

# Monthly Environmental Report

Environmental Science Report



## August 2025

August more or less continued the pattern we saw in July, with rainfall unevenly distributed across Hawke's Bay. Northern parts of the region fared relatively well, with Northern Hawke's Bay receiving around 119% of its usual August rainfall and Waikaremoana at 110%. In contrast, the rest of the region remained on the dry side. The plains were particularly dry, with the Heretaunga Plains getting only 37% of normal August rainfall, the Ruataniwha Plains at 53%, and Tangoio at 42%. The ranges and headwaters of our rivers were also drier with the Kaweka and Ruahine ranges recording 56% and 62% of August rainfall respectively. Expectedly, river flows were also below normal especially on the plains. Soil moisture also reflected rainfall, with most sites near or below average except for some above average areas in the north.

On a slightly more positive note, groundwater levels for most of monitoring sites showed some improvement compared to July, although overall levels across the region are still sitting below normal. Temperatures were cooler than average for most areas, adding to the wintry conditions. And thankfully, some good news on the air quality front. Unlike July, there were no exceedances of the PM<sub>10</sub> standards reported in any of the airsheds this month.

**Nithin Bala Murali**

**Scientist Climate**

## Short summary

Rains in the north and too little in the plains. Cool and dry.

### August to September Forecast

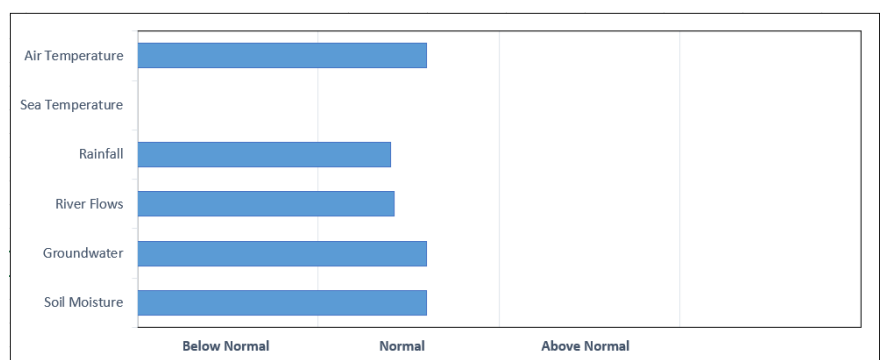
**Temperature** Above or near average

**Rain** Above or near normal

**River flows** Below or near normal

**Soil moisture** Below or near normal

Source: NIWA



### For more information

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

Ph: 06 835 9200

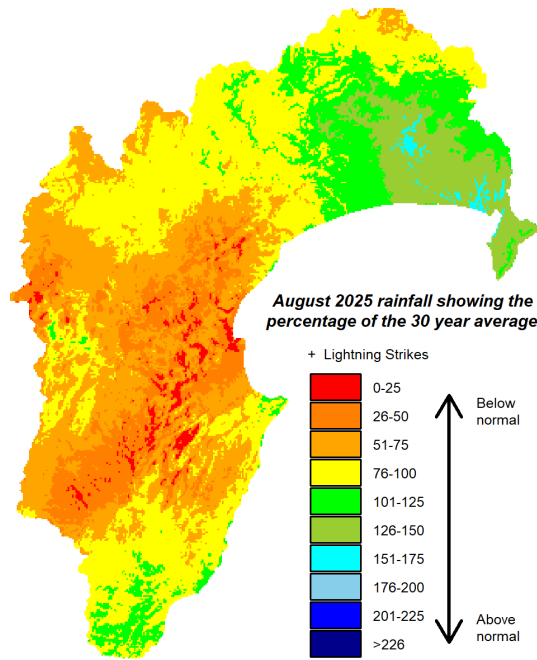
## RAINFALL

Above average rainfall in the north and below average rainfall in rest of the region. No cloud to ground lightning strikes

Lightning counts come from the [Blitzortung.org](https://blitzortung.org) lightning network to which HBRC contributes.

