

# Hydrology information for the situation report – 8 May 2020

## Current situation summary

Northland received some rain from a small event on the 3/5/20. Although a severe weather watch was issued, little rain eventuated from the event (< 50mm) with the bulk of the rainfall skirting the edges of the region.

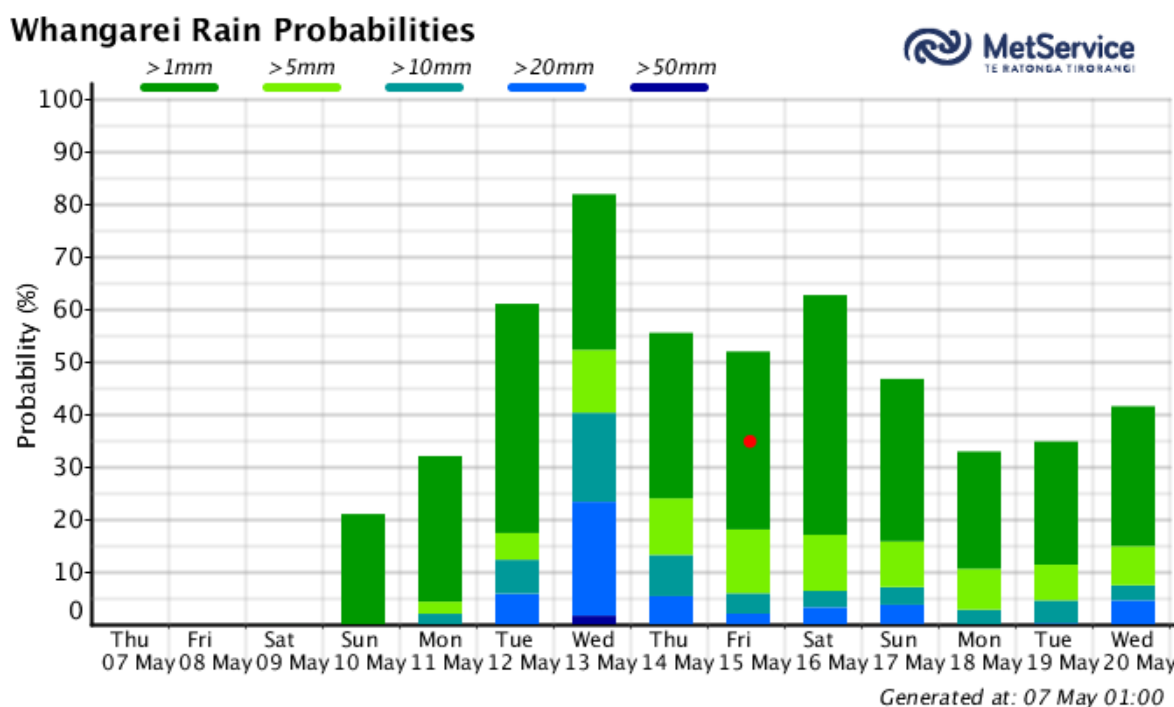
For the month of April most of the region received 40-60% of the typical rainfall for the month, and similar to previous months, the rainfall was not enough to elevate rivers above the extremely low river flows observed this year.

The region needs back to back months of above normal rainfall to climb out of the drought. We won't be getting much rainfall over the next 7 days to this end.

