

July 2019

Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

RAINFALL
TEMPERATURES
RIVER FLOW
GROUNDWATER & SOIL
AIR QUALITY
LONGER FORECAST

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July 2019

Spring accidentally strayed into our winter calendar.

July was balmy and breezy. Rainfall feigned shades of winter but only just – it limped onto the lower end of the normal range for the month. It was enough to keep soil moisture tracking along typical lines for the time of year but our rivers couldn't quite raise themselves to average flows.

July's groundwater levels were winter-like but temperatures, in contrast, weren't. Days and nights were about 1.5 °C above normal. Quilts got kicked and bare skin got an outing. The month's big swells gave the Awatoto air shed a spray of salt that almost triggered air quality alarm bells but otherwise conditions were just right to stamp a zero on exceedances for the month. Another clear month will be the bees knees.

Kathleen Kozyniak
Principal Scientist - Climate and Air



SUMMARY

July 2019

A toe in spring – warm and not too wet

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.

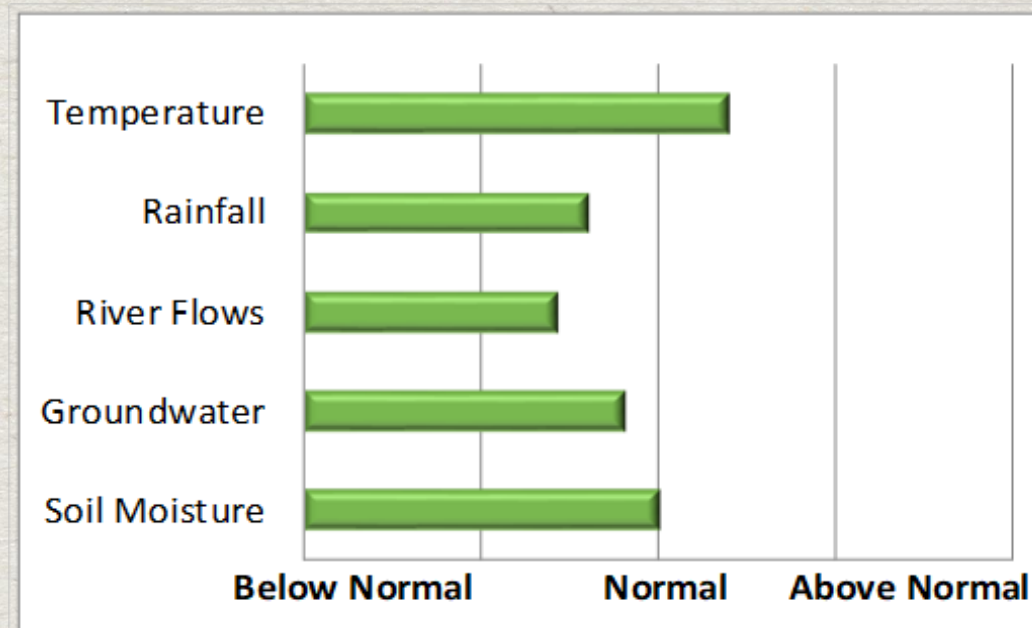
Temperature	Near or above average
Rain	Near normal
River flows	Near or below normal
Soil moisture	Near normal

