



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

June 2020

Photo by Jack Tait via Hawke's Bay Photographs



HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

June 2020

It rained. It kept raining until much of the region had approximately double the June average and the forecast of a dry winter got flushed down the wharf. Our river flows returned to where they should be, soil moisture hit its happy place while groundwater levels only just started seeing some benefit.

The unseasonably warm, double-digit soil temperatures hopefully spurred some growth in well-watered vegetation. Air temperatures were 1-2 degrees above average and for a number of days that was the extent of the diurnal temperature range thanks to the grim but welcome weather.

And just when conditions seemed to warrant a relieved grin, one of the few frosts in the month triggered our air quality downfall and out came my grimace. Hastings succumbed to our first exceedance for the winter.

Kathleen Kozyniak
Principal Scientist - Climate and Air

SUMMARY June 2020

Wet!!! 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.

July to September Forecast.

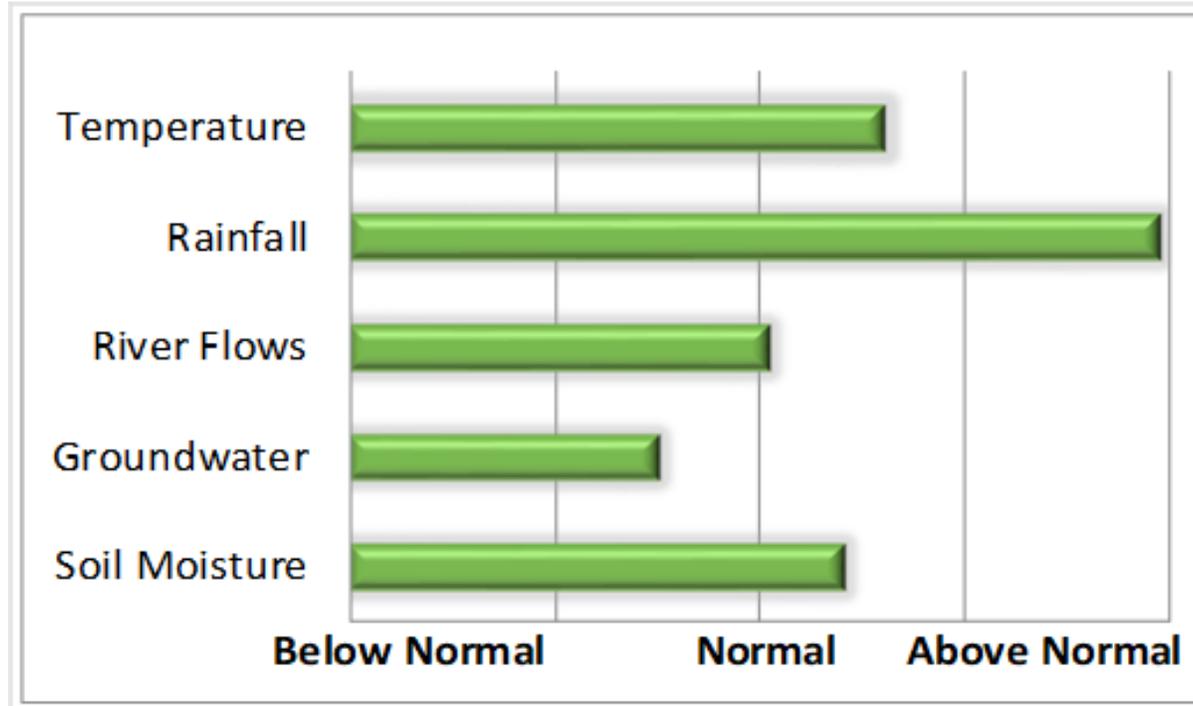
Temperature Above average
Rain Near or above normal
River flows Near normal
Soil moisture Near normal

