



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

May 2020



HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

May 2020

Given another sixteen hours, May's report would have been significantly rosier.

Instead, most of May's measures were left hanging on the desperate end of below normal. The latter half of the month did at least see a climb to 70% of May's average rainfall. It wasn't accompanied by any significant rise in the month's river levels and it wasn't sufficient to hoist soil moisture far from the floor it's adhered to for quite some time. Groundwater levels continued in red territory as they did the previous month.

Things have since improved but that's a story for another month, assuming the cracking start to June isn't all flash in the pan. While May rainfall was a whisker away from being a good news story, air quality shaved perilously close to being a bad news story.

We avoided a PM₁₀ exceedance in Hastings with an uncomfortable squirm and it's one measure where less is definitely more.

Kathleen Kozyniak
Principal Scientist - Climate and Air

SUMMARY May 2020

Still dry, by a whisker, and autumnal temperatures.

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

June to August Forecast.

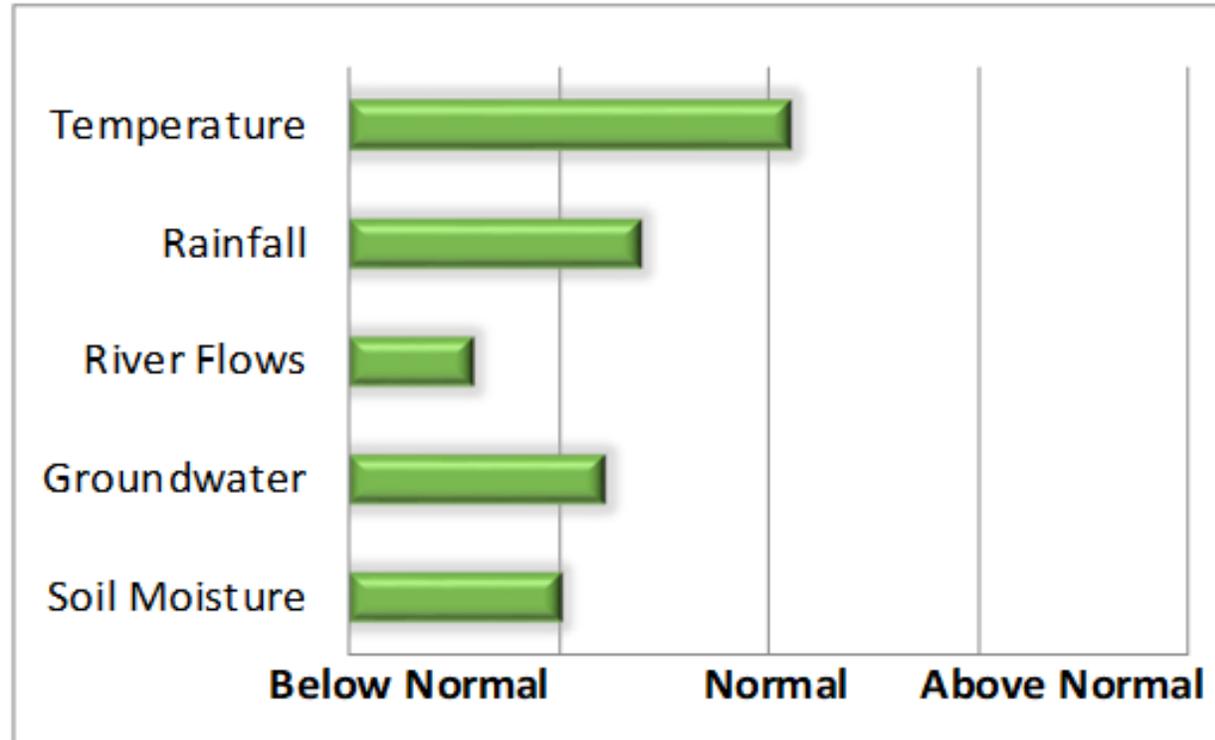
Temperature Near or above average
Rain Below normal
River flows Near or below normal
Soil moisture Near or below normal

