



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

July 2021



HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

July 2021

Our weather is back to its wicked ways. Unlike our champion kayaking GOAT, we can't back up a great effort with a great effort, in our case a great month of rain with a great month of rain. The region had less than half of July's average rainfall and the usual suspects, i.e. the Heretaunga and Ruataniwha Plains and the south coast, trailed at the back of the field and scored a meagre 21-26%.

River flows have taken a hit and groundwater levels never sparked on June's fillip. Soil moisture is only slowly dropping but we already have some southern sites below median levels for the time of year.

The only consistent performer was the daytime temperature. It was yet again above average though not as dramatically as we saw in June. Air quality would have medalled again if it weren't for an unusual exceedance in Napier that did not appear smoke related and felt like some random strayed onto the track and tripped us up.

Kathleen Kozyniak
Principal Scientist - Climate and Air

SUMMARY July 2021

Dry weather returns and warm too.

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

August to October Forecast

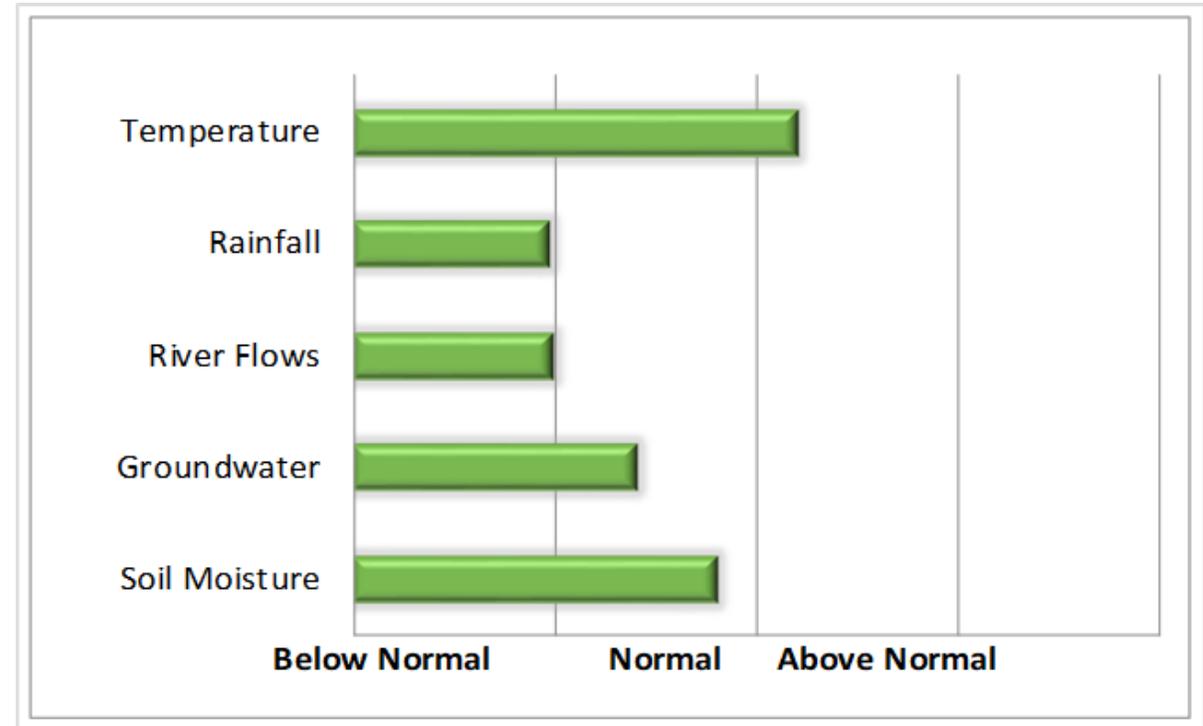
Temperature Above average
Rain Below or near normal
River flows Near or below normal
Soil moisture Near or below normal