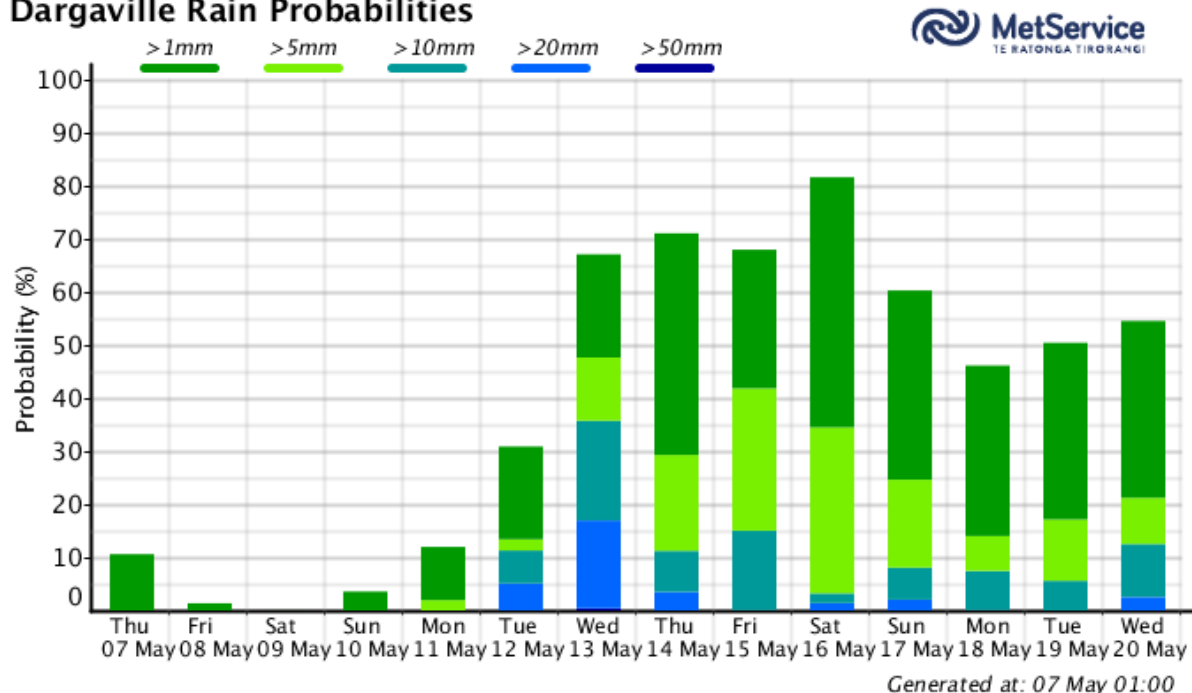
## MetService Outlook

### Short term: 3-5 days:

There is little rain in the forecast from the 7<sup>th</sup> to 12<sup>th</sup> May, with a high-pressure system being the dominant feature.



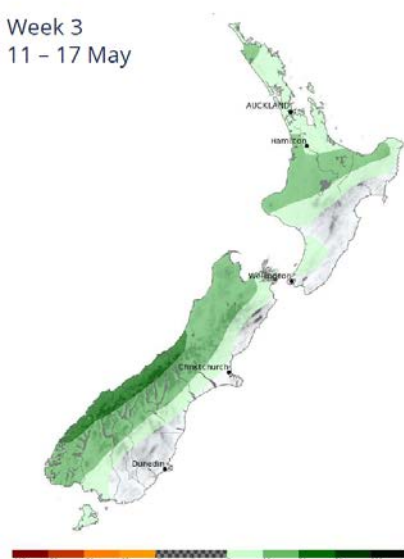
## Dargaville Rain Probabilities



## Long range:

### Weekly rainfall anomaly forecasts (deviation from weekly normal, mm)

Week 3  
11 – 17 May



Week 4  
18 – 24 May



Green colours indicate  
wetter than usual  
conditions, overall.

No shading indicates  
near average weekly  
rainfall totals

Orange colours indicate  
drier than usual  
conditions, overall.

- Week three from the 11<sup>th</sup> to 17<sup>th</sup> May is forecast to be wetter than usual, and the latest MetService forecast suggests this could be true, with a low developing north of New Zealand during this week. However, it is too early to have any real confidence in this forecast.
- There is high uncertainty for week 4.

