

February 2021

Any talk about our evolving environmental conditions seems to pale against the immediacy of strong earthquakes and tsunamis that have the region rattled. But if you want a distraction - we've ticked off summer already would you believe and although February was great for some it was a disappointment for others. We had good rain north of Napier but only about half of the February average to the south, including in the Kaweka and Ruahine ranges where some of the headwaters of our rivers lie.

February river flows were below average, even in the north. Soil moisture was okay in the north but proceeded to head south in the south, while groundwater levels managed to stay mostly near normal, which is a relief. The best news is that our relatively warm days and not too ugly nights made for a good sleep and bundles of energy to hit our waterways for a swim. The waterways were in exceptional condition our water quality team reports and I'm jealously guessing they had a whale of a time checking them out.

Kathleen Kozyniak Principal Scientist - Climate and Air



SUMMARY February 2021

Good rain for the north, little in the south and temperatures were nice.

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

Data and images provided by HBRC.

March to May Forecast

Temperature Near average
Rain Near normal

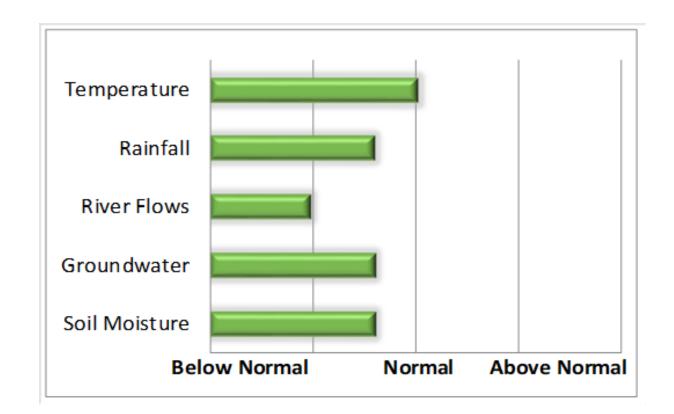
River flows Near or below normal

Soil moisture Near normal

source: NIWA

For more information www.hbrc.govt.nz

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RAINFALL

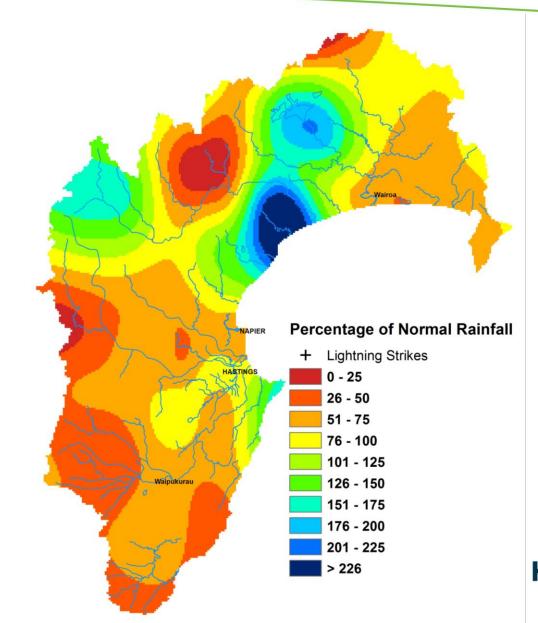
Below normal for southern areas, above normal to the north. No cloud to ground lightning strikes.

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

Percentage of normal February rainfall (30 year average)

For areas in the region:

| Hawke's Bay Region | 79% |
|--------------------|------|
| Southern HB | 67% |
| Ruataniwha Plains | 52% |
| Heretaunga Plains | 72% |
| Ruahine | 46% |
| Kaweka | 59% |
| Tangoio | 97% |
| Northern HB | 108% |
| Waikaremoana | 127% |





TEMPERATURES

Warm days, average nights

Mean Difference from Normal

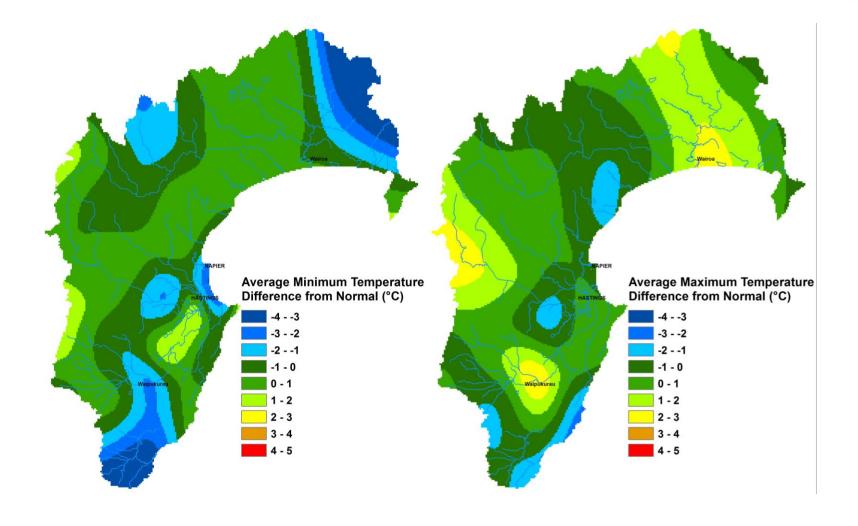
Maximum Temperature: 0.5 °C Minimum Temperature: -0.3 °C

