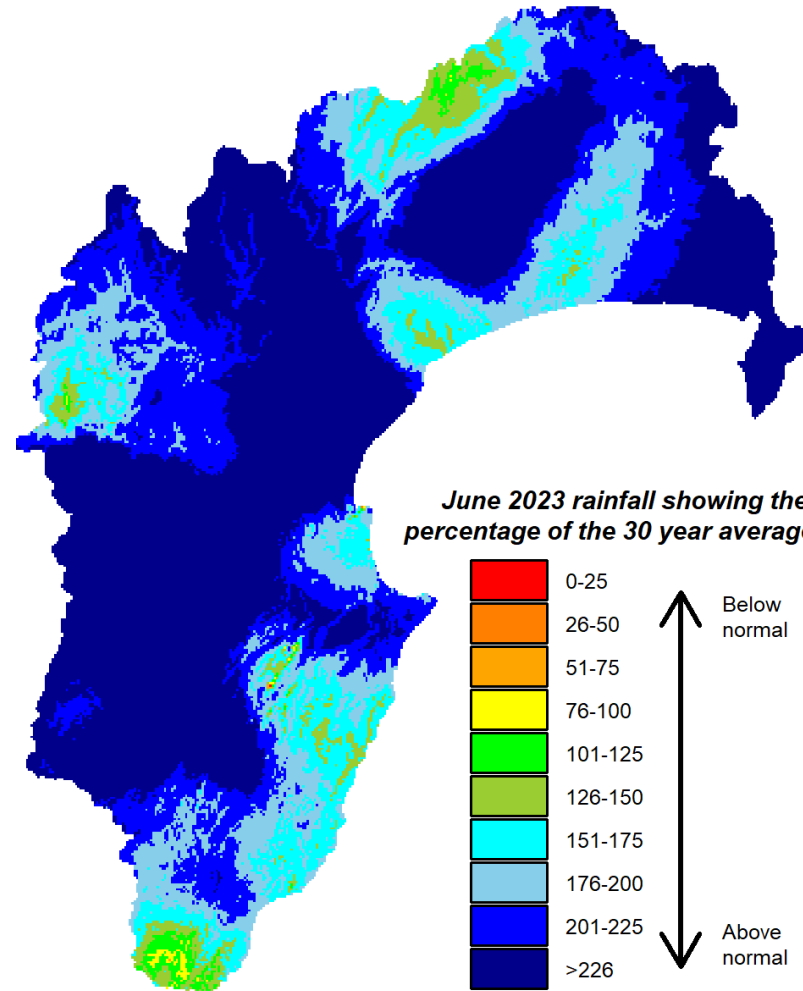
Well above normal. No cloud to ground lightning strikes.

Lightning counts come from the Blitzortung.org lightning network to which HBRC contributes.

Percentage of normal June rainfall
(30 year average)

For areas in the region:

Waikaremoana	251%
Northern HB	212%
Tangoio	286%
Kaweka	314%
Ruahine	292%
Heretaunga Plains	243%
Ruataniwha Plains	255%
Southern HB	180%
Hawke's Bay Region	254%



AIR TEMPERATURES

Temperatures – above normal, especially nights.

Mean Difference from Normal

Maximum Temperature: 0.7°C

Minimum Temperature: 2.3°C

Mean Daily Maximum: 13 °C

Mean Daily Minimum: 7°C

Highest Daily: 24 °C

Location: Whakatu EWS (NIWA)