source : NIWA

For more information

www.hbrc.govt.nz

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RAINFALL

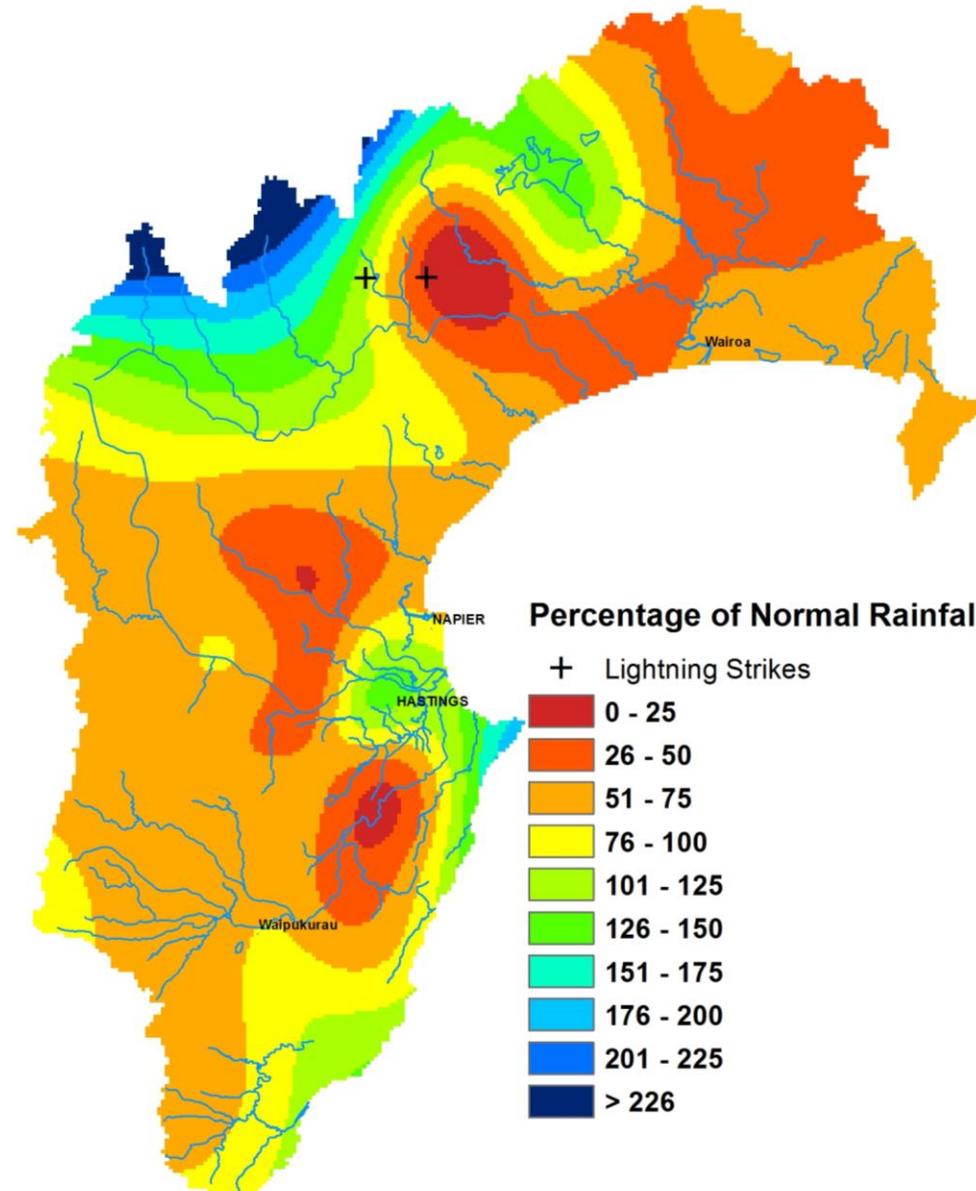
Below normal. The seventh consecutive month for some areas. Two cloud to ground lightning strikes.

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

Percentage of normal May rainfall
(30 year average)

For areas in the region:

Waikaremoana	86%
Northern HB	51%
Tangoio	64%
Kaweka	63%
Ruahine	68%
Heretaunga Plains	72%
Ruataniwha Plains	62%
Southern HB	85%
Hawke's Bay Region	69%



TEMPERATURES

Average for late autumn.

