

Hydrology information for the situation report – 21 February 2020

Current weather situation

The dry weather continues across the region, maximum daily temperatures of 24-30 degrees recorded at the main centres from 17/02/2020. The recent change to SW winds has reduced the maximum daily temperatures.

The light rain on Sunday delivered the highest rainfall of approximately 11mm to the Whangārei, Paparoas and Hakaru catchments.

MetService Outlook

Key points from MetService Chief forecaster regarding long range issued 21 February 2020:

- Week 2 & 3 signal spotty rain, but not enough rain to break the drought, easterlies and humid conditions predicted
- Break from constant dry signal in the models
- No indication of a tropical cyclone tracking towards Northland based off the latest model run.
 - TC Vicky is predicted to weaken as it moves south east of Niue

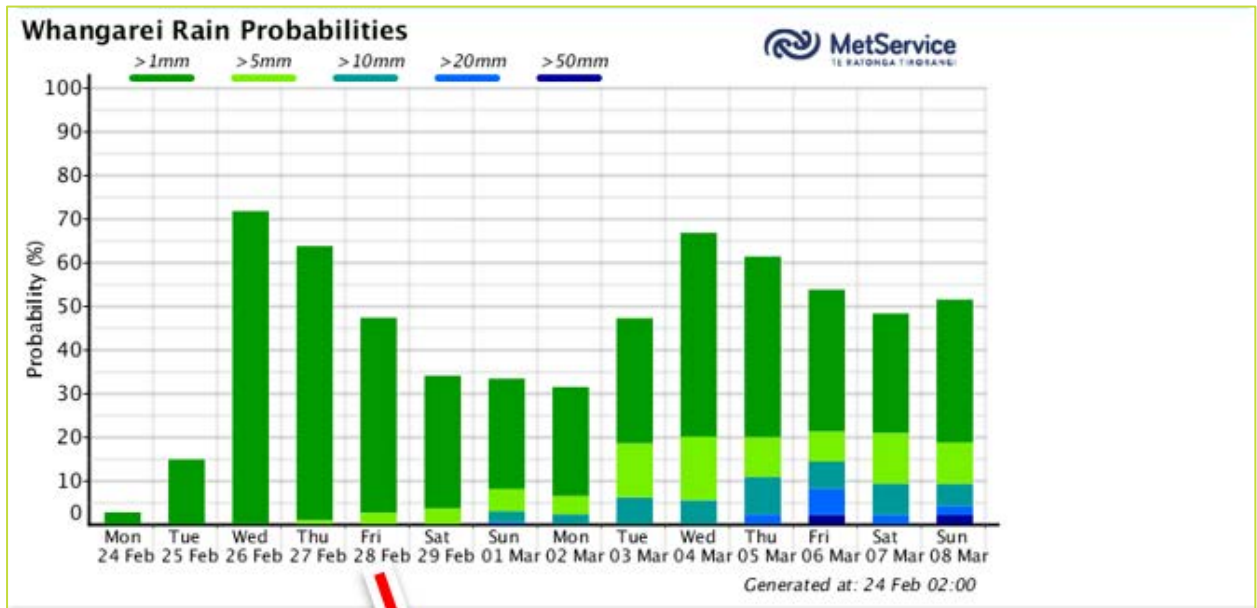
Long term: 4x weeks:

- Warmer than average temperatures over the next 4x weeks
- Dry rainfall signal for week 1 & 4,
- Wet signal week 2 & 3, likely only scattered showers.
- The pattern of high-pressure systems locking in over Northlands continues, now the 5th month in row.

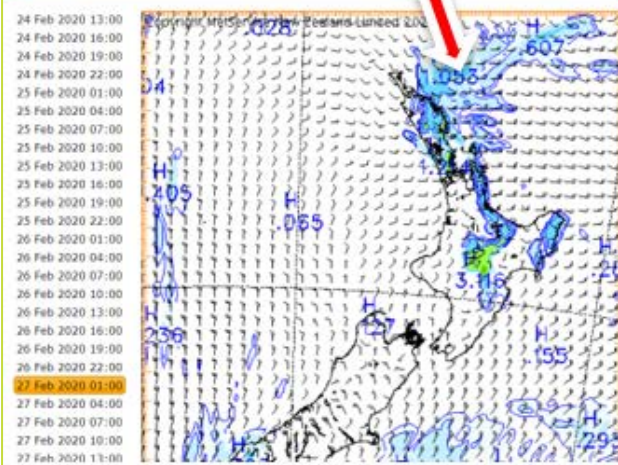
Short term: 3-5 days:

- Small amount rain from the North east predicted for this Friday (28/02/2020), likely 5-10mm, similar to the rain over the weekend:
- Low risk of thunderstorms Monday evening affecting inshore areas along the southern part of Northland east coast.