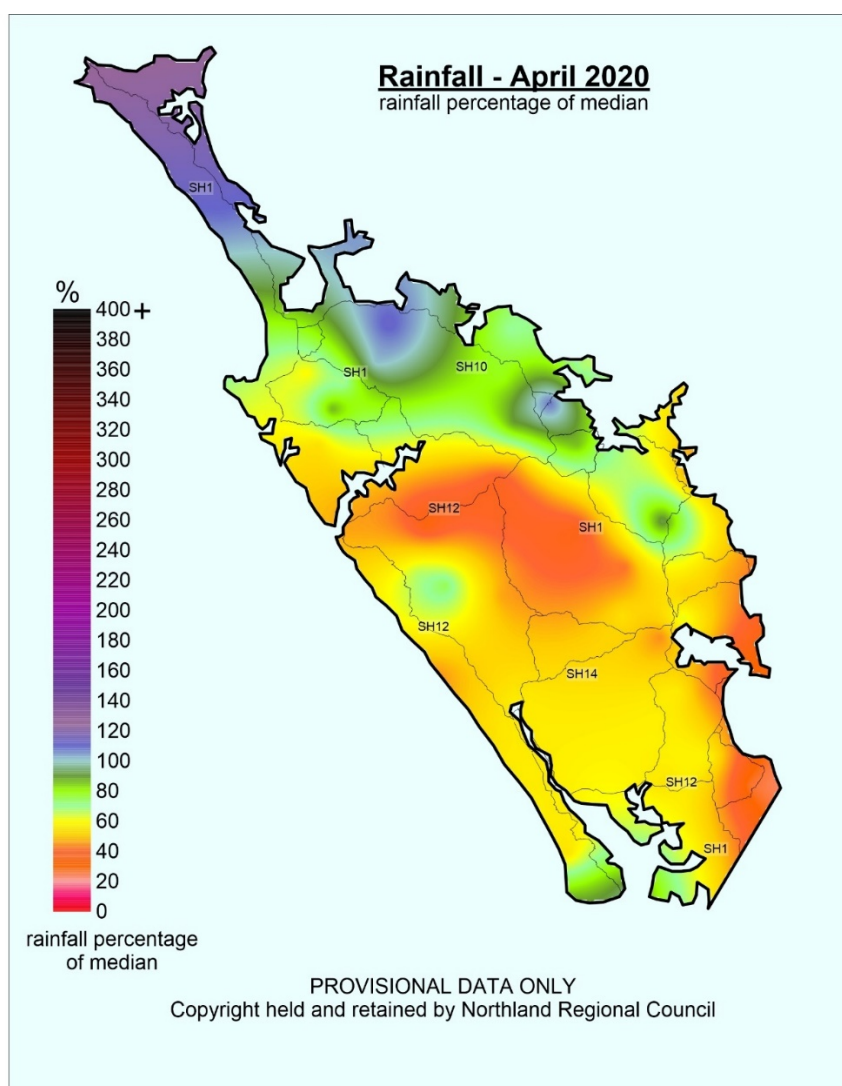
# Rainfall

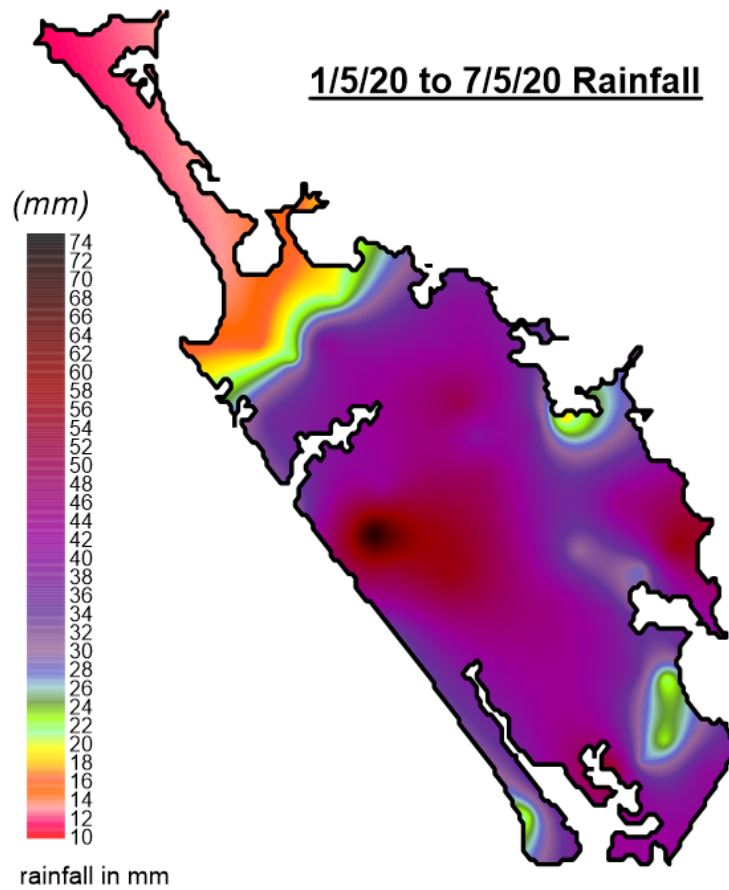
A low and associated front passed through Northland on the 3<sup>rd</sup> May delivering a small amount of rain in the order of 20 – 40mm. Fairly regular showers have occurred across the region subsequent to this event, delivering further small amounts of rain.

