



Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

FEBRUARY 2020



HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

February 2020

I've been on "staycation" virtually all of February and the weather was fantastic. Fantastic for me leisurely swanning about but not for the state of our water resources and the environment. Rainfall either took a traditional vacation or got so freaked out by all of the coronavirus talk that it opted to self-isolate indefinitely. Because it largely failed to show face – managing only about 10% of the monthly average in just about all except the north of the region.

Rivers flows are rather low and in some cases we've struggled to find them. Soil moisture levels look reasonably cheerful in the north but fairly lifeless elsewhere and groundwater levels are bearing the brunt of our water needs.

Adding to all this pain were the temperatures. Back in November, temperatures were 3°C above normal and I described them at the time as outrageous. It happened again. February was a scorcher. So that, plus our water quality results being really good for the month, were great reasons to head to your favourite swimming spots ... if they were still there.

Kathleen Kozyniak
Principal Scientist - Climate and Air

SUMMARY February 2020

Phenomenal. So hot and so dry.

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.

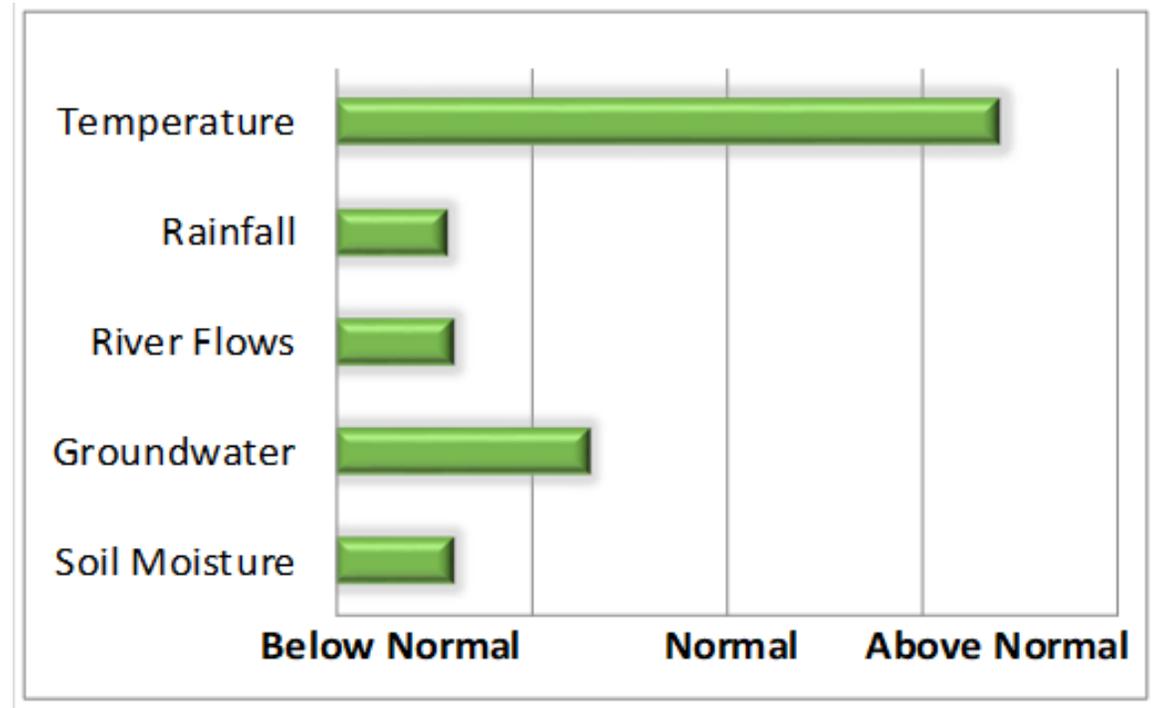
Temperature Above average
Rain Near normal
River flows Near or below normal
Soil moisture Near or below normal