source : NIWA

For more information

www.hbrc.govt.nz

P: 06 835 9200



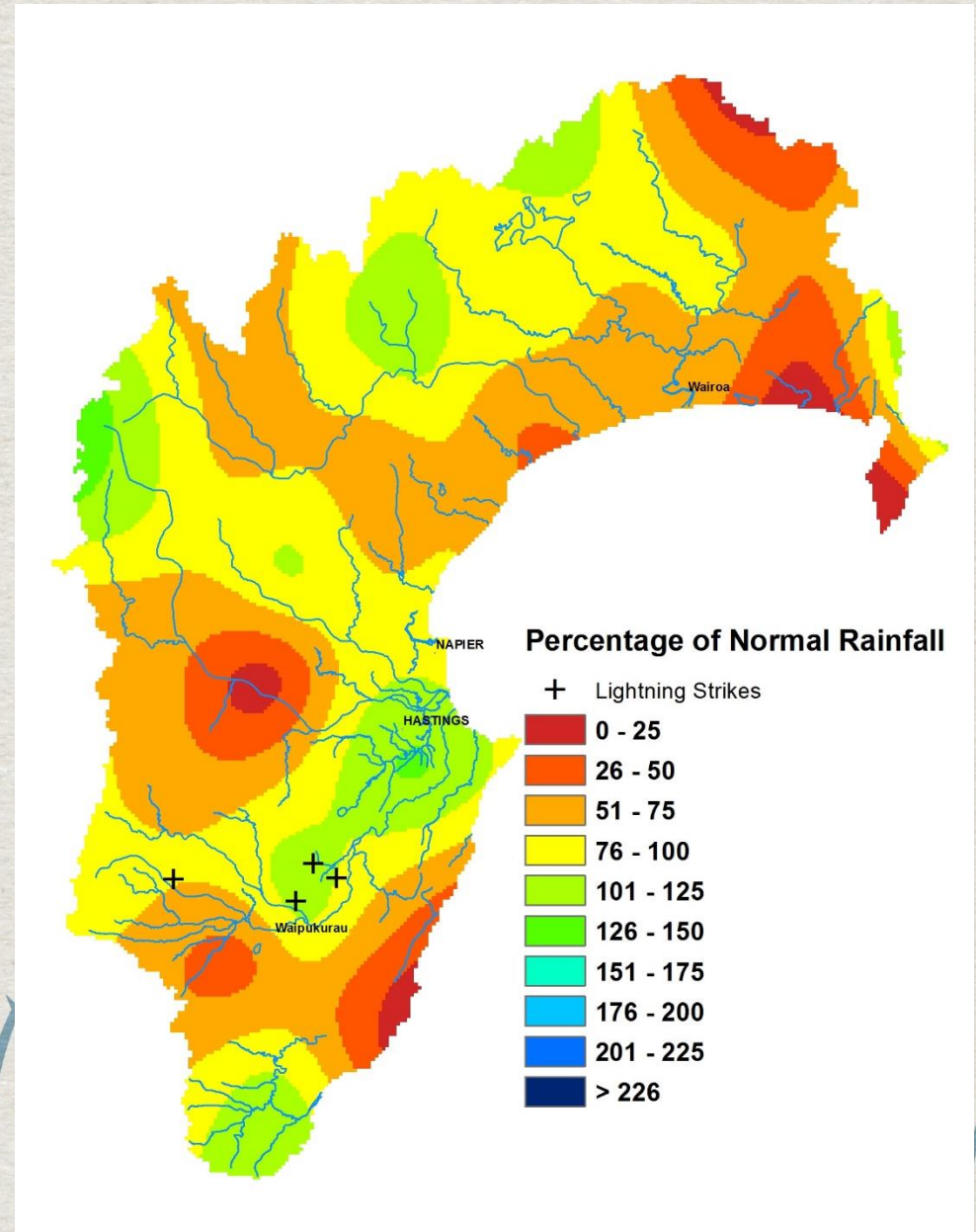
RAINFALL

Just nudging into the lower end of the normal range.

Percentage of normal July rainfall
(30 year average)

For areas in the region:

Waikaremoana	85%
Northern HB	66%
Tangoio	77%
Kaweka	79%
Ruahine	77%
Heretaunga Plains	89%
Ruataniwha Plains	76%
Southern HB	88%
Hawke's Bay Region	80%