source : NIWA

For more information

www.hbrc.govt.nz

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RAINFALL

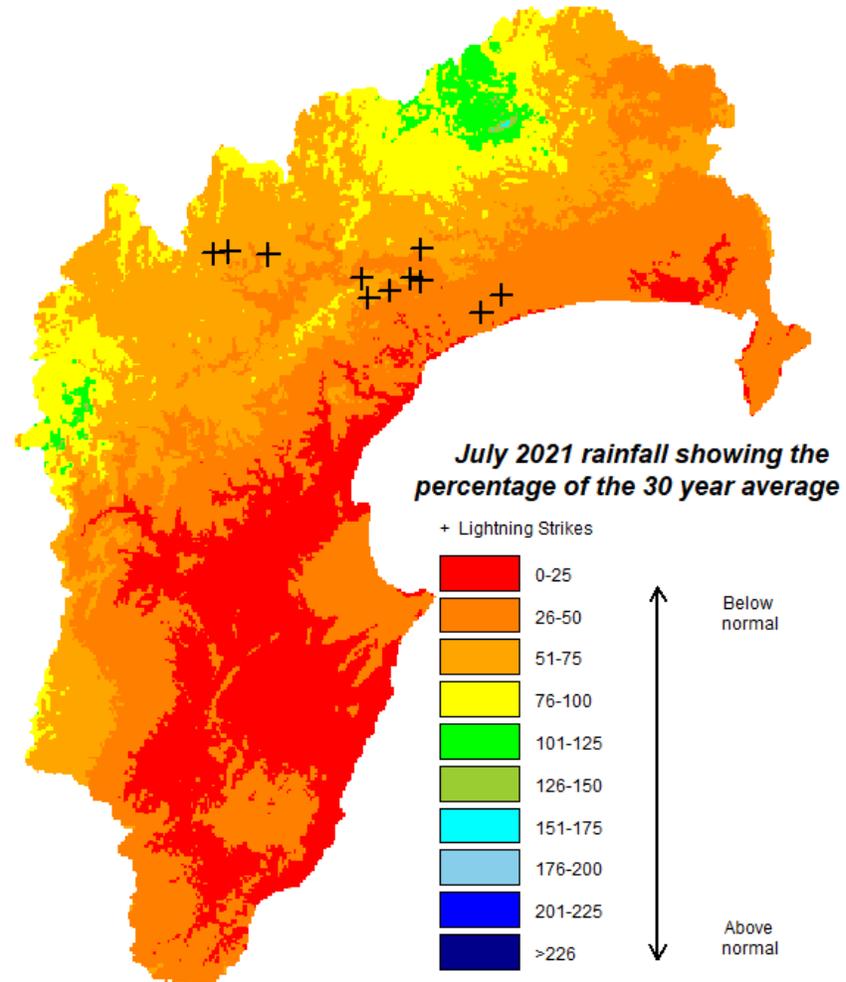
The dry returns – below normal. Eleven cloud to ground lightning strikes.

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

Percentage of normal July rainfall
(30 year average)

For areas in the region:

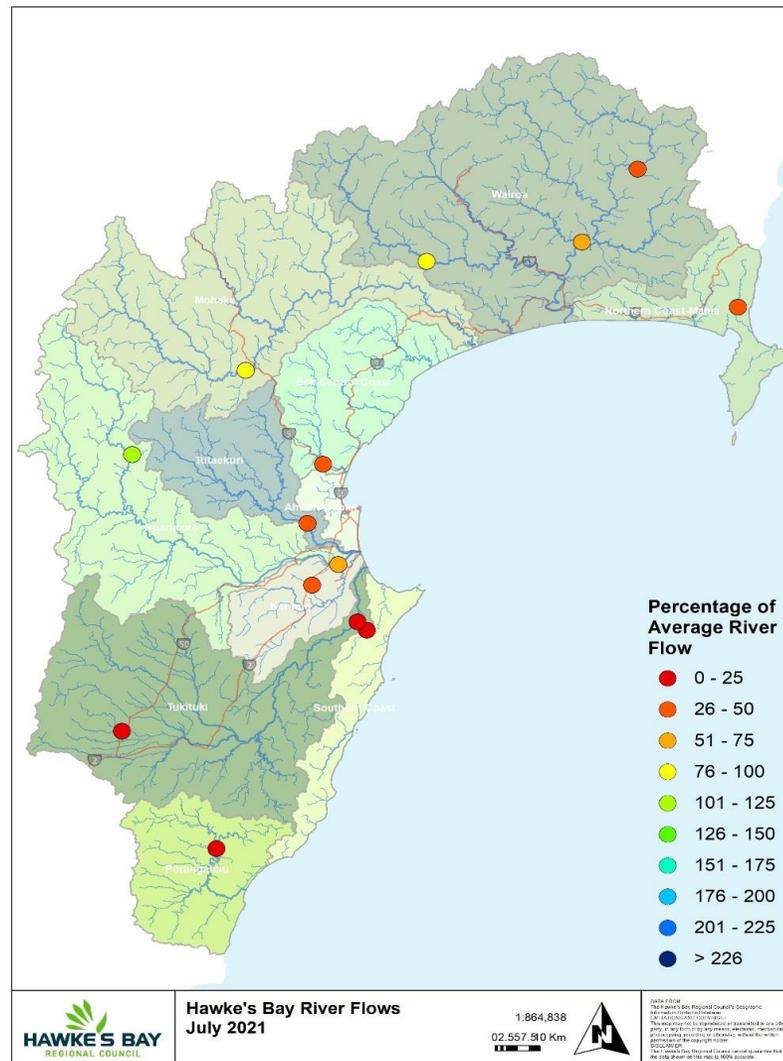
Waikaremoana	82%
Northern HB	48%
Tangoio	48%
Kaweka	77%
Ruahine	64%
Heretaunga Plains	21%
Ruataniwha Plains	20%
Southern HB	26%
Hawke's Bay Region	48%



