

Monthly Environmental Report

Environmental Science Report



July 2025

As is typical of mid-winter in Hawke's Bay, July delivered a mix of settled and unsettled conditions. Passing troughs resulted in winter rain, but it was uneven across the region with Northern Hawke's Bay and Waikaremoana receiving above average rainfall at 138% and 119% of normal respectively. The Heretaunga Plains recorded only 75% of typical July rainfall while the Ruahine Range and Southern Hawke's Bay were particularly dry at 61% and 68% respectively.

This was also reflected in the regional hydrology. Groundwater levels deteriorated markedly from June's normal status, with some monitoring sites in the plains recording lowest ever conditions. River flows in the plains catchments remained below normal, continuing the stress on water resources.

Temperatures remained slightly above normal for both day and night. High pressure ridges between the passing troughs brought in clear skies and cloudless nights that resulted in some frosty starts. Mixed results in the air quality space with PM10 standards exceeded twice in the Hastings airshed while no exceedances were reported in the Napier or Awatoto airsheds.

Nithin Bala Murali

Scientist Climate

Short summary

Lots of rain in the north and too little in the south. Warm.

July to September Forecast

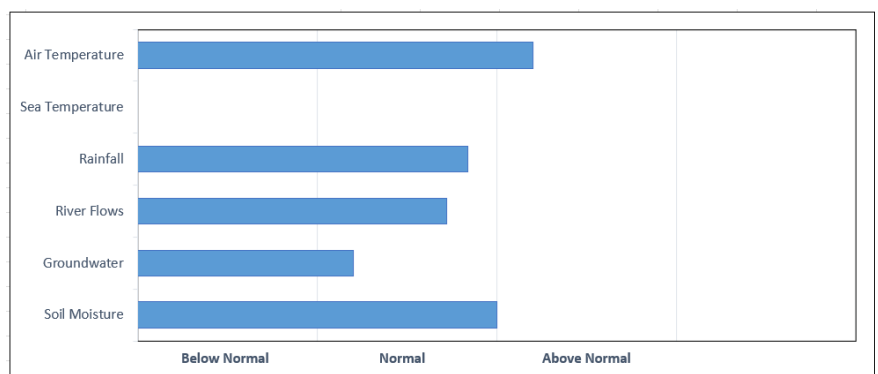
Temperature Above normal

Rain Above normal

River flows Near or above normal

Soil moisture Near or above normal

Source: NIWA



For more information

www.hbrc.govt.nz

Ph: 06 835 9200

RAINFALL

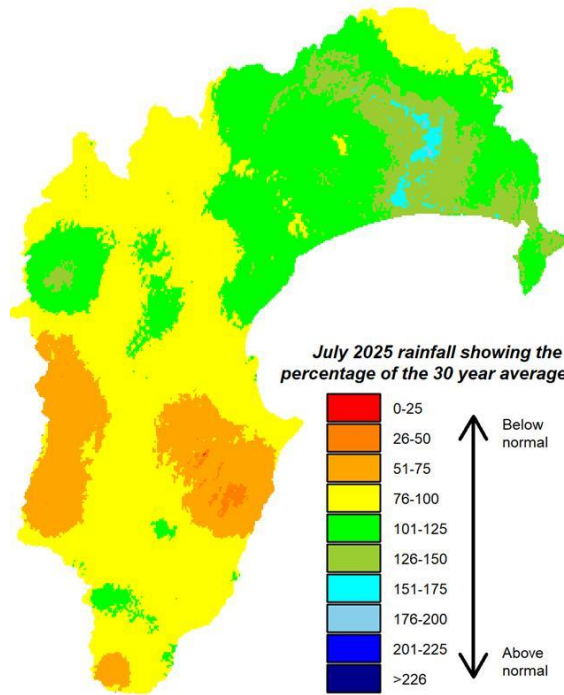
Above average rainfall in the north and below average rainfall in the south. No cloud to ground lightning strikes

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	119%
Northern HB	138%
Tangoio	100%
Kaweka	92%
Ruahine	61%
Heretaunga Plains	76%
Ruataniwha Plains	87%
<u>Southern HB</u>	<u>68%</u>
Hawke's Bay Region	92%

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



AIR TEMPERATURES

Slightly above average days and nights.