Northland needs back to back months of normal or higher than normal rainfall to escape this hydrological drought.

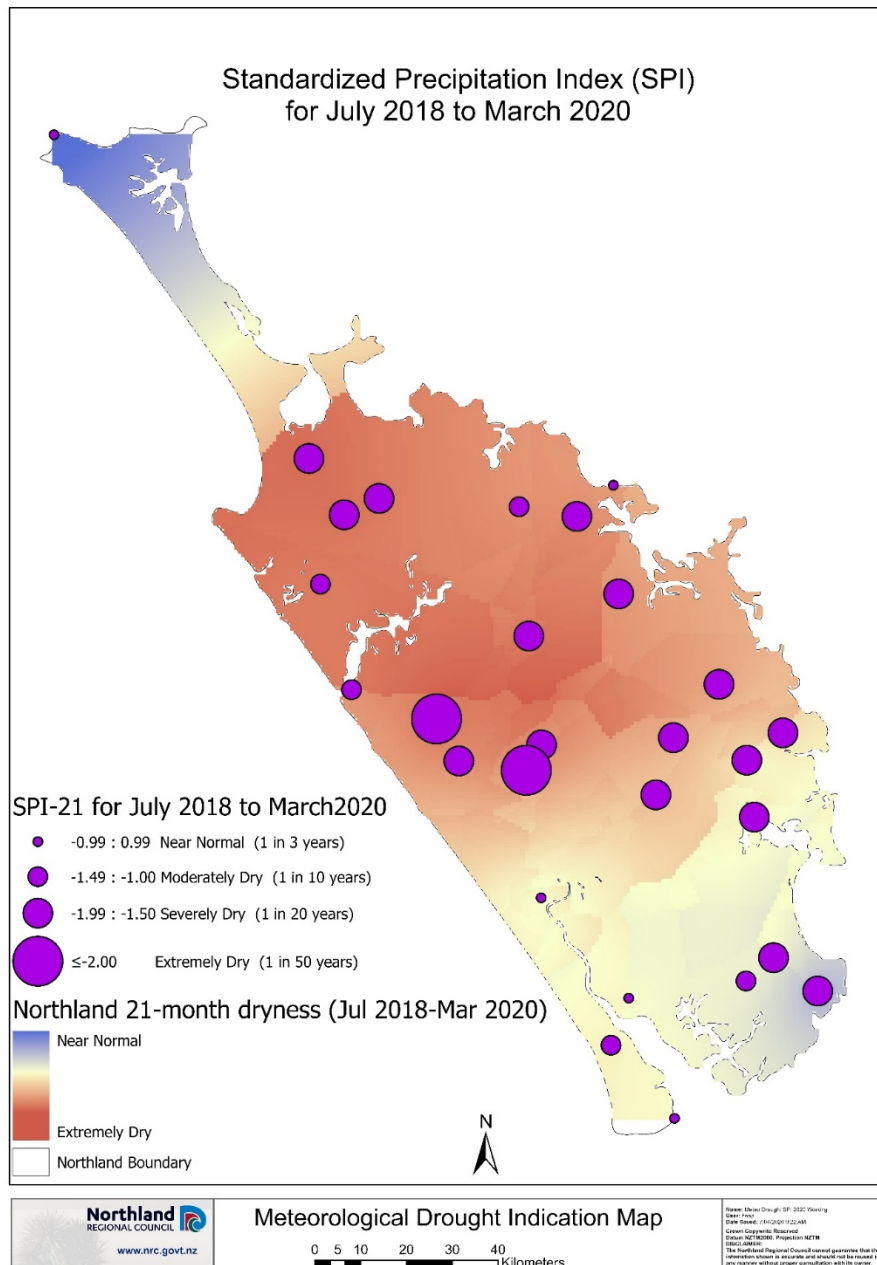
Top three rainfall totals for each district from 29 April 2020 – 7 May 2020

