

# State of the Environment

Hawke's Bay trends

MAY 2024



TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI



## May 2024

May brought a splashy surprise to Hawke's Bay following three months of below average rainfall. Across the region, rainfall was 164% of the monthly average. River flows were normal while groundwater levels lingered near or below normal. Soil moisture levels perked up after the rainfall with most sites sitting near or above median levels.

May felt particularly wintry, with daytime temperatures 0.8 degrees colder than usual and overnight temperatures dropping 1.1 degrees below the average low for May. My fingers weren't thrilled with the chill—it might be time to break out those trusty cycling gloves. Air quality took a hit this month, with three exceedances of PM10 reported across two of our sites.

May brought Autumn to a chilly and wet end. Fingers crossed for winter!

**Dr Nariefa Abraham-Bennet**  
Senior Climate Scientist

## SUMMARY May 2024

Short summary - Cool and wet.

### June to August Forecast

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

source : NIWA

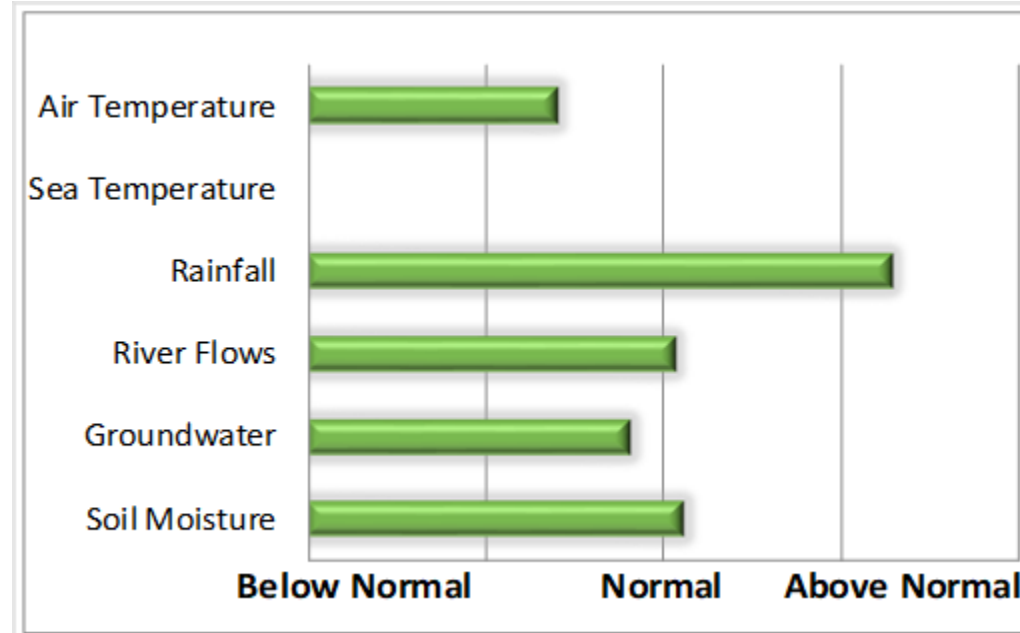
### Sea Surface Temperature

The average sea surface temperature (SST) for Hawke's Bay in May 2024 is unavailable due to the HBRC coastal water quality monitoring buoy HAWQ1 being removed for servicing.

### For more information

[www.hbrc.govt.nz](http://www.hbrc.govt.nz)

Ph: 06 835 9200



## RAINFALL

Above normal. Eleven cloud to ground lightning strikes.

