



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

August 2021


HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

August 2021

August rainfall was better than July's half-hearted showing, but the 76% or three-quarters effort was a lot shy of ideal. The Heretaunga Plains was the bullseye for the worst of it – just 21% and 59% for July and August respectively.

River flows seemed nonplussed that near normal rainfall fell in the main ranges and remained low across the board. Low flow bans have outstripped those at the same time last year. Gulp.

August's groundwater levels were bleakly in the below normal zone. Soils successfully gripped onto the rain that did fall, with soil moisture levels mostly near median levels for the time of year but seemingly to the detriment of our river and groundwater stores. That's not to say dry spots weren't evident. I have my finger pointing to west of the Heretaunga Plains for one.

Temperatures didn't know if they were Arthur or Martha in August, being both above average (day time) and below average (night time) by eerily similar margins. Bye winter (ace) and bye air quality reporting, which ended the season on a blinder.

Kathleen Kozyniak
Principal Scientist - Climate and Air

SUMMARY August 2021

Warm days, cold nights and not enough rain.

This is a summary of the regions rainfall, river flows, ground water, air quality and soil moisture levels. Data and images provided by HBRC.

September to November Forecast

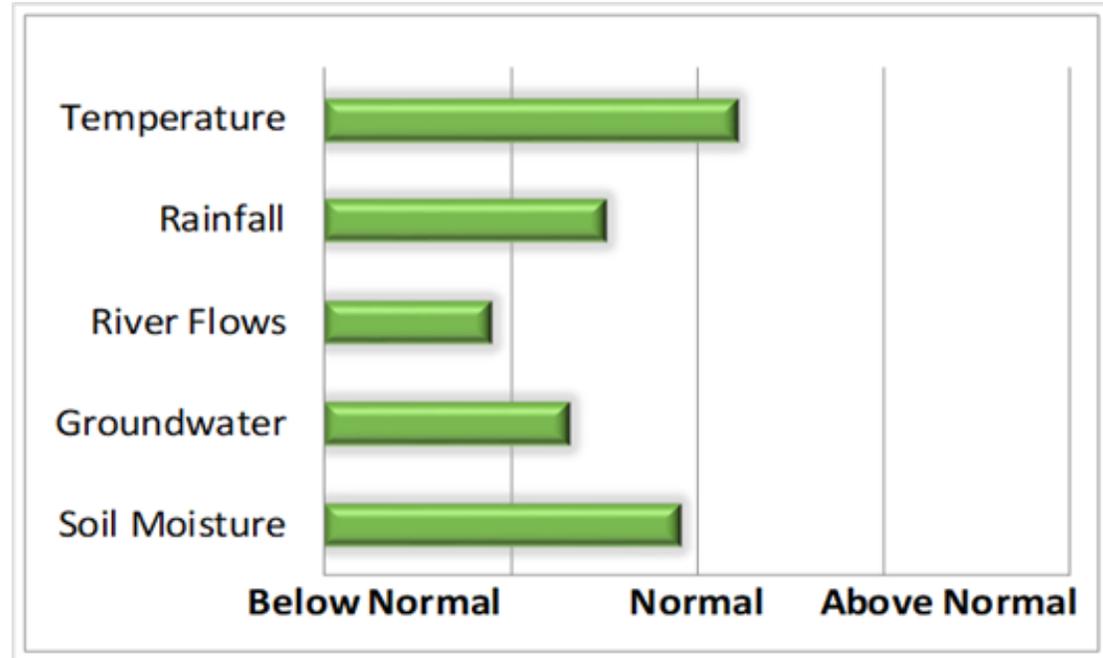
Temperature	Above average
Rain	Below normal
River flows	Below normal
Soil moisture	No clear guidance