Mean Difference from Normal

Maximum Temperature: 0.3 °C

Minimum Temperature: 0.01 °C

Mean Daily Maximum: 15 °C

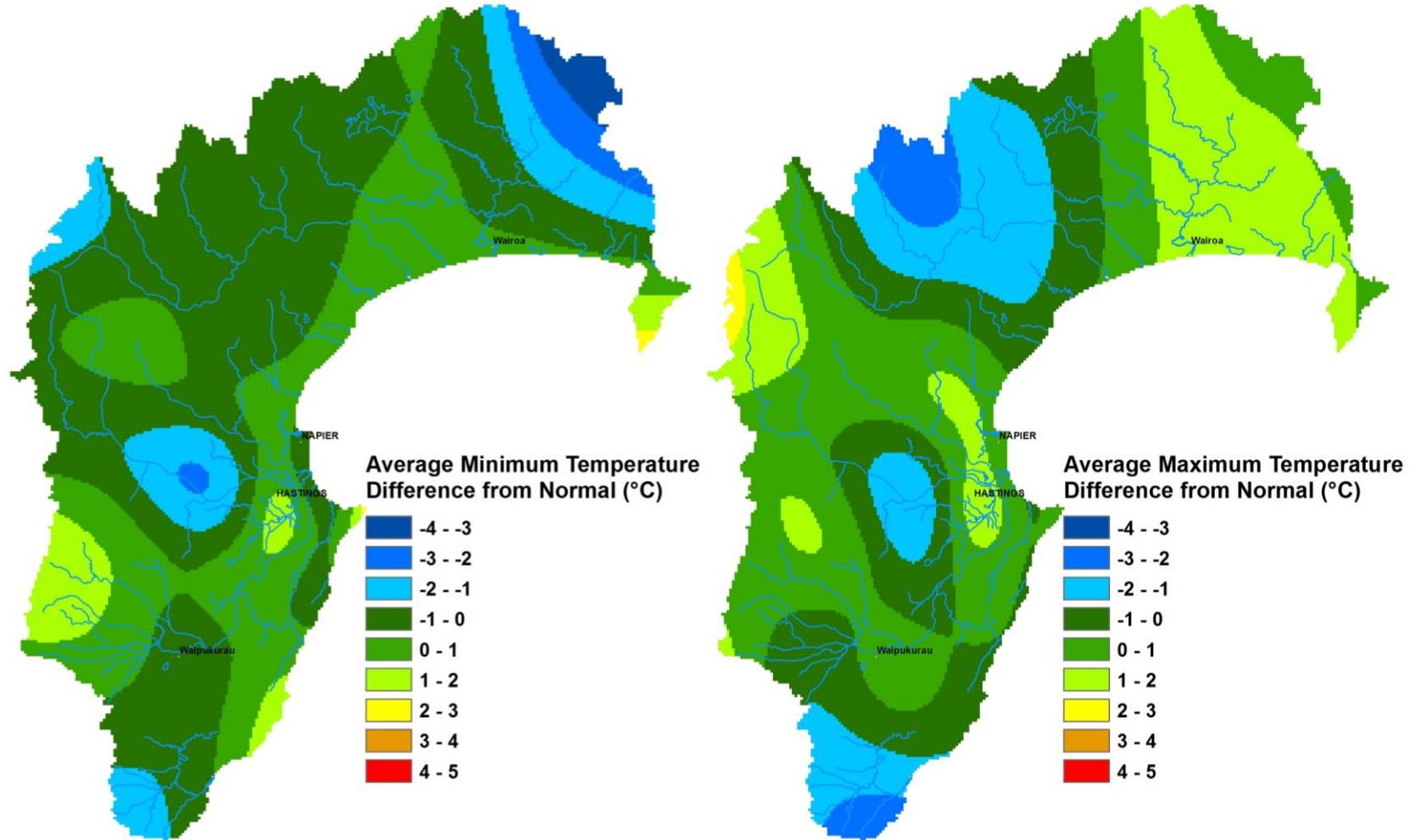
Mean Daily Minimum: 6 °C

Highest Daily: 25.5°C

Location: Wairoa North Clyde EWS

Lowest Daily: -8.1 °C

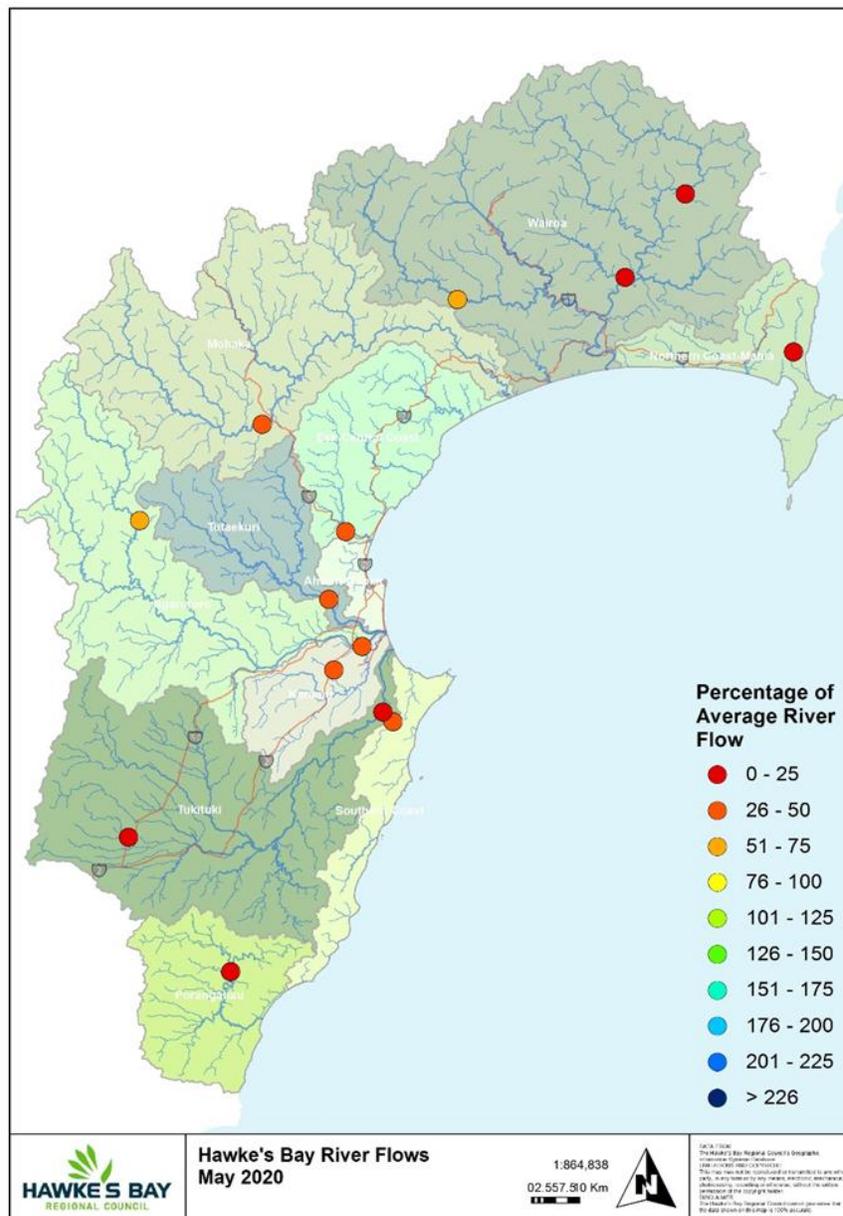
Location: Taharua



RIVER FLOW

Percentage of average May flows
for areas in the region:

Northern Coast – Mahia	20%
Northern HB – Hangarua River	13%
Northern HB – Wairoa River	18%
Northern HB – Waiau River	58%
Mohaka	43%
Esk-Central Coast	39%
Tūtaekuri	26%
Karamu	35%
Ngaruroro – Kuripapango	55%
Ngaruroro – Chesterhope	30%
Southern Coast	42%
Tukituki – Tukipo River	13%
Tukituki – Tukituki River	16%
Porangahau	0%
Hawke's Bay Region	29%