**Percentage of normal August rainfall (30 year average) for areas in the region:**

Waikaremoana	110%
Northern HB	119%
Tangoio	42%
Kaweka	56%
Ruahine	62%
Heretaunga Plains	37%
Ruataniwha Plains	53%
<u>Southern HB</u>	<u>82%</u>
Hawke's Bay Region	70%



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

## AIR TEMPERATURES

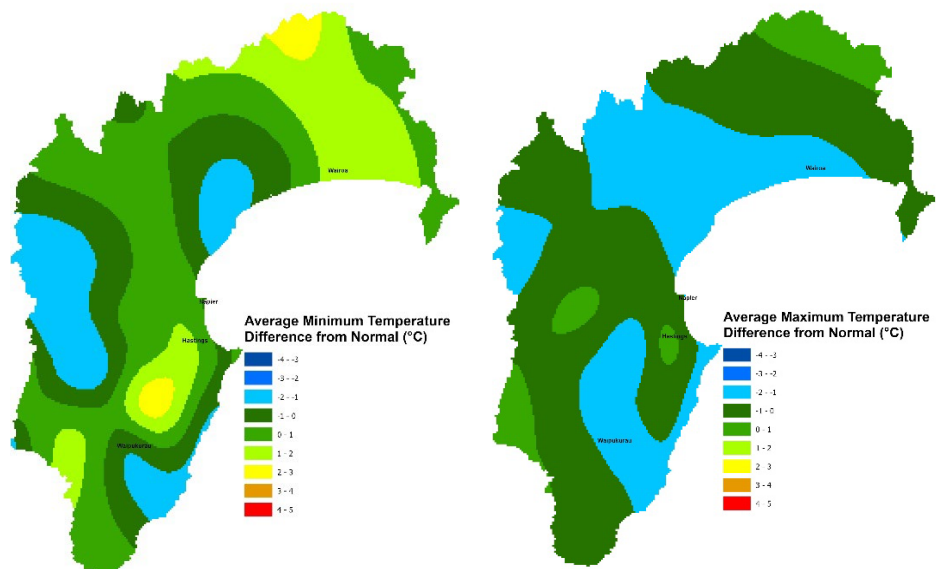
Cooler days and nights.

**Mean Difference from Normal**  
Maximum Temperature: **-0.8°C**  
Minimum Temperature: **0.2°C**

Mean Daily Maximum: **12°C**  
Mean Daily Minimum: **4.4°C**

Highest Daily: **21.7°C**  
**Location: Whakatu EWS (NIWA)**

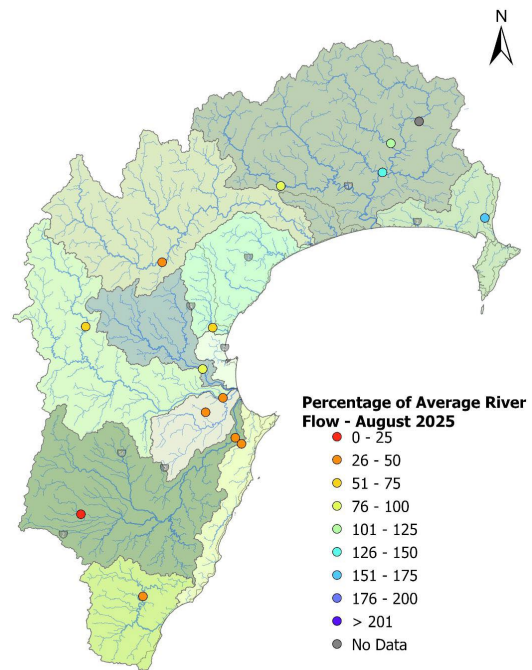
Lowest Daily: **-4.6°C**  
**Location: Taharua (NIWA)**



# RIVER FLOW

## Percentage of average August flows for areas in the region:

Northern Coast – Mahia	159%
Northern HB – Hangaroa River	No data
Northern HB – Ruakituri River	117%
Northern HB – Wairoa River	136%
Northern HB – Waiau River	77%
Mohaka	45%
Esk-Central Coast	62%
Tūtaekuri	91%
Karamu	45%
Ngaruroro - Kuripapango	62%
Ngaruroro – Chesterhope	45%
Southern Coast	45%
Tukituki – Tukipo River	24%
Tukituki – Red Bridge	37%
Porangahau	48%
<b>Hawke’s Bay Region</b>	<b>71%</b>