source : NIWA

For more information

www.hbrc.govt.nz

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RAINFALL

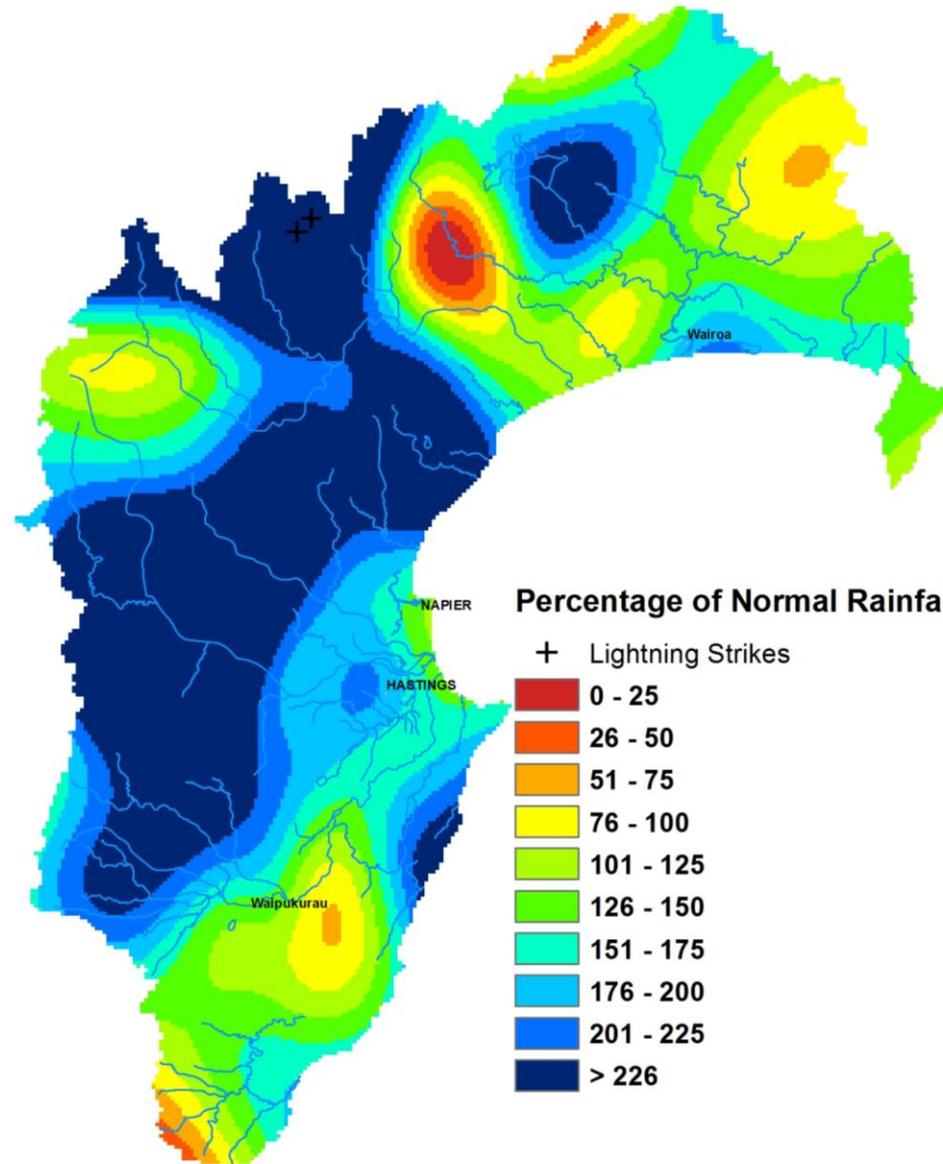
Well above normal – quite the turnaround.
Two cloud to ground lightning strikes.

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	172%
Northern HB	131%
Tangoio	257%
Kaweka	269%
Ruahine	225%
Heretaunga Plains	190%
Ruataniwha Plains	182%
Southern HB	146%
Hawke's Bay Region	197%



TEMPERATURES

Balmy.

