



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

March 2022



TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

March 2022

Miserable March. Credit where it is due, the first week and a half of the month was stunning. Shame the rest of it was seriously grim and seriously damaging in parts of the region. Northern Hawke's Bay got hammered by rain but everywhere got pelted to some degree.

Rainfall totals around Wairoa were over three times normal March rainfall and set new records for March totals at our sites, even sites that extend back to the days of Cyclone Bola. In many cases it was the highest monthly total ever recorded at the site. The rest of the region also had areas that hit new records for March rainfall, including sites on the Heretaunga and Ruataniwha Plains and the western ranges.

It follows a very wet February so the two months together left us with saturated soils, incredibly healthy groundwater levels and very high river flows - in one case a gob smacking 2000% of average March flow.

Grey, wet days pulled our daytime temperatures a degree below average but the cloud, mugginess and warm sea temperatures kept overnight temperatures more than a degree above average. Our last water quality report for the bathing season finished before the rain entrenched itself so it's a picture of good times, great swims. An incongruous yet lovely image.

Kathleen Kozyniak
Principal Scientist - Climate and Air

SUMMARY March 2022

Relentless rain and muggy nights

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

April to June Forecast

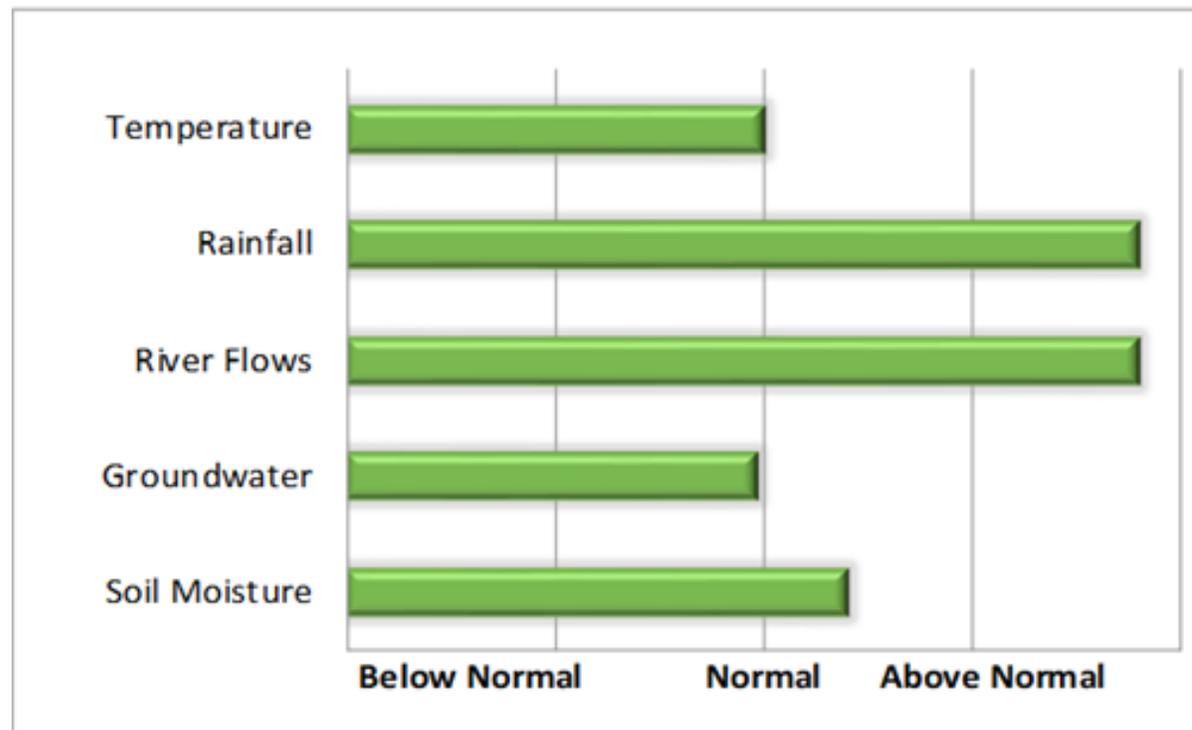
Temperature Above or near average
Rain Near or above normal
River flows Near or above normal
Soil moisture Near normal