FNDC		WDC		KDC	
Waitangi	51.0mm	Ngunguru	58.0mm	Parataiko Ranges	72.5mm
Otiria	48.5mm	Opouteke	57.0mm	Paparoa	57.0mm
Kerikeri / Taheke	42.5mm	Mangakahia	56.0mm	Tutamoe Ranges	53.0mm
CENTRES					
Kaitiāia	18.2mm	Whangārei	30.8mm	Dargaville	21.0mm
Kaikohe	39.0mm				
Kerikeri	46.0mm				





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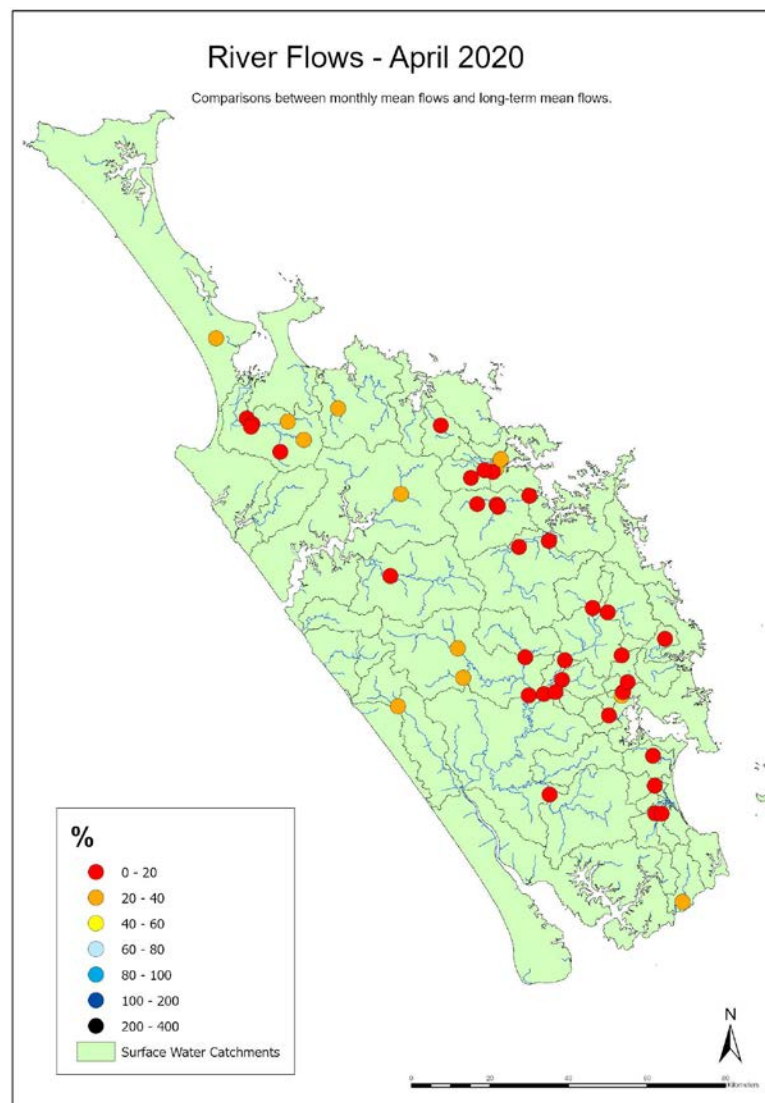