source : NIWA

For more information

www.hbrc.govt.nz

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RAINFALL

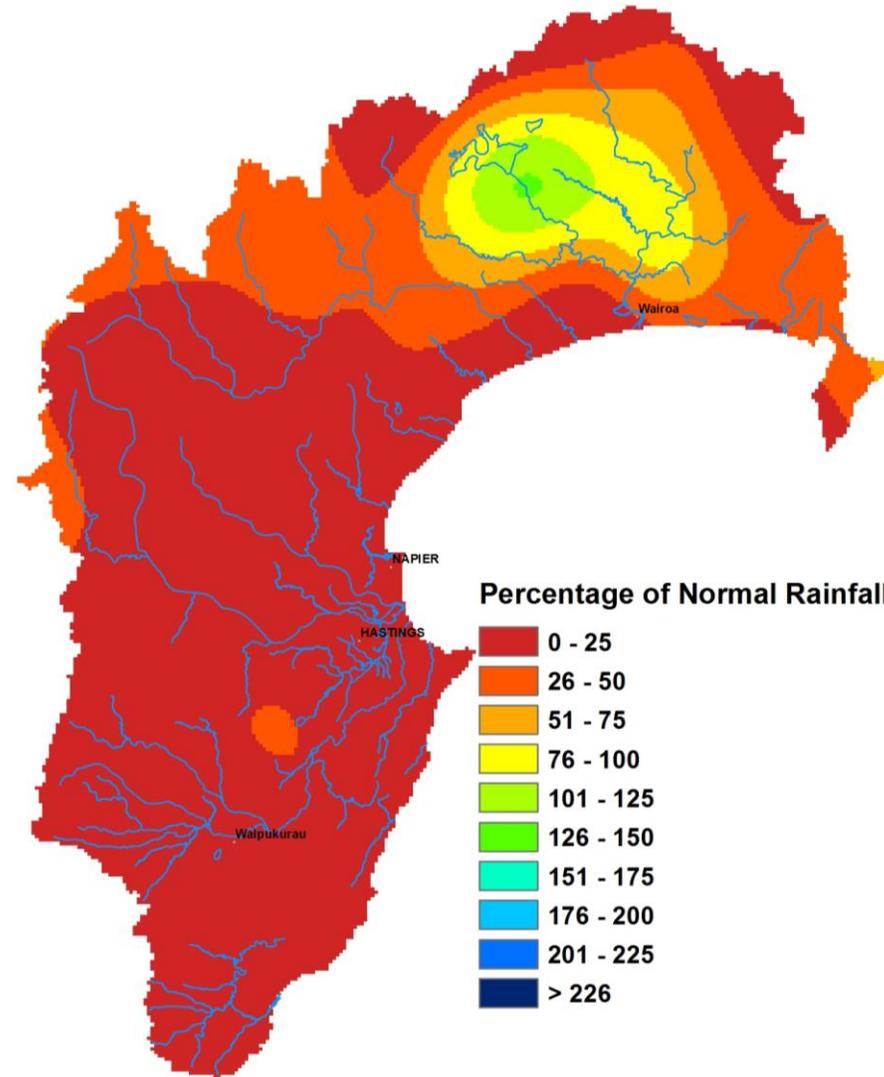
Super dry. Well below normal, except in northern areas.

Percentage of normal February rainfall
(30 year average)

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

For areas in the region:

| | |
|---------------------------|------------|
| Waikaremoana | 71% |
| Northern HB | 52% |
| Tangoio | 12% |
| Kaweka | 15% |
| Ruahine | 8% |
| Heretaunga Plains | 9% |
| Ruataniwha Plains | 11% |
| Southern HB | 9% |
| Hawke's Bay Region | 23% |



TEMPERATURES

Outstanding.

Mean Difference from Normal

Maximum Temperature: 3 °C

Minimum Temperature: 1.7 °C

Mean Daily Maximum: 25 °C

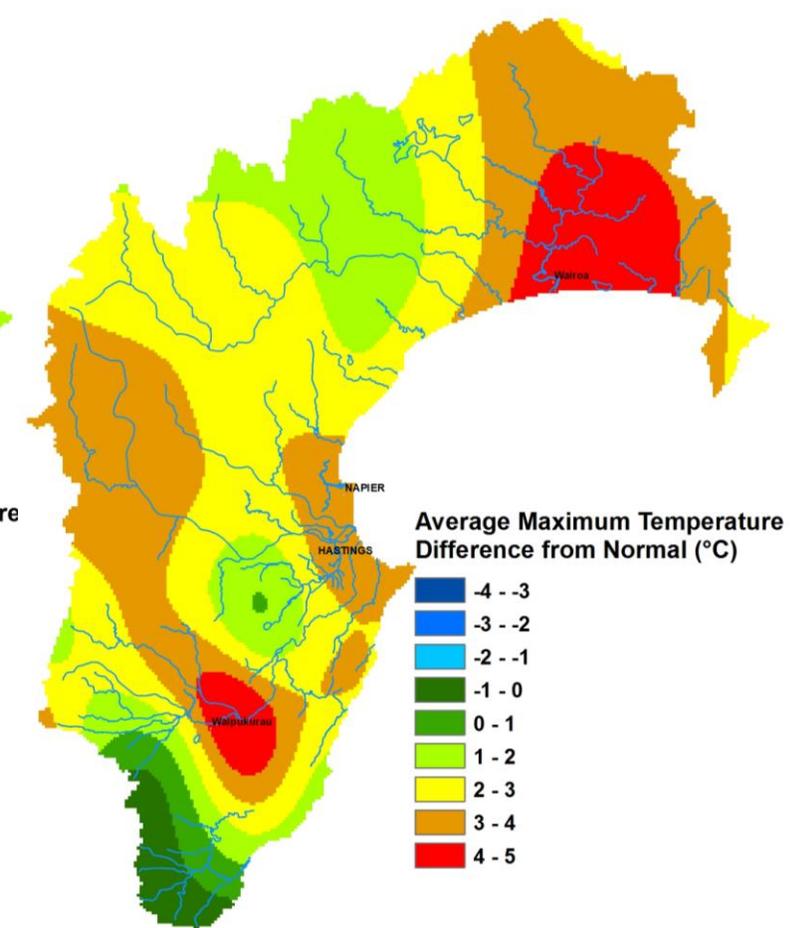
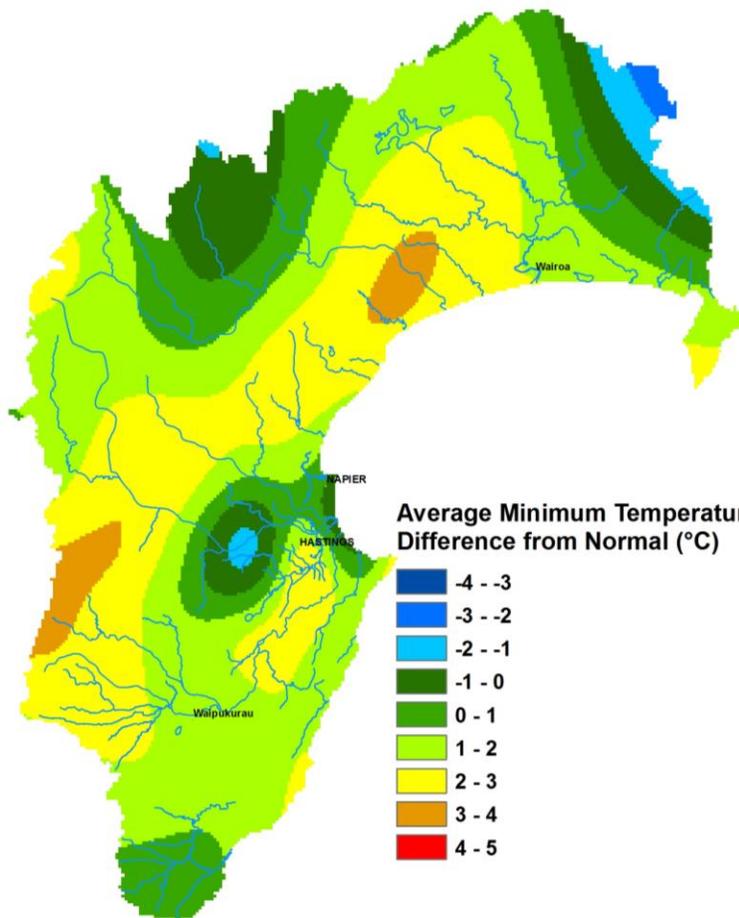
Mean Daily Minimum: 14 °C

Highest Daily: 37.4 °C

Location: Napier Aero AWS

Lowest Daily: 4.4 °C

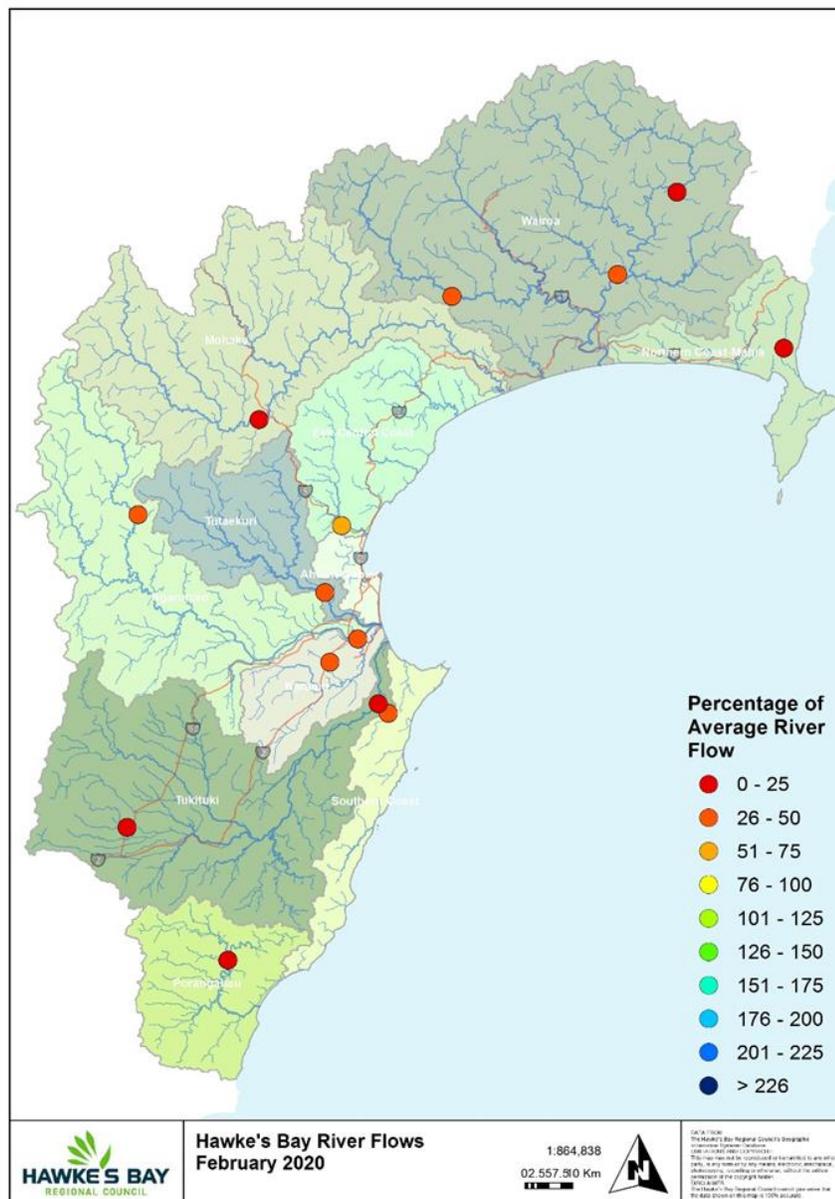
Location: Taharua



RIVER FLOW

Percentage of average February flows for areas in the region:

| | |
|------------------------------|------------|
| Northern Coast – Mahia | 21% |
| Northern HB – Hangaroa River | 25% |
| Northern HB – Wairoa River | 30% |
| Northern HB – Waiau River | 38% |
| Mohaka | 24% |
| Esk-Central Coast | 55% |
| Tūtaekuri | 32% |
| Karamu | 46% |
| Ngaruroro – Kuripapango | 37% |
| Ngaruroro – Chesterhope | 41% |
| Southern Coast | 48% |
| Tukituki – Tukipo River | 10% |
| Tukituki – Tukituki River | 14% |
| Porangahau | 0% |
| Hawke's Bay Region | 30% |



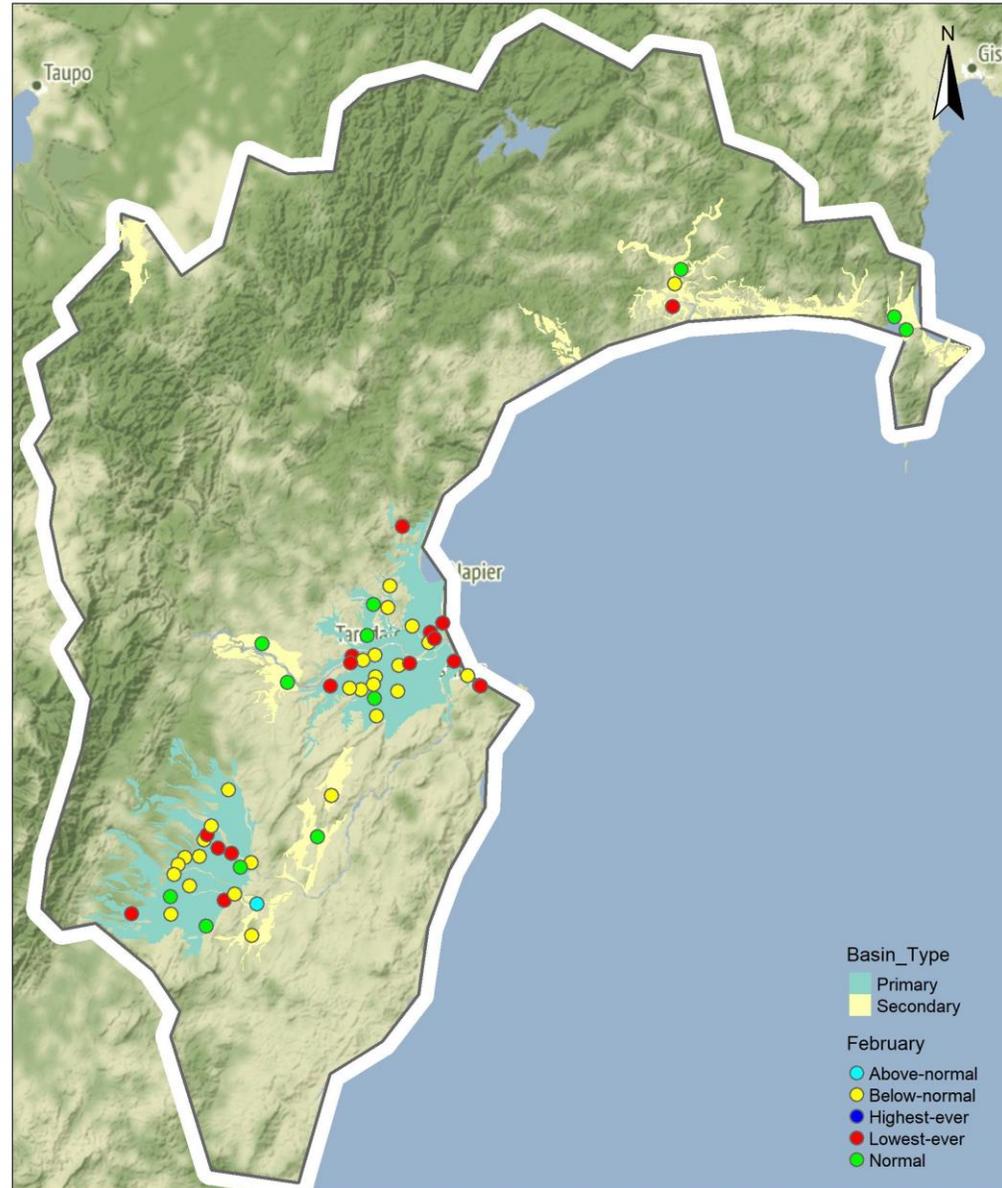
GROUNDWATER & SOIL MOISTURE

Soil Moisture: Below normal except in northern areas.

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.



Recreational Water Quality

Water quality at our recreational swim sites was generally pretty good throughout February.

A much needed heavy spell of rain in the North of the region brought about a number of rainfall related exceedances.

Waipatiki Lagoon continues to perform poorly this season along with the Clive.

The lack of rainfall in the South has at least had the positive consequence of zero exceedances for the entire month, with nothing south of the Te Awanga exceeding.

So get out there and make the most of the warm water temperatures before they are gone!



LONGER FORECAST

The El-Niño Southern Oscillation is in neutral mode so isn't a player in our weather looking ahead.

The pattern we've seen of late may not change a great deal – low pressure systems barrelling down or through the Tasman Sea then sweeping up the country from the southwest and fizzling as they battle a ridge of high pressure over northern New Zealand.

The warmer than usual waters around us may help to give those systems more longevity and oomph. Most of the forecast models pick normal rainfall for us over the next three months, normal or above normal temperatures and lean towards an easterly aspect to the flow. Admittedly I feel like I've said that before but the delivery has been suspect.

Tropical cyclone activity is currently subdued but may spark in to life for a time in mid-March and offer another avenue for delivering rain if they eventuate and head New Zealand's way.

Kathleen Kozyniak
Principal Scientist - Climate and Air