source : NIWA

For more information

www.hbrc.govt.nz

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RAINFALL

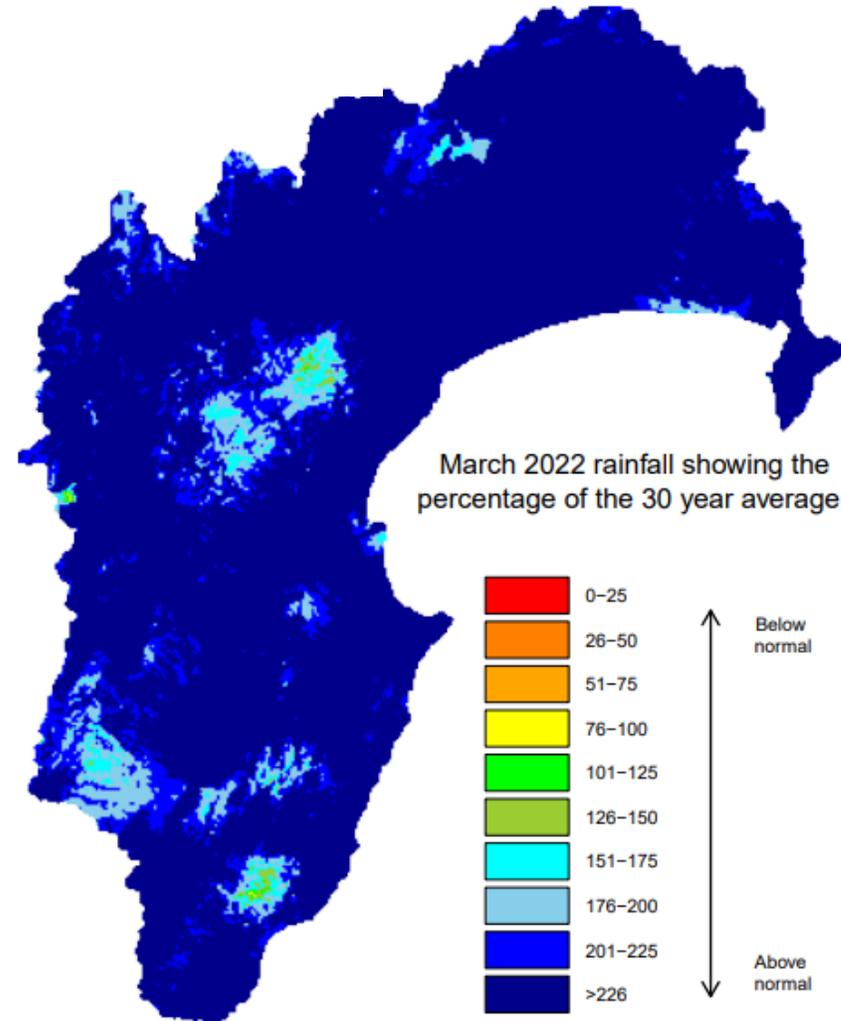
Make it stop - over double the average again.
Six cloud to ground lightning strikes.

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	310%
Northern HB	337%
Tangoio	218%
Kaweka	250%
Ruahine	215%
Heretaunga Plains	238%
Ruataniwha Plains	218%
Southern HB	214%
Hawke's Bay Region	250%



TEMPERATURES

Below and above average for days and nights respectively.

