



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

January 2023



HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

January 2023

I thought (hoped) we'd maxed out the breaking records story. Not on your nelly. January rainfall was something else. The region had four times the average January rainfall, with the Heretaunga Plains and Kaweka Range nudging 500%. They were record breaking January totals for most of our sites, apart from those located north of Tangoio. Our Glenwood rain gauge, in the southwestern ranges, doubled its previous highest January total. The region has now notched up six consecutive months of above average rainfall.

January river flows were almost off the charts. The groundwater map shows a wash of above and highest-ever totals. Soil moisture was very high. I'd normally say "for the time of year" but no, it's just high for anytime of the year.

Sunshine hours during the month were low and cloudy skies reigned (and rained). Sea temperatures were about normal but air temperatures were freakish. Daytime temperatures were 2°C below normal and overnight temperatures 2°C above normal, resulting in temperature maps that couldn't look more different. Recreational water quality is not having a good run - donning your plimsoles and going for a run was a better idea than going for a swim.

Dr Kathleen Kozyniak
Team Leader Marine Air and Land Science

SUMMARY January 2023

February to April Forecast

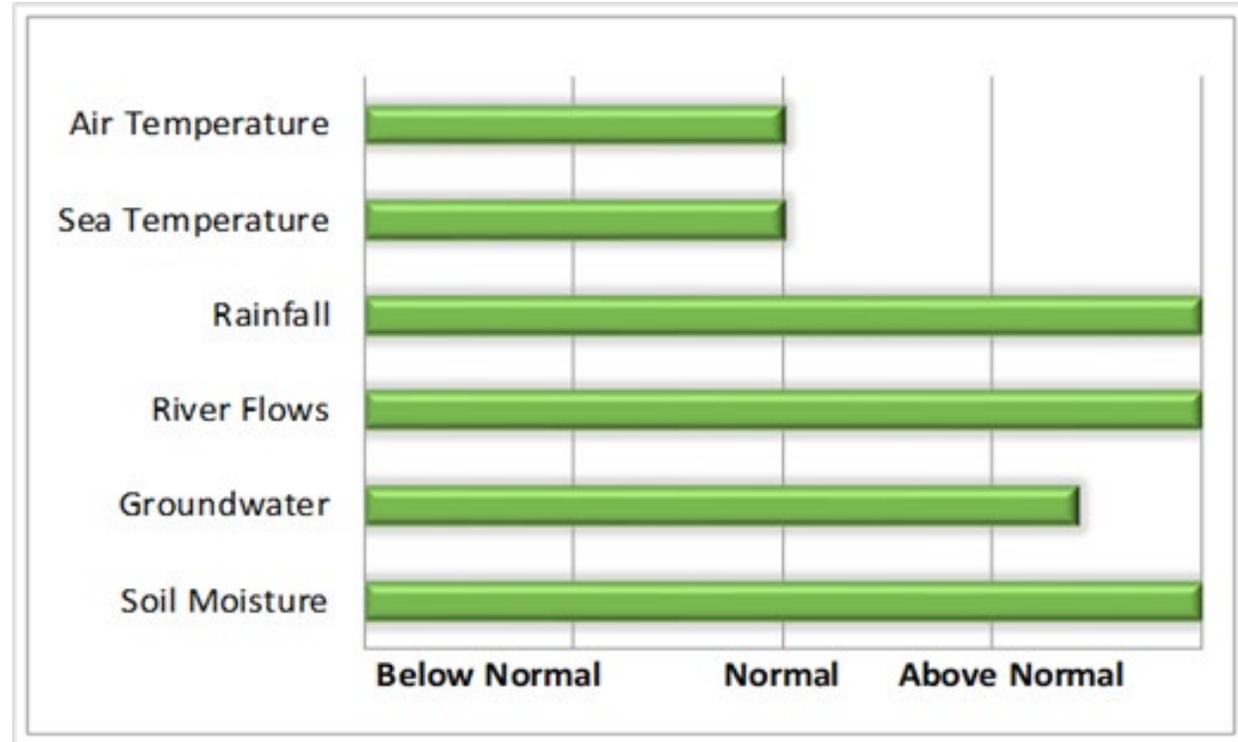
Temperature	Near or above average
Rain	Above normal
River flows	Above normal
Soil moisture	Above normal

source : NIWA

For more information

www.hbrc.govt.nz

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RAINFALL

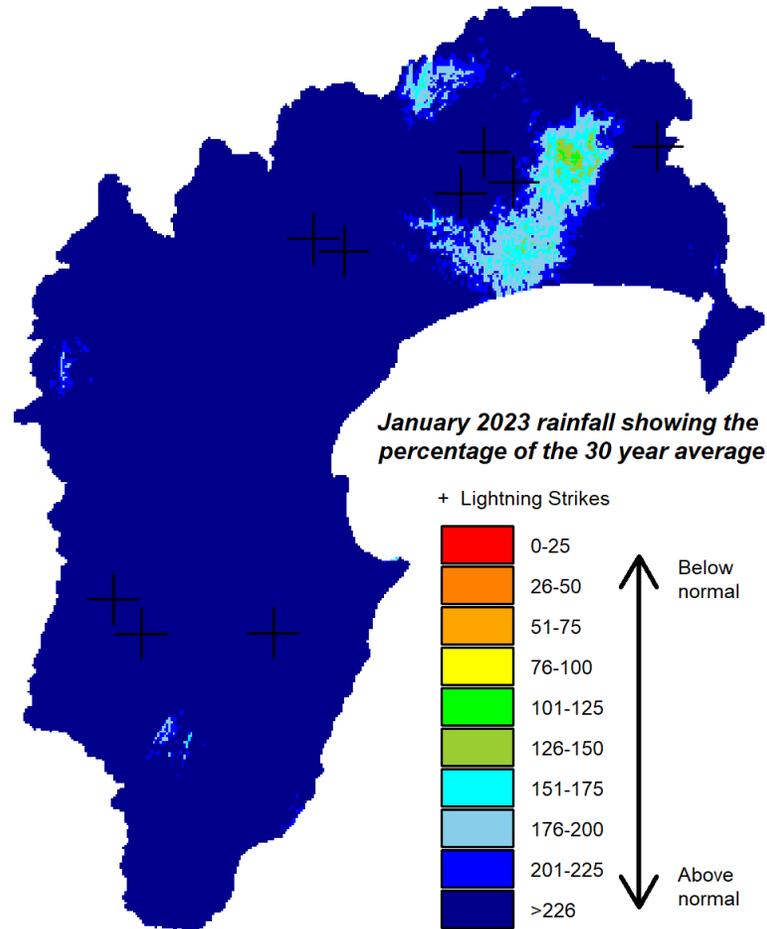
Phenomenally above normal. 9 cloud to ground lightning strikes.

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

Percentage of normal January rainfall
(30 year average)

For areas in the region:

Waikaremoana	276%
Northern HB	224%
Tangoio	468%
Kaweka	478%
Ruahine	403%
Heretaunga Plains	478%
Ruataniwha Plains	394%
Southern HB	440%
Hawke's Bay Region	395%



AIR TEMPERATURES

Below average during the day, above average at night.

Mean Difference from Normal

Maximum Temperature: -2.1°C

Minimum Temperature: 2.0°C

Mean Daily Maximum: 20 °C

Mean Daily Minimum: 14°C

Highest Daily: 30 °C

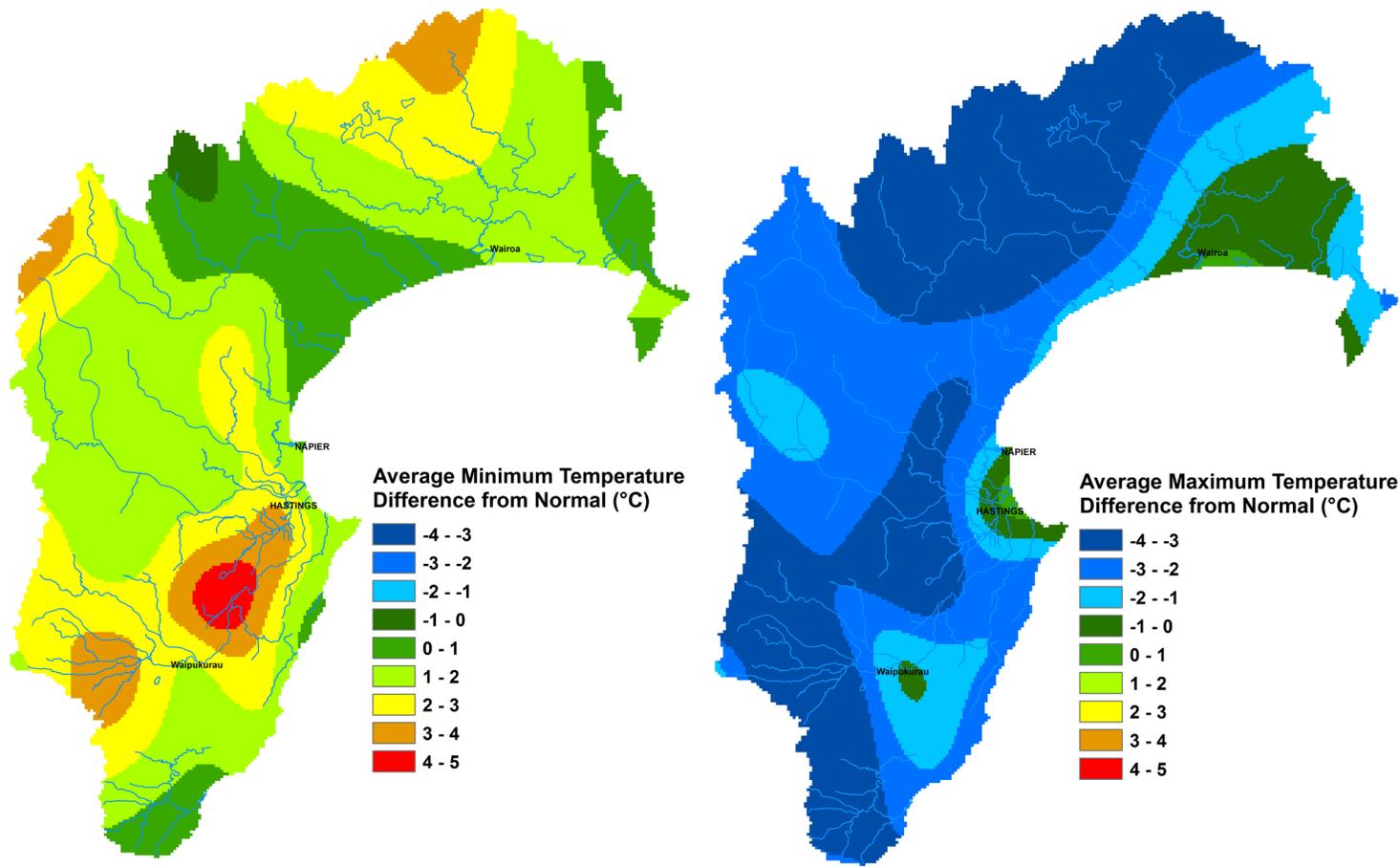
Location: Ruakituri River at Tauwharetoi Climate