TEMPERATURES

Hot for July

Mean Difference from Normal

Maximum Temperature: 1.6°C

Minimum Temperature: 1.2 °C

Mean Daily Maximum: 14°C

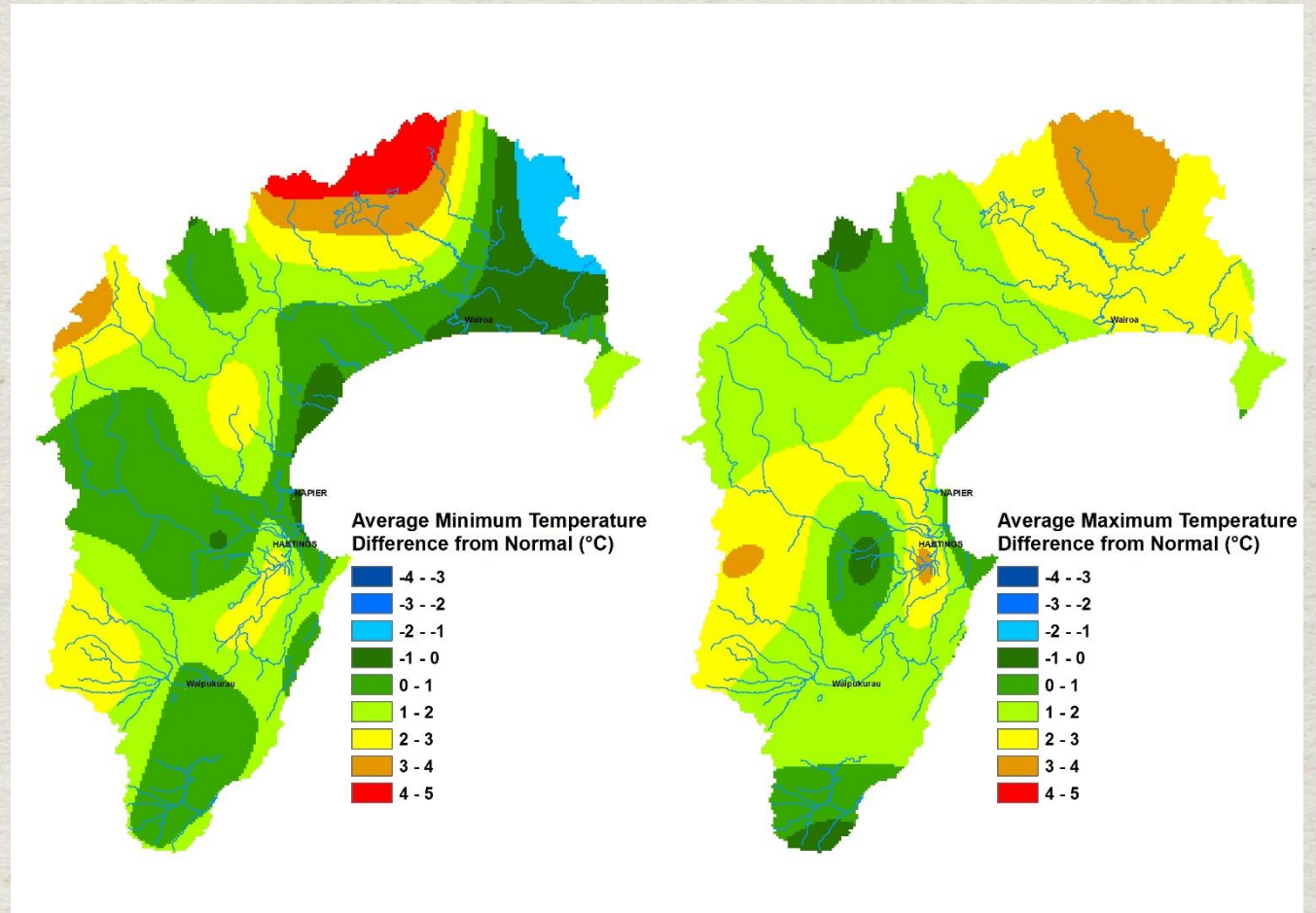
Mean Daily Minimum: 5°C

