

June 2019

# Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

RAINFALL  
TEMPERATURES  
RIVER FLOW  
GROUNDWATER & SOIL  
AIR QUALITY  
LONGER FORECAST

**HAWKE'S BAY** | Environmental Science  
REGIONAL COUNCIL

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## June 2019

June threw up typical winter offerings, which makes us appreciate seeing the back of it more. Rainfall skilfully hit 100% for the region but was helped by central and southern areas making up for a deficit in the north. Soil moisture was low prior to winter so the land embraced the rain and levels now sit close to normal. Groundwater levels look mostly normal while the soil's self-interest left little for our rivers so no dramatic bump up in their flows.

Temperatures were average and frosts littered the month's end. That rear end proved dire for air quality. Our penchant for fires drove pollutants into an air space narrowed by temperature inversions, creating a murk that exceeded health standards. For all our sakes, we have to do better.

**Kathleen Kozyniak**  
**Principal Scientist - Climate and Air**



# SUMMARY

## June 2019

A very average start to winter.

*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.

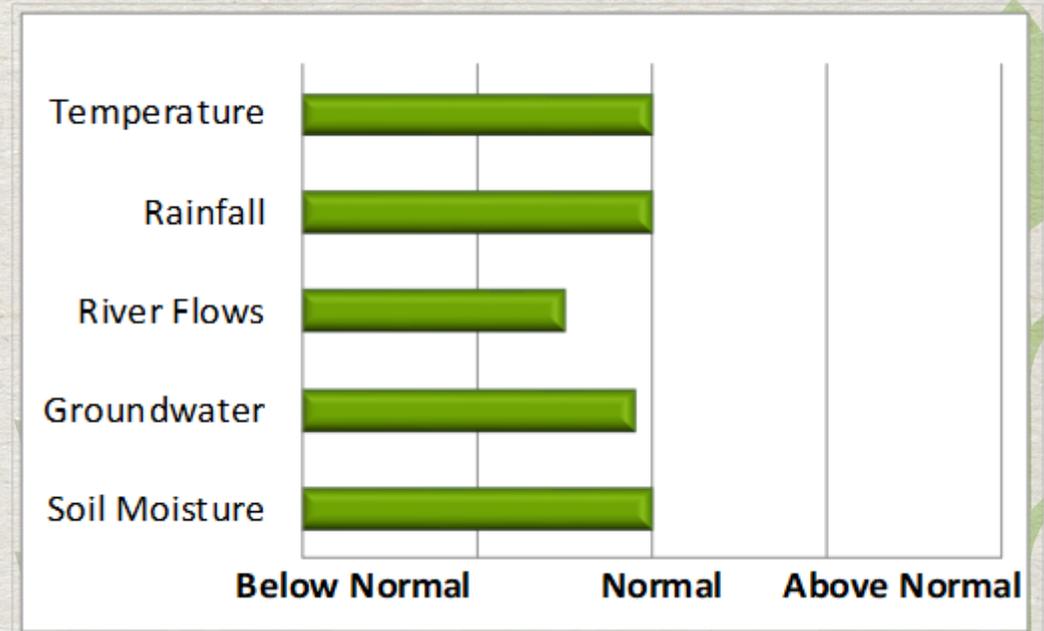
Temperature	Near or above average
Rain	Near normal
River flows	Near normal
Soil moisture	Near normal

Source : NIWA

For more information

[www.hbrc.govt.nz](http://www.hbrc.govt.nz)

