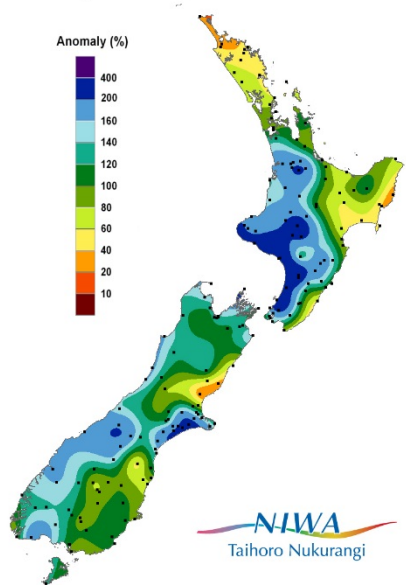


New Zealand Climate Update No 191, May 2015

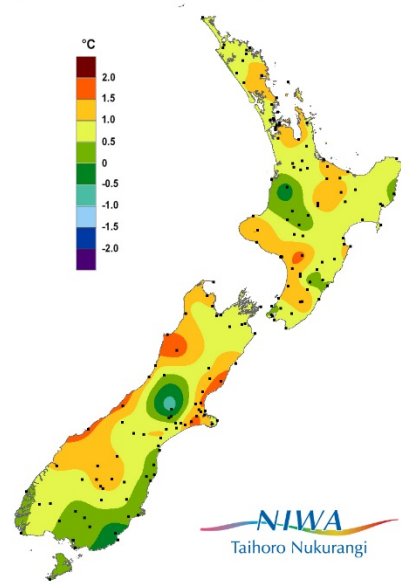
Current climate – April 2015

April 2015 was characterised by air pressures which were higher than normal to the northeast of New Zealand and south of Australia. This pressure pattern resulted in a weak north-westerly flow anomaly across the North Island and a weak south-easterly flow anomaly over the South Island.

Percentage of average rainfall



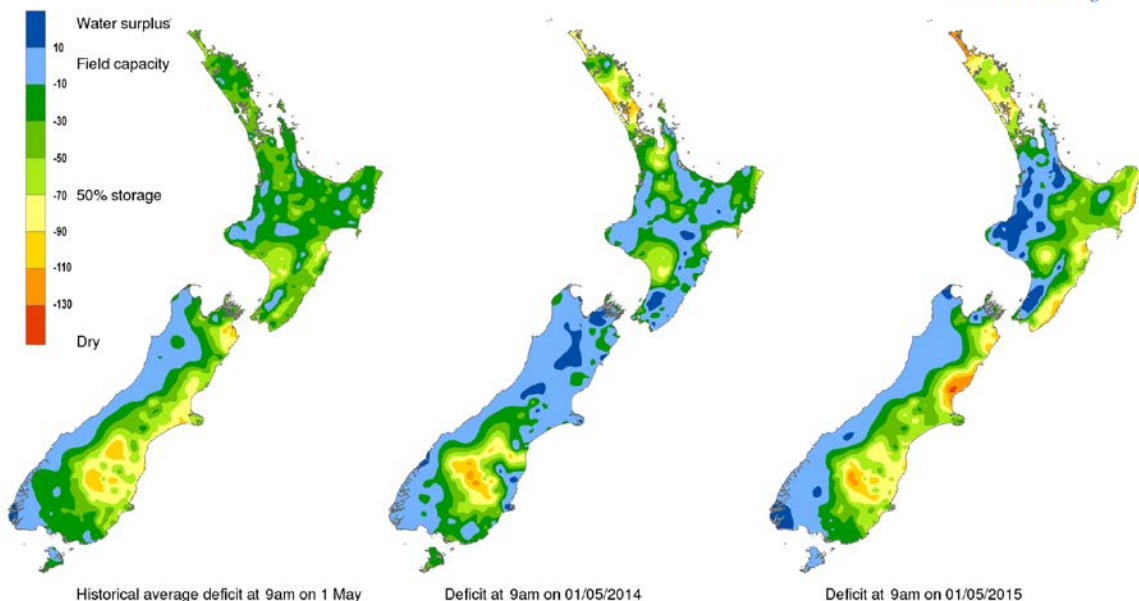
Departure from average air temperature



Percentage of normal rainfall for April 2015

Departure from average air temperature for April 2015

Soil moisture deficit (mm) at 9am on 01/05/2015



End of month water balance in the pasture root zone for an average soil type where the available water capacity is taken to be 150 mm.

