

Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

March 2024



TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

March 2024

Autumn kicked off on a dry and chilly note. The region received roughly half of average March rainfall, but less than a third on the Plains and in the Tangoio area. After two months of low rainfall, soil moisture levels were below median levels for early autumn around the Plains and western hills. They jumped to a healthier state at northern sites in meaty showers at the month's end. River flows were below normal across the region and groundwater levels reflected the low rainfall by more wells dipping below normal.

The switch from summer to autumn brought wintry temperatures. Overnight temperatures were 1°C below average and days felt cool too, but fell just within the normal range. The timing wasn't great because our swimming spots were in good nick to enjoy but it's nature's signal that we can wrap up our recreational water quality monitoring for the season. No problems for air quality in our urban centres but the Awatoto site continues to deal with silt and heavy swells bringing salty air.

Dr Kathleen Kozyniak
Team Leader Air and Land Science

SUMMARY March 2024

Short summary - Dry for the second month but cool.

April to June Forecast

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

source : NIWA

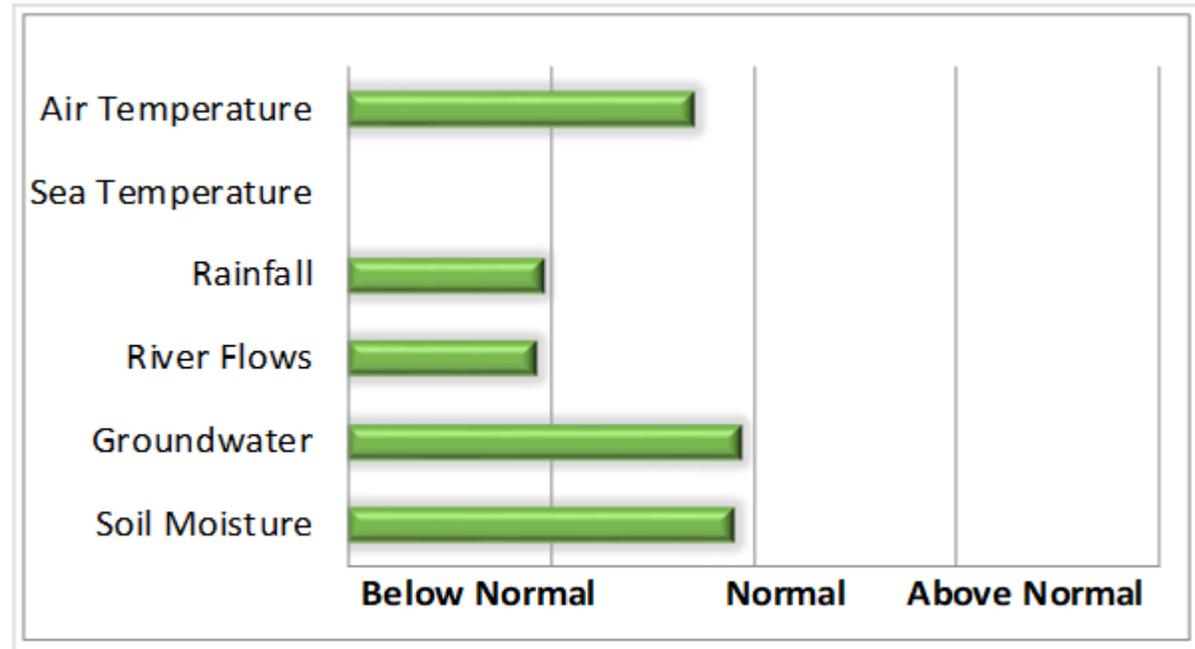
Sea Surface Temperature

The average sea surface temperature (SST) for Hawke's Bay in February 2024 is unavailable due to the HBRC coastal water quality monitoring buoy HAWQi being removed for servicing.

For more information

www.hbrc.govt.nz

Ph: 06 835 9200



RAINFALL

Below normal, especially Tangoio and the Plains.
One cloud to ground lightning strike.