source : NIWA

For more information

www.hbrc.govt.nz

P: 06 835 9200



RAINFALL

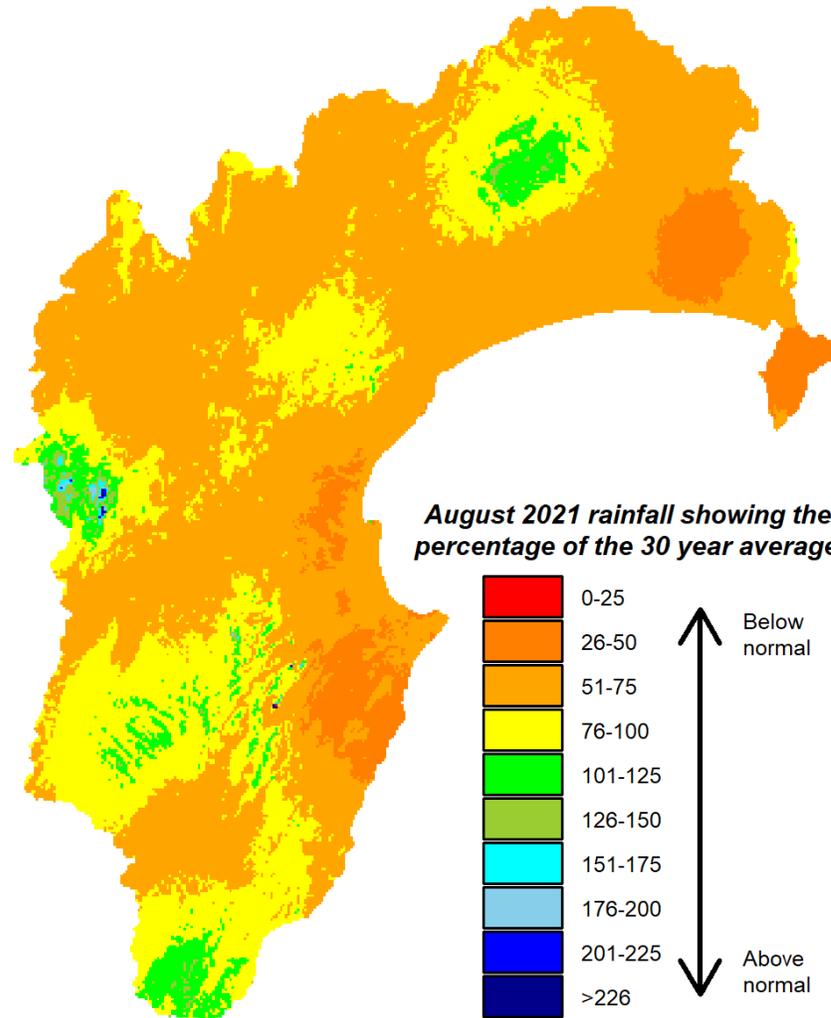
Below normal for the second month. No cloud to ground lightning strikes.

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

Percentage of normal August rainfall
(30 year average)

For areas in the region:

Waikaremoana	84%
Northern HB	66%
Tangoio	72%
Kaweka	85%
Ruahine	82%
Heretaunga Plains	59%
Ruataniwha Plains	78%
Southern HB	78%
Hawke's Bay Region	76%



TEMPERATURES

Equally above and below average days and nights.

