

DECEMBER 2017

Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

TEMPERATURES

RAINFALL

RIVER FLOW

GROUNDWATER & SOIL

RECREATIONAL WATER QUALITY

HAWKE'S BAY | Environmental Science
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December 2017

December's coldest days made like the relatives and visited during the holiday break. Thankfully, they didn't hang around and the month was otherwise hot. December wasn't overly wet but northern parts of the region hit New Year's Eve celebrations preloaded on roughly a month's worth of rain over four days. It helped top up rivers in those areas but elsewhere flows fell quite short of the December norm. Soil moisture closely guarded its seasonal treats and ended the month around average. The aquifers would appreciate a bit more benevolence. The spurts of inclement weather affected water quality in some of the region's swimming spots but you could usually find somewhere to flap your towel.

Kathleen Kozyniak

Principal Scientist Climate and Air



The short summary

Hot, welcome late rain

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

January to March Forecast

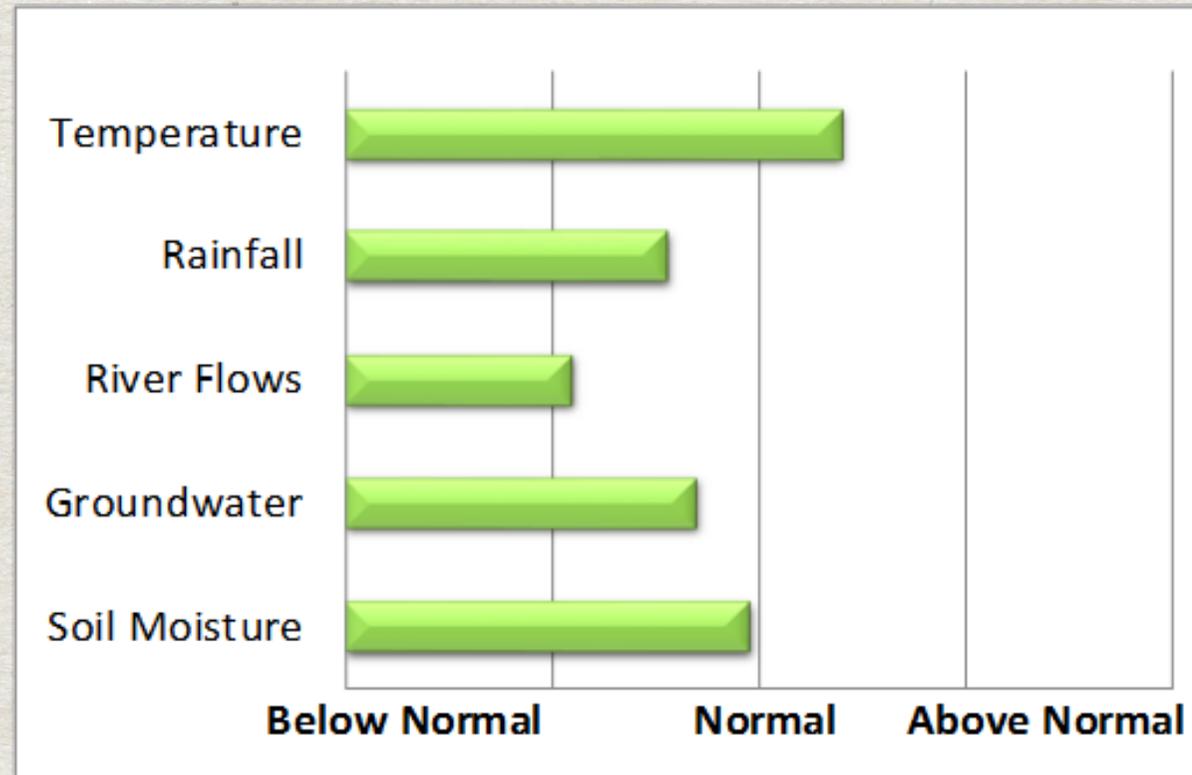
Temperature	Above average
Rain	Above normal
River flows	Near or below normal
Soil moisture	Near or below normal

(source : NIWA)

For more information

www.hbrc.govt.nz

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RAINFALL

Good in the north, below normal otherwise.

