



State of the Environment Report Card 2016

What was the weather like in 2016?

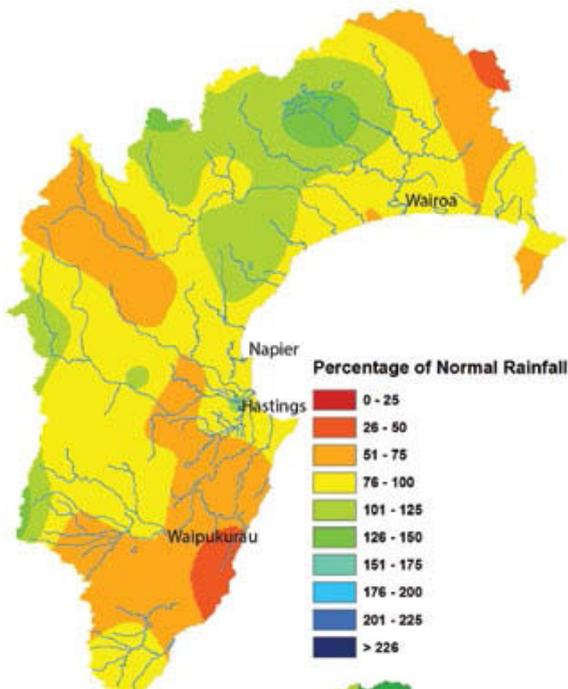
A reasonably wet January didn't bode well for the year but it was followed by a five-month spell of dry and warm weather.

Both February and May had temperatures well above average (>2°C). Above normal rain and cool temperatures in early spring boosted soil moisture, river flows and groundwater levels before the year ended with two months of low rainfall.

The year started with El Niño conditions and then from May the El Niño-Southern Oscillation was in a neutral state. El Niño conditions are associated with an increased chance of below normal rainfall in the region and, apart from January, drier than usual conditions lasted until mid-winter. The Indian Ocean Dipole was negative in the lead up to spring and that is consistent with a trend that associates negative (positive) values with higher (lower) spring rainfall.

Monitoring sites

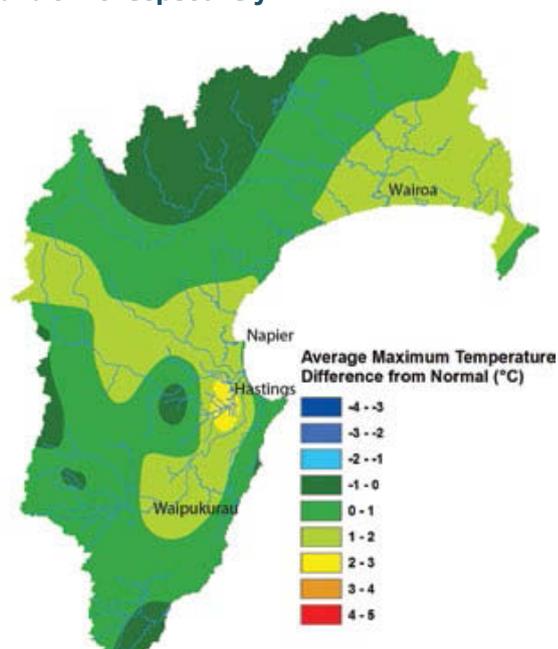
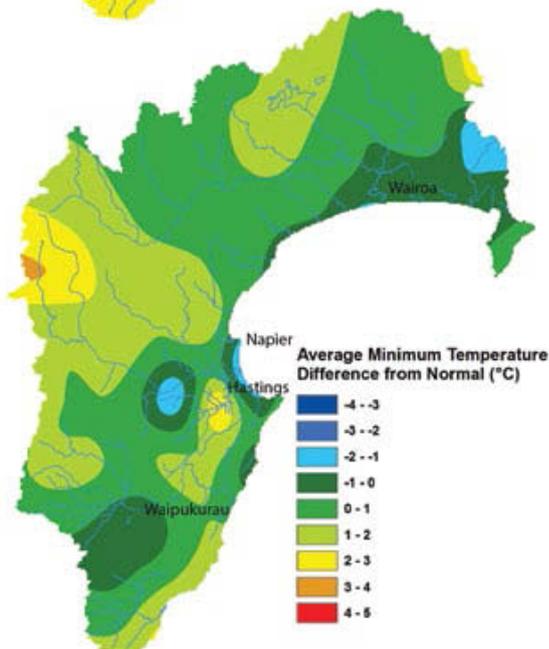
HBRC monitors data from 74 telemetered rain gauges and 27 volunteer rain gauge readers. 18 of the 74 telemetered sites are climate stations measuring temperature, wind and other parameters.



Annual rainfall was near normal (within 20% of the long-term average) for most of the region but below normal in southern areas.

AREA	% AVERAGE
Waikaremoana	91
Northern Hawke's Bay	79
Tangoio	94
Kaweka	89
Ruahine	102
Heretaunga Plains	78
Ruataniwha Plains	74
Southern Hawke's Bay	70
Hawke's Bay Region	84

Annual average maximum and minimum temperatures were above normal by 1°C and 0.7°C respectively.



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Hawke's Bay's climate at a glance



QUICK FACTS

The **highest** annual rainfall in 2016 was 3196 mm at Mt Manuoha (Waikaremoana)

The **lowest** annual rainfall in 2016 was 449 mm at Awanui (fringe Heretaunga Plains)

The **highest** one day rainfall in 2016 was 183 mm on 29th January at Kopuawhara Stream at Railway Bridge

The **warmest** temperature was 34°C on 23rd November at Tauwharetoi Station (Wairoa)

The **coldest** temperature was -8°C on 2nd July at Taharua

The **Strongest** wind gust was in 2016: 127 km/h on 14th July at Te Aute

The climate of Hawke's Bay is influenced largely by the terrain and the airstreams crossing New Zealand.

It is a region of highly variable and sporadic rainfall, and large and occasionally sudden temperature variations. Hawke's Bay is a sunny region with most areas having over 2000 hours per year.

Hawke's Bay is less windy than many other coastal areas of New Zealand, experiencing a high frequency of very light winds. Consequently, a large number of frosts occur during the cooler months of the year.

Much of the rain in Hawke's Bay occurs when the wind directions are predominantly easterly or southerly. Rainfall is extremely variable in spring and summer when westerly winds prevail over the country. In most years insufficient rainfall (dry spells) results in a total depletion of soil moisture to the extent that plant growth ceases.

The high country areas of Hawke's Bay are exposed and gales occur frequently. Showers of snow are frequent during the winter months in cold southerly conditions.

Source: *The Climate and Weather of Hawke's Bay – NIWA publication.*

Find out more The purpose of HBRC's State of the Environment report is to:

- Report on issues that affect our shared environment
- Help councils and communities set priorities for environment management
- Monitor the effectiveness of how we manage the environment
- Provide information people can use in their decision-making

This report card is part of a series prepared by Hawke's Bay Regional Council. It outlines the high-level results from HBRC's monitoring programme.

For more details, including full technical reports and up to the minute monitoring results visit: www.lawa.org.nz

