

Monthly Environmental Report

Environmental Science Report



September 2025

September turned out to be another dry month, with the region receiving only around 60% of its normal rainfall. Rainfall was well below normal across most areas, with the Heretaunga Plains and Southern Hawke’s Bay receiving only 35% and 38% of average rainfall, while the Ruahine Range was the only area to record above average numbers at 130% of normal September rainfall. The regional hydrology also mirrored these rainfall patterns, with river flows across most catchments dropping to less than half of their typical September levels. Groundwater conditions, which had shown slight recovery in August, deteriorated again this month, particularly across the Heretaunga Plains, with some sites in both the Heretaunga and Ruataniwha Plains recording lowest ever levels for the time of the year. Soil moisture levels also echoed the dry conditions, sitting near or below average across the region.

On a positive note, air quality remained good, with no exceedances of PM₁₀ standards recorded in any of the airsheds this month. Temperatures brought a more spring like feel, with warmer than average days and slightly above average nights for most of the region- hinting at warmer times ahead!

Nithin Bala Murali

Scientist Climate

Short summary

Below average rainfall and warmer days.

October to December Forecast

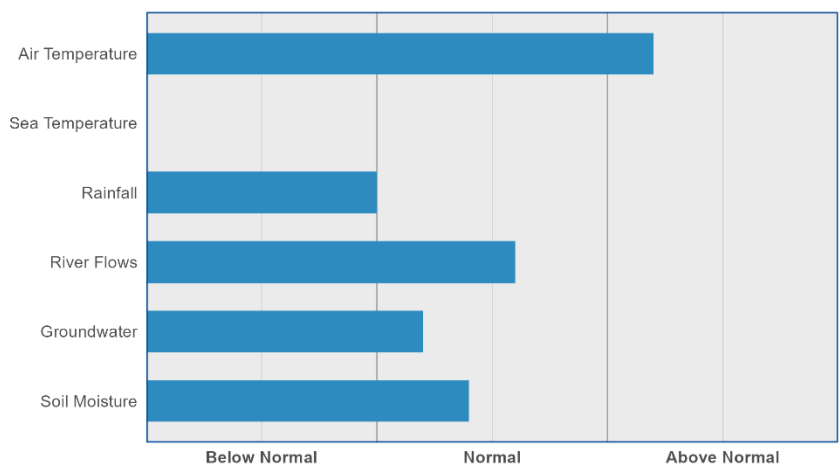
Temperature Above or near average
Rain Below or near normal
River flows Below or near normal
Soil moisture Below or near normal

Source: NIWA

For more information

www.hbrc.govt.nz

Ph: 06 835 9200



Summary – Sep 2025

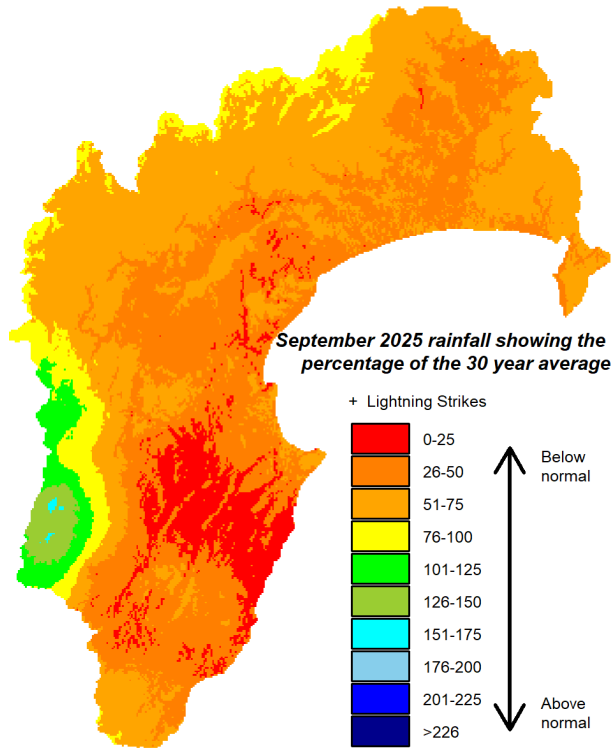
RAINFALL

Below average for most of the region. No cloud to ground lightning strikes

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

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

Waikaremoana	59%
Northern HB	50%
Tangoio	48%
Kaweka	80%
Ruahine	130%
Heretaunga Plains	35%
Ruataniwha Plains	41%
<u>Southern HB</u>	<u>38%</u>
Hawke's Bay Region	60%