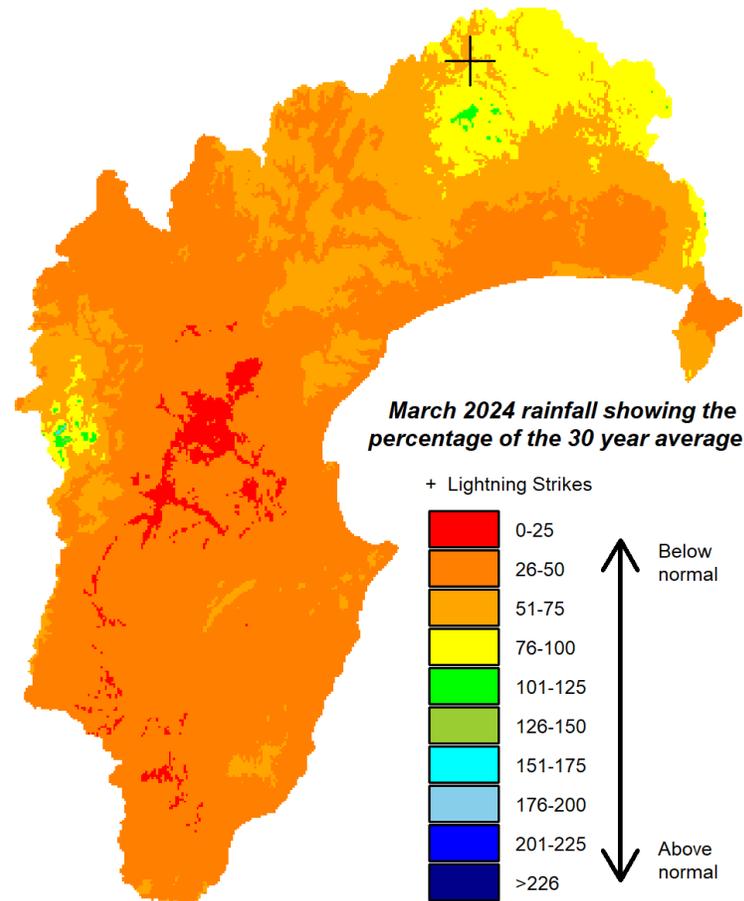
Lightning counts come from the Blitzortung.org lightning network to which HBRC contributes.

Percentage of normal March rainfall
(30 year average)

For areas in the region:

Waikaremoana	79%
Northern HB	55%
Tangoio	23%
Kaweka	59%
Ruahine	59%
Heretaunga Plains	31%
Ruataniwha Plains	32%
Southern HB	43%
Hawke's Bay Region	48%

For a more detailed rainfall report click [here](#)
and for a five-year monthly summary click [here](#).



AIR TEMPERATURES

Temperatures – A little wintry. Near average days, cold nights.

