

# Hydrology information for the situation report – 18 February 2020

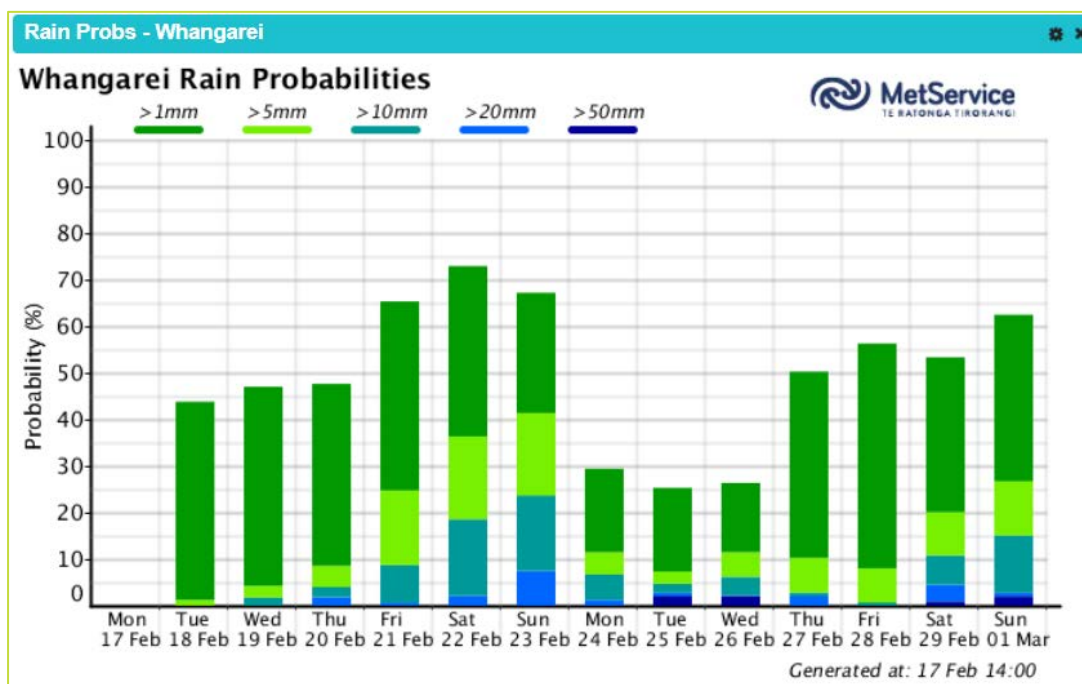
## Current weather situation

The dry weather continues to plague Northland, daily maximum temperatures still hovering between 25-27 degrees over the weekend. The soil moisture deficits are reaching a critical point at the NIWA climate station in Warkworth.

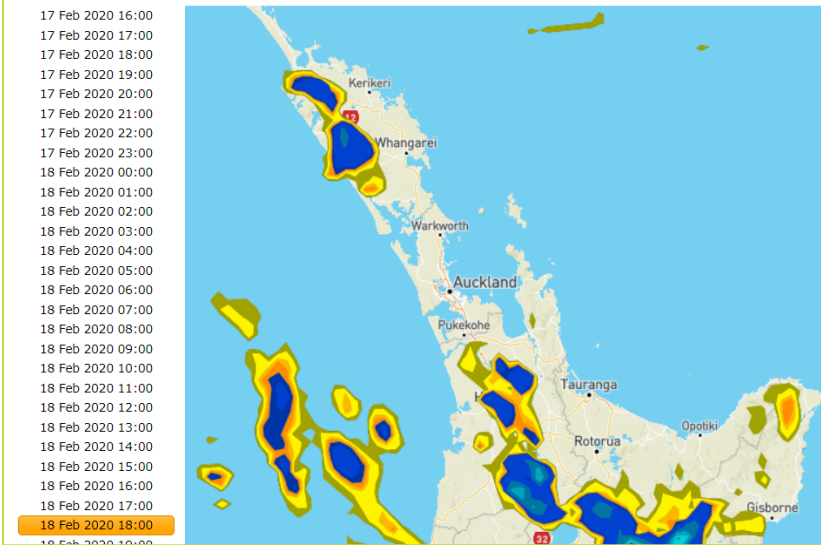
## MetService outlook

The forecast models indicate some isolated showers across Northland over the coming days, but nothing of significance. The probability of Whangārei receiving more than 50mm this week is below 5%.

### Whangārei rain probabilities



## Modelled Forecast Fields - Rain [Model Of The Day]



## Rainfall

The mid North received some very light rain Sunday morning (16/02/20), the top three rainfall amounts were recorded at the below stations:

- Kerikeri: 6mm
- Kaeo: 4mm
- Waitangi: 3.5mm
- Rivers in the above catchments recorded a slight lift of 10-20mm

The centres received:

- Kaitaia: 0mm
- Kaikohe: 3mm
- Dargaville: 0mm
- Whangarei: 0.2mm

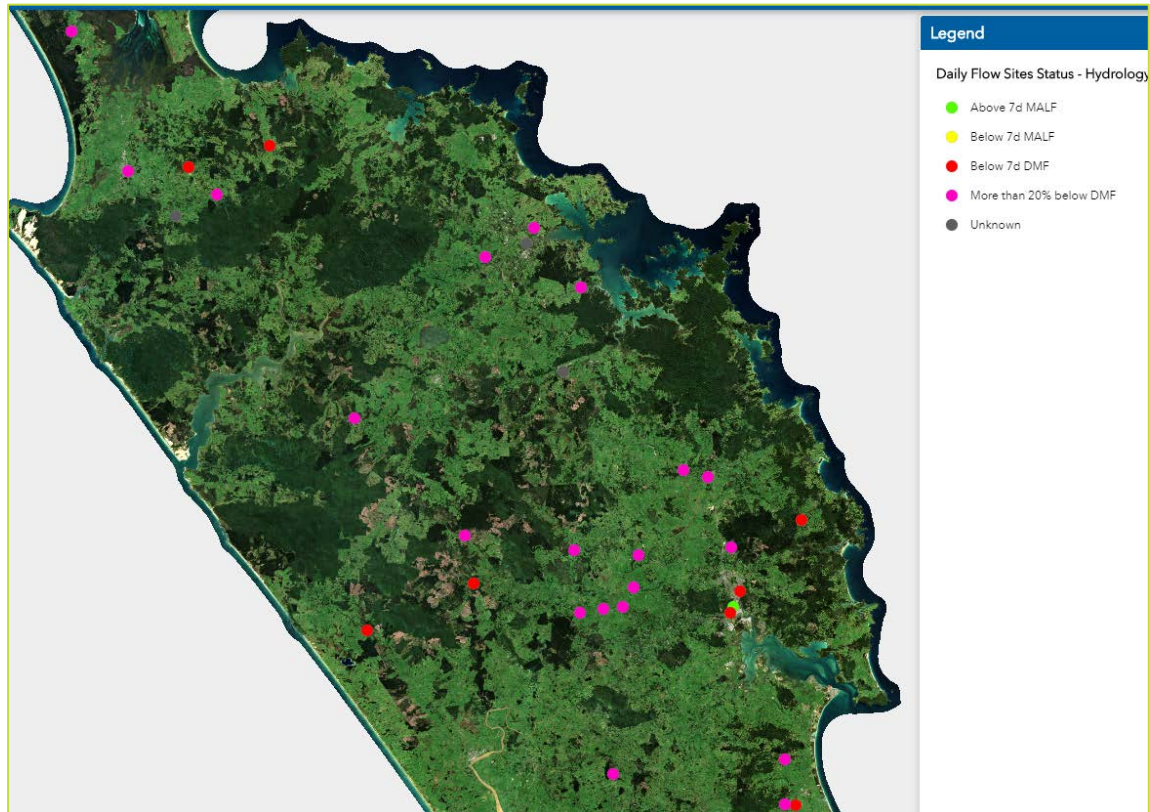


## River flows

All rivers flows across the region are continuing to decline with 90% of NRC river stations running below drought flows (DDF: designed drought flow).

The Whakapara and Wairua stations show the catchments are at the lowest flows since records began in 1960. WDC have an emergency water take consent from the Wairua if Whau Valley dam water level drops below 50%. Analysis is underway to predict the flows in the lower reach of the Wairua over the coming months to assess capacity if the emergency consent is required.

### Drought flow map:



For update to date river flows refer to:

<https://www.nrc.govt.nz/environment/river-and-rainfall-data/river-and-rainfall-data/#hilltop-droughtinfo>

# Groundwater levels

Groundwater levels across Northland continue to decline.

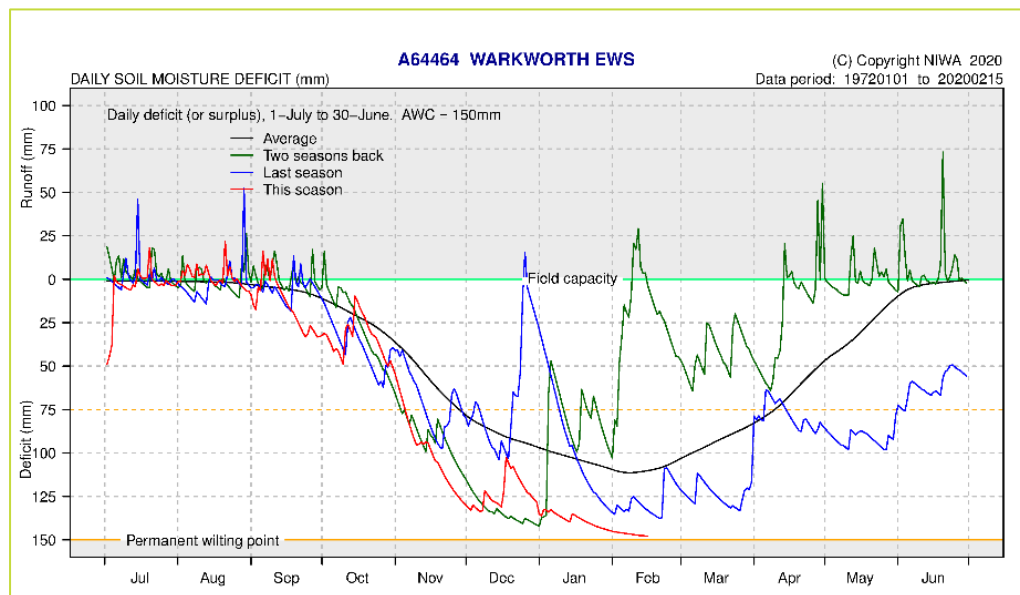
- The NRC Poroti Spring groundwater station indicates the spring recharge water levels were the lowest since records began in 1980, it is likely the system will reach a record low in April/ May 2020.
- The NRC Ruawai groundwater station indicates the aquifer is tracking down towards to the water level observed in the 2013 drought, which was regarded as a severe drought for the district.

# Soil moisture deficits

The Soil moisture deficits at the Warkworth station are approaching the permanent wilting point. Plants will begin die once pass soil moisture deficits exceed below 150mm.

### NIWA Climate Stations:

NIWA CLIMATE STATION	Soil moisture deficit (mm) as of 15/02/2020
Kaitiāia	-146
Kaikohe	-141
Kerikeri	-138
Dargaville	-148
Whangārei	-147
Warkworth	-149



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