Highest Daily: 21.2°C

Location: Wairoa North Clyde EWS

Lowest Daily: -5.7°C

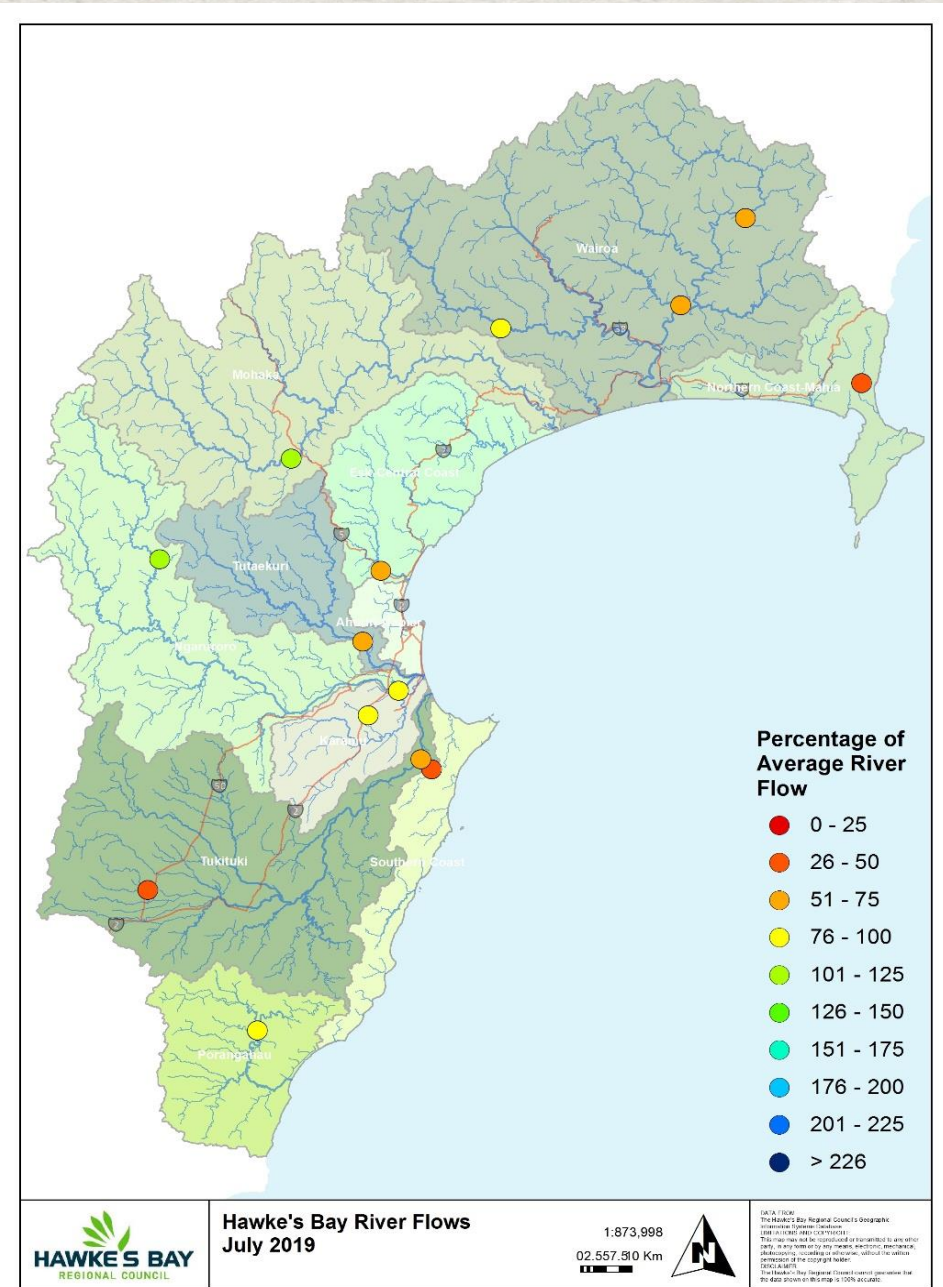
Location: Ongaonga



RIVER FLOW

Percentage of average July flows for areas in the region:

Northern Coast – Mahia	49%
Northern HB – Hangaroa River	51%
Northern HB – Wairoa River	54%
Northern HB – Waiau River	89%
Mohaka	116%
Esk-Central Coast	70%
Tūtaekuri	63%
Karamu	81%
Ngaruroro - Kuripapango	119%
Ngaruroro - Chesterhope	76%
Southern Coast	46%
Tukituki – Tukipo River	39%
Tukituki – Tukituki River	53%
Porangahau	87%
Hawke's Bay Region	71%

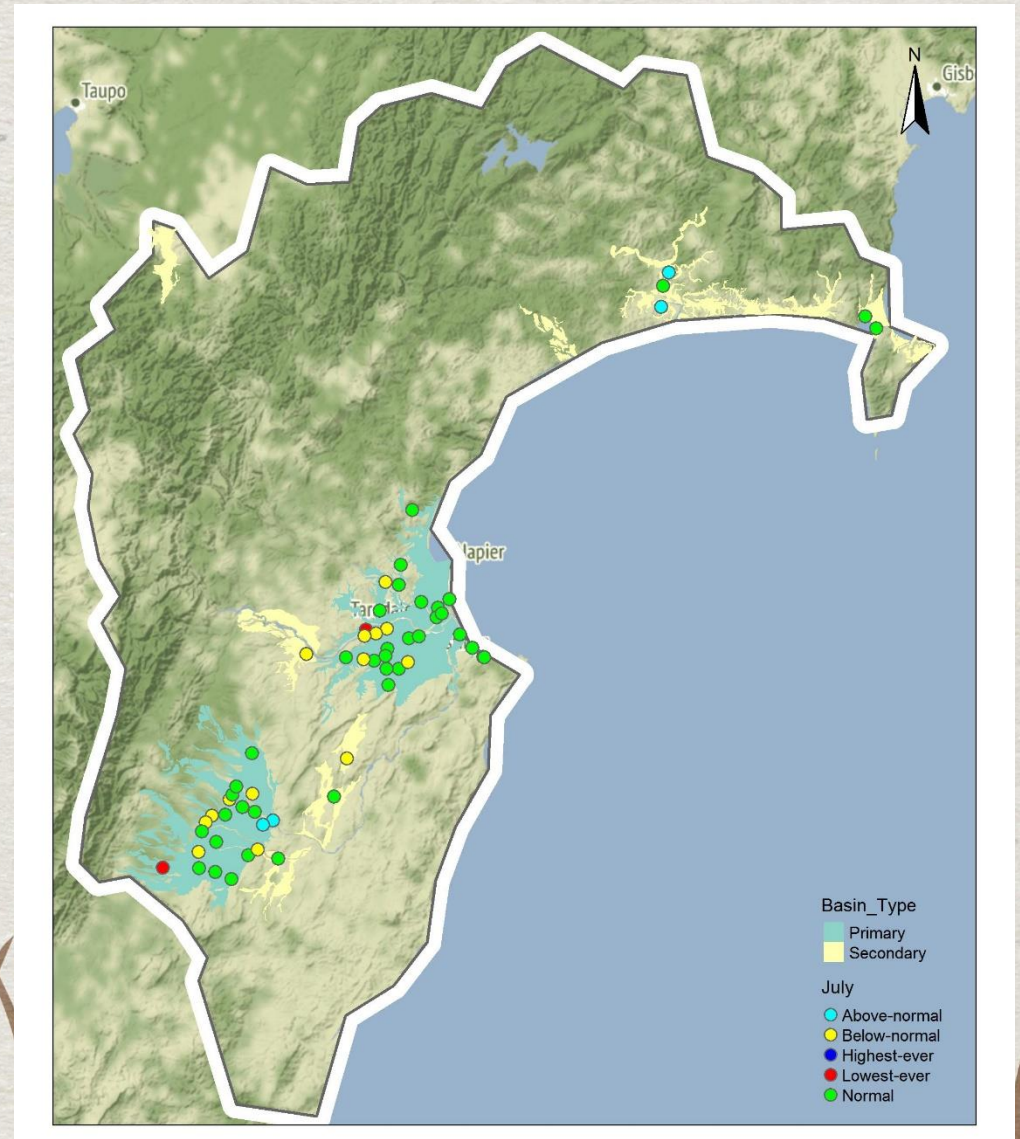
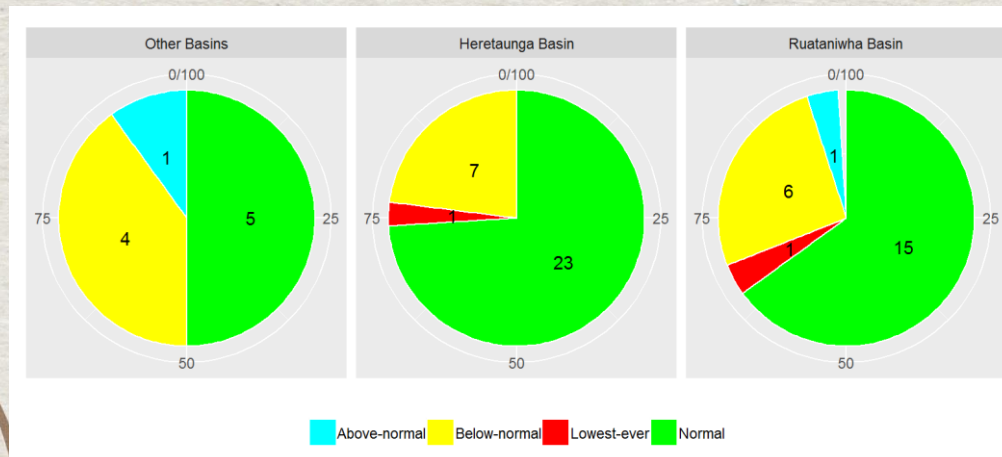