P: 06 835 9200



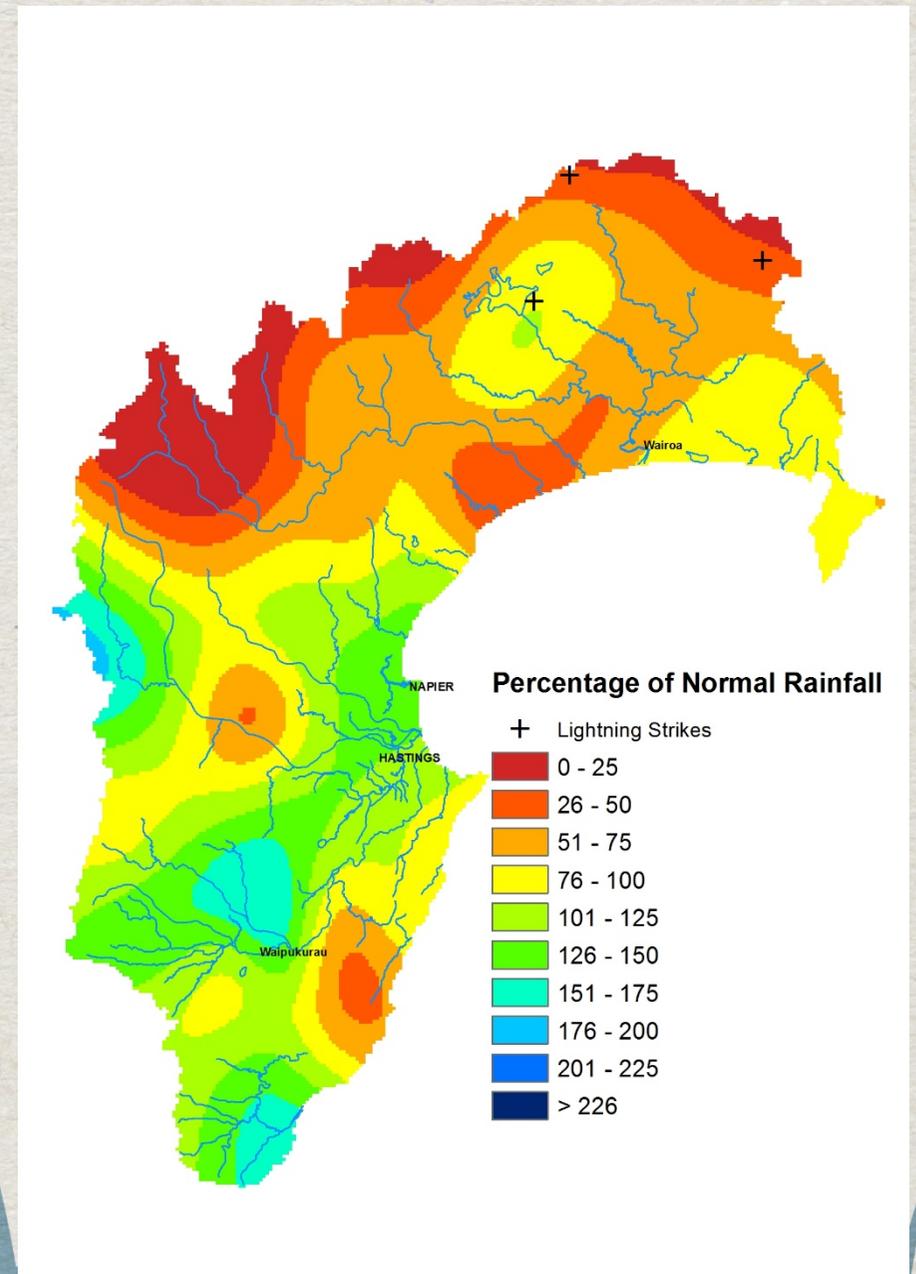
# RAINFALL

Near normal, though biased to more rain than usual in the south.

Percentage of normal June rainfall  
(30 year average)

## For areas in the region:

Waikaremoana	69%
Northern HB	66%
Tangoio	94%
Kaweka	116%
Ruahine	104%
Heretaunga Plains	115%
Ruataniwha Plains	128%
Southern HB	113%
<b>Hawke's Bay Region</b>	<b>100%</b>



# TEMPERATURES

Typical for June.