Mean Difference from Normal

Maximum Temperature: -0.4°C

Minimum Temperature: -1.1°C

Mean Daily Maximum: 20°C

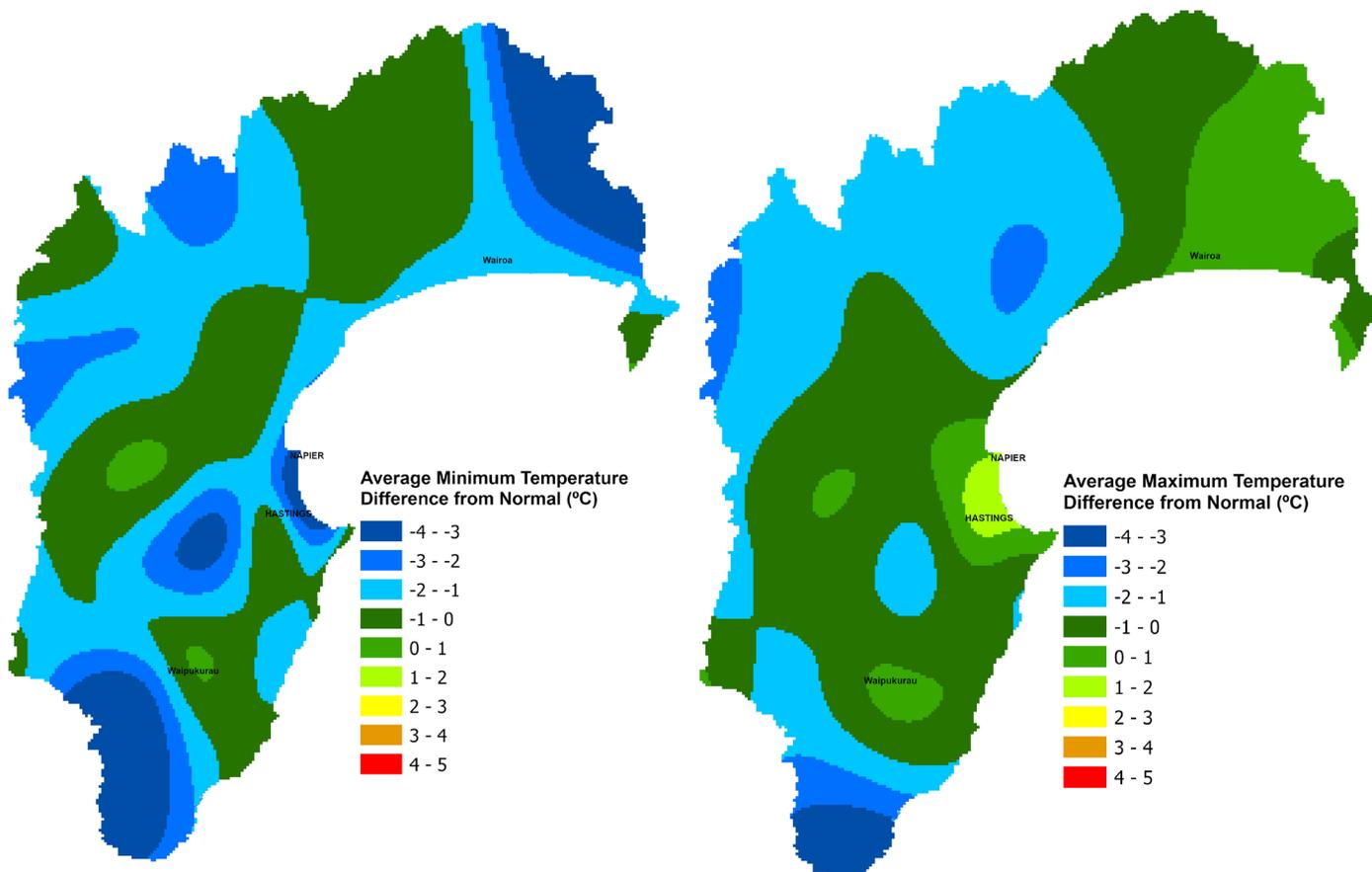
Mean Daily Minimum: 9°C

Highest Daily: 29.4°C

Location: Hastings AWS (Metservice)

Lowest Daily: -0.8°C

Location: Taharua Climate

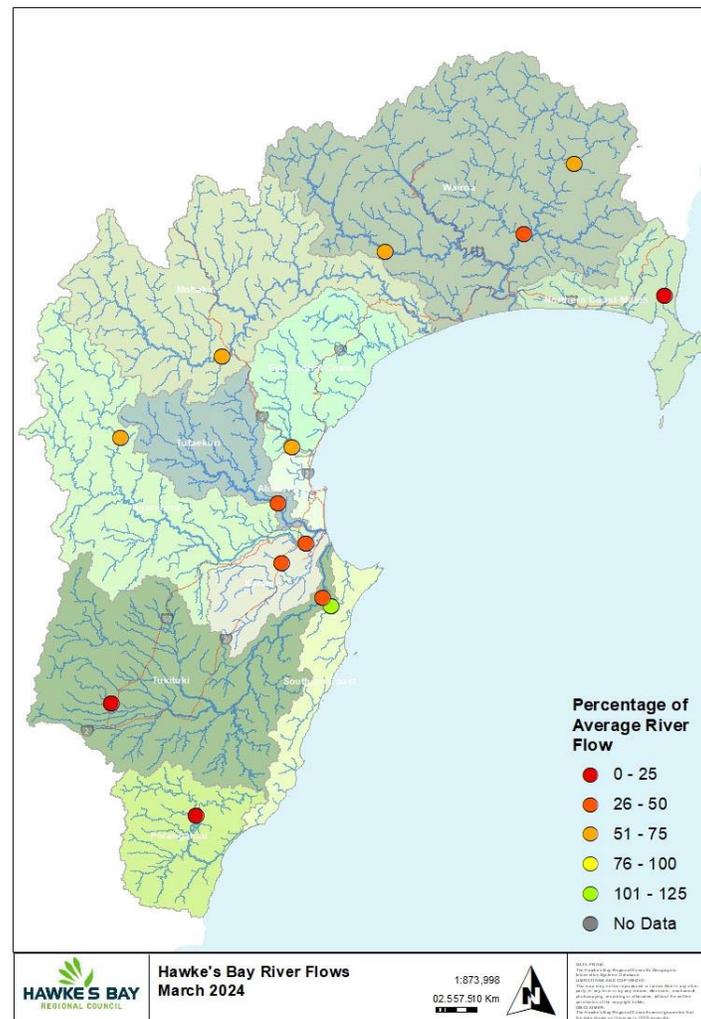


RIVER FLOW

Percentage of average March flows for areas in the region:

Northern Coast – Mahia	21%
Northern HB – Hangaroa River	57%
Northern HB – Wairoa River	37%
Northern HB – Waiau River	54%
Mohaka	70%
Esk-Central Coast	60%
Tūtaekuri	46%
Karamu	41%
Ngaruroro – Kuripapango	67%
Ngaruroro – Chesterhope	40%
Southern Coast	106%
Tukituki – Tukipo River	19%
Tukituki – Tukituki River	26%
Porangahau	0%
Hawke's Bay Region	46%

For a more detailed river flow report click [here](#).



GROUNDWATER & SOIL MOISTURE

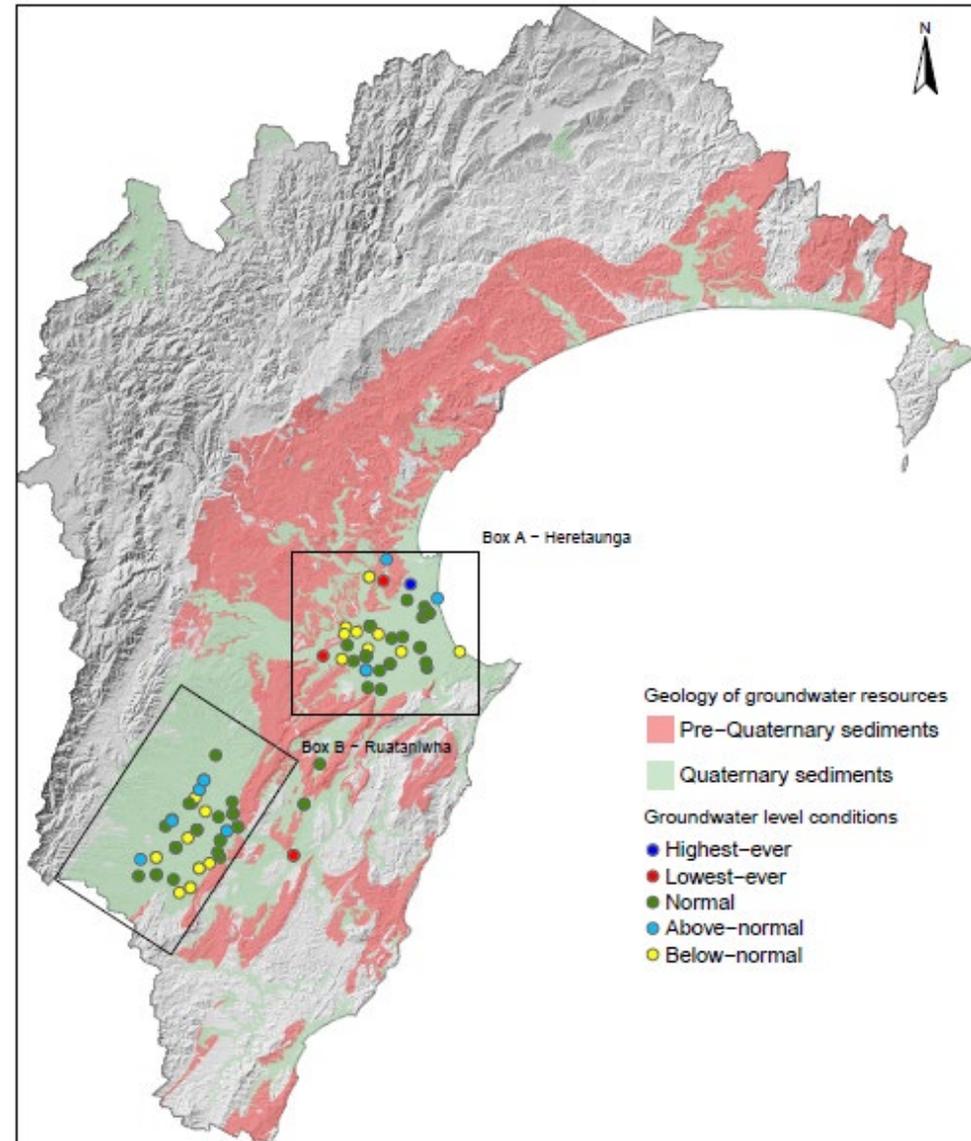
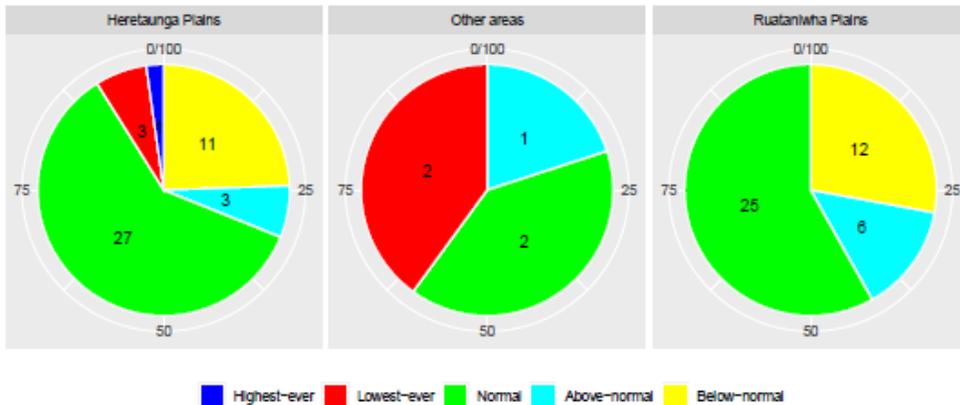
Soil Moisture: Near or below average.