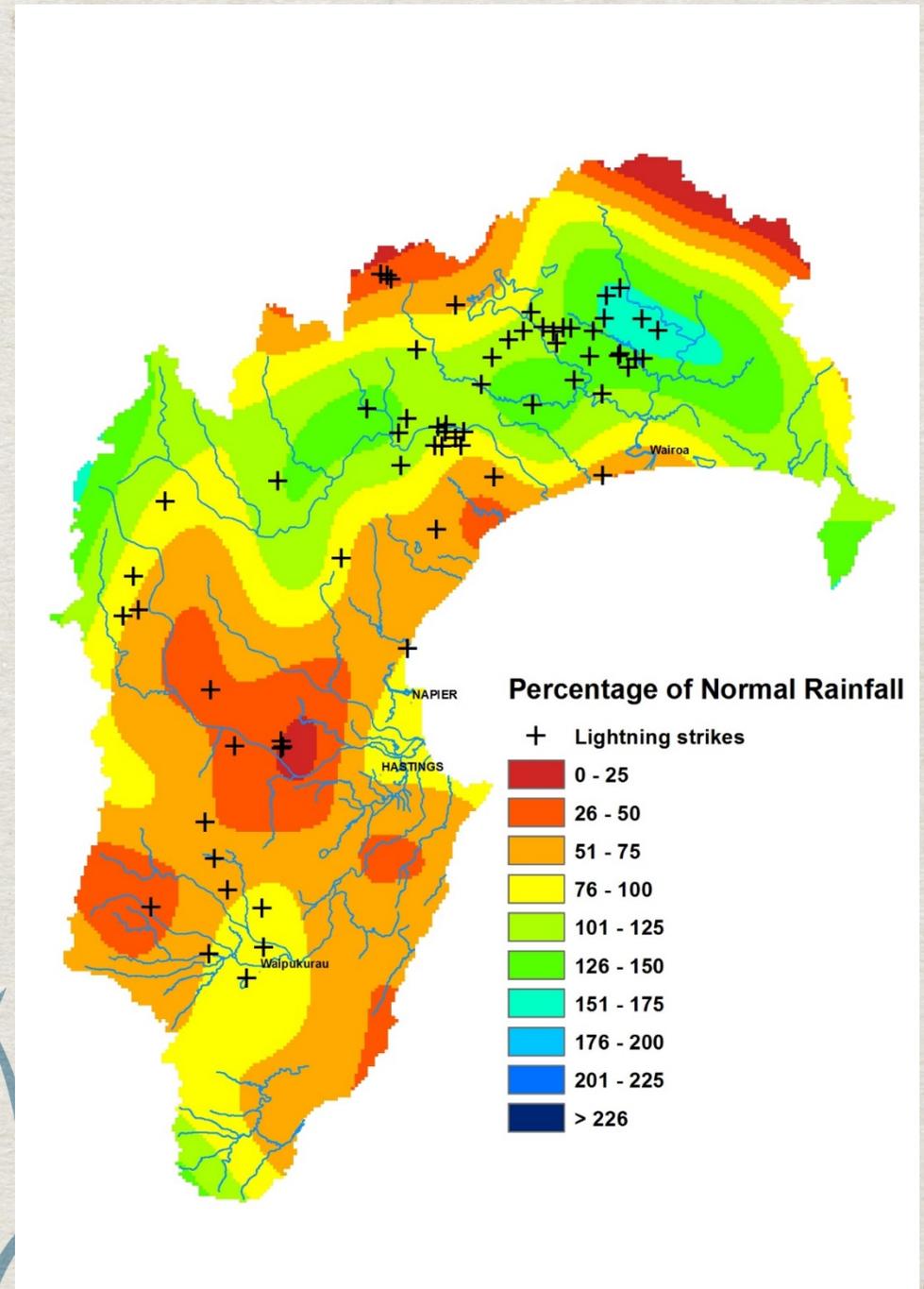
Lightning strikes (cloud to ground) – 65

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

Percentage of normal December rainfall
(30 year average)

For areas in the region:

Waikaremoana	102%
Northern HB	116%
Tangoio	77%
Kaweka	72%
Ruahine	57%
Heretaunga Plains	72%
Ruataniwha Plains	72%
Southern HB	71%
Hawke's Bay Region	78%