Mean Difference from Normal

Maximum Temperature: 1.2 °C

Minimum Temperature: 2.2 °C

Mean Daily Maximum: 14 °C

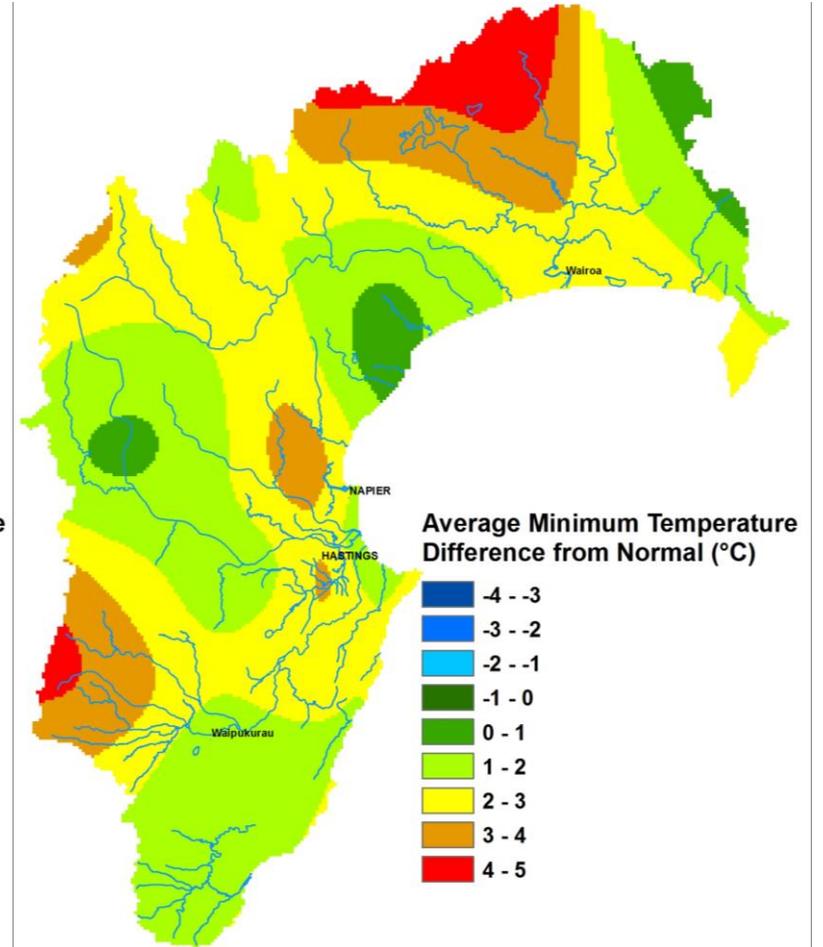
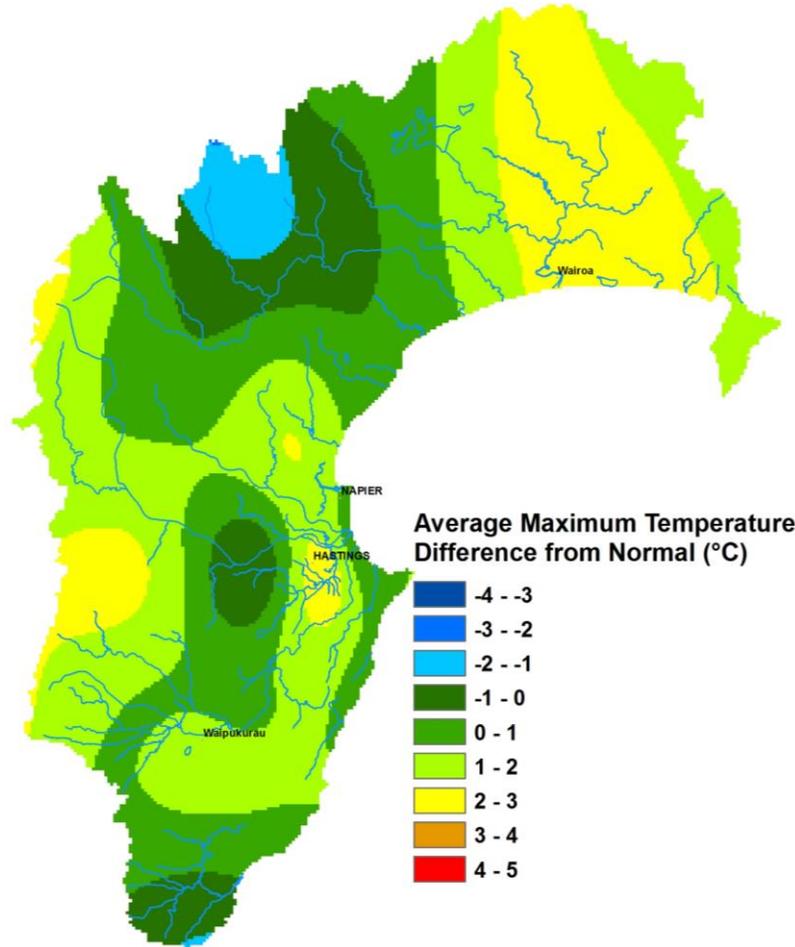
Mean Daily Minimum: 6 °C