For a more detailed soil moisture report click [here](#).

Current state of Groundwater levels:

This report compares groundwater levels in March 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

Air Quality: Crikey, three exceedances at Awatoto!

Figure 1: PM₁₀ levels in the Napier, Hastings and Awatoto airsheds during March 2024.

PM₁₀ exceedances:

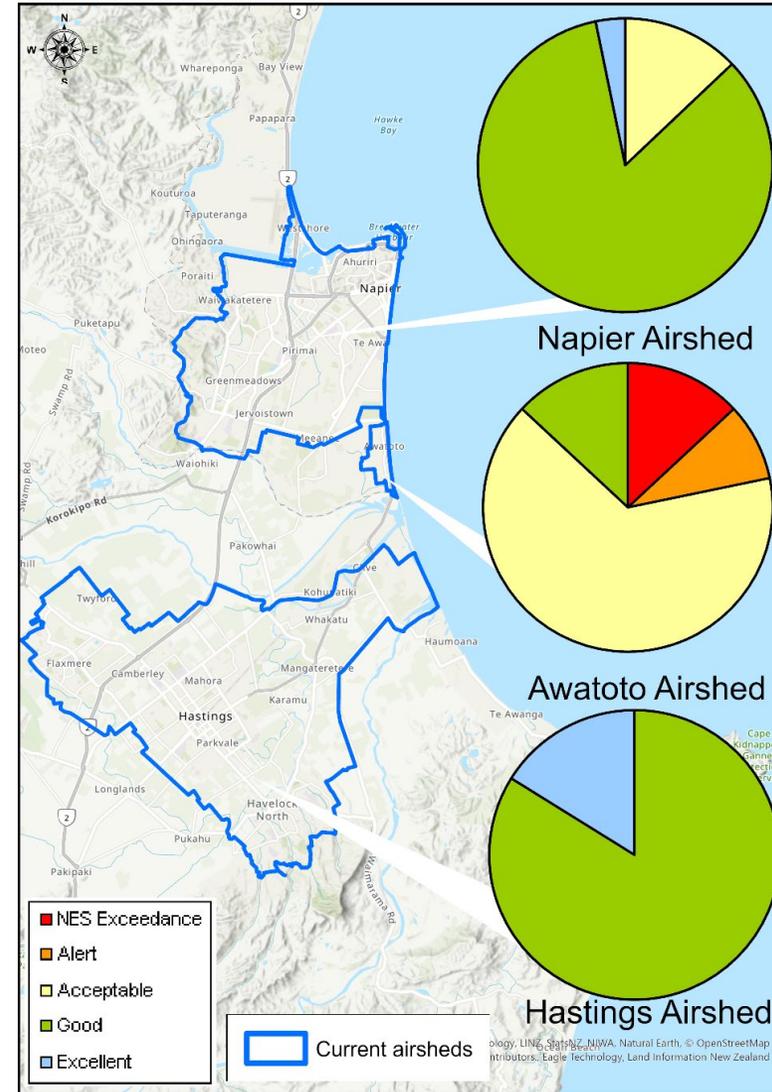
The National Environmental Standard (NES) for particulate matter (PM₁₀) of 50 micrograms per cubic metre (24 hour average) was exceeded three times in the Awatoto airshed, and not exceeded in the Napier or Hastings airsheds during March 2024.