GROUNDWATER & SOIL MOISTURE

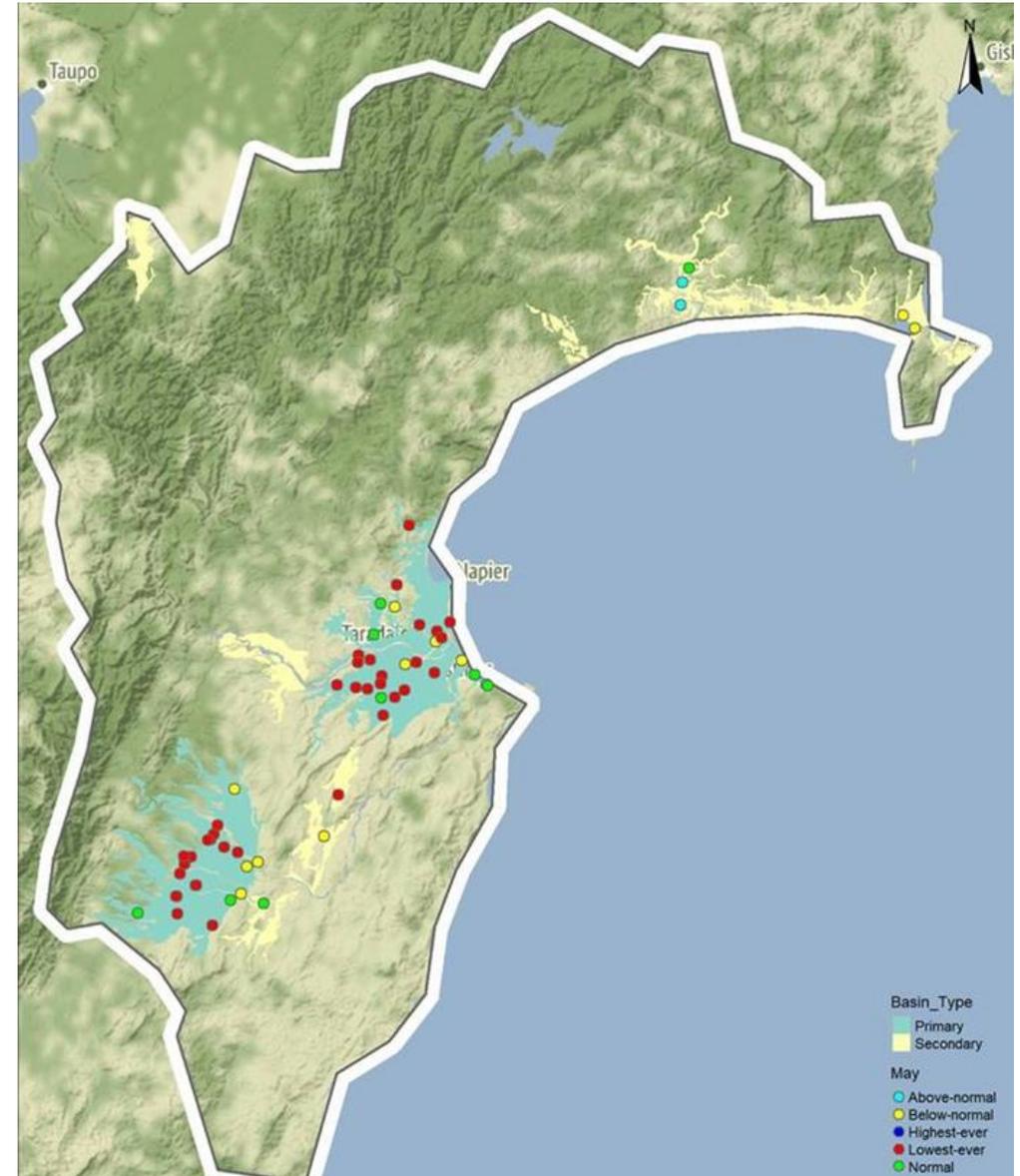
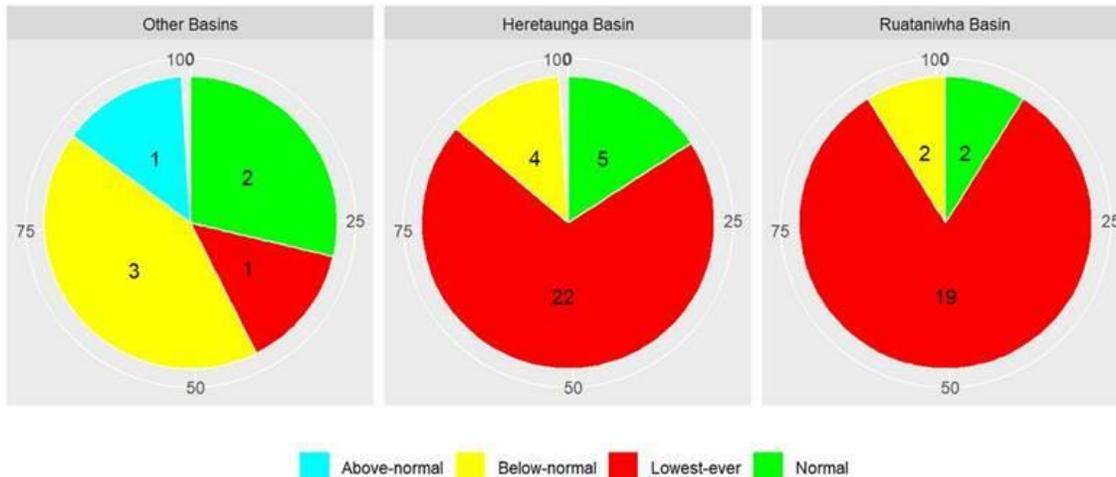
Soil Moisture: Below normal except in northern areas.