Highest Daily: 22.1°C

Location: Napier EWS

Lowest Daily: -5 °C

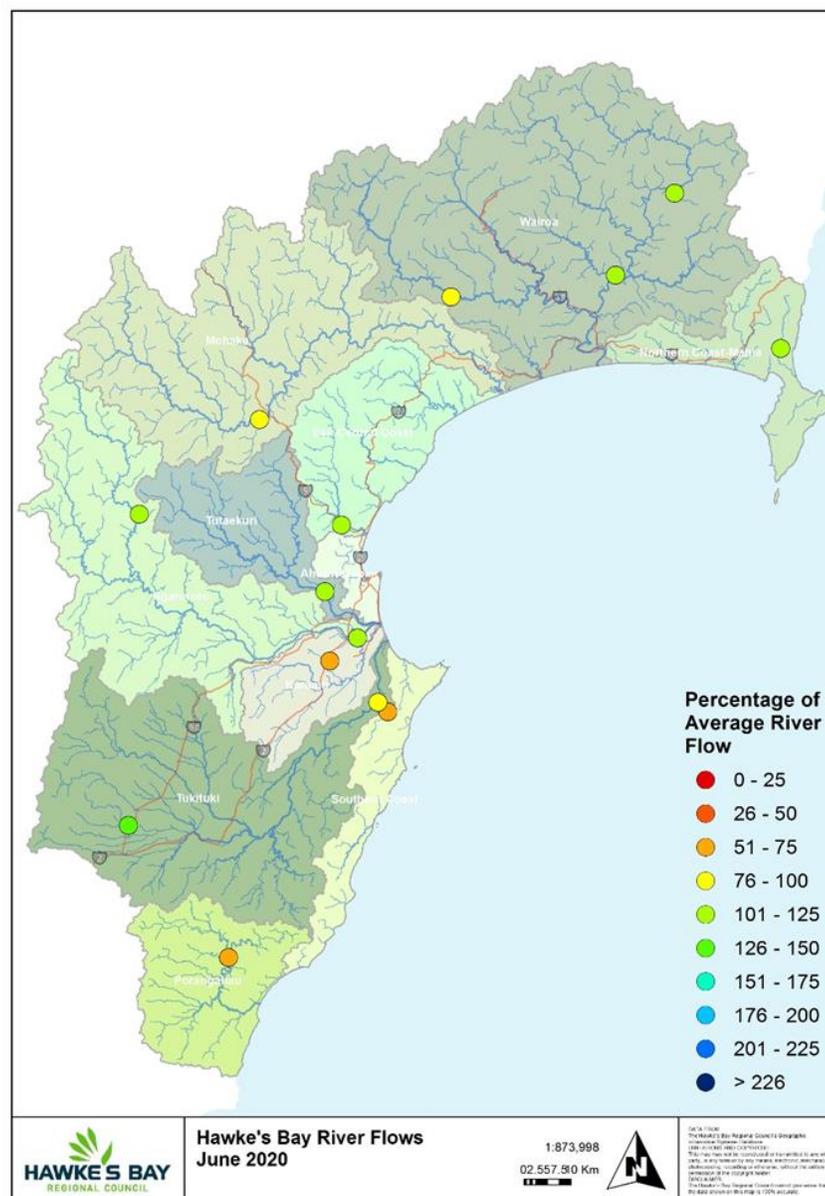
Location: Taharua



RIVER FLOW

Percentage of average June flows
for areas in the region:

Northern Coast – Mahia	119%
Northern HB – Hangaroa River	113%
Northern HB – Wairoa River	125%
Northern HB – Waiau River	78%
Mohaka	91%
Esk-Central Coast	125%
Tūtaekuri	121%
Karamu	54%
Ngaruroro – Kuripapango	115%
Ngaruroro – Chesterhope	125%
Southern Coast	67%
Tukituki – Tukipo River	143%
Tukituki – Tukituki River	98%
Porangahau	60%
Hawke's Bay Region	102%



GROUNDWATER & SOIL MOISTURE

Soil Moisture: Normal or above normal.