Whangārei rain probabilities



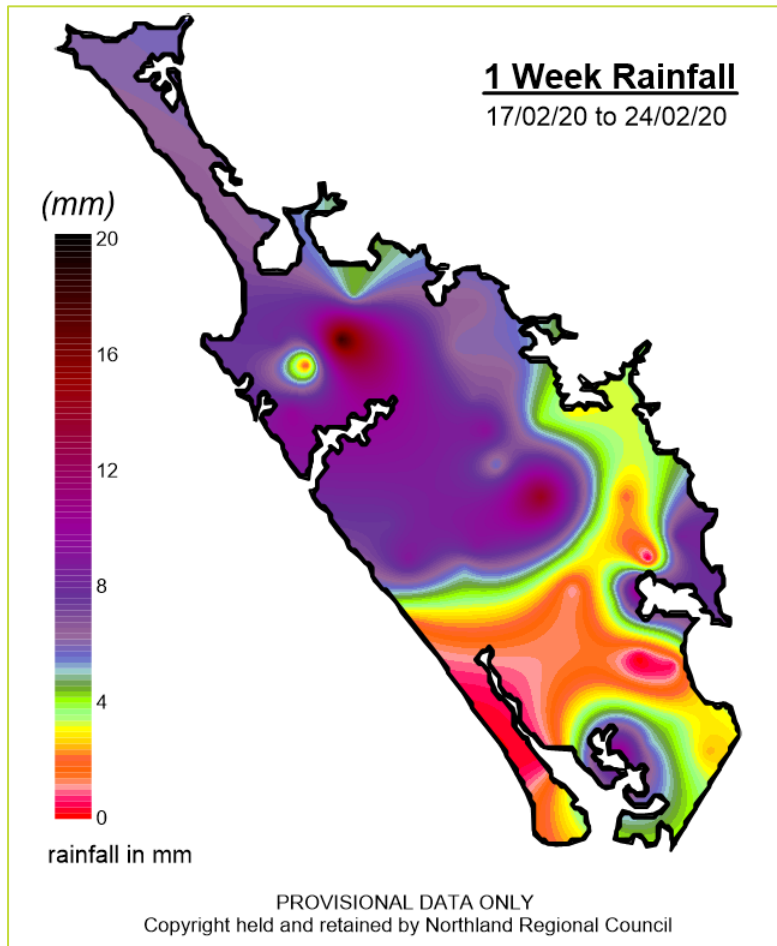
Rain and Snow Three Day Forecast - Model Of The Day



Rainfall

Rainfall for the last seven days from 17/02/2020 has been low, 50% of stations recording less than 5mm, shown as red & orange in the map below:

Rainfall map (mm) : 17/02/2020 -24/02/2020



Since 01 January 2020, less than 6mm has been recorded at the below raingauges, which is significant. To have only single digit rainfall occuring over consecutive months is highly unusual:

- Taheke: 3.5mm
- Kaiwi lakes: 3.5mm
- Pouto Point: 5.5mm

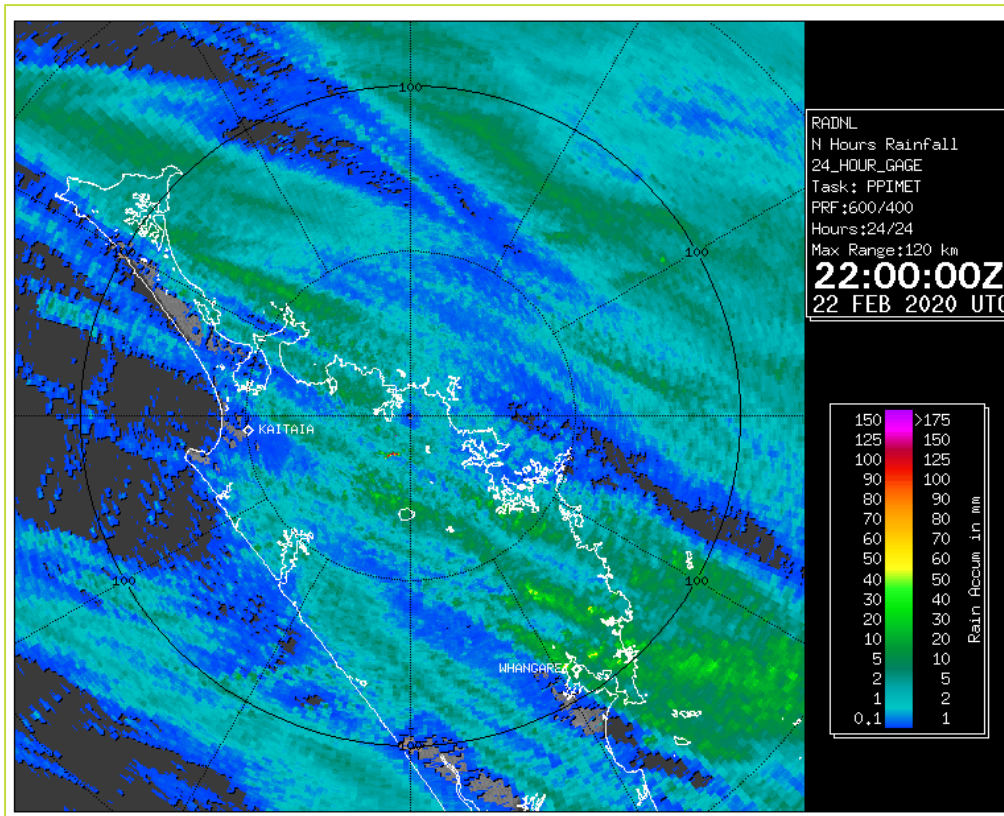
Summary for rain on 22 Feburary 2020:

Most of NRC rain rauges recorded up tp 5mm from the light rain on 22 Feburary 2020.

Zero rain recorded at the below rain gauges:

- Kerikeri, Ruawai, Mnagakahia, Otiria, Genbervie, Waipao, Bream Bay,

The radar image below show the rainfall accumulated over the last 24 hours from 11am Sunday morning(23/02/2020). The rain was wide spread but very light. We want to see yellow and red colours = 50mm and more



The top three rainfall amounts were recorded at the below stations for each district:

FNDC

- Waitangi 9.5mm
- Te Puhi: 6.5mm
- Opononi/ Rotokakahi: 5.0mm

WDC

- Waiarohia: 11.8mm
- Marsden 6.5mm
- Ngunguru: 5.5mm

KDC

- Paparoa's/ Hakaru: 11.0mm
- Tutmoe: 8.5mm
- Waimamuku: 8.0mm

Rivers in the above catchments recorded a slight lift of 10-50mm.