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

# GROUNDWATER & SOIL MOISTURE

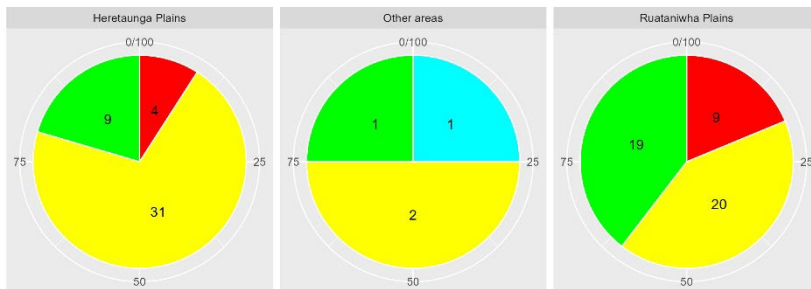
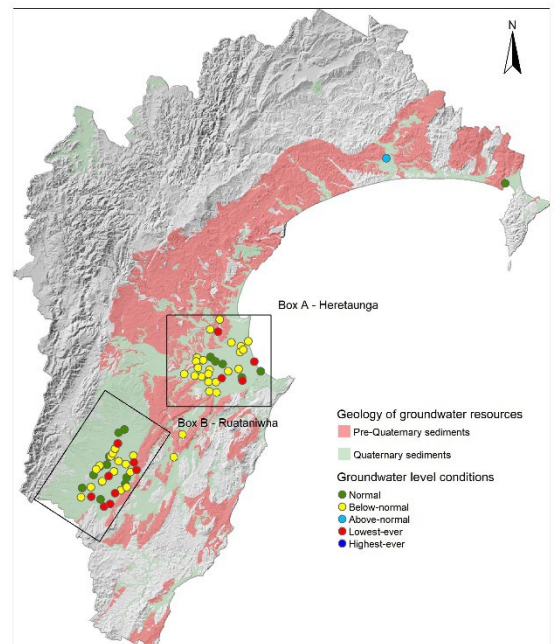
**Soil Moisture:** Near or below average but above average areas in the north. For a more detailed soil moisture report click [here](#).

## Current state of Groundwater levels:

This report compares groundwater levels measured in June with historic readings to evaluate current monthly 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 25<sup>th</sup> percentile are considered below-normal, groundwater levels measuring between the 25<sup>th</sup> and 75<sup>th</sup> percentiles are classed as normal, and groundwater levels measuring between the 75<sup>th</sup> maximum are considered above-normal. Wells with less than 5 years of record are excluded from the analysis.

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



Normal Below-normal Above-normal Lowest-ever

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## AIR QUALITY

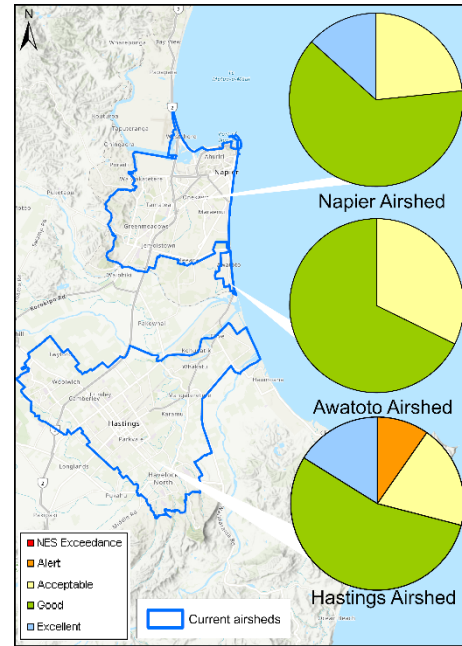
No exceedances reported.

Figure 1: PM10 levels in the Napier, Hastings and Awatoto airsheds during August 2025.

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 Awatoto, Napier or Hastings airsheds during June 2025.

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](#).

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## SEA SURFACE TEMPERATURES

The average sea surface temperature (SST) for Hawke's Bay in August 2025 was unavailable in time for this month's report due to technical difficulties.

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## LONGER FORECAST

While the El Niño-Southern Oscillation is in neutral mode for now, it's likely that we will enter La Niña conditions at some point in spring and/or summer, if only briefly. La Niña events often partner with negative phases of the Indian Ocean Dipole and such a negative phase is expected to emerge this spring. Both raise the chance of the region getting wet rather than dry weather. Sea surface temperatures are above average around New Zealand, though more so on the west coast than around Hawke Bay.

The predicted sea level pressure pattern for spring has higher than normal pressure south and east of the country and lower than normal to the northwest. There is some variation across the different forecast models, raising the uncertainty of the forecast, but if it eventuates, we'd expect more easterlies than average. The potential for more onshore winds and warmer than average seas lead to a forecast of near or above average rainfall and temperatures also near or above average. We've recently seen a bias to wet weather in northern Hawke's Bay and dry weather in the south. That may continue due to the way forecasts extend the southern area of higher than normal pressure further north over eastern New Zealand.

**Dr Kathleen Kozyniak**

**Team Leader Air and Land Science**