## River flows

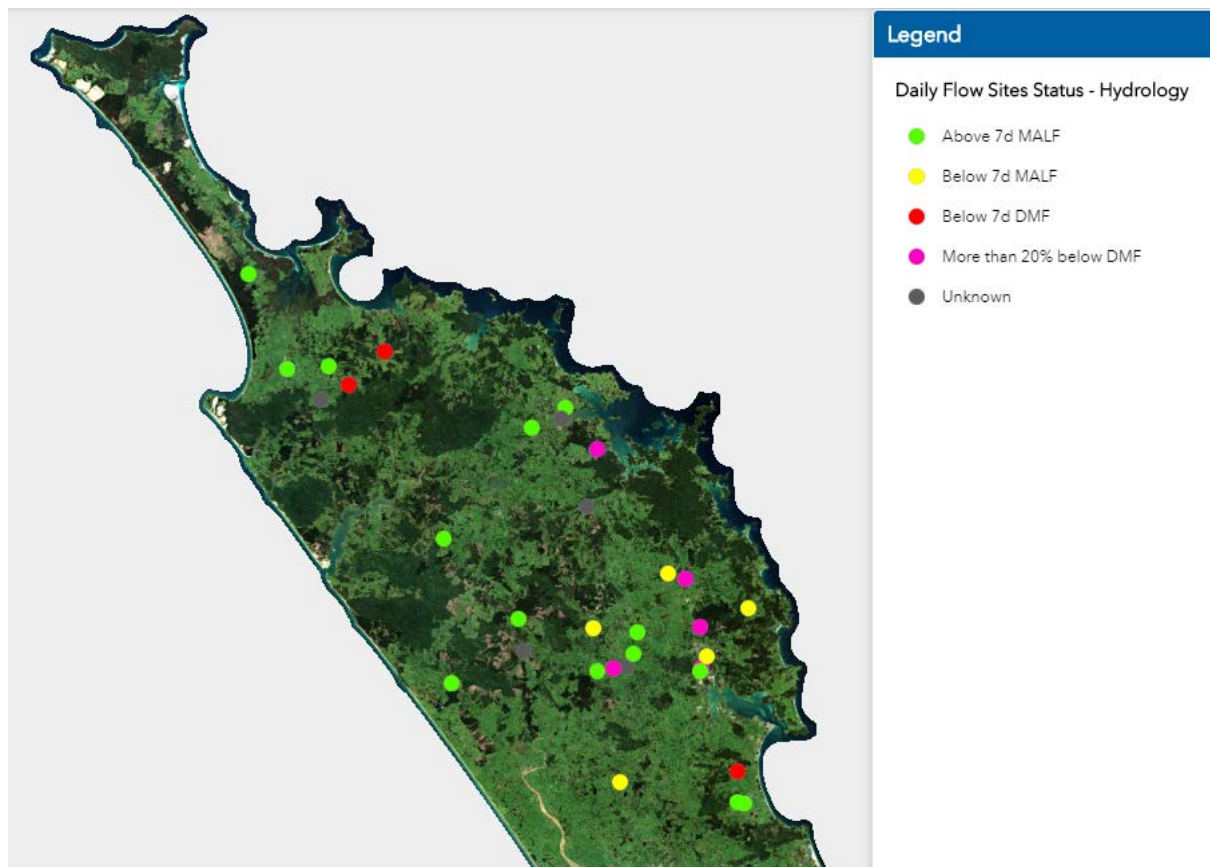
The river flows are up a bit after the rain on the 3/5/20, but have since dropped back down with around half below MALF and 25% below drought flows. River flows are expected to continue dropping over the next 7 days with a lack of rainfall, and many rivers including the Awanui, Kaihu and Waitangi, may be back below drought flows.

For the month of April most rivers remained extremely low, flowing at less than 20% of the typical for the month due to a clack of significant rainfall events and continuing low baseflows in Northland rivers.

Public water supply river flows (litres per second: l/s) as of 12pm 7 May 2020					
FNDC	WDC		KDC		
Awanui	1114	Hatea	195	Kaihu	2586
Wairoro	20	Ruakaka	53		
Waitangi	1626	Ahuroa	297		
Puketotara	297				
Petaka	3.2				



Drought flow map:



## Groundwater levels

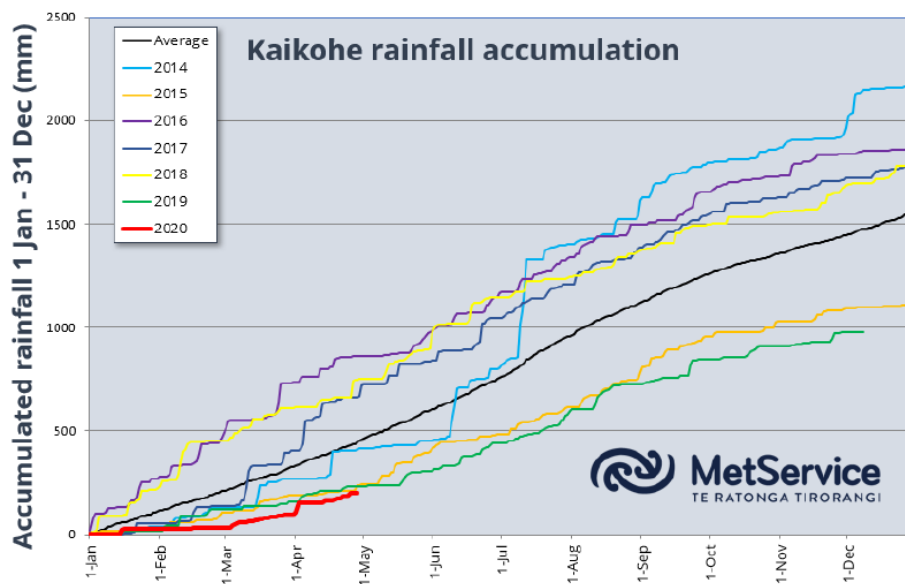
The Russell, Ruawai and Mangawhai groundwater systems have begun to recover but still remain below the 20<sup>th</sup> percentile levels for this time of year. Most other groundwater systems are below the 20<sup>th</sup> percentile for this time of year.

## Soil moisture deficits

NA

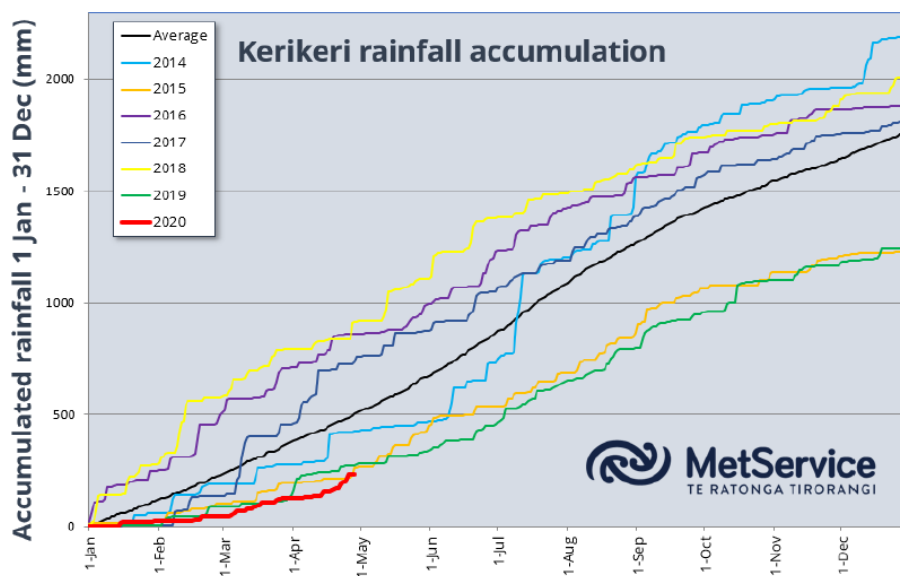
Appendix





After some “decent” rain in Northland in the last 2 weeks, Kaikohe is sitting at **45% of year-to-date average rainfall**, as at 28 April.

Kaikohe has recorded 94mm of rain so far in April.

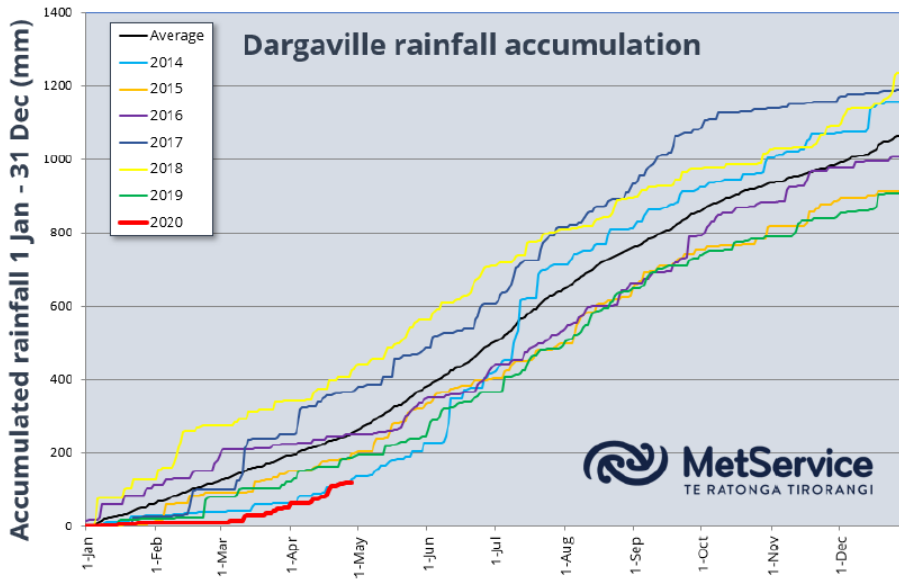


Kerikeri is sitting at **46% of year-to-date average rainfall**, as at 28 April.

Kerikeri has recorded 106mm of rain so far in April.

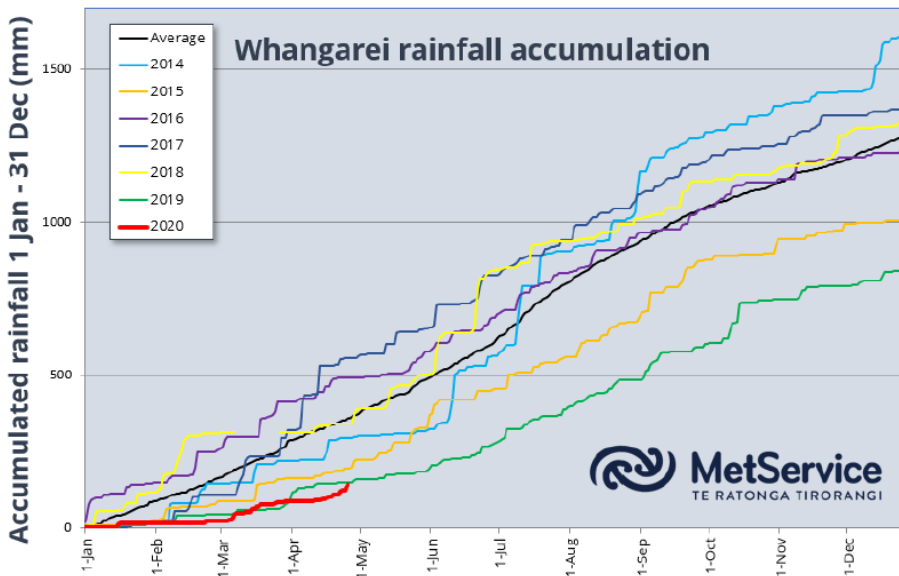






Dargaville is sitting at **47% of year-to-date average rainfall**, as at 28 April.

Dargaville has recorded 56mm of rain so far this month.



Whangarei is sitting at **40% of year-to-date average rainfall**, as at 28 April.

Whangarei Airport has recorded 56mm of rain so far this month.