Lowest Daily: 5.6 °C

Location: Taharua Climate

SEA SURFACE TEMPERATURES

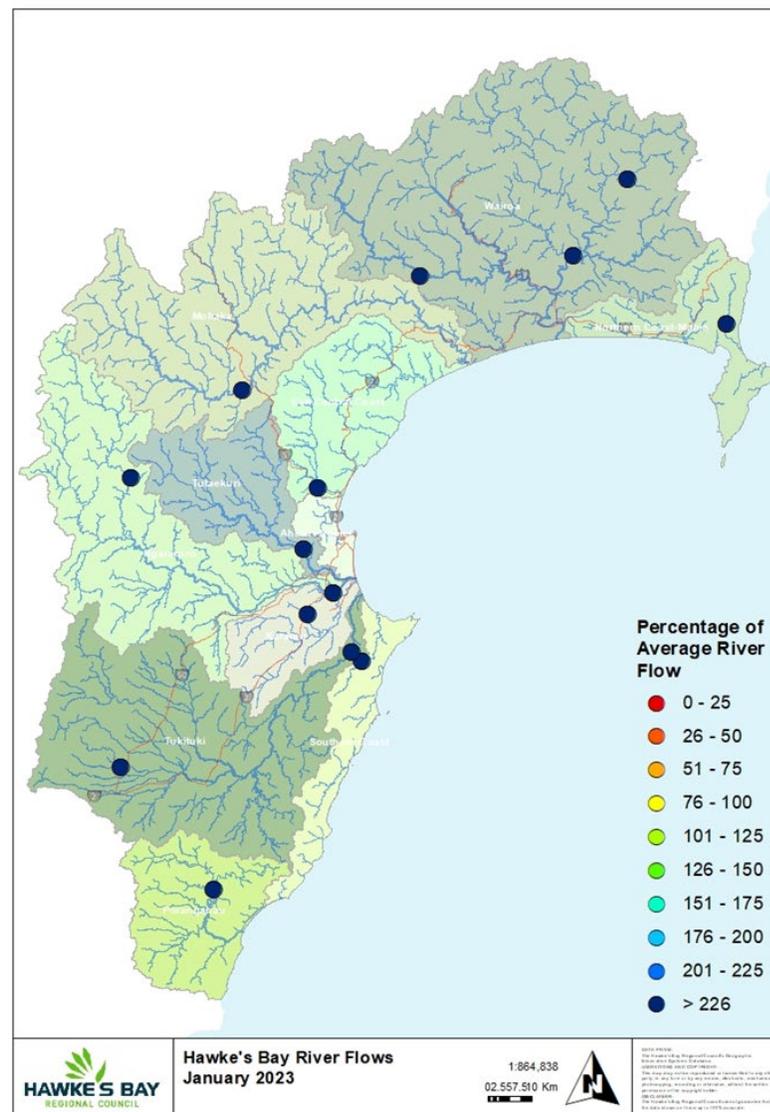
The average sea surface temperature (SST) for Hawke's Bay in January was 20 °C. This was similar to the long term average for this month (only 0.12 °C below average). This data was collected from the HBRC coastal water quality monitoring buoy HAWQ_i which has been located 4km off the coast of Whirinaki since December 2012. HAWQ_i collects data on water temperature, salinity and clarity at a range of depths as well as weather information. Check out real time data from HAWQ_i [here](#).



RIVER FLOW

Percentage of average January flows
for areas in the region:

Northern Coast – Mahia	682%
Northern HB – Hangaroa River	931%
Northern HB – Wairoa River	561%
Northern HB – Waiau River	284%
Mohaka	347%
Esk-Central Coast	580%
Tūtaekuri	703%
Karamu	427%
Ngaruroro – Kuripapango	340%
Ngaruroro – Chesterhope	770%
Southern Coast	552%
Tukituki – Tukipo River	1256%
Tukituki – Tukituki River	879%
Porangahau	6864%
Hawke's Bay Region	1084%



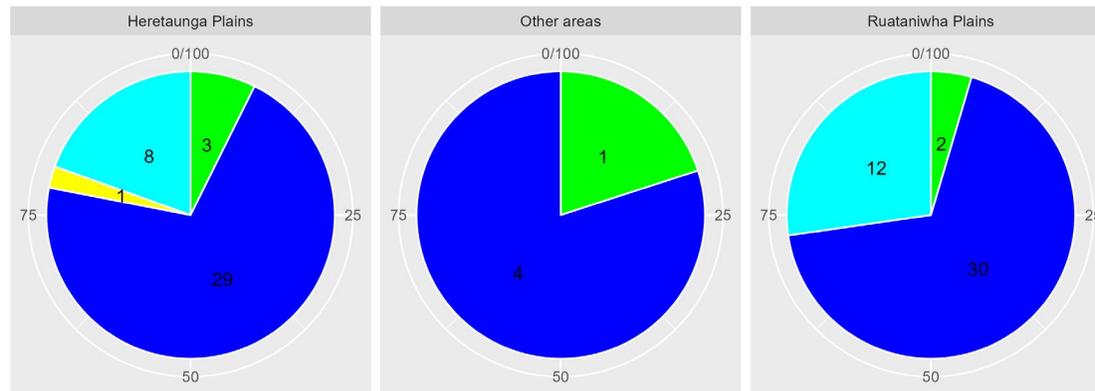
GROUNDWATER & SOIL MOISTURE

Soil Moisture: Above normal.