Mean Difference from Normal

Maximum Temperature: **0.7°C**

Minimum Temperature: **0.6°C**

Mean Daily Maximum: **12.7°C**

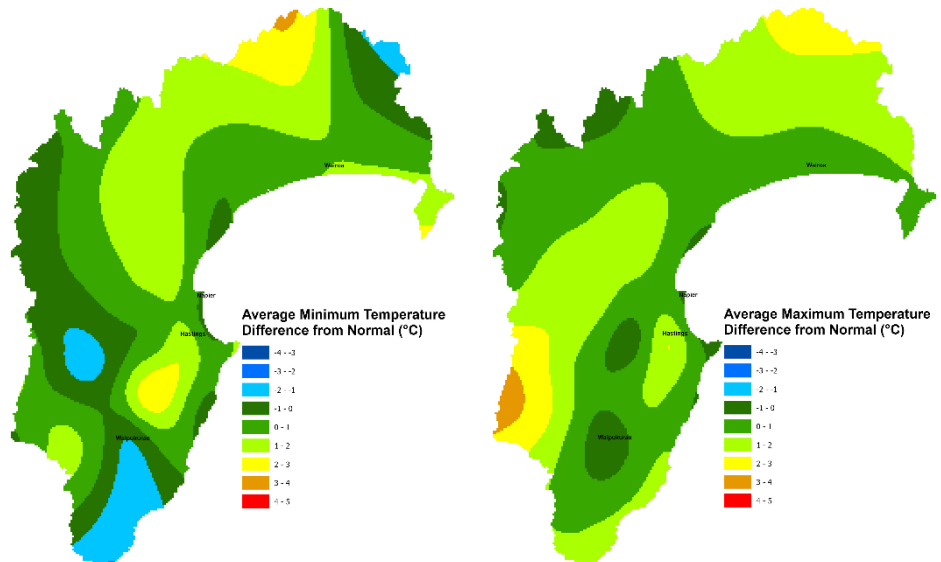
Mean Daily Minimum: **4.5°C**

Highest Daily: **21.5°C**

Location: **Whakatu EWS (NIWA)**

Lowest Daily: **-5.5°C**

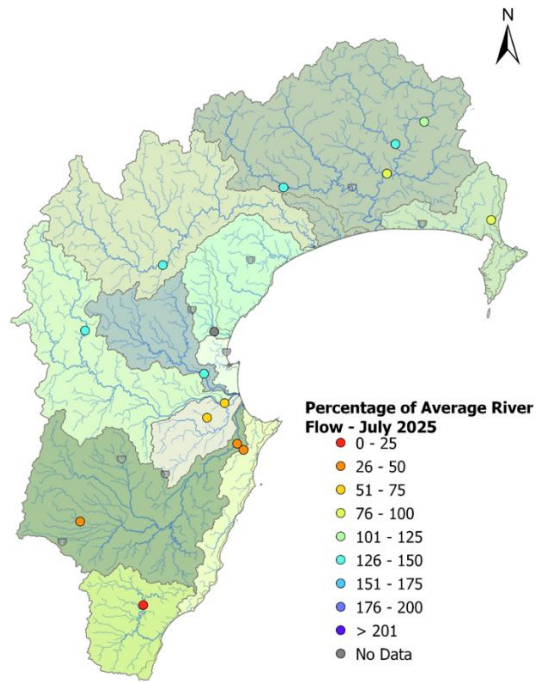
Location: **Onga Onga EWS (NIWA)**



RIVER FLOW

Percentage of average July flows for areas in the region:

Northern Coast – Mahia	82%
Northern HB – Hangaroa River	108%
Northern HB – Ruakituri River	130%
Northern HB – Wairoa River	99%
Northern HB – Waiiau River	128%
Mohaka	134%
Esk-Central Coast	NA
Tūtaekuri	139%
Karamu	50%
Ngaruroro – Chesterhope	73%
Ngaruroro - Kuripapango	134%
Southern Coast	29%
Tukituki – Tukipo River	41%
Tukituki – Red Bridge	35%
Porangahau	14%
Hawke’s Bay Region	86%