Mean Difference from Normal

Maximum Temperature: -1.1°C

Minimum Temperature: 1.4°C

Mean Daily Maximum: 19°C

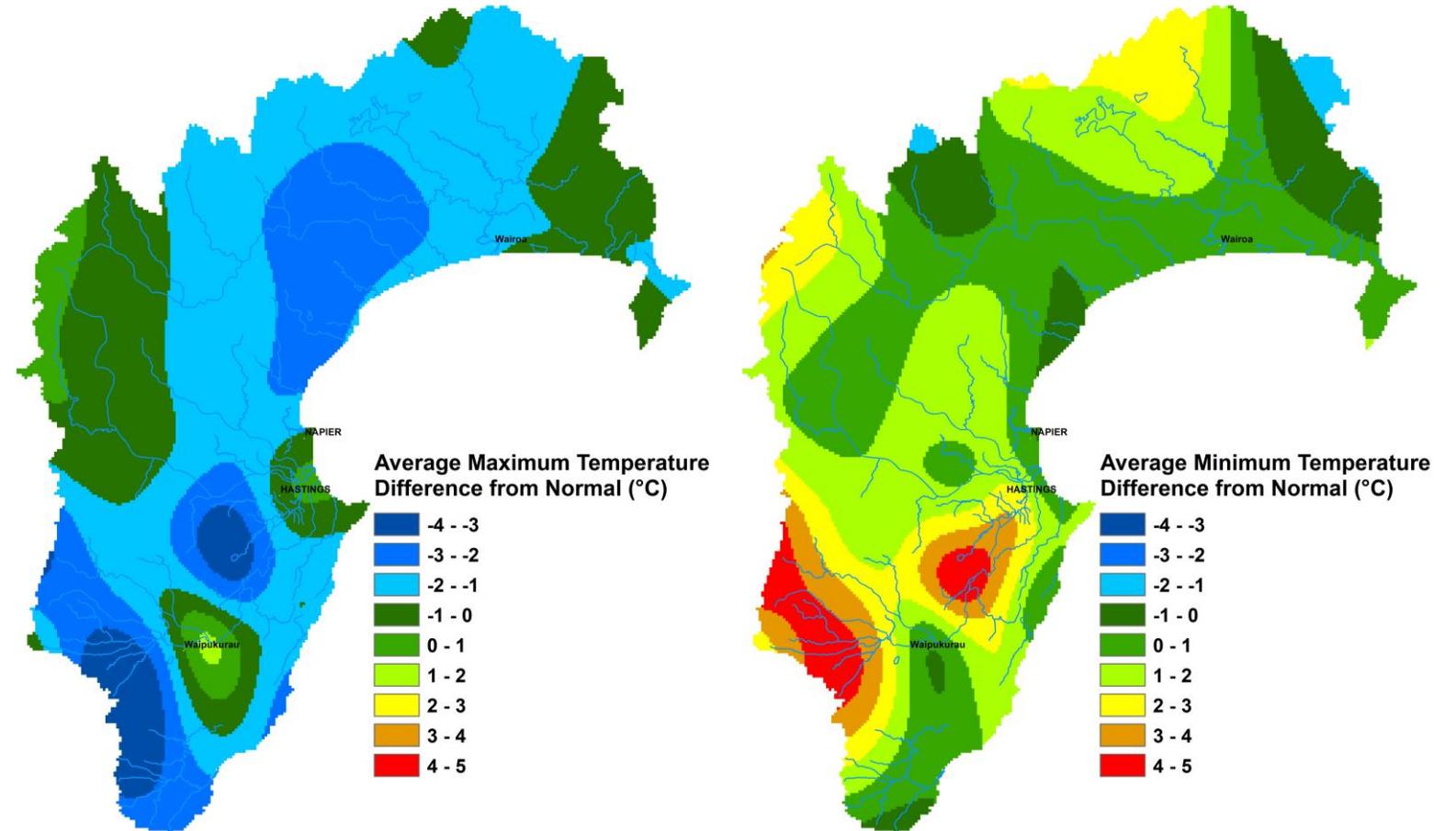
Mean Daily Minimum: 12°C

Highest Daily: 29.2°C

Location: Waipawa EWS (NIWA)