Lowest Daily: -5.7 °C

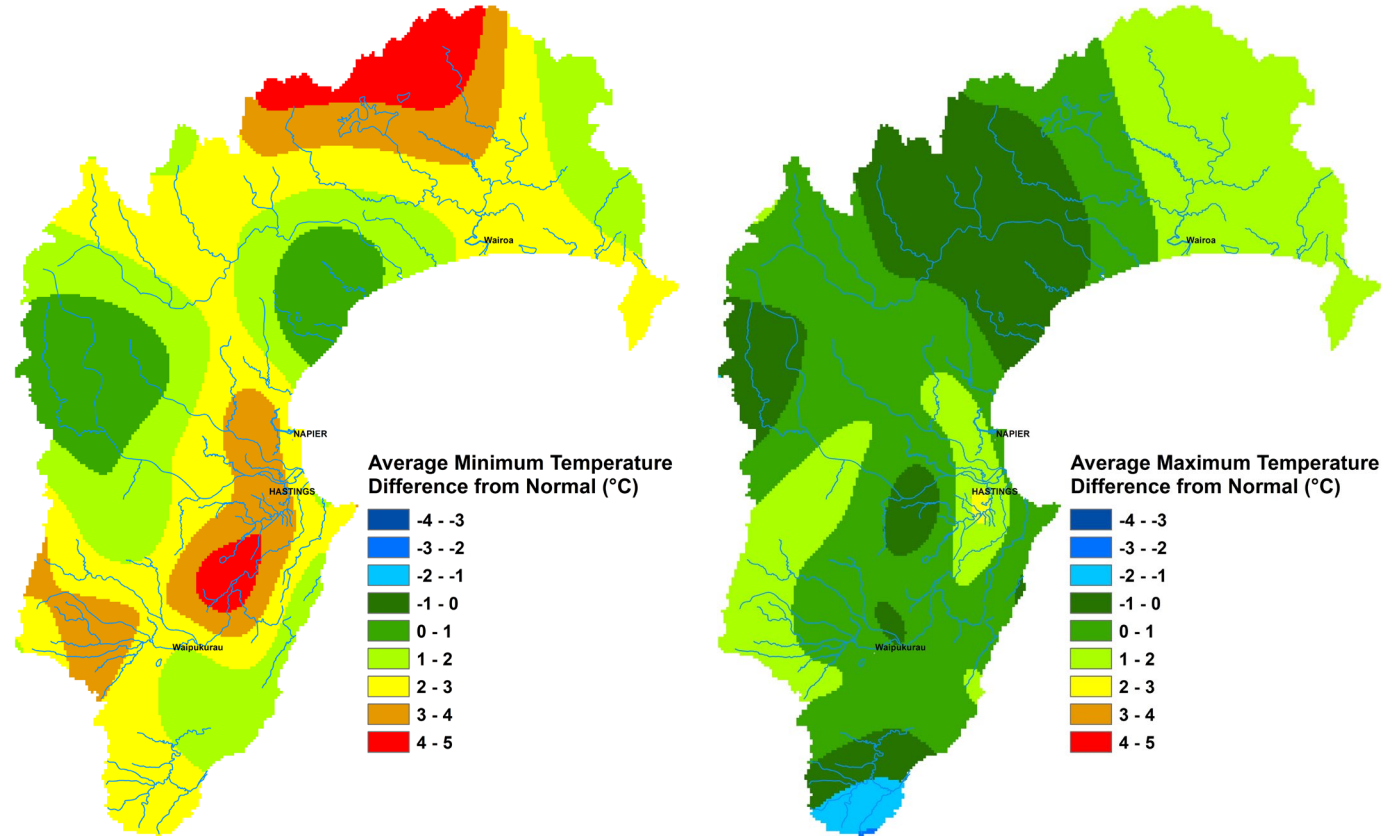
Location: Taharua Climate

Sea Surface Temperature

Due to a communications fault with the HAWQI buoy, the average sea surface temperature for the month of June 2023 was unable to be generated. The communications issue has now been resolved.

HAWQI collects data on water temperature, salinity and clarity at a range of depths as well as weather information.

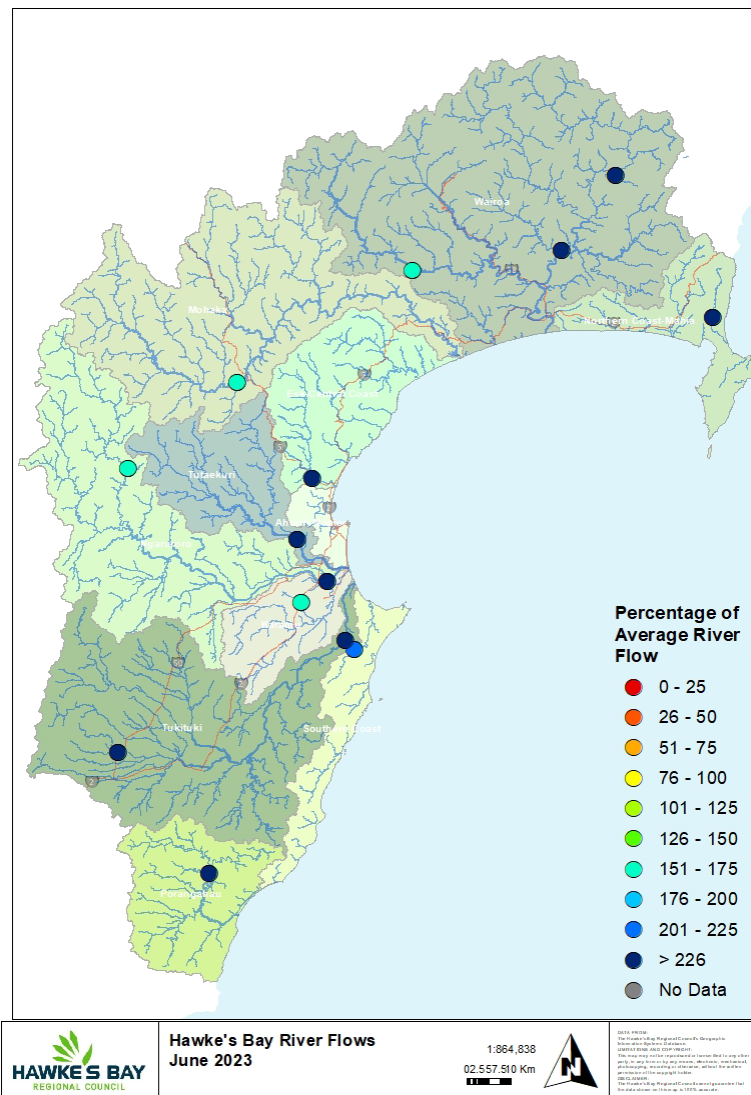
Check out real time data from HAWQI [here](#).



RIVER FLOW

Percentage of average June flows
for areas in the region:

Northern Coast – Mahia	262%
Northern HB – Hangaroa River	334%
Northern HB – Wairoa River	278%
Northern HB – Waiau River	163%
Mohaka	168%
Esk-Central Coast	404%
Tūtaekuri	247%
Karamu	170%
Ngaruroro – Kuripapango	155%
Ngaruroro – Chesterhope	318%
Southern Coast	217%
Tukituki – Tukipo River	297%
Tukituki – Tukituki River	283%
Porangahau	402%
Hawke's Bay Region	264%



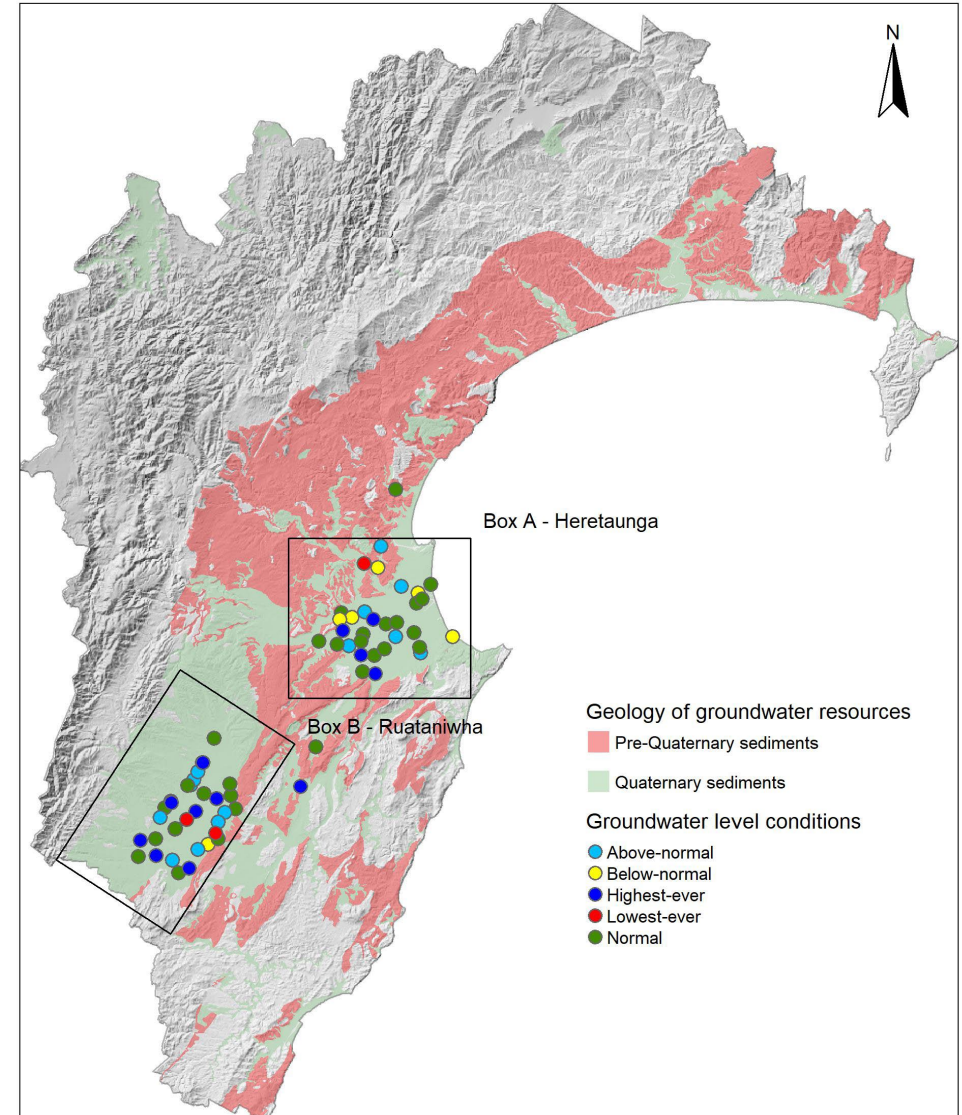
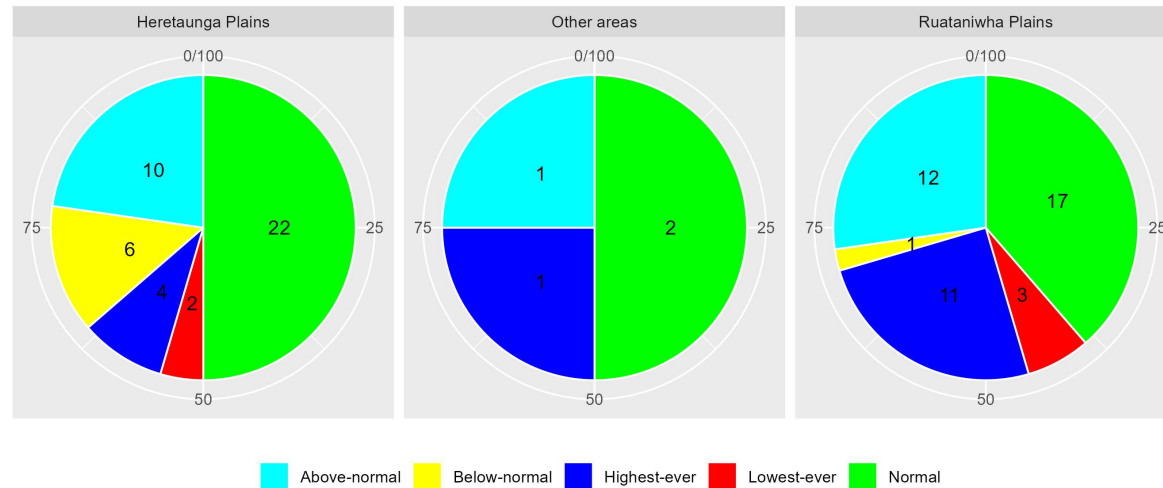
GROUNDWATER & SOIL MOISTURE

Soil Moisture: Above normal

Current state of Groundwater levels:

This report compares groundwater levels in June with historic readings to evaluate current conditions. To assess these conditions, we have grouped groundwater levels at each well relative to their monthly percentiles.

Groundwater levels measuring between their monthly minimum and 25th percentile are considered below-normal, groundwater levels measuring between the 25th and 75th percentiles are classed as normal, and groundwater levels measuring between the 75th-maximum are considered above-normal. Wells with less than 5 years of record are excluded from the analysis.