TEMPERATURES

Well warm

Mean Difference from Normal

Maximum Temperature: 1.3°C

Minimum Temperature: 0.9°C

Mean Daily Maximum: 22°C

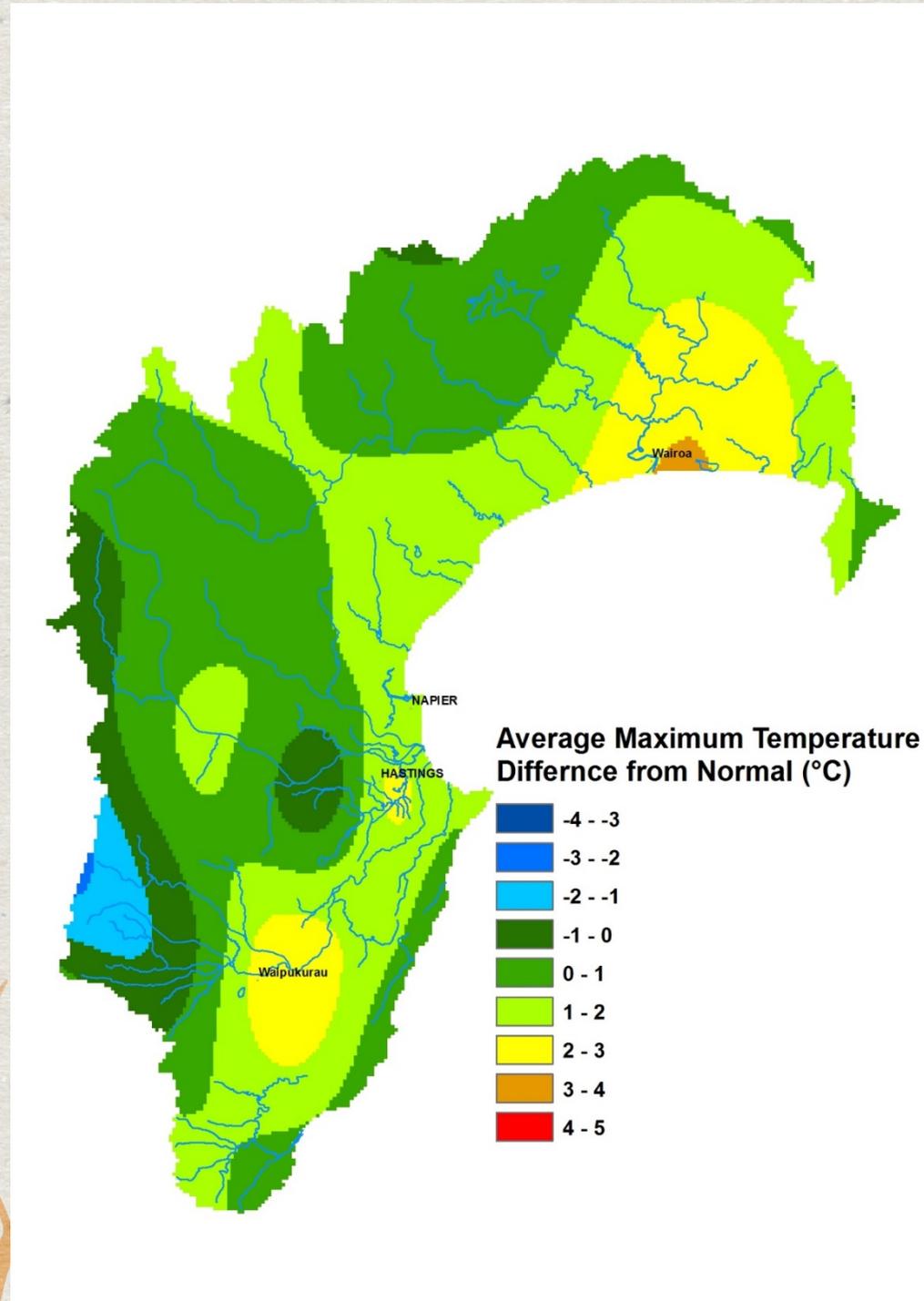
Mean Daily Minimum: 12°C

Highest Daily: 31.9°C

Location: Hastings AWS

Lowest Daily: 2.5°C

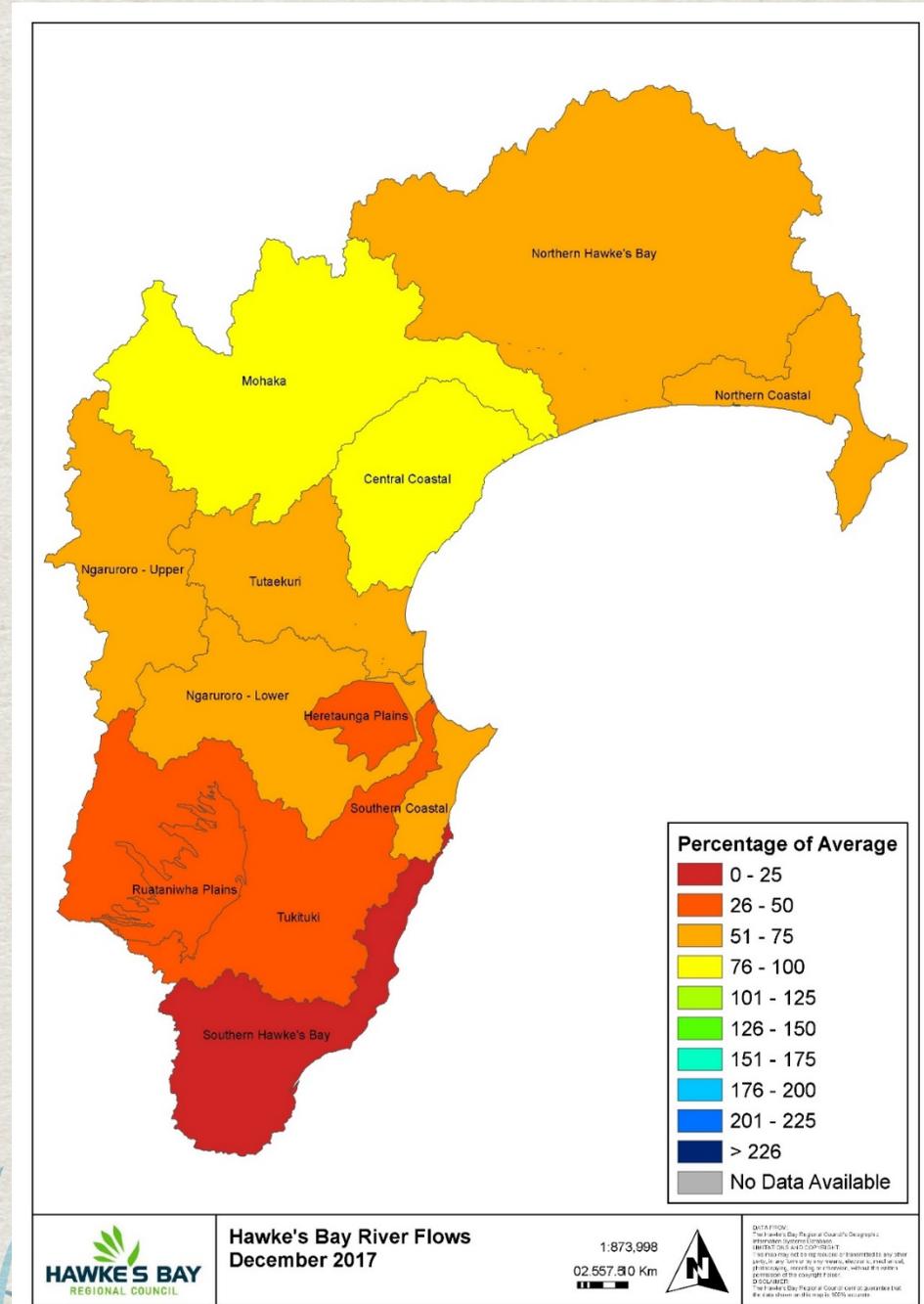
Location: Taharua



RIVER FLOW

Percentage of average December flows for areas in the region:

Northern Coastal	61%
Northern HB – Hangaroa River	36%
Northern HB – Wairoa River	82%
Northern HB – Waiau River	68%
Mohaka	93%
Central Coastal	83%
Tūtaekuri	59%
Heretaunga Plains	27%
Ngaruroro - Upper	58%
Ngaruroro - Lower	55%
Southern Coastal	74%
Ruataniwha Plains	28%
Tukituki	41%
Southern HB	7%
Hawke's Bay Region	55%