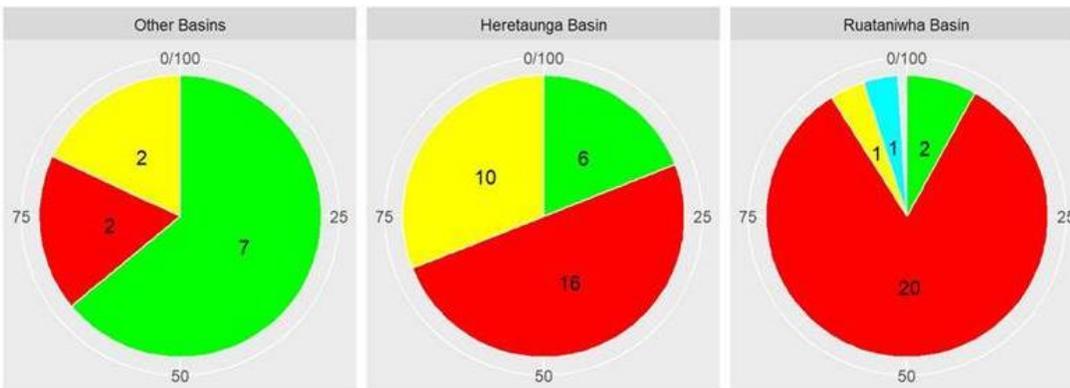
Current state of Groundwater levels:

This report compares groundwater levels in June with historic readings to evaluate current conditions.

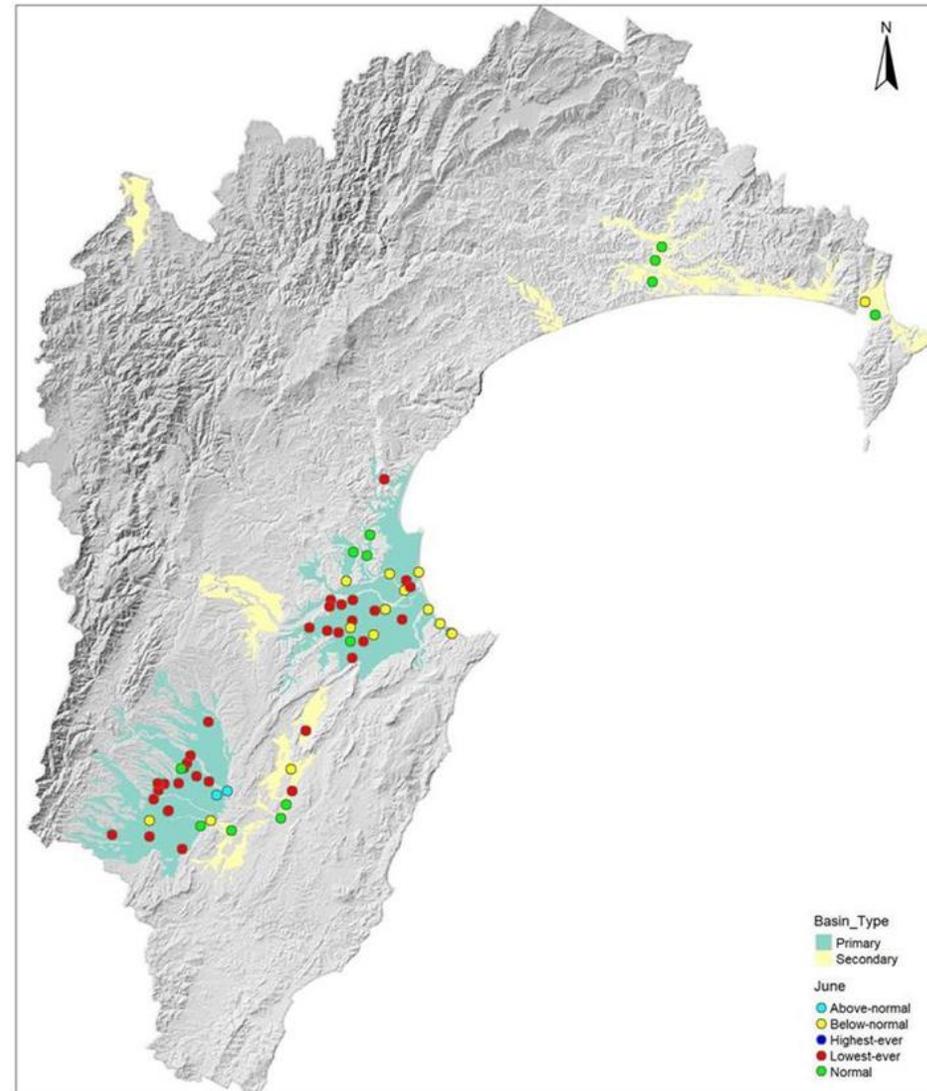
To assess these conditions, we have grouped groundwater levels at each well relative to their monthly percentiles.