AIR QUALITY

Good. No exceedances.

Figure 1: PM₁₀ levels in the Napier, Hastings and Awatoto airsheds during June 2023.

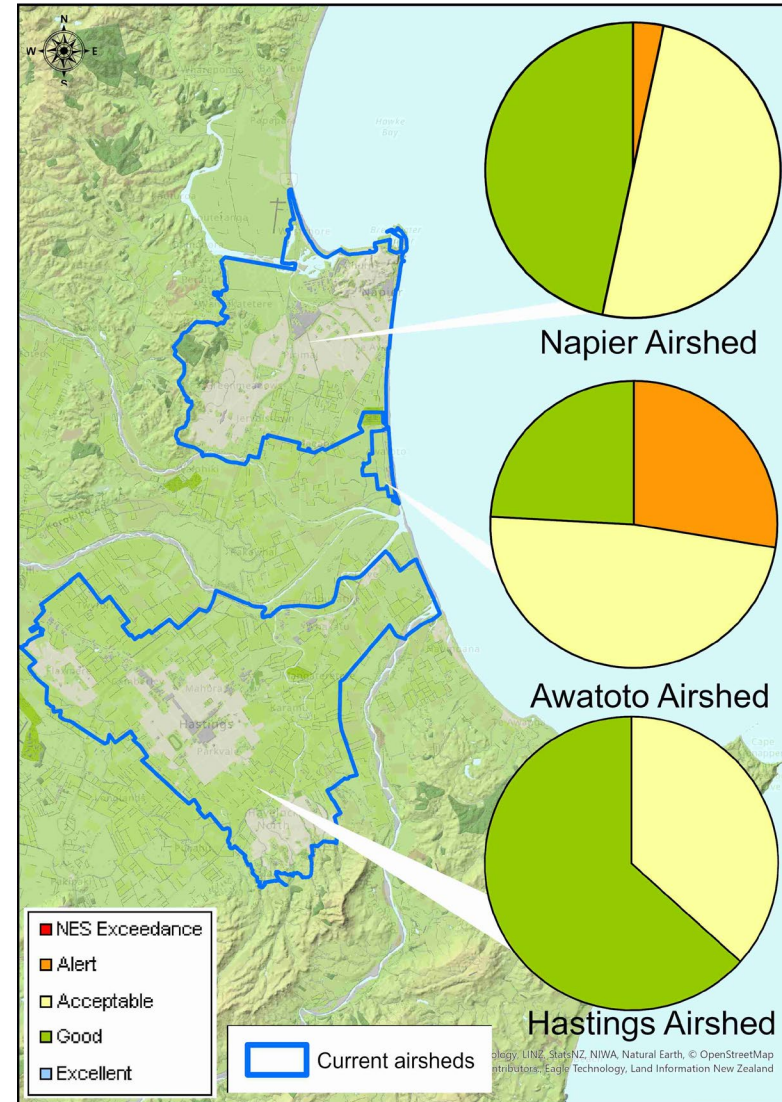
PM₁₀ exceedances:

The National Environmental Standard (NES) for particulate matter (PM₁₀) of 50 micrograms per cubic metre (24 hour average) was not exceeded in the Napier and Hastings airsheds during June 2023.

The monitoring sites are located at:

- Marewa Park in the Napier airshed.
- St Johns College in the Hastings airshed.
- Waitangi Road in the Awatoto airshed.

Further information is available at www.hbrc.govt.nz



LONGER FORECAST

As El Niño conditions continue to emerge through winter, a diminishing ghost of La Niña may haunt us from time to time. But a positive Indian Ocean dipole is still expected to develop which should help displace lingering La Niña-like weather patterns.

Higher than normal sea level pressure is expected northwest of New Zealand over the next three months and lower pressure to the southeast, setting up a southwest wind flow. Sea surface temperatures are still warmer than usual around the country, which may take the edge off brisk southwest winds, allowing air temperatures to be near or above normal. The warmer seas may also act as a drag on moves to a regime of less rainfall and so near normal rainfall might be the result for now. But it's worth remaining wary that drier weather could be on the way as the year progresses.

Dr Kathleen Kozyniak
Team Leader Air and Land Science