GROUNDWATER & SOIL MOISTURE

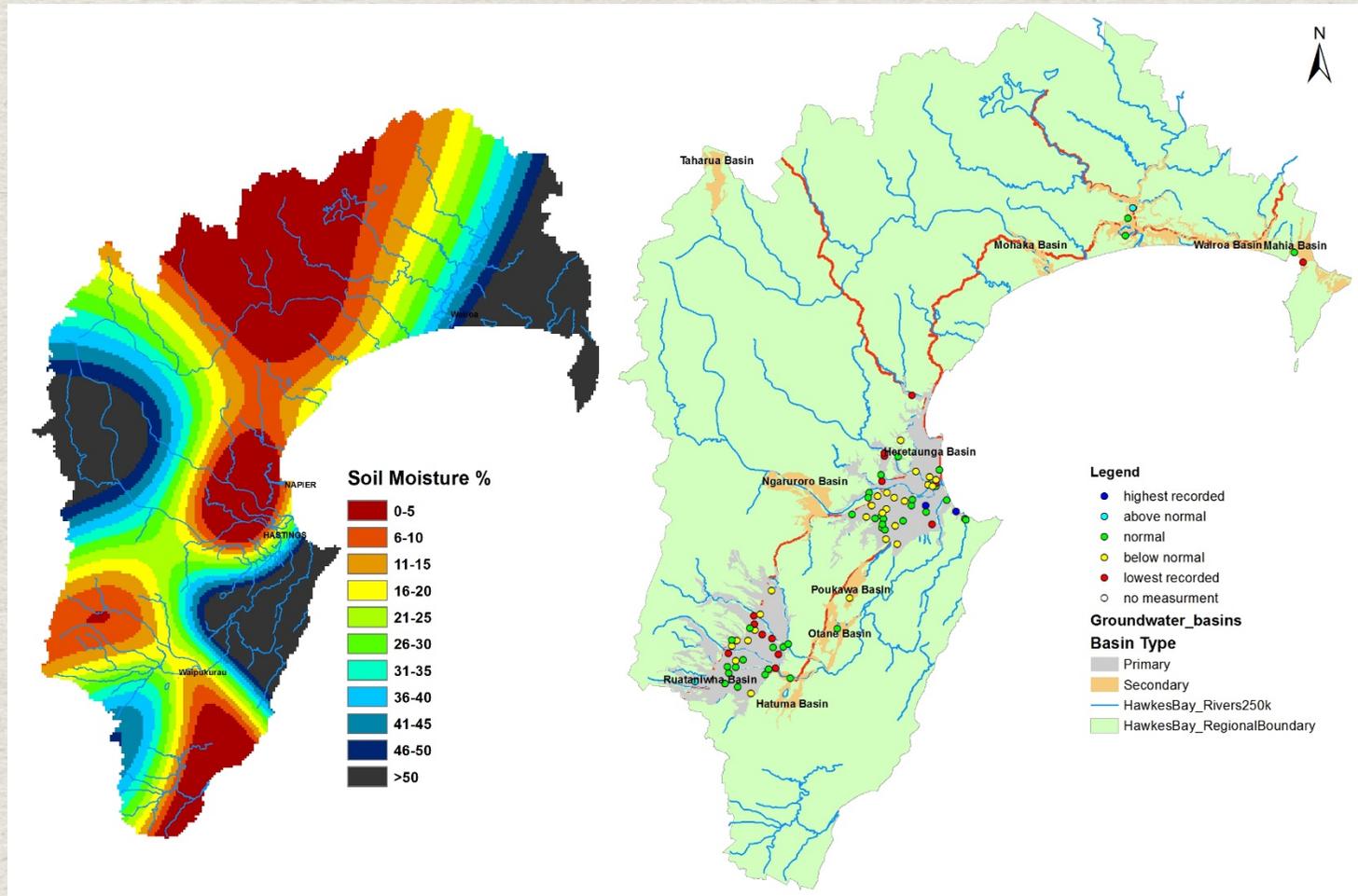
Groundwater:

Heretaunga basin – Mainly normal and below normal water levels

Ruataniwha basin – A mix of normal, below normal and lowest ever water levels

Secondary basin – Mainly normal water levels conditions

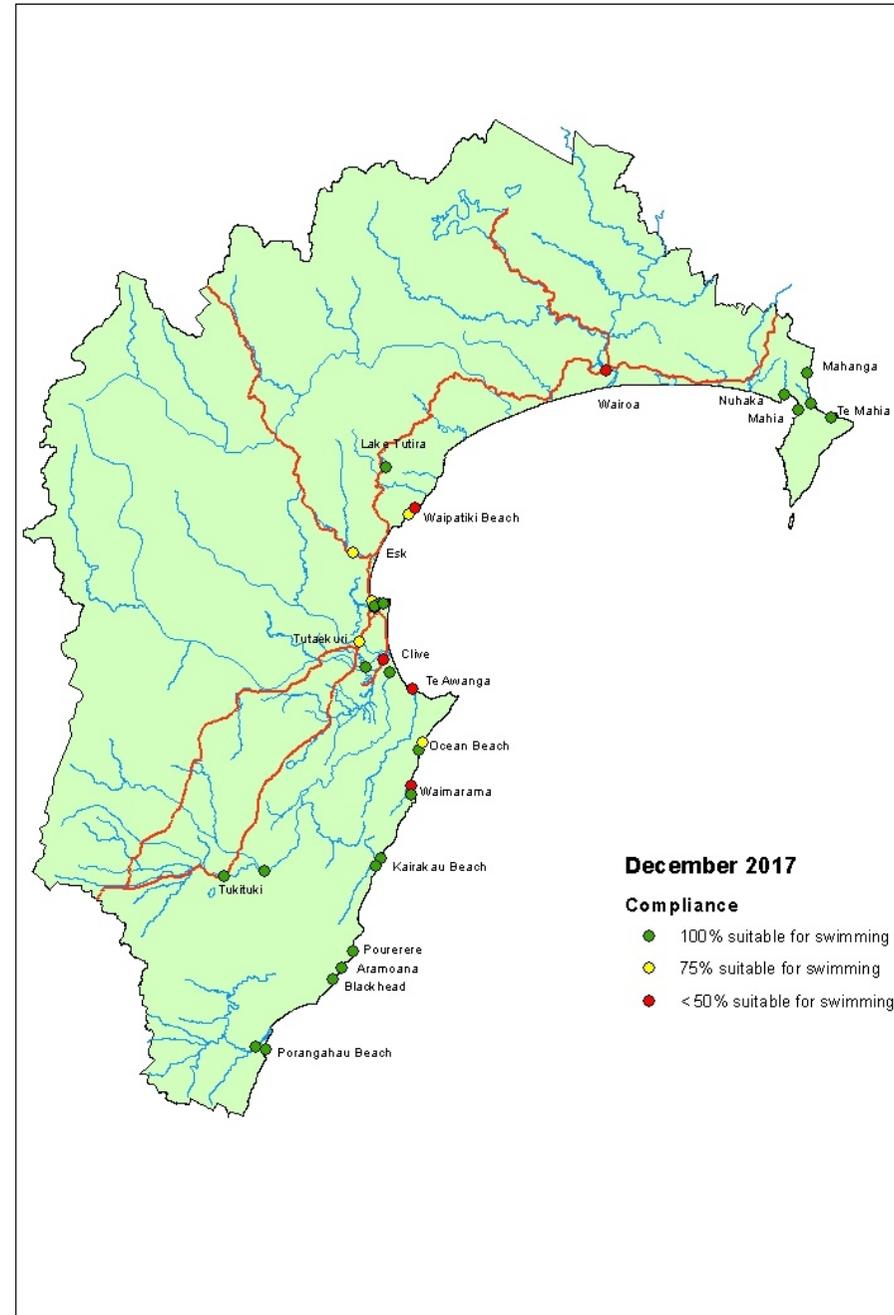
Soil Moisture
Near normal



RECREATIONAL WATER QUALITY

Water quality throughout December closely followed rainfall – most exceedances were measured following periods of rain in the catchments. Efforts to resample sites which had exceeded were hampered by further rainfall.

The Mahia beaches and the southern coastal beaches were the best places to swim. The lagoons at Maraetotara, Puhokio, Pandora, Waipatiki and Waipuka all exceeded at times, as well as several of the lowland rivers around Napier.



LONGER FORECAST

A weak La Niña stays with us until we transition to neutral conditions in autumn. The pattern of weather for the months ahead looks similar to what we've had for the last while. Temperatures remain above average, aided by warmer than usual seas around us. Wind flow is predominantly east to northeast thanks to a predominance of anticyclones to the south and east of us. This time the climate models are giving greater emphasis to lower pressures to the north of us and in the Tasman Sea. That raises the odds of above normal rainfall over the January to March period and possibly extending through autumn, particularly for northern parts of the region.