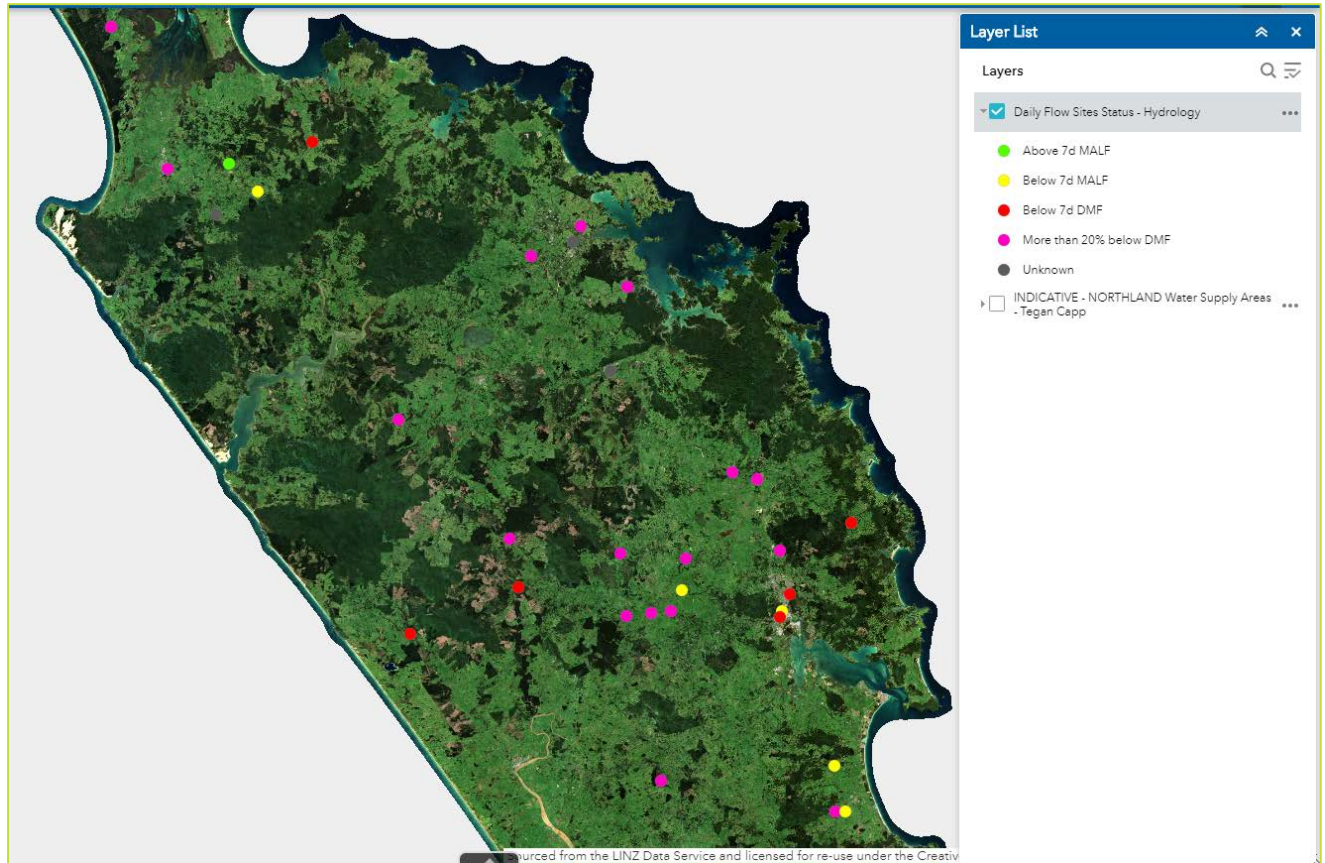
The centres received:

- Kaitaia: 1.4mm
- Kaikohe: 1.4mm
- Kerikeri: 0.6mm
- Dargaville: 0.8mm
- Whangarei: 7.8mm

River flows

The yellow and green dots on the drought flow map indicate the rivers over the drought minimum flows (DMF), as a result of the rain over the weekend.

Drought flow map:



For update to date river flows refer to:
www.nrc.govt.nz/environment/river-and-rainfall-data/river-and-rainfall-data/#hilltop-droughtinfo

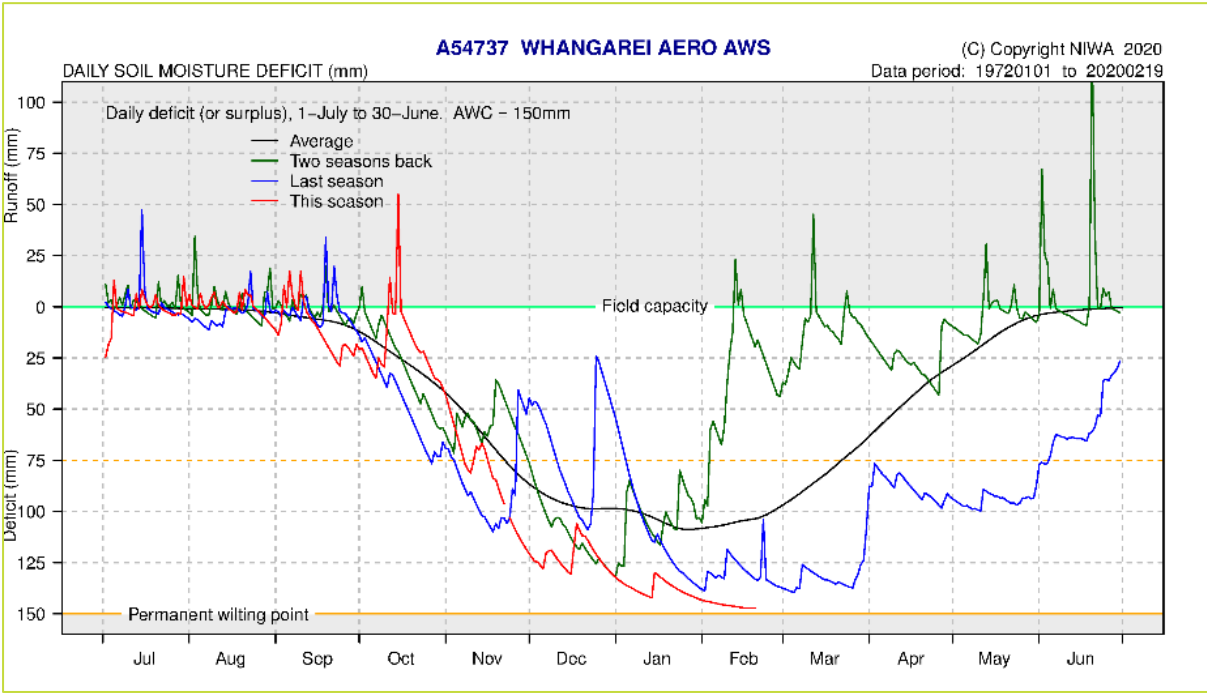
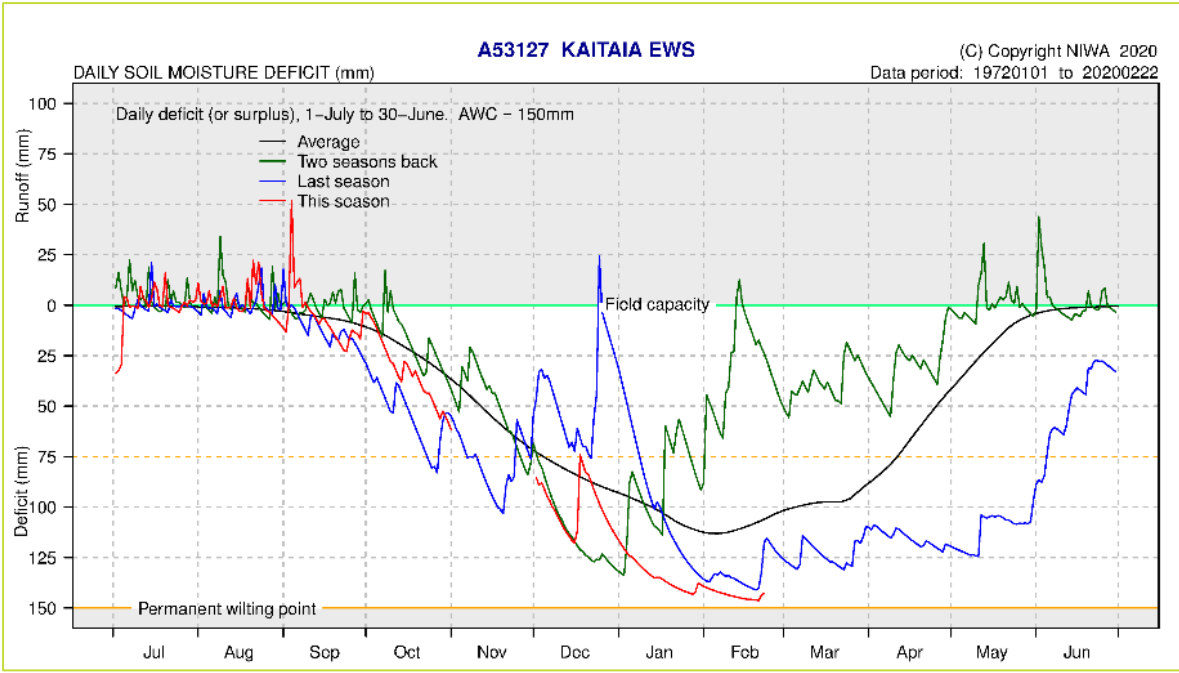
Groundwater levels

Nothing new to report

Soil moisture deficits

The recent rain (22/02/2020) caused a slight decrease in soil moisture deficits for the Kaitaia, Kaikohe, Kerikeri And Warkworth NIWA stations.

NIWA CLIMATE STATION	Soil moisture deficit (mm) as of - 18/02/2020
Kaitaia	-144
Kaikohe	-142
Kerikeri	-135
Dargaville	-148
Whangarei	-148
Warkworth	-148



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