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

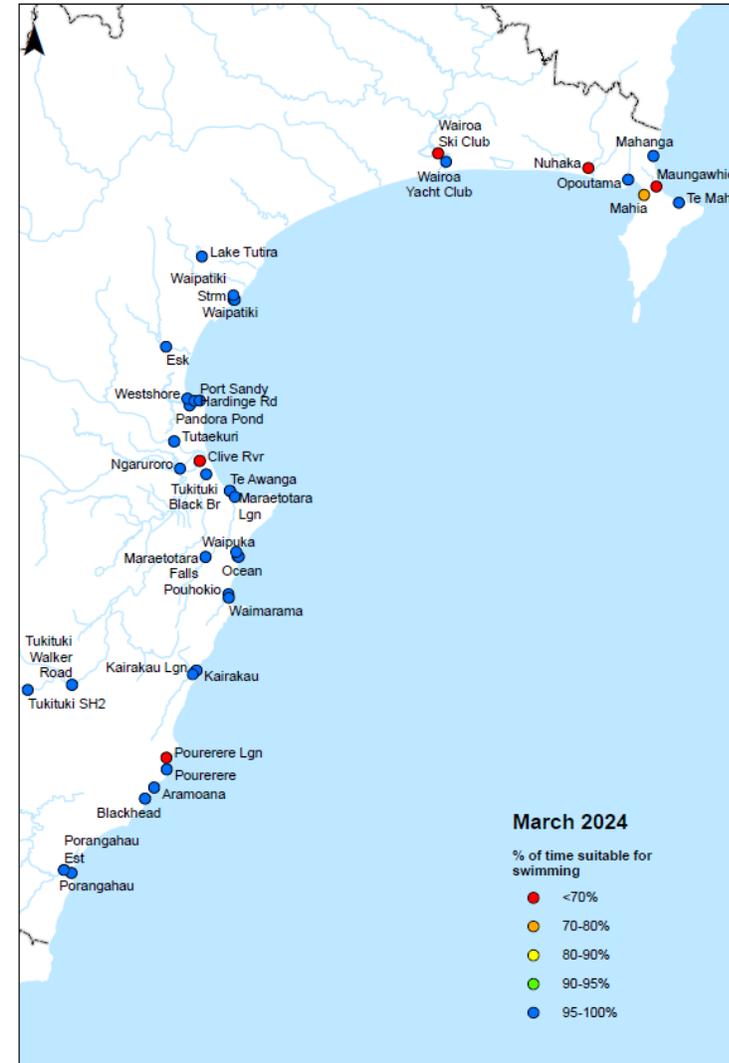
For a more detailed air quality report click [here](#).



Recreational Water Quality

March saw the end of the 2023/24 recreational water quality season, and another great month of swimmability. With the exception of a handful of sites that saw a touch of rain, the vast majority of our swimming spots maintained 100% compliance to finish out the bathing season.

Further information is available at www.hbrc.govt.nz



LONGER FORECAST

The El Niño isn't expected to outlast autumn, instead transitioning to neutral conditions. These may turn to La Niña conditions later in the year. The turnaround in our air temperature is supported by a turnaround in sea temperature, which sits near or below normal around our shores and helps to reinforce the lower rainfall totals.

Although the El Niño wanes, a predominantly westerly flow likely persists over the next three months due to higher than normal sea level pressure over northern New Zealand and lower south of the country. Combined with the sea temperatures at more normal levels, the result is a prediction of below or near normal rainfall and temperatures near normal or above normal. Hopefully it's more of an autumnal feel than the recent wintry shocker.

Dr Kathleen Kozyniak
Team Leader Air and Land Science