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

AIR TEMPERATURES

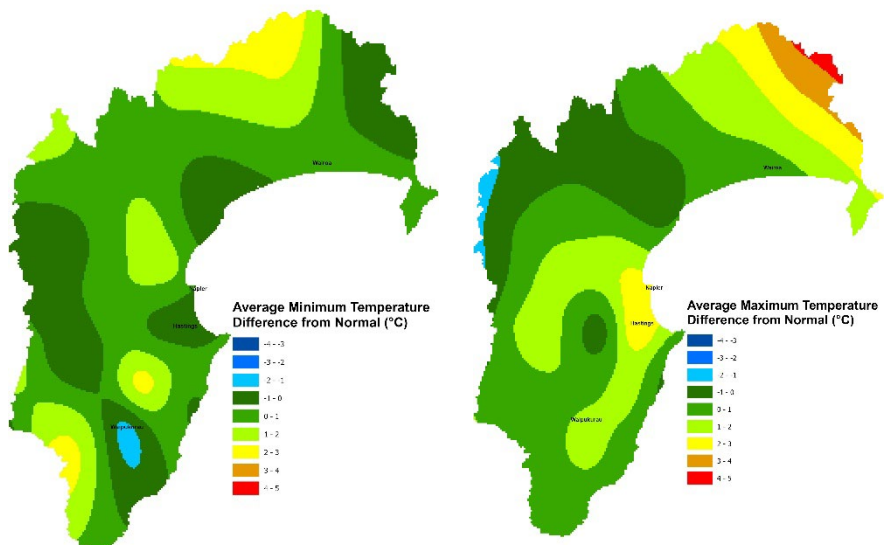
Above average days and nights.

Mean Difference from Normal
Maximum Temperature: **1.0°C**
Minimum Temperature: **0.3°C**

Mean Daily Maximum: **15.9°C**
Mean Daily Minimum: **6°C**

Highest Daily: **25.8°C**
Location: Whakatu EWS (NIWA)

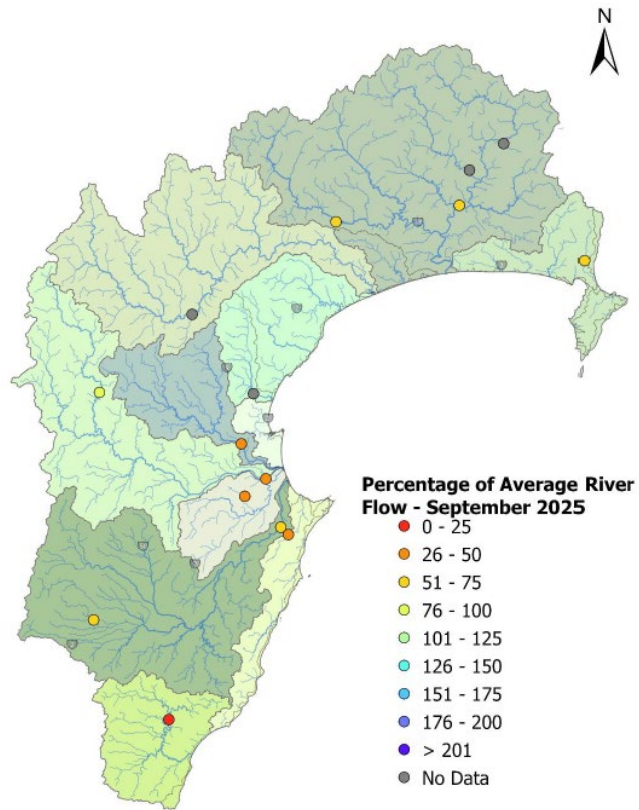
Lowest Daily: **-4.1°C**
Location: Ngamatea (Horizons Regional Council)



RIVER FLOW

Percentage of average September flows for areas in the region:

Northern Coast – Mahia	64%
Northern HB – Hangaroa River	No data
Northern HB – Ruakituri River	No data
Northern HB – Wairoa River	50%
Northern HB – Waiau River	74%
Mohaka	No data
Esk-Central Coast	No data
Tūtaekuri	36%
Karamu	42%
Ngaruroro - Kuripapango	76%
Ngaruroro – Chesterhope	45%
Southern Coast	36%
Tukituki – Tukipo River	55%
Tukituki – Red Bridge	50%
Porangahau	10%
Hawke’s Bay Region	49%