Mean Difference from Normal

Maximum Temperature: 0.1°C

Minimum Temperature: -0.2 °C

Mean Daily Maximum: 13°C

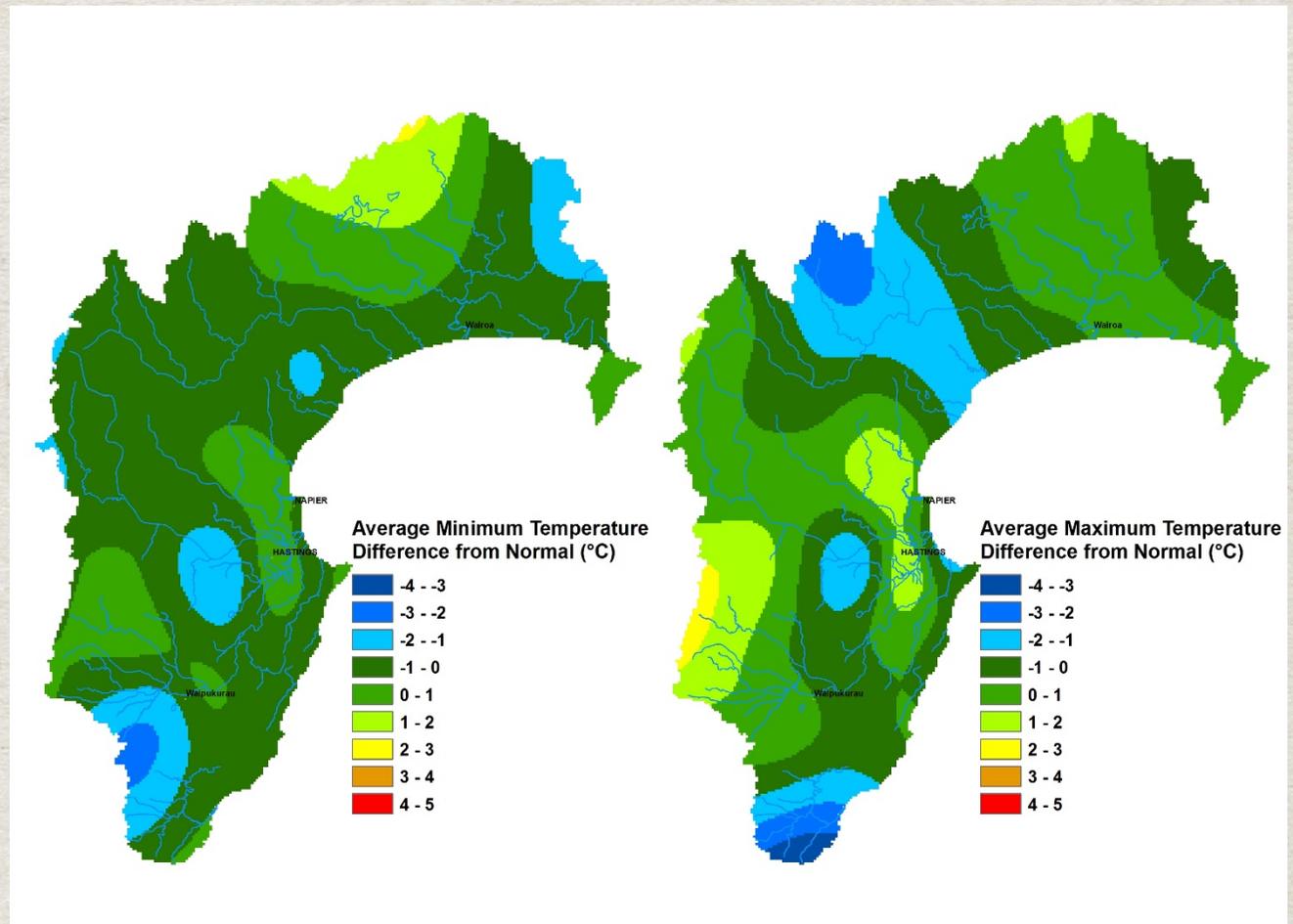
Mean Daily Minimum: 4°C

Highest Daily: 21.3°C

Location: Whakatu EWS

Lowest Daily: -5.9°C

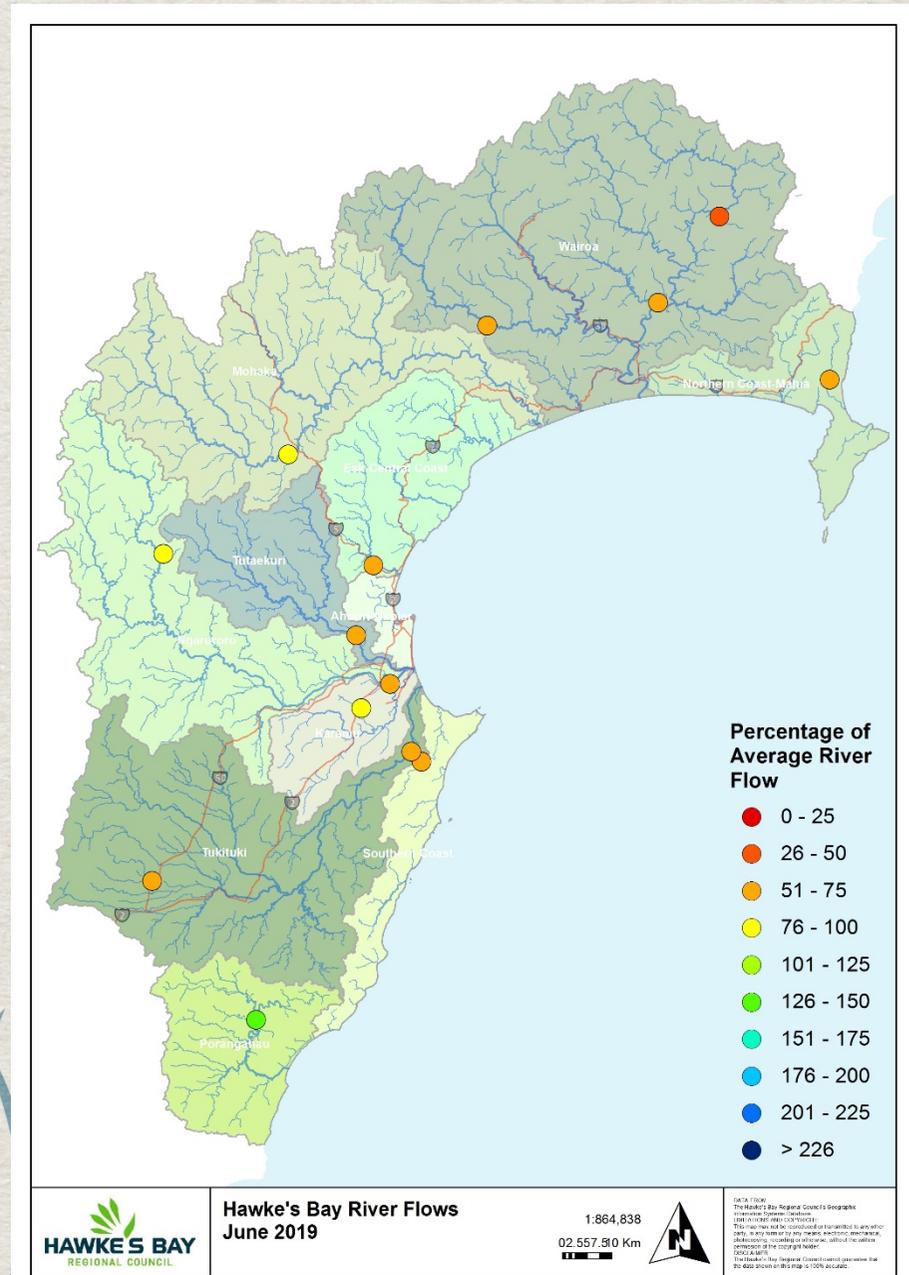
Location: Taharua



# RIVER FLOW

## Percentage of average June flows for areas in the region:

Northern Coast – Mahia	65%
Northern HB – Hangaroa River	39%
Northern HB – Wairoa River	52%
Northern HB – Waiau River	58%
Mohaka	79%
Esk-Central Coast	72%
Tūtaekuri	65%
Karamu	80%
Ngaruroro - Kuripapango	97%
Ngaruroro - Chesterhope	74%
Southern Coast	58%
Tukituki – Tukipo River	55%
Tukituki – Tukituki River	63%
Porangahau	135%
<b>Hawke's Bay Region</b>	<b>71%</b>