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

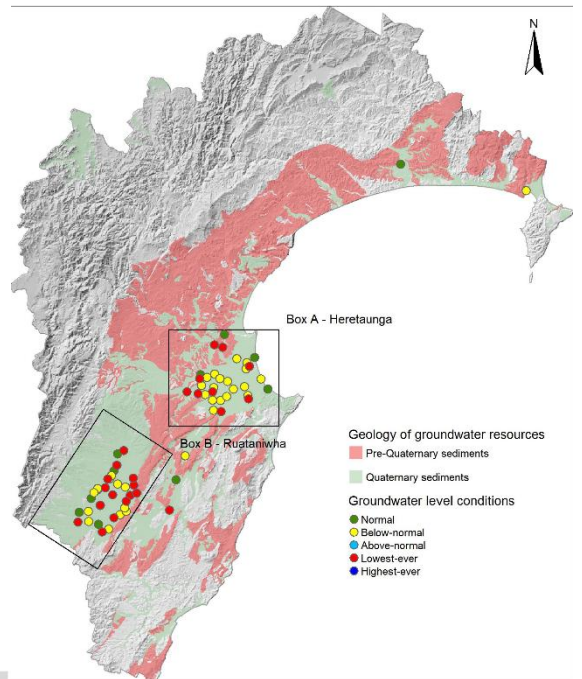
GROUNDWATER & SOIL MOISTURE

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

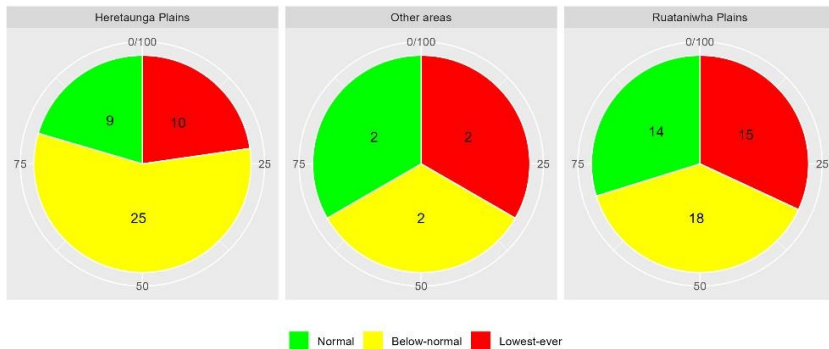
Current state of Groundwater levels:

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 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.



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



AIR QUALITY

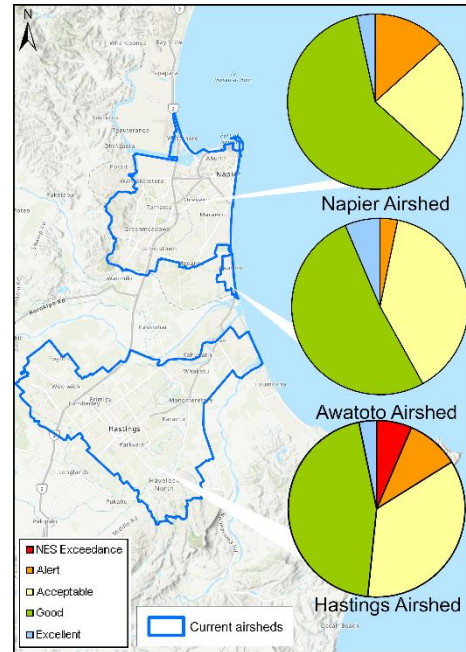
Two exceedances reported in Hastings.

Figure 1: PM10 levels in the Napier, Hastings and Awatoto airsheds during July 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 For a more detailed air quality report click [here](#).

SEA SURFACE TEMPERATURES

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

LONGER FORECAST

Currently the El Niño-Southern Oscillation is in a neutral phase and it seemed it would stay that way for spring and summer. That might not be the case. It is possible La Niña conditions could develop towards the end of the year. Additionally, a negative phase of the Indian Ocean Dipole could be in place for spring. Both are climate patterns that we associate with wet rather than dry weather for our region. We currently have above average sea surface temperatures around New Zealand, which only adds to the prospect of more moisture heading our way.

The predicted sea level pressure pattern for the next three months has lower than average pressure extending across from Australia to our shores and higher pressure to the south of the country. That pattern means onshore easterlies are likely to be more prevalent and the lower pressure itself suggests unsettled weather. Therefore, above normal or near normal rainfall is expected and above average temperatures that are assisted by the warm seas.

Dr Kathleen Kozyniak

Team Leader Air and Land Science