Current state of Groundwater levels:

This report compares groundwater levels in May 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.



AIR QUALITY

A pass mark... just. No exceedances.

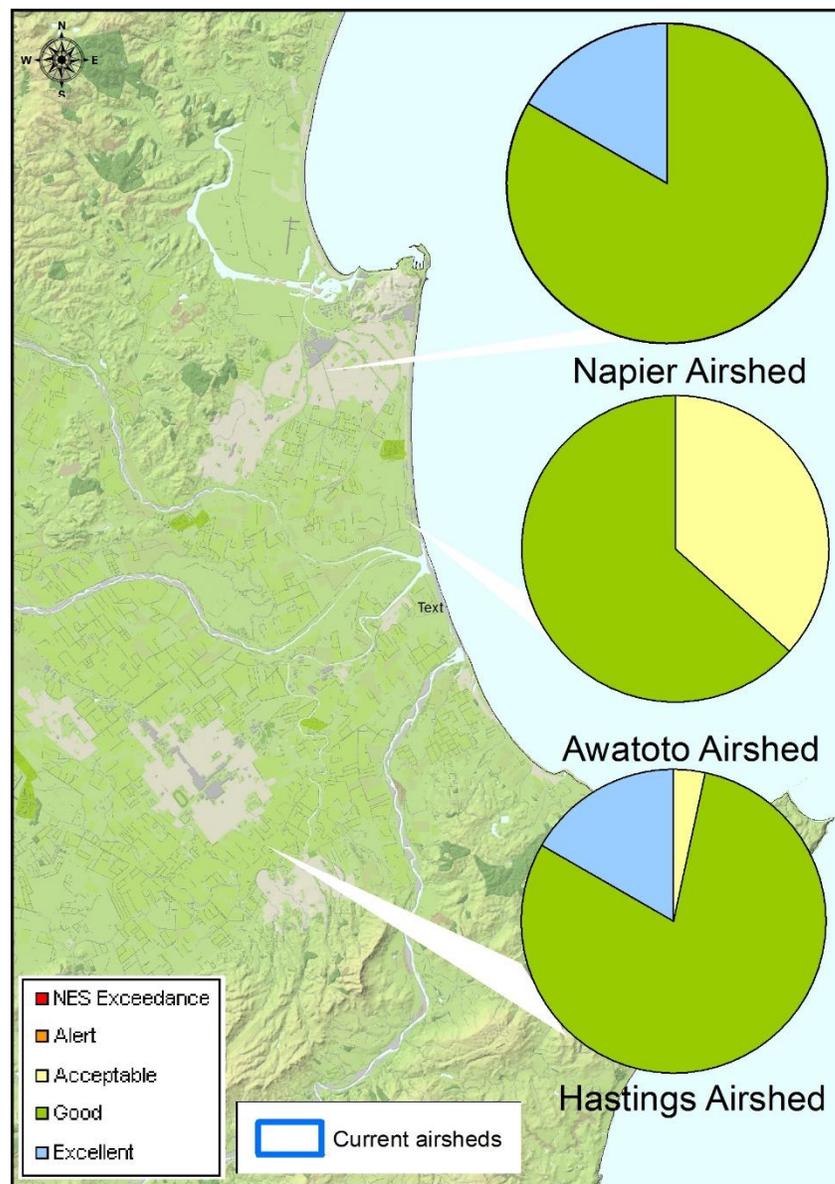
Figure 1: PM₁₀ levels in the Napier, Hastings and Awatoto airsheds during May 2020.

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 May 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

The neutral mode of the El Niño-Southern Oscillation is still in force but it looks like it will battle with La Niña for supremacy as we head into spring and summer. That's encouraging in terms of rainfall for those seasons.

In the meantime we have to get through a winter that is looking less encouraging. Higher than normal pressure over northern New Zealand is the main pattern with a westerly flow the main outcome.

That is giving a dry look to the east coast for the three months but the same westerly flow should keep temperatures near or above average.

Kathleen Kozyniak
Principal Scientist - Climate and Air