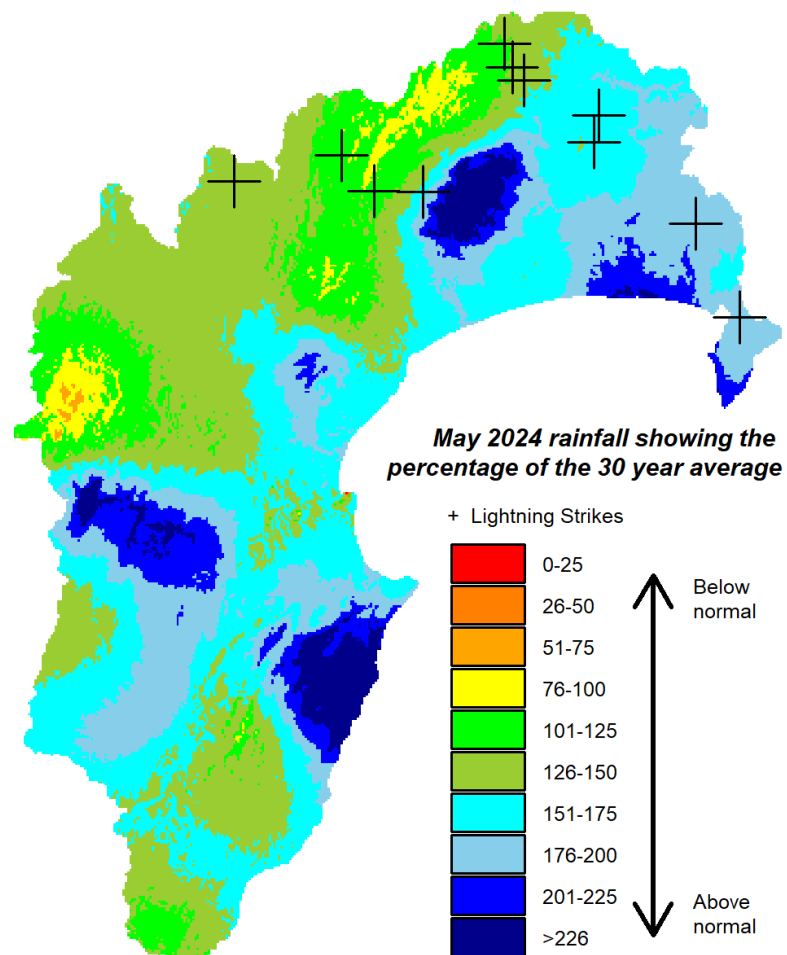
*Lightning counts come from the Blitzortung.org lightning network to which HBRC contributes.*

Percentage of normal May rainfall  
(30 year average)

### For areas in the region:

Waikaremoana	178%
Northern HB	175%
Tangoio	156%
Kaweka	136%
Ruahine	151%
Heretaunga Plains	172%
Ruataniwha Plains	162%
Southern HB	177%
<b>Hawke's Bay Region</b>	<b>164%</b>

For a more detailed rainfall report click [here](#)  
and for a five-year monthly summary click [here](#).