GROUNDWATER & SOIL MOISTURE

Soil Moisture: Near 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.



Ace. Much better than last month – no exceedances.

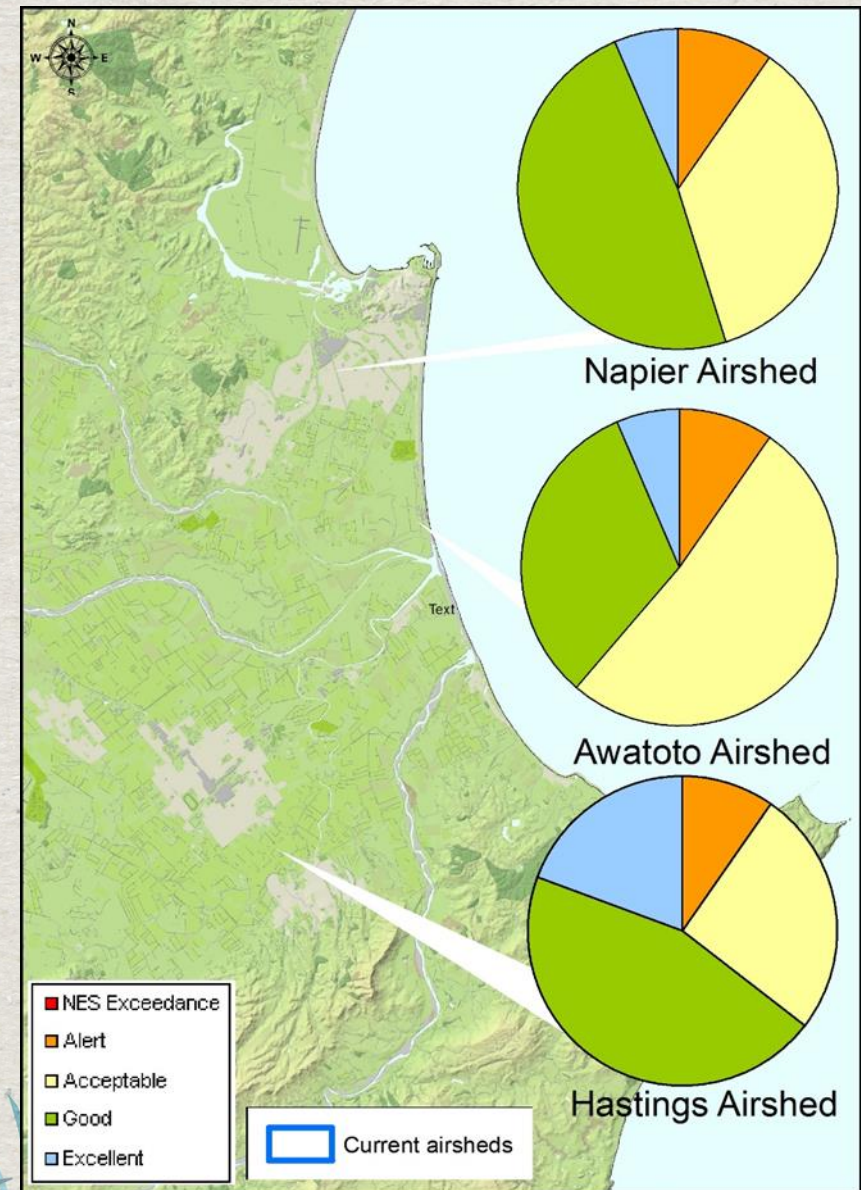
Figure 1: PM₁₀ levels in the Napier, Hastings and Awatoto airsheds during July 2019.

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 July 2019.

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 El Niño is on the wane and conditions are likely to slide into neutral over the next few months. Another atmospheric circulation pattern that influences our spring weather is lurking and that's the Indian Ocean Dipole. It's predicted to be in a positive mode, which historically is associated more with dry conditions than wet.

Possibly countering that is a forecast of low pressures extending over the country, suggesting we won't be short of visits from bands of rain. The wind direction is quite westerly so we're hopeful that the headwaters of our rivers will capture that moisture even if areas further east miss out. Sea surface temperatures having been average off our coast so temperatures are expected to be near normal or warmer if those westerlies prevail.

Kathleen Kozyniak
Principal Scientist - Climate and Air

Farmers have been enjoying a very favourable winter, with conditions that are generally easier and pleasant to work in. It has been warm, and relatively dry, particularly in the southern half of the region where early lambing is underway. Pasture utilisation has been better than usual and pasture has not been damaged by wet conditions.

Many farmers went into winter with lower covers of good quality pasture than desirable, after a dry autumn. Some had areas of rank grass that still needed tidying up before spring. Fortunately the relatively mild weather, albeit with the occasional cold snap, and adequate rainfall, meant pasture growth continued and is lifting as spring arrives. A run of frosts in the higher country slowed pasture growth in July.

Calving on dairy farms is well underway and herd health has been assisted by the good weather. Dairy and sheep and beef farmers will be hoping that more-of-the-same weather continues through the rest of calving and the main lambing period of August and September. Stock are in good condition.

Pregnancy scanning for in-lamb ewes produced mixed results, with reports of slightly fewer multiple lambs. Facial eczema and worm burden due to the warm, wet conditions in early autumn are suspected as being the main contributor to these lower in-lamb rates, as the ewes were in good condition and pasture covers were generally good at tugging, although pasture quality was variable.

Prices for lamb, beef and dairy are very positive and the season just finished proved to be the best ever for many sheep and beef farmers. However, farmers' cautious optimism is tempered by upcoming changes to environmental regulations, possible global trade issues and the need for more rain to fill water tables before summer.

Gillian Mangin