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

GROUNDWATER & SOIL MOISTURE

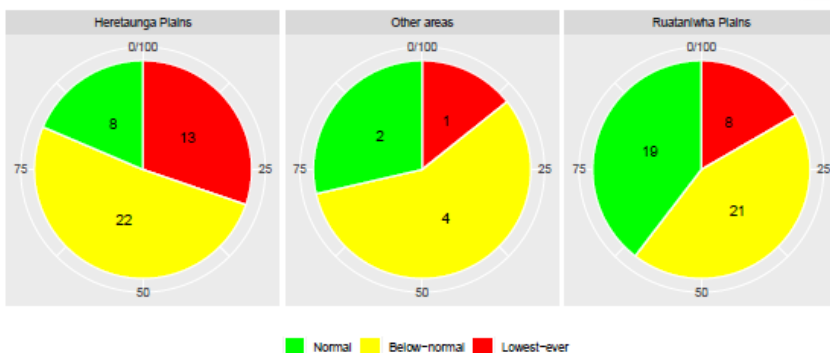
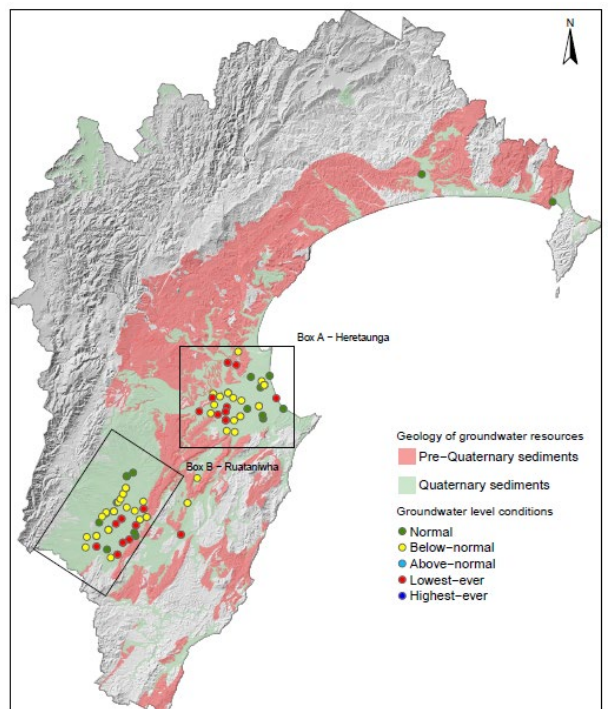
Soil Moisture: Near or below average but above average areas in the north. For a more detailed soil moisture report click [here](#).

Current state of Groundwater levels:

This report compares groundwater levels measured in September 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

No exceedances reported.

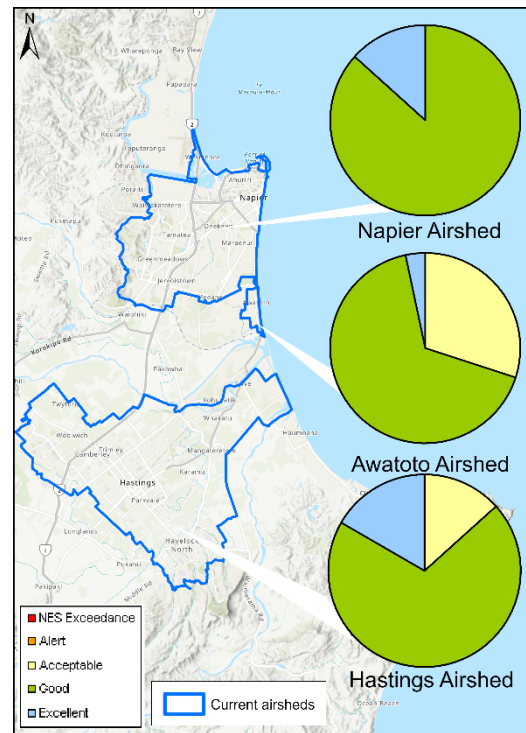
Figure 1: PM10 levels in the Napier, Hastings and Awatoto airsheds during September 2025.

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 September 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 September 2025 was unavailable in time for this month's report due to technical difficulties.

LONGER FORECAST

The general consensus is that a La Niña will emerge this spring but neutral conditions will return in early 2026.

The Indian Ocean Dipole is in a negative phase, which lends support to wet rather than dry weather for the region, though typically with a lag of a few months. Sea surface temperatures around much of the country are warmer than average but not eastern New Zealand, where they have been near or colder than average.

The sea level pressure pattern over the next three months is forecast to feature higher than average pressure over the South Island, which may extend over parts of our region. Lower than average pressure lies to the northwest of the country. The pattern could bring us more easterlies than average but also light winds. The higher than normal pressure and cooler seas suggests some of the region, particularly central and southern parts, may get near or below normal rainfall due to a blocking effect on weather systems arriving from the north. Northern parts of the region have a higher chance of seeing that rain. Temperatures should be near or above average.

Dr Kathleen Kozyniak