# AIR TEMPERATURES

**Temperatures** – Cooler than usual- both day and night.

Mean Difference from Normal

Maximum Temperature: -0.8°C

Minimum Temperature: -1.1°C

Mean Daily Maximum: 14.3°C

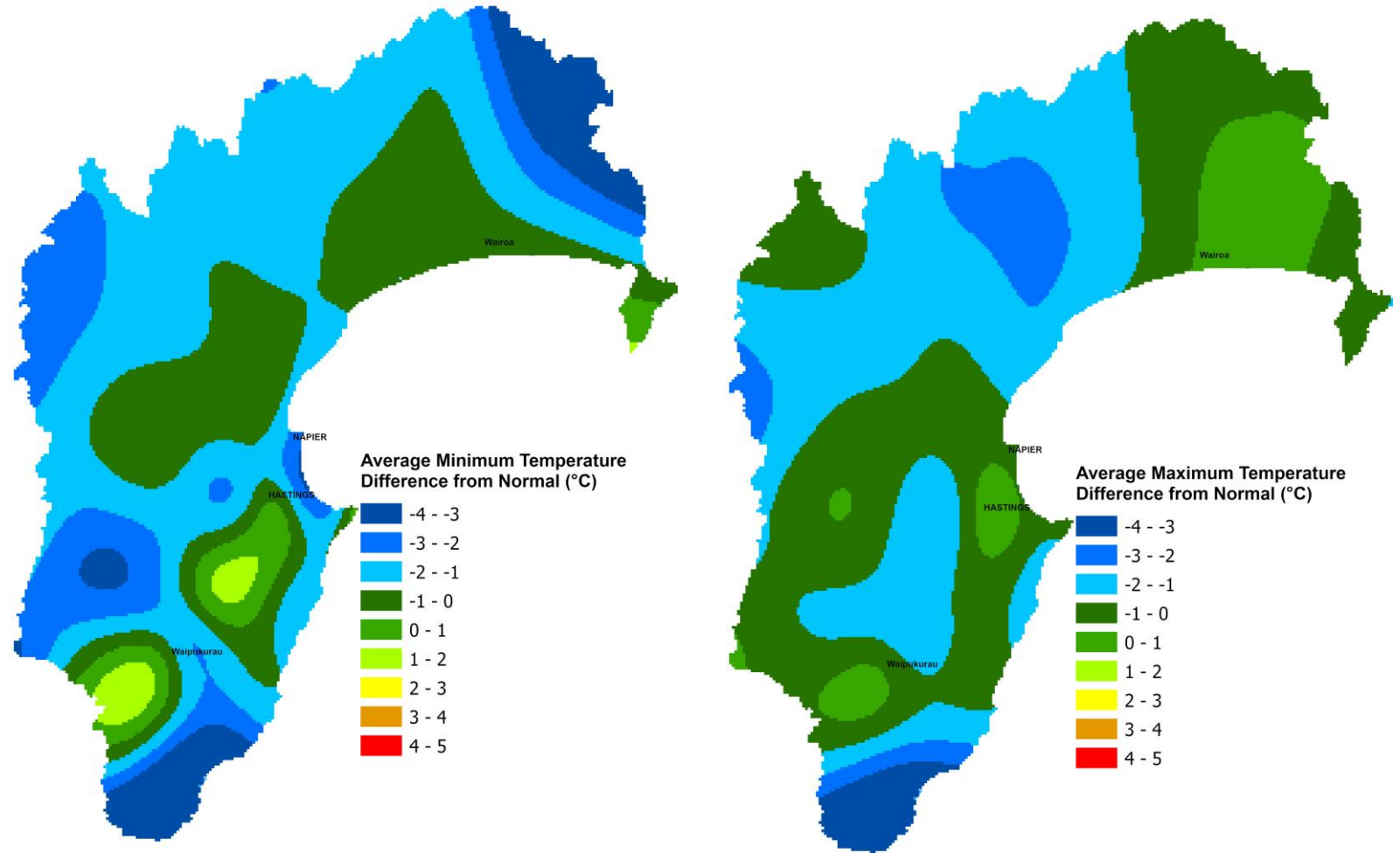
Mean Daily Minimum: 5.1°C

Highest Daily: 23.4 °C

Location: Whakatu EWS (NIWA)

Lowest Daily: -7.7 °C

Location: Taharua Climate

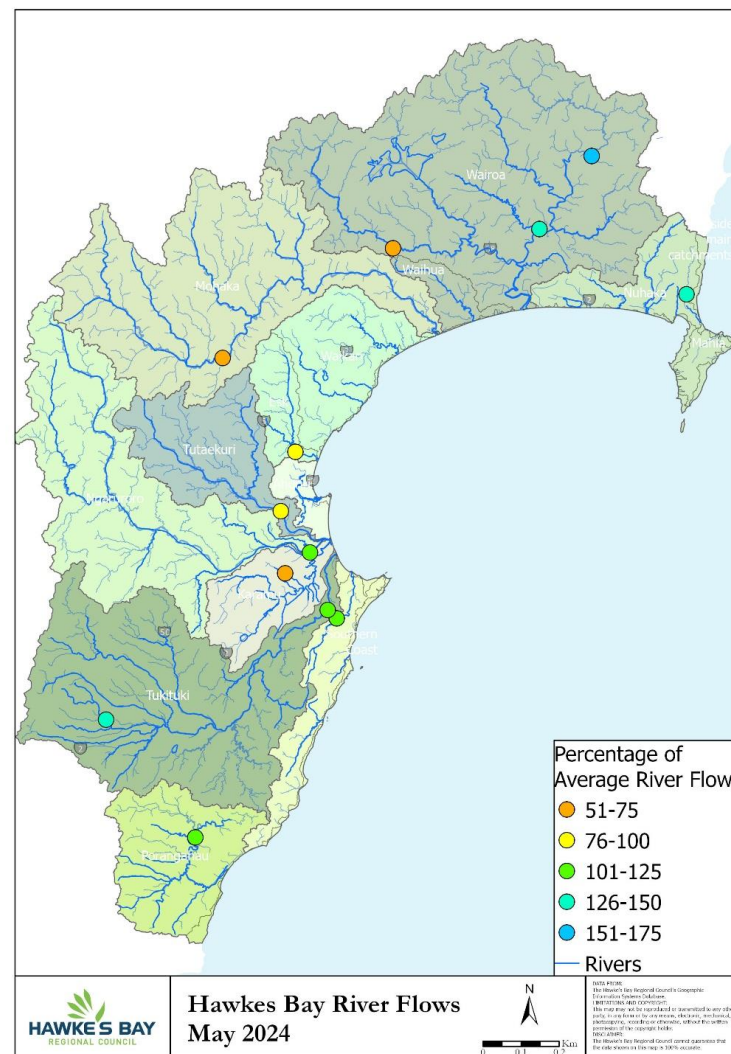


## RIVER FLOWS

Percentage of average May flows  
for areas in the region:

Northern Coast – Mahia	138%
Northern HB – Hangaroa River	151%
Northern HB – Wairoa River	131%
Northern HB – Waiau River	60%
Mohaka	60%
Esk-Central Coast	91%
Tūtaekuri	81%
Karamu	57%
Ngaruroro – Chesterhope	104%
Southern Coast	117%
Tukituki – SH50	140%
Tukituki – Red Bridge	102%
Porangahau	107%
<b>Hawke's Bay Region</b>	<b>103%</b>

For a more detailed river flow report click [here](#).





## GROUNDWATER & SOIL MOISTURE

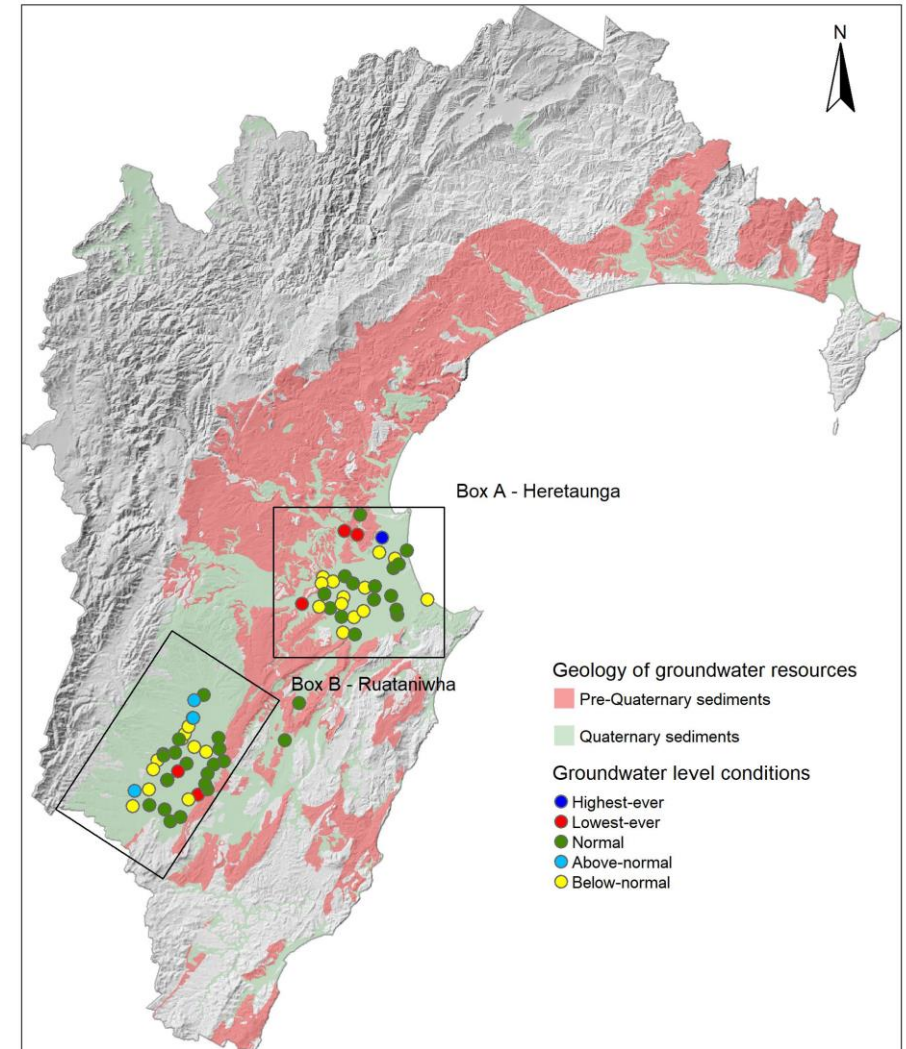
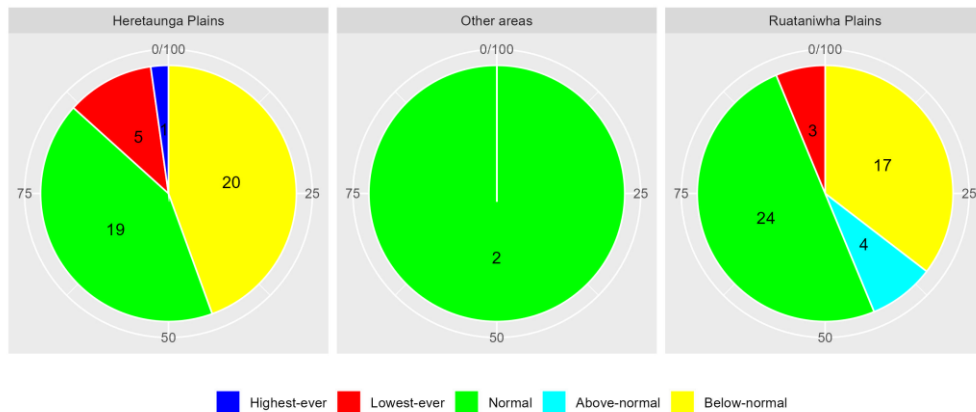
**Soil Moisture:** Near or above normal.

For a more detailed soil moisture report click [here](#).

### Current state of Groundwater levels:

This report compares groundwater levels in May 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

**Air Quality:** Two exceedances in Awatoto and one exceedance in Hastings.

**Figure 1:** PM<sub>10</sub> levels in the Napier, Hastings and Awatoto airsheds during May 2024.

### PM<sub>10</sub> exceedances:

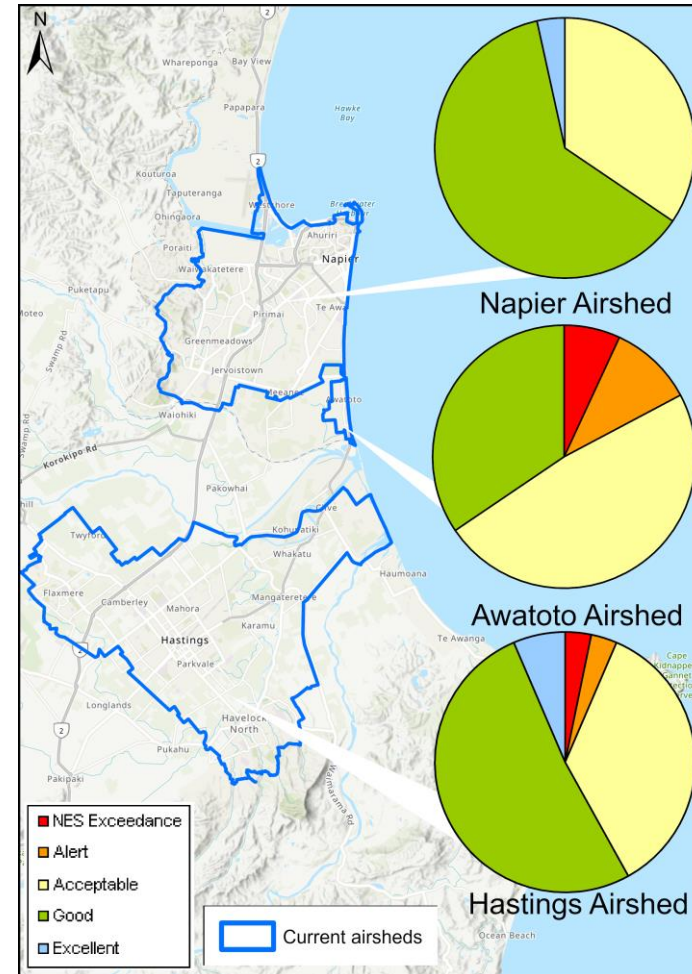
The National Environmental Standard (NES) for particulate matter (PM<sub>10</sub>) of 50 micrograms per cubic metre (24 hour average) was exceeded twice in the Awatoto airshed and once in the Hastings airshed during May 2024. No exceedances occurred in the Napier airshed during May 2024.

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](http://www.hbrc.govt.nz)

For a more detailed air quality report click [here](#).





## LONGER FORECAST

Having transitioned from the El Niño event to neutral conditions, we may see development of La Niña conditions in spring. For winter though, westerlies are expected to dominate due to a sea-level pressure pattern of higher-than-normal pressure over the North Island and lower than normal south of the country.

Sea temperatures have been subdued around the country recently and seem likely to remain that way for winter. That combined with a mainly westerly flow contribute to a forecast of below or near normal rainfall for winter. The westerly flow will bring that mix of warm and cool weather as it flips between north-west and south-west, but overall near or above normal temperatures are expected. Hopefully, it all adds up to a pleasant and not too shabby winter.

**Dr Kathleen Kozyniak**  
**Team Leader Air and Land Science**