Mean Daily Maximum: 23 °C Mean Daily Minimum: 12°C

Highest Daily: 32.7 °C

Location: Wairoa North Clyde EWS

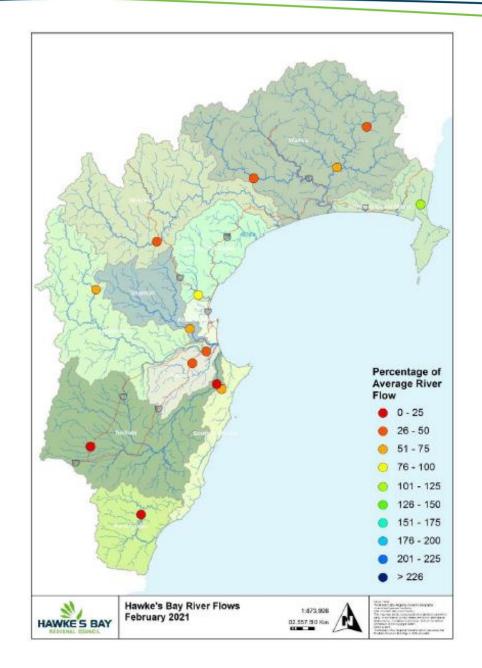
Lowest Daily: 3.5 °C Location: Taharua



RIVER FLOW

Percentage of average February flows for areas in the region:

| Northern Coast – Mahia | 115% |
|------------------------------|------|
| Northern HB – Hangaroa River | 49% |
| Northern HB – Wairoa River | 55% |
| Northern HB – Waiau River | 48% |
| Mohaka | 49% |
| Esk-Central Coast | 79% |
| Tūtaekuri | 58% |
| Karamu | 33% |
| Ngaruroro – Kuripapango | 55% |
| Ngaruroro – Chesterhope | 35% |
| Southern Coast | 58% |
| Tukituki – Tukipo River | 17% |
| Tukituki – Tukituki River | 19% |
| Porangahau | 0% |
| Hawke's Bay Region | 48% |





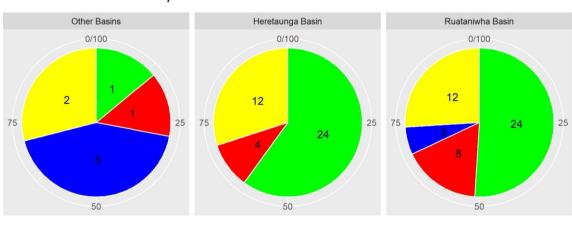
GROUNDWATER & SOIL MOISTURE

Soil Moisture: Below normal for most but above normal in the north.

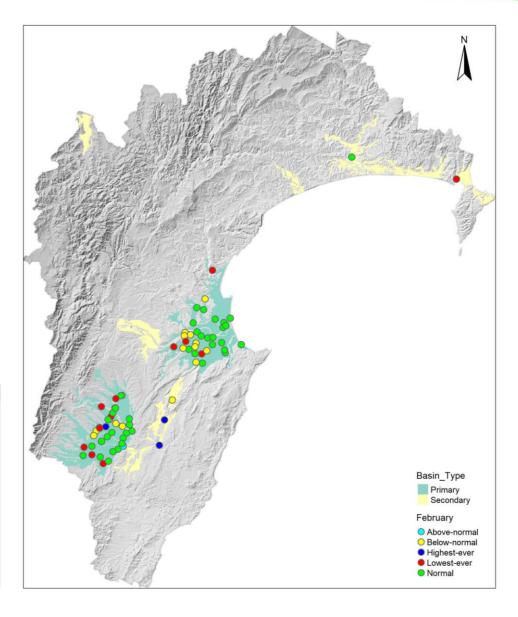
Current state of Groundwater levels:

This report compares groundwater levels in February 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.



Below-normal Highest-ever Lowest-ever



RECREATIONAL WATER QUALITY

February was an outstanding month for swimmability in the Hawkes Bay Region, with only 2 exceedances in total.

The permanent swimming ban for Lake Tūtira has been lifted, results from our weekly monitoring at the lake are now available on LAWA.



LONGER FORECAST

The La Niña is apparently on the wane and neutral conditions have a good chance of establishing during autumn. For the time being the pattern of weather predicted by the seasonal forecast models remains the same. I think you know the drill now – higher than normal pressures to the south, low to the northwest and a general northeast flow.

Most models predict near normal rainfall for the region for autumn and those that show drier than normal conditions tend to weigh that to southern areas. Temperatures should be near or above normal.

Kathleen Kozyniak
Principal Scientist - Climate and Air



TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀU