



# Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

November 2020

  
**HAWKES BAY**  
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

## November 2020

November's summary can't go without mention of the torrential rain on the 9<sup>th</sup>, the aftermath of which some people are still dealing with. Cheers to all who offered me a lift home that day but it's a short bike ride so I figured how bad could it be?

Diabolical as it turned out. Being short has no advantages whatsoever and being short wading through the approximately 250 mm that fell within 12 hours, made orifices vital to breathing feel way too close to the action. Mind you, a rainfall rate that peaked around 60 mm/h left little oxygen in the air to breathe anyway.

Rainfall on the 9<sup>th</sup> was enough to swamp the month's long term average but then it kept coming. We had more than 300% of normal November rainfall on the Heretaunga Plains and south coast. In comparison the Ruahine Range posted a modest 127%. November's river flows rebounded dramatically, hitting almost 200% of the long term average in the Ngaruroro River and an astounding 700% at a site in Wallingford. Crikey.

Best news ever is that groundwater levels showed a return to normal levels. And bonus – those measurements were taken prior to rainfall on the 9<sup>th</sup>! What joy awaits in December's readings? Soils are sopping, which is a technical term (not) for soggy. Soil moisture levels haven't been able to retreat from field capacity, which they hit early in the month. To top off a month of excess, temperatures were above average too. Dire weather can play havoc with our recreational water quality results and while some of our bathing spots showed the strain, others fared really quite well.

**Kathleen Kozyniak**  
**Principal Scientist - Climate and Air**

## SUMMARY November 2020

Phenomenal. Extremely wet and warm to boot.

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

### December to February Forecast.

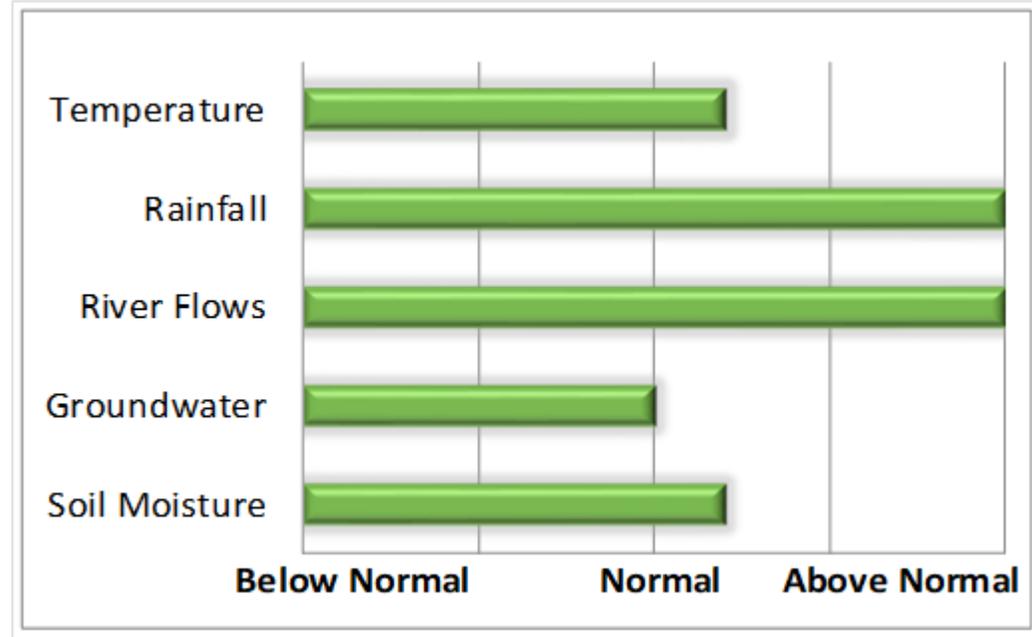
Temperature    Above average  
Rain            Above or near normal  
River flows    Near normal  
Soil moisture   Near normal

*source : NIWA*

**For more information**

**[www.hbrc.govt.nz](http://www.hbrc.govt.nz)**

**P: 06 835 9200**



## RAINFALL

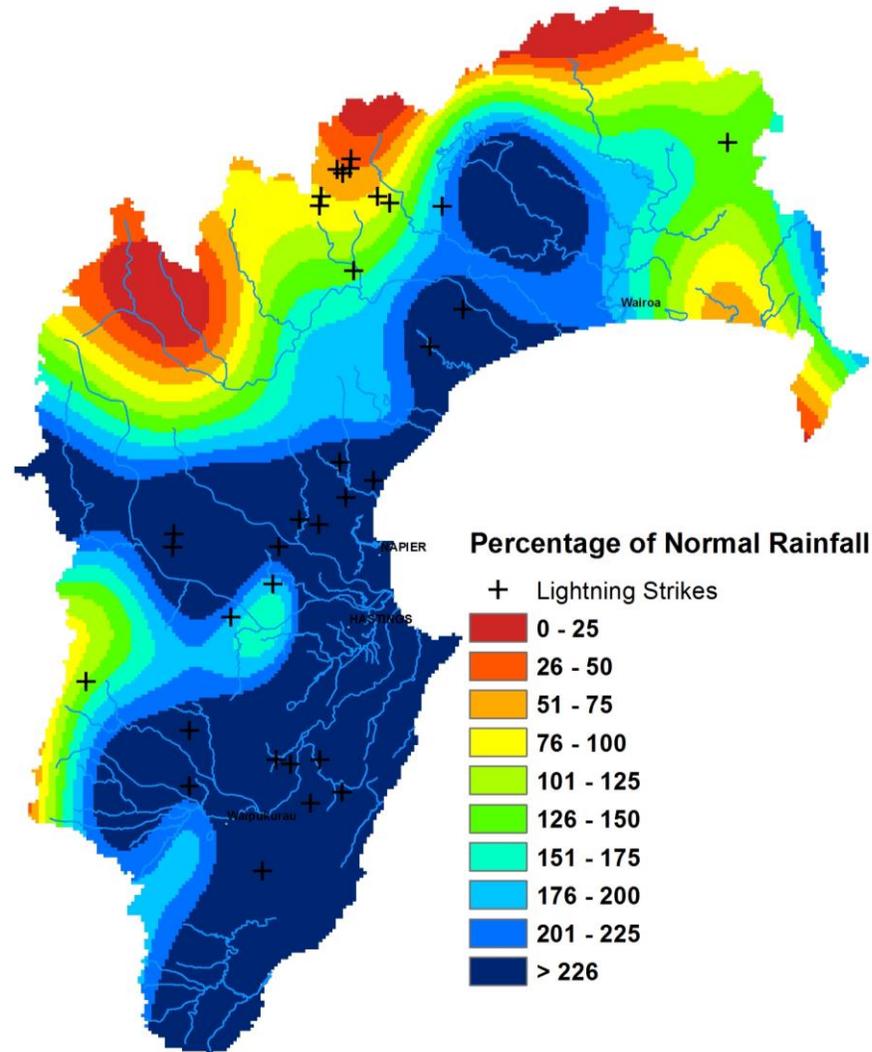
Quite something. Well above normal. Thirty two cloud to ground lightning strikes.

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

Percentage of normal November rainfall  
(30 year average)

### For areas in the region:

Waikaremoana	169%
Northern HB	189%
Tangoio	219%
Kaweka	180%
Ruahine	127%
Heretaunga Plains	328%
Ruataniwha Plains	246%
Southern HB	320%
<b>Hawke's Bay Region</b>	<b>222%</b>



## TEMPERATURES

Above average, especially nights.

Mean Difference from Normal

Maximum Temperature: 0.7 °C

Minimum Temperature: 1.2 °C

Mean Daily Maximum: 19 °C

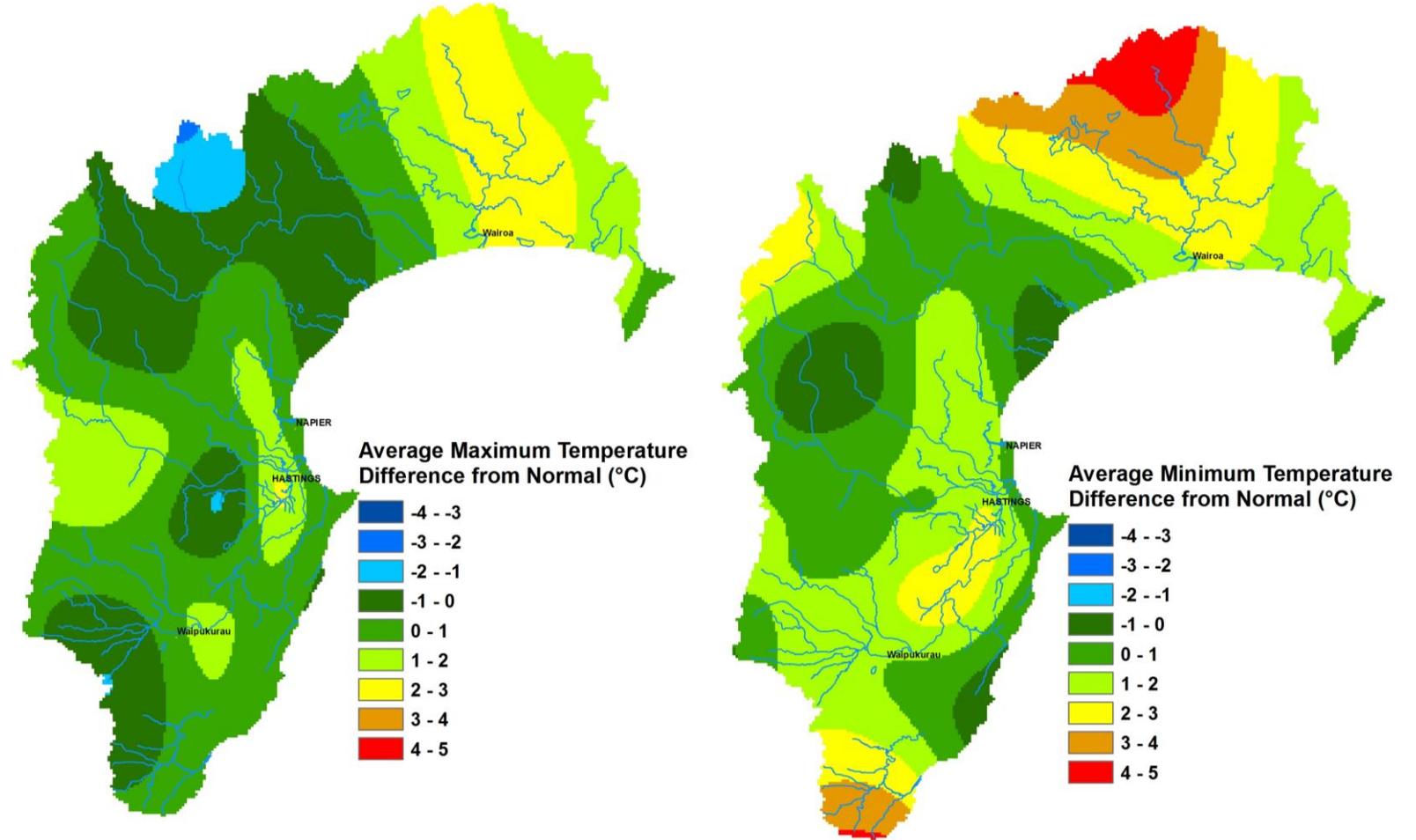
Mean Daily Minimum: 10°C

Highest Daily: 28.5°C

Location: Wairoa North Clyde EWS

Lowest Daily: 1.1 °C

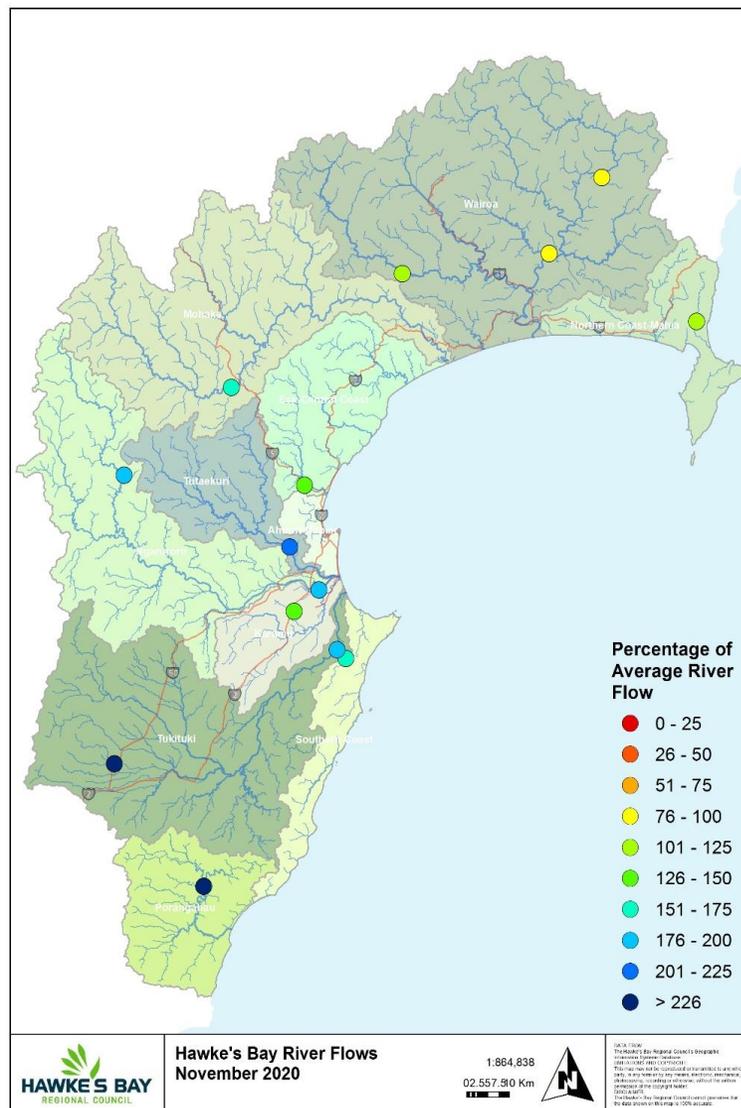
Location: Taharua



## RIVER FLOW

Percentage of average November flows  
for areas in the region:

Northern Coast – Mahia	111%
Northern HB – Hangarua River	82%
Northern HB – Wairoa River	97%
Northern HB – Waiau River	117%
Mohaka	153%
Esk-Central Coast	129%
Tūtaekuri	210%
Karamu	134%
Ngaruroro – Kuripapango	190%
Ngaruroro – Chesterhope	193%
Southern Coast	169%
Tukituki – Tukipo River	338%
Tukituki – Tukituki River	195%
Porangahau	758%
<b>Hawke's Bay Region</b>	<b>205%</b>



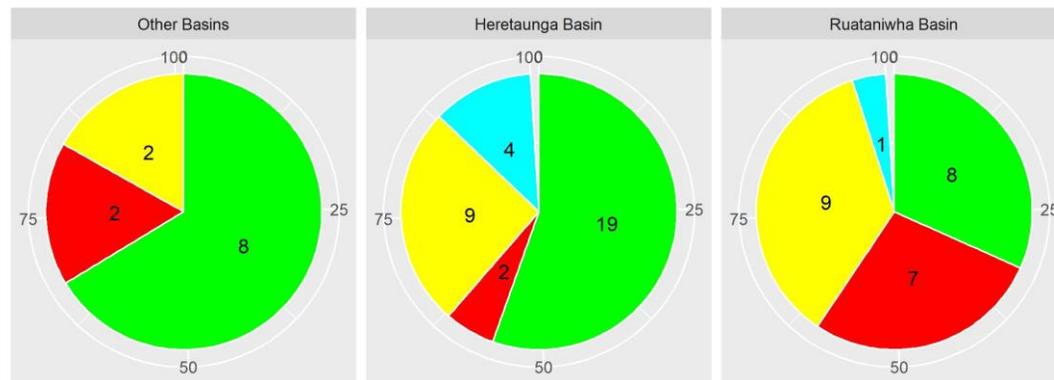
## GROUNDWATER & SOIL MOISTURE

**Soil Moisture:** Above normal and at field capacity.

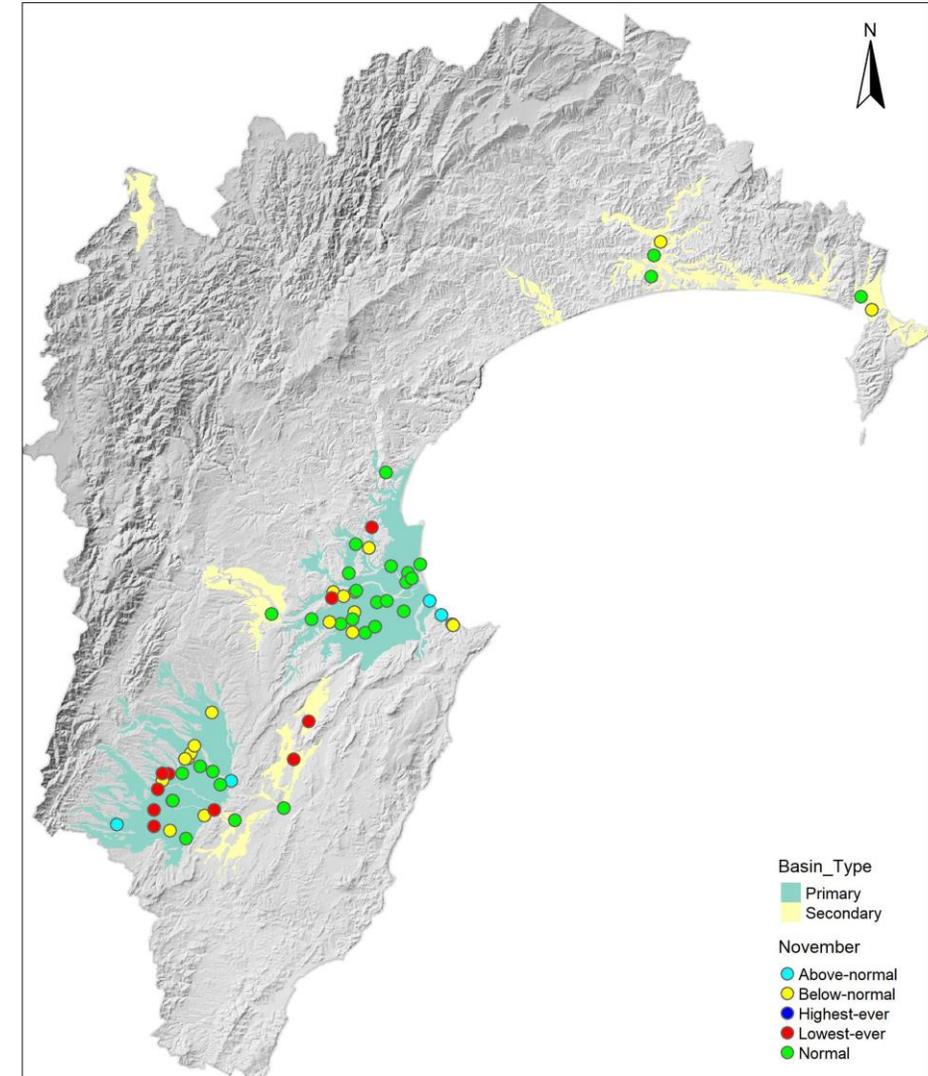
### Current state of Groundwater levels:

This report compares groundwater levels in November 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  
 ■ Lowest-ever  
 ■ Normal



## RECREATIONAL WATER QUALITY

The Recreational Water Quality Monitoring programme for the 2020-21 season has kicked off with a bang.

The variable weather over November threw us some real curve balls, resulting in a handful of rainfall related exceedances, mostly impacted river and estuarine sites.

Kairakau Lagoon and Porangahau Estuary have been the worst performers during November for both rainfall and non-rainfall related exceedances



## LONGER FORECAST

La Niña persists and, as mentioned before, may extend into autumn. Seasonal forecast models seem to agree that we'll see normal or above normal rainfall, warmer than usual temperatures and a predominantly northeast wind flow. The latter is due to an expectation sea level pressures will be higher than normal over the south of the country and to the east and lower than normal to the northwest.

Hopefully that means we won't be without some extended fine spells to enjoy during the holiday season. MetService is picking we'll get that in December, so if the three month forecasts are right, the wetter weather may be our welcome into 2021.

**Kathleen Kozyniak**  
**Principal Scientist - Climate and Air**