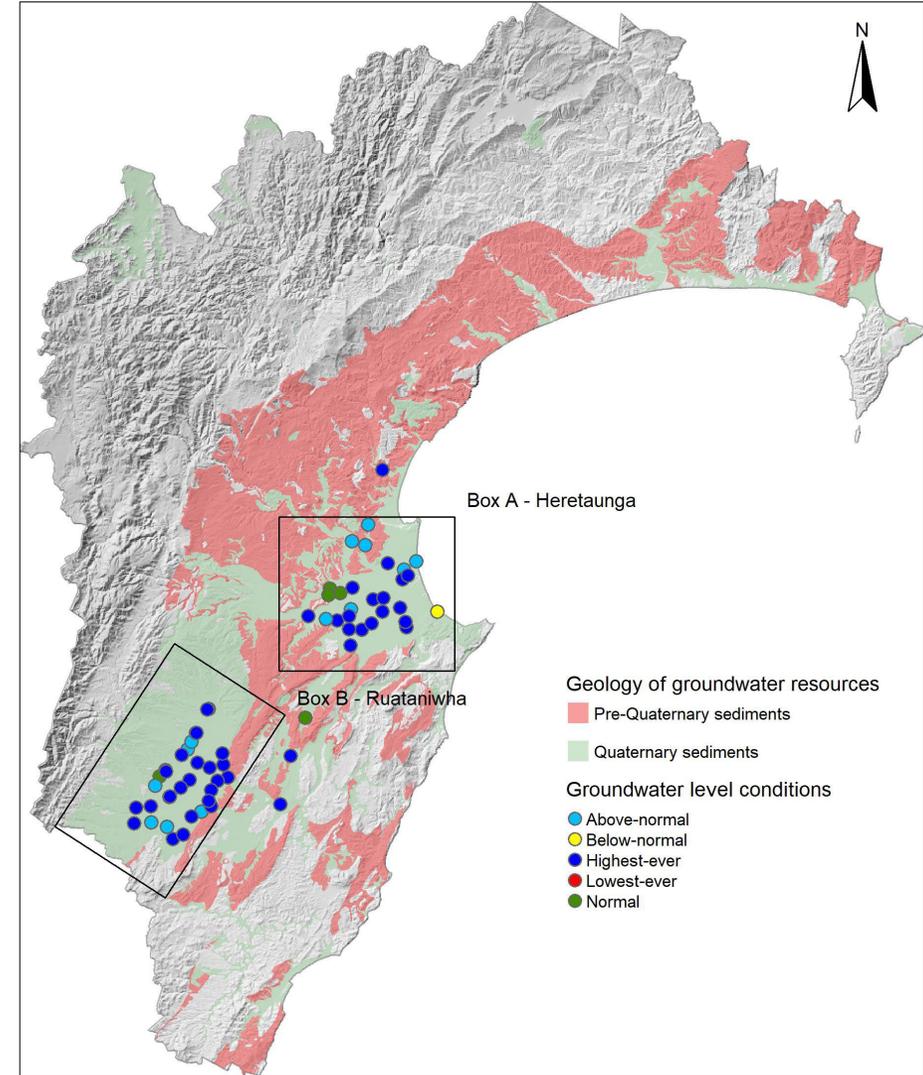
Current state of Groundwater levels:

This report compares groundwater levels in January 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 ■ Highest-ever ■ Lowest-ever ■ Normal



RECREATIONAL WATER QUALITY

Yet another wet month brought poor swimming conditions across much of the Bay. Exceedances came thick and fast, with almost all being rainfall related. The usual high performing southern beaches and a scattering in the north kept things from being a complete 'red out'.



LONGER FORECAST

Signs are that the La Niña is weakening and we should see neutral conditions prevail over the next month or two. Phew. That should be it done and dusted. The neutral status is likely to remain or El Niño conditions emerge later in the year.

It may take a while longer though for our pattern of weather to change. The easterly flow seems likely to persist because we still have forecasts of below normal sea level pressure to the north of the country and higher than normal over southern New Zealand. With no change to the pattern, there is no change in our expectations of rain and temperatures.

It's still a case of above normal rain being likely and temperatures that are muted during the day and balmy at night.

Dr Kathleen Kozyniak
Team Leader Marine Air and Land Science