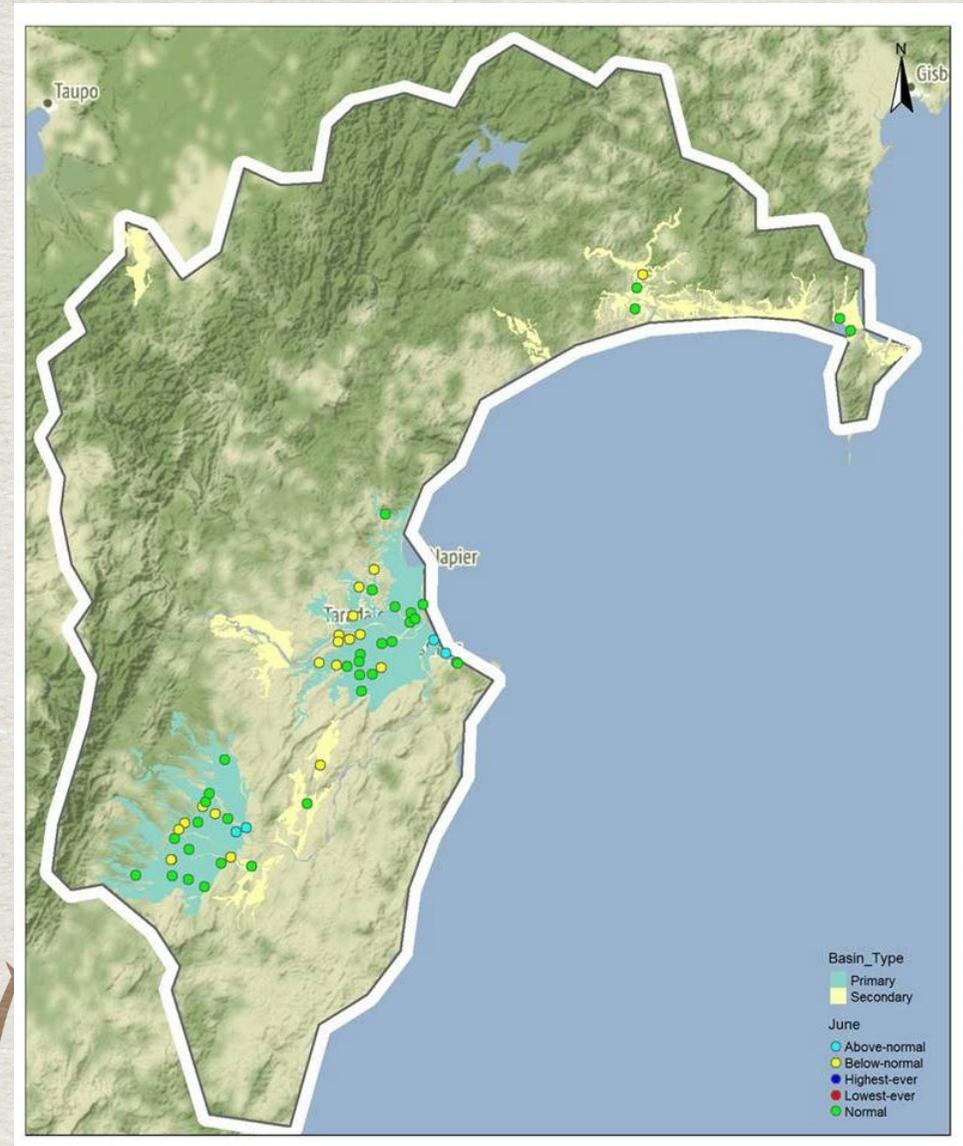
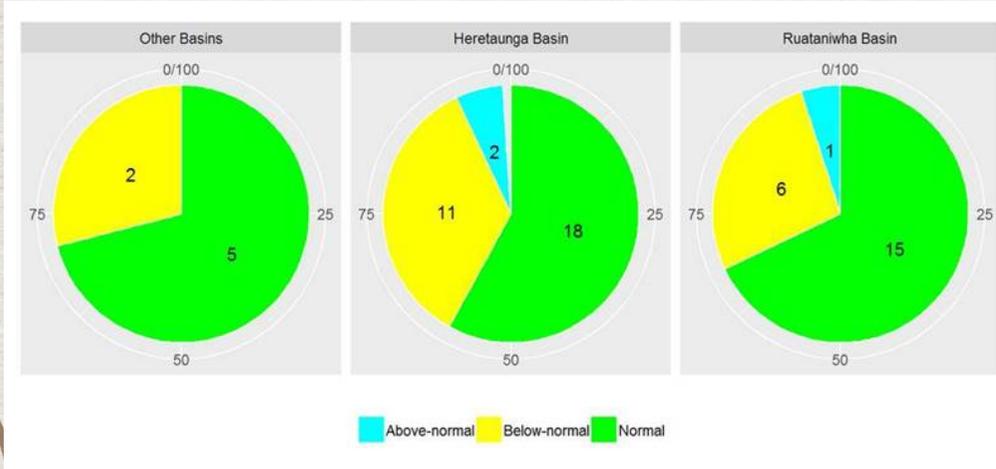


# GROUNDWATER & SOIL MOISTURE

## Soil Moisture: Near 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.



Exasperating. Two exceedances in Hastings.