Mean Difference from Normal

Maximum Temperature: 0.8 °C

Minimum Temperature: -0.7 °C

Mean Daily Maximum: 14 °C

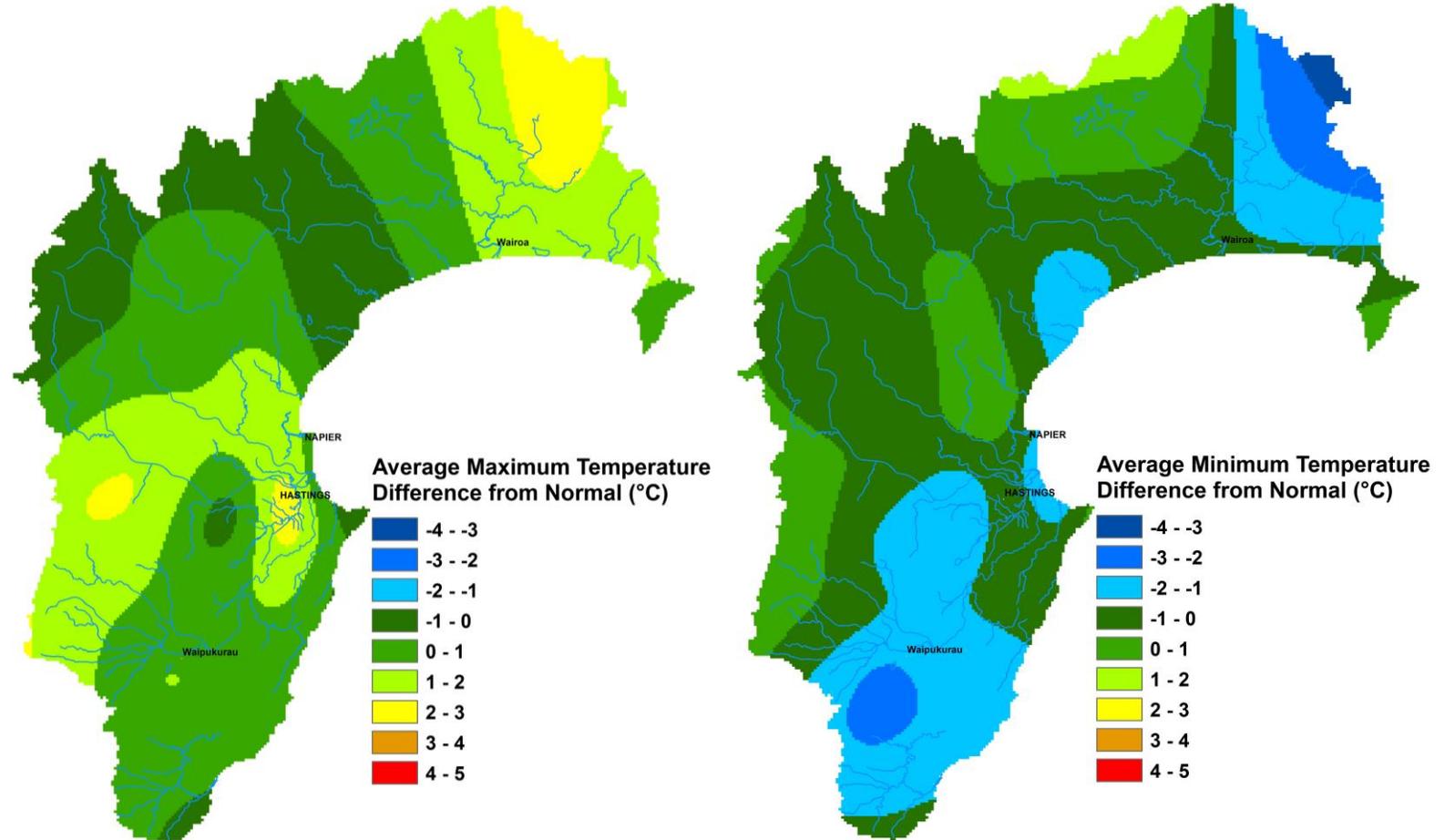
Mean Daily Minimum: 4 °C

Highest Daily: 21.6 °C

Location: Wairoa North Clyde EWS

Lowest Daily: -4.4 °C

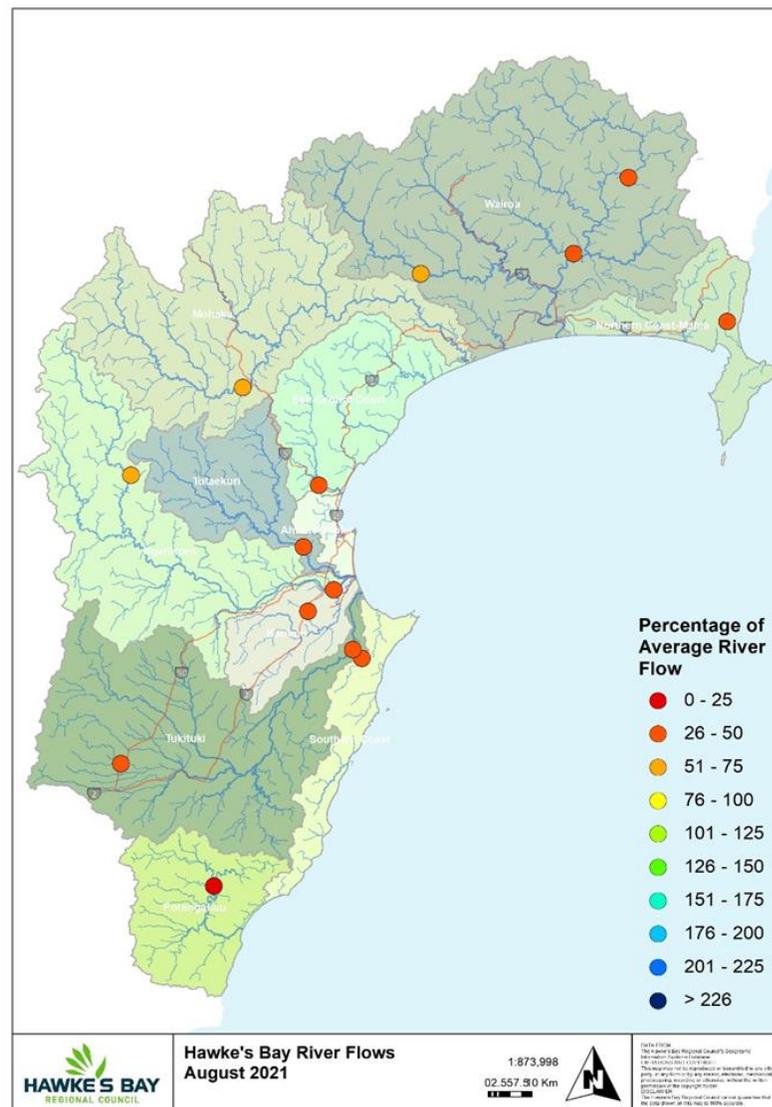
Location: Taharua



RIVER FLOW

Percentage of average August flows
for areas in the region:

Northern Coast – Mahia	46%