RIVER FLOW

Percentage of average July flows
for areas in the region:

Northern Coast – Mahia	41%
Northern HB – Hangaroa River	48%
Northern HB – Wairoa River	55%
Northern HB – Waiau River	90%
Mohaka	94%
Esk-Central Coast	46%
Tūtaekuri	31%
Karamu	39%
Ngaruroro – Kuripapango	106%
Ngaruroro – Chesterhope	56%
Southern Coast	24%
Tukituki – Tukipo River	24%
Tukituki – Tukituki River	25%
Porangahau	0%
Hawke's Bay Region	49%



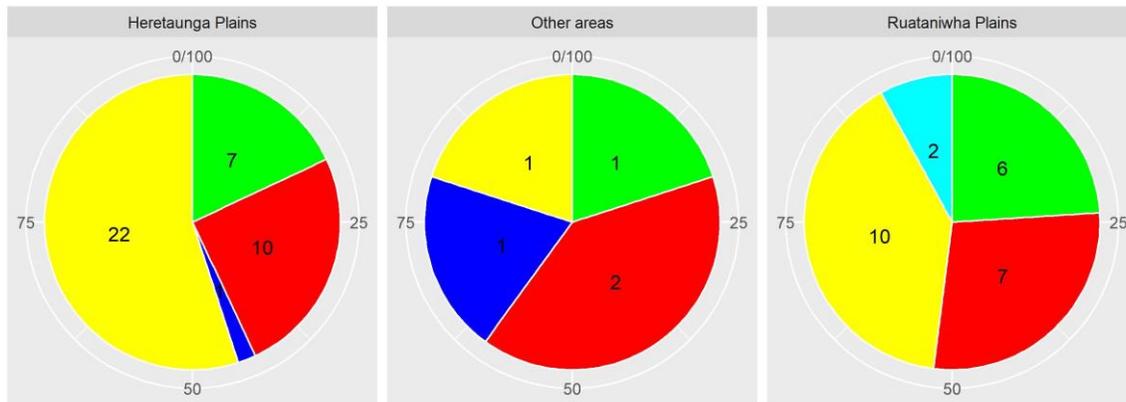
GROUNDWATER & SOIL MOISTURE

Soil Moisture: Near or below normal.

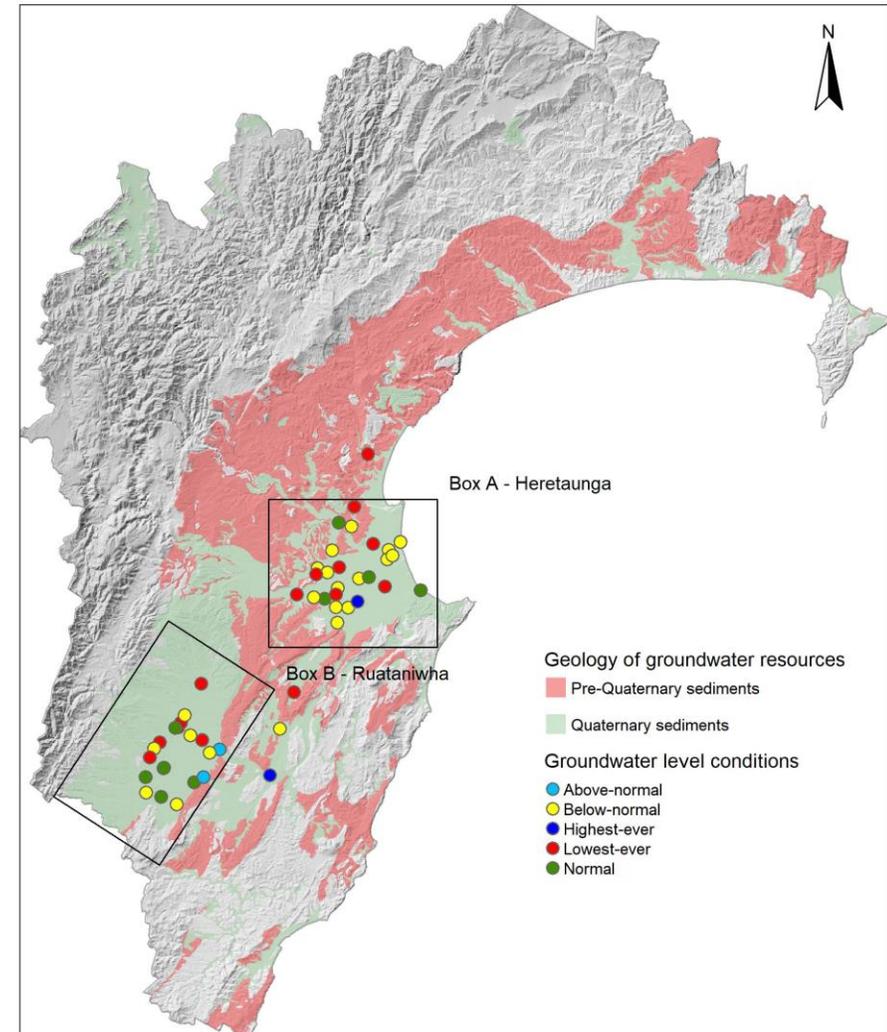
Current state of Groundwater levels:

This report compares groundwater levels in July 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.



■ Above-normal
 ■ Below-normal
 ■ Highest-ever
 ■ Lowest-ever
 ■ Normal



AIR QUALITY

One unusual exceedance in Napier.

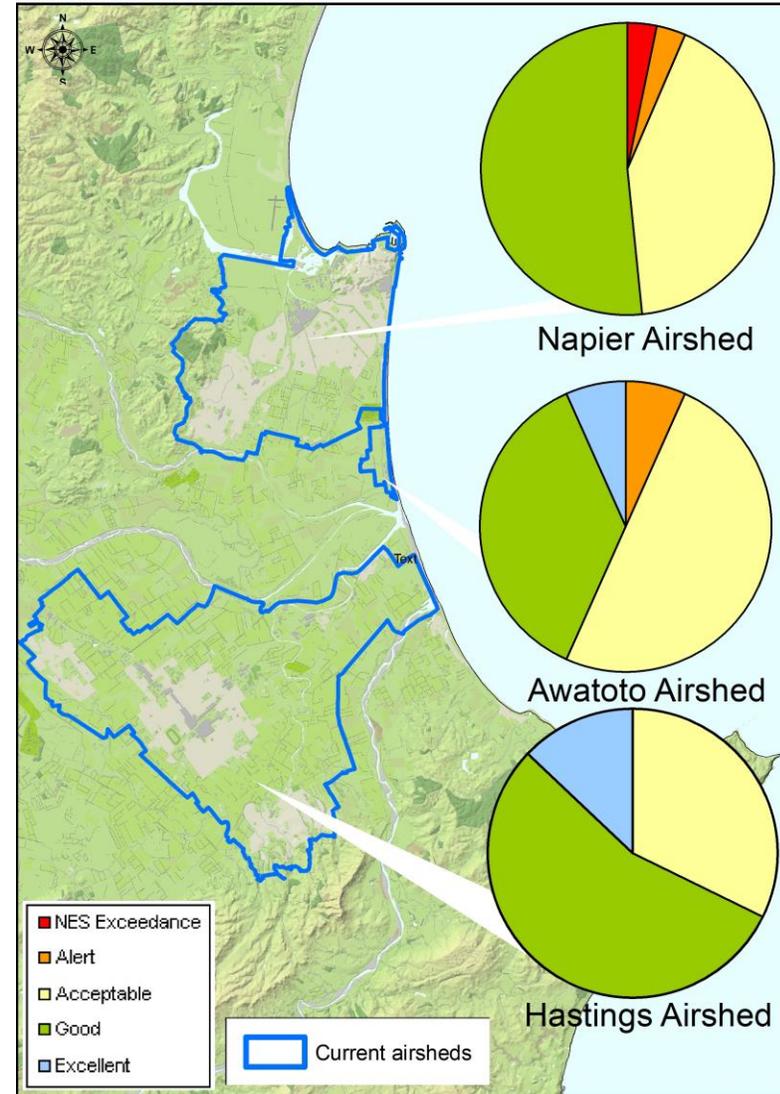
Figure 1: Environmental performance categories for PM₁₀ levels in the Napier, Hastings and Awatoto airshed during July 2021

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 July 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

We have neutral El Niño-Southern Oscillation conditions but there is a reasonable prospect of a La Niña event developing over the next few months. We are in the process of a negative Indian Ocean Dipole (IOD) event, which is associated with higher rainfall over southern Australia and can enhance our chances of reasonable spring rain.

A La Niña and positive IOD would normally bring about a positive rain forecast but we've been burned by a La Niña event only recently and the seasonal forecast models are standing in line predicting either below normal or normal spring rainfall over the next three months. That's because they predict higher than normal pressure over the north and east of the country, which includes our region. Along with that comes a northwest airflow and warm temperatures.

As someone born and bred in Hawke's Bay, that sounds all too familiar.

All the best,

Kathleen Kozyniak
Principal Scientist - Climate and Air