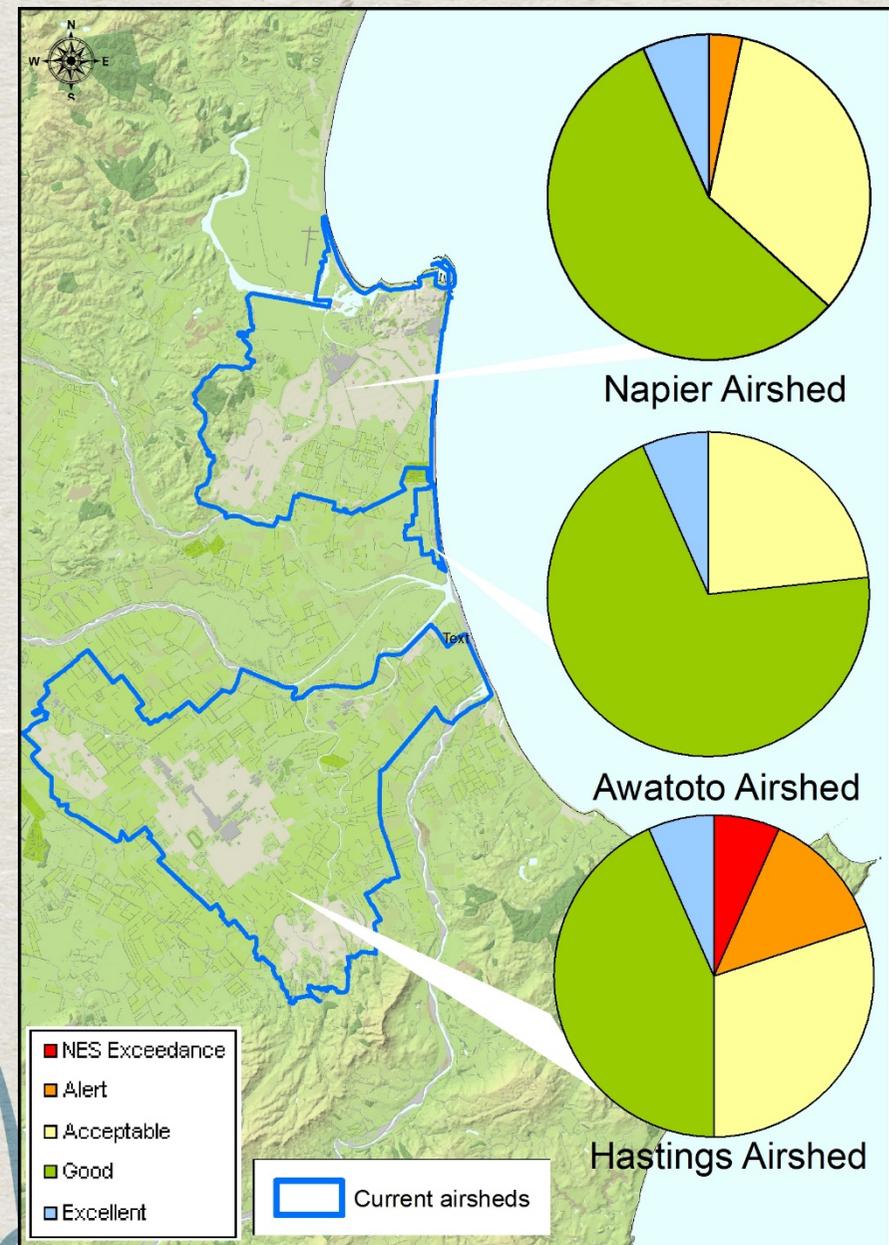
**Figure 1:** PM<sub>10</sub> levels in the Napier, Hastings and Awatoto airsheds during June 2019.

### PM<sub>10</sub> exceedances:

The National Environmental Standard (NES) for particulate matter (PM<sub>10</sub>) of 50 micrograms per cubic metre (24 hour average) was exceeded on two occasions in the Hastings airshed and was not exceeded in the Napier and Awatoto airsheds in June 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](http://www.hbrc.govt.nz)



## LONGER FORECAST

A weak El Niño is still present and whether it completely wanes beyond winter is uncertain.

During the next few months sea level pressures look lower than usual over the country and particularly to the east, while higher pressures sit well to the northwest.

It sets up a mainly southwest wind flow which can bring drier weather, though with lower pressures potentially over our shores it could be an unsettled time with near normal rain and near normal temperatures. It might not just be a typical June but a typical winter overall.

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