Northern HB – Hangaroa River	40%
Northern HB – Wairoa River	47%
Northern HB – Waiau River	59%
Mohaka	70%
Esk-Central Coast	40%
Tūtaekuri	39%
Karamu	35%
Ngaruroro – Kuripapango	73%
Ngaruroro – Chesterhope	50%
Southern Coast	32%
Tukituki – Tukipo River	42%
Tukituki – Tukituki River	27%
Porangahau	16%
Hawke's Bay Region	44%



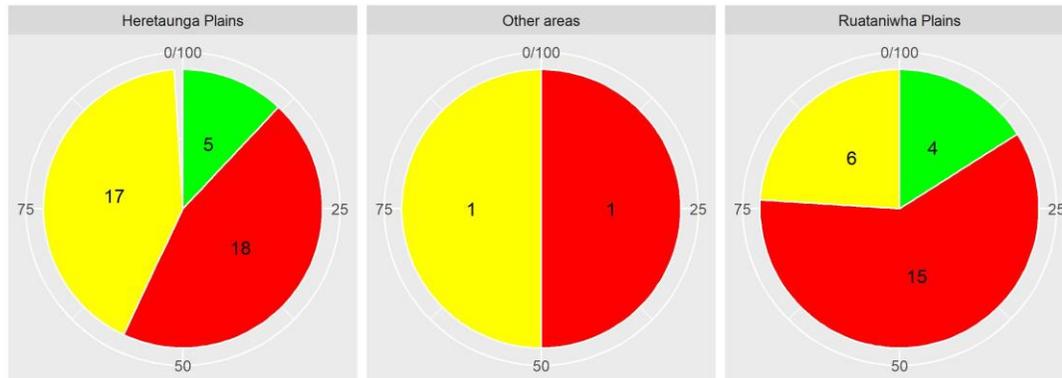
GROUNDWATER & SOIL MOISTURE

Soil Moisture: Near or below normal.