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 Lowest-ever Normal



AIR QUALITY

Thumbs down. One exceedance in Hastings.

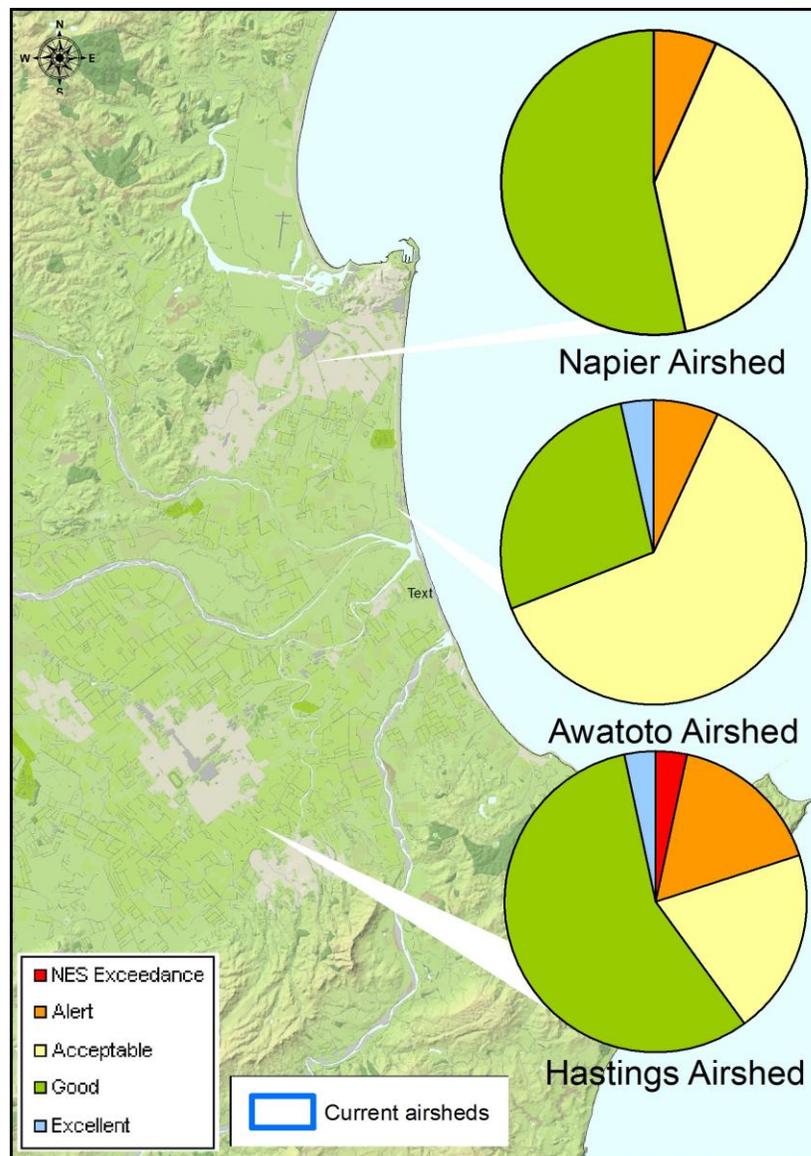
Figure 1: PM₁₀ levels in the Napier, Hastings and Awatoto airsheds during June 2020.

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 in June 2020.

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

Both NIWA and the Australian Bureau of meteorology are on “La Nina watch” for our spring and summer and it’s a 50:50 call on whether an event will occur or we’ll remain in neutral mode. Sea level pressures over the next three months look higher to the north of us and to the southwest.

That still looks like a pattern that favours drying westerlies and one likely to bring a few cold, southwest flicks to temper temperatures. But near normal rainfall might be the safer bet because, as NIWA notes, with a La Niña possibly brewing over the next few months, it can’t be ruled out that easterlies may feature more prominently as they did last month.

Kathleen Kozyniak
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