Lowest Daily: 3.8°C

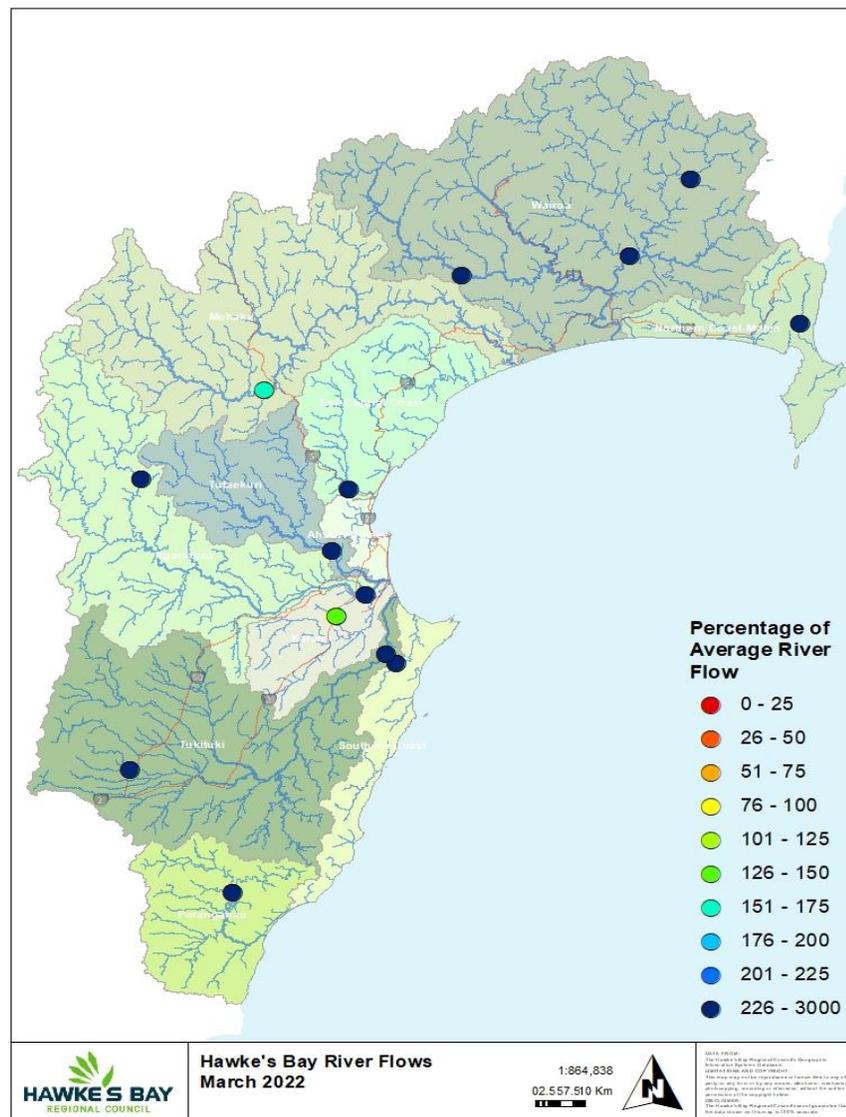
Location: Taharua Climate



RIVER FLOW

Percentage of average March flows
for areas in the region:

Northern Coast – Mahia	503%
Northern HB – Hangaroa River	566%
Northern HB – Wairoa River	657%
Northern HB – Waiau River	237%
Mohaka	172%
Esk-Central Coast	285%
Tūtaekuri	227%
Karamu	128%
Ngaruroro – Kuripapango	276%
Ngaruroro – Chesterhope	355%
Southern Coast	414%
Tukituki – Tukipo River	604%
Tukituki – Tukituki River	465%
Porangahau	2029%
Hawke's Bay Region	493%



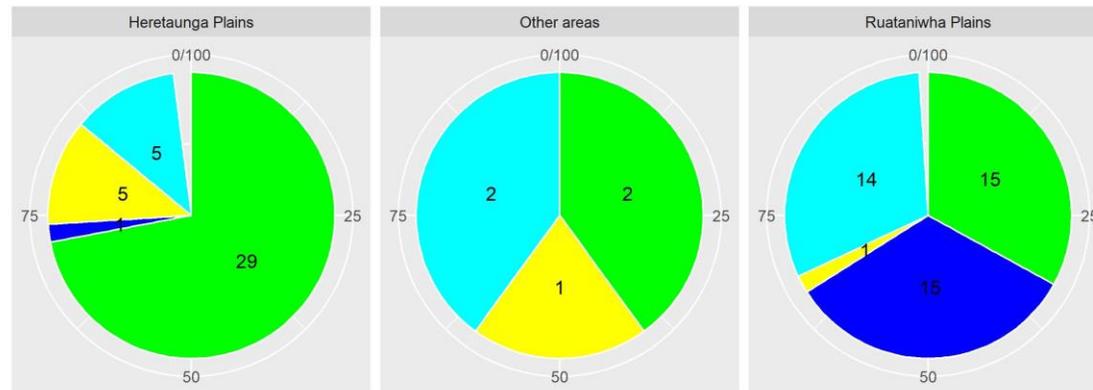
GROUNDWATER & SOIL MOISTURE

Soil Moisture: Saturated. Well above normal.