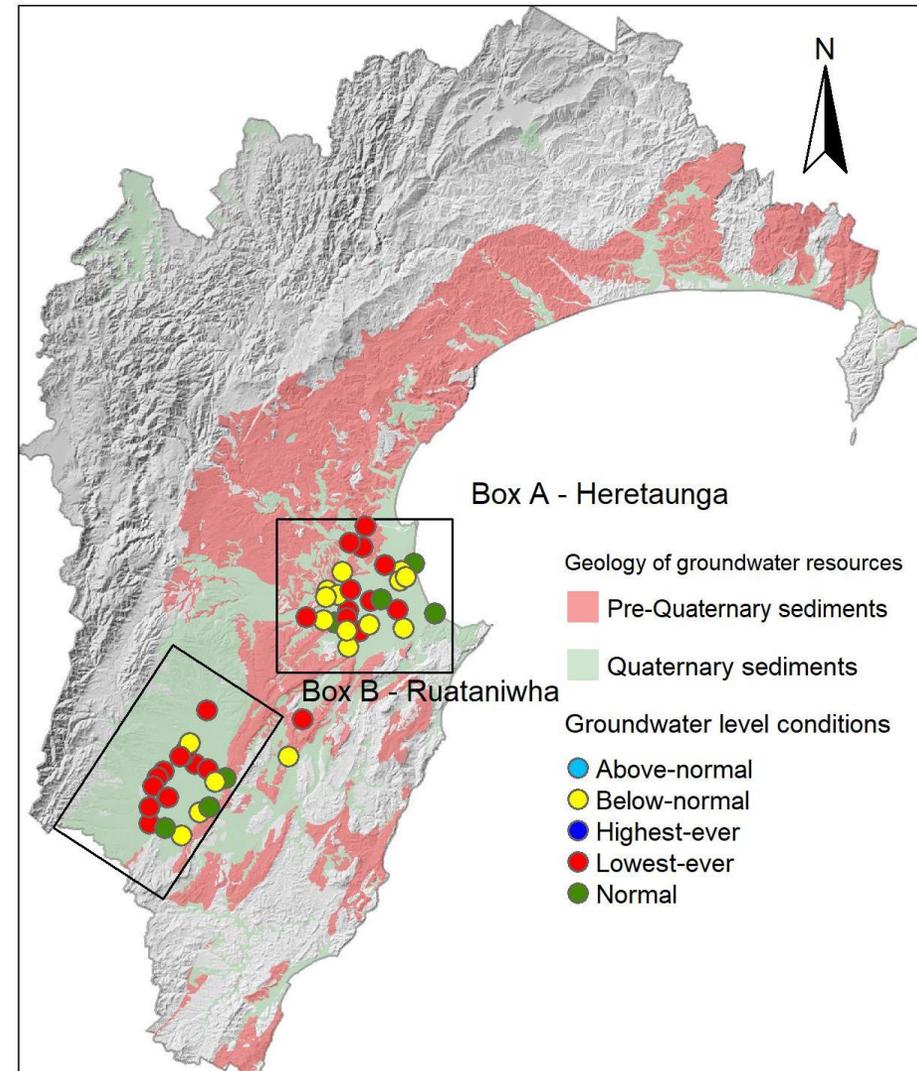
Current state of Groundwater levels:

This report compares groundwater levels in August 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.