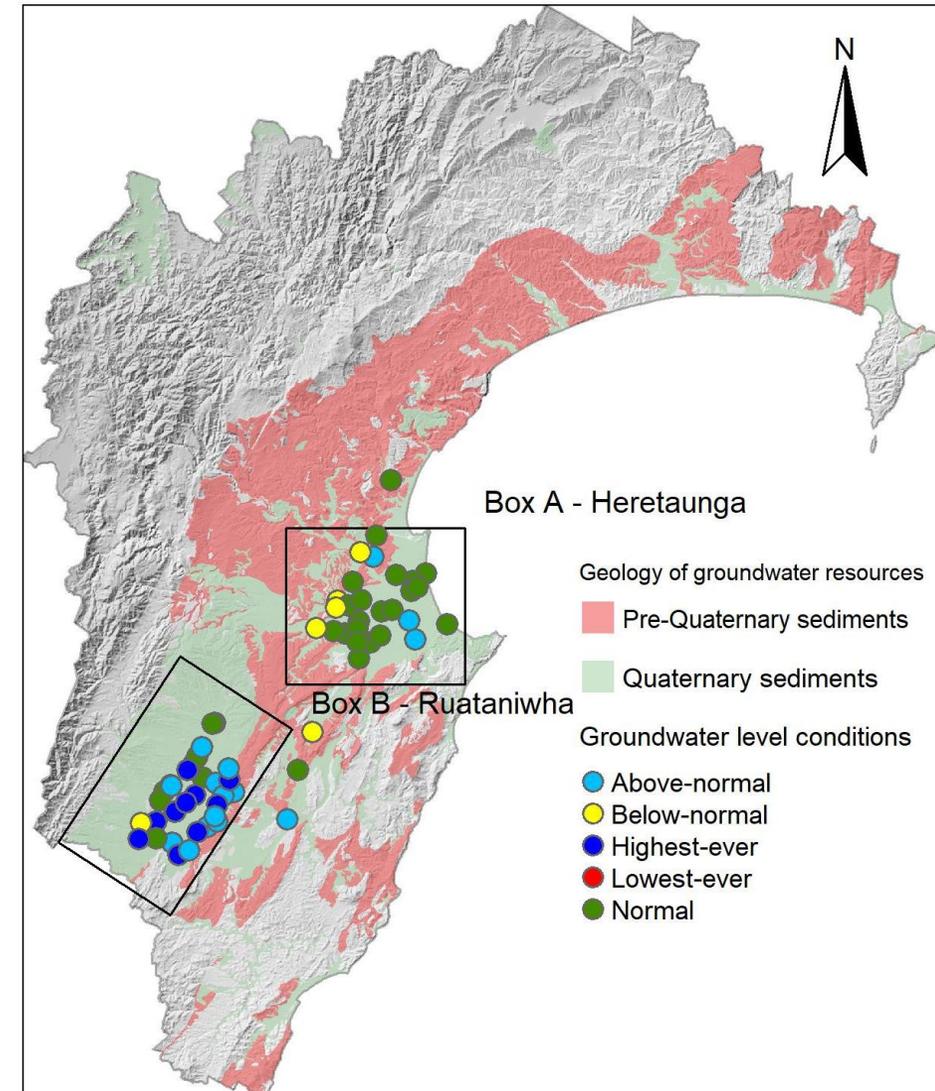
Current state of Groundwater levels:

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.



■ Above-normal
 ■ Below-normal
 ■ Highest-ever
 ■ Normal



RECREATIONAL WATER QUALITY

Summer has wrapped up, and with it the Recreational Water Quality season for 2021-22. The season ended on a high note, with minimal exceedances across the region for the final two weeks of the monitoring period.

Both Purerere Lagoon and Clive River exceeded twice in the final two weeks, Wairoa River and Lake Tūtira both exceeded once.

All other sites were great places to swim this March, if you were brave enough to endure the autumn temperatures.



LONGER FORECAST

You may feel over the La Niña that over delivered. It lingers on however and may do so until winter to then be replaced by a neutral phase. In the meantime, conditions remain relatively unchanged. Lower than normal sea level pressures are expected to the northwest of the country and higher than normal to the southeast.

So east to northeast winds continue, along with warm sea surface temperatures. The outlooks are much the same - normal or above normal rainfall and above average temperatures. We may (or may not) see the remnants of Tropical Cyclone Fili affect the country's weather next week. On current forecasts it's likely a short, sharp visit if anything and not ceaseless in nature like March's ilk.

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