Below-normal Lowest-ever Normal



AIR QUALITY

Perfect end to winter. No exceedances.

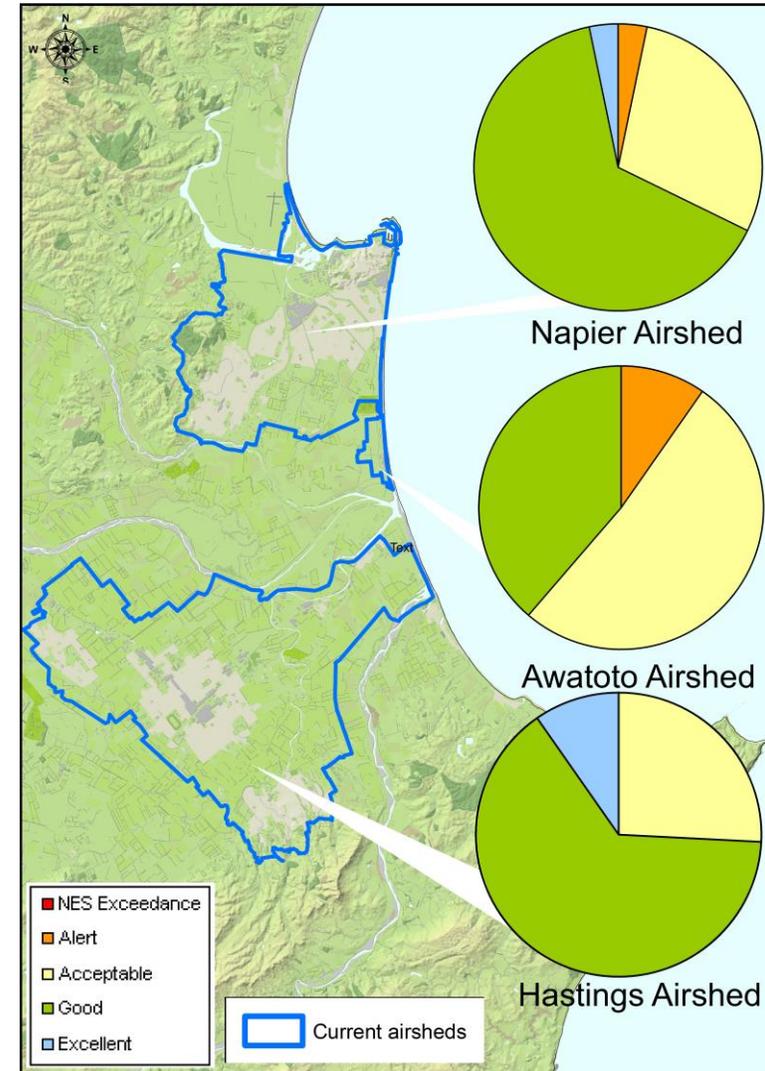
Figure 1: Environmental performance categories for PM₁₀ levels in the Napier, Hastings and Awatoto airshed during August 2021

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, Hastings and Awatoto airsheds during August 2021.

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

It's still a toss-up whether a La Niña event or neutral conditions will be in force during our spring and summer.

The negative Indian Ocean Dipole (IOD) event rolls on though and it's on spring rainfall that it tends to exert some sway. Positively we'd normally think, but the seasonal forecast models aren't convinced and there is a bit of tussle going on between different climate influences. Ultimately the jury is siding with below normal or normal rainfall for spring, the main reason being an expectation of warm seas and higher than normal pressure east of and across New Zealand.

While we're caught in a westerly flow at first, winds could be quite variable if high pressure systems dominate and temperatures are likely to be warmer than usual. It all sounds lovely – high pressure, warm temperatures - but also a little ominous. Last but not least, the latest guidance predicts above normal tropical cyclone activity across northern New Zealand in the coming November to April season, raising the chances of one swinging our way.

All the best,

Kathleen Kozyniak
Principal Scientist - Climate and Air