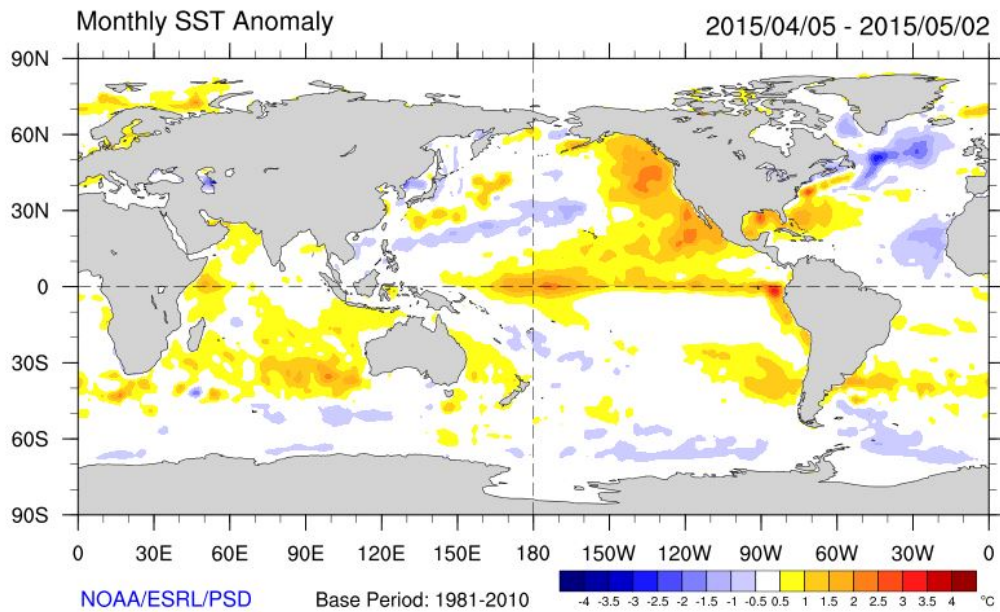
Rainfall: Rainfall was well above normal (> 149%) or above normal (120-149%) for southern, central and western parts of the North Island, western and northern parts of the South Island, and eastern and inland parts of Canterbury south of Christchurch. Rainfall was well below normal (< 50%) or below normal (50-79%) for Northland, Gisborne, northern Hawke's Bay and coastal North Canterbury.

Air temperature: April temperatures were above average (+0.51°C to +1.20°C) for most parts of the country. It was a particularly warm month for West Coast, eastern parts of Canterbury, Kapiti Coast, Manawatu-Whanganui and Taranaki where temperatures were well above average (> +1.20°C).

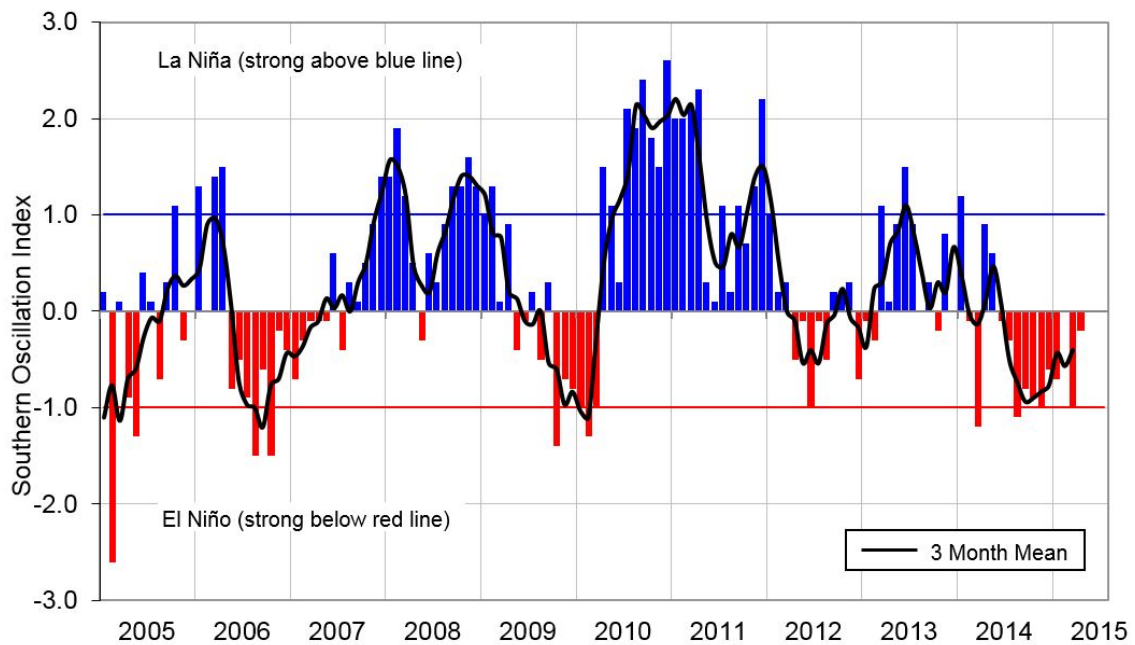
Sunshine: It was a sunny month for Northland and Dunedin where April sunshine was above normal (110-125% of the April normal). Remaining parts of the country weren't so lucky, and received either near normal (90-109% of the April normal) or below normal (75-89% of the April normal) sunshine.

Global setting

Warming of the sea surface across the equatorial Pacific Ocean continued in April 2015, building upon the warmer than normal waters observed in previous months. These patterns, in combination with weaker trade winds and increasing cloudiness near, and to the east of, the International Date Line are consistent with weak El Niño conditions.



Differences from average global sea surface temperatures for 5 April to 2 May 2015. Map courtesy of NOAA Climate Diagnostics Centre (<http://www.cdc.noaa.gov/map/images/sst/sst.anom.month.gif>).



Monthly values of the Southern Oscillation Index (SOI), a measure of changes in atmospheric pressures across the Pacific, and the 3-month mean (black line). SOI mean values: April SOI -2; February to April average -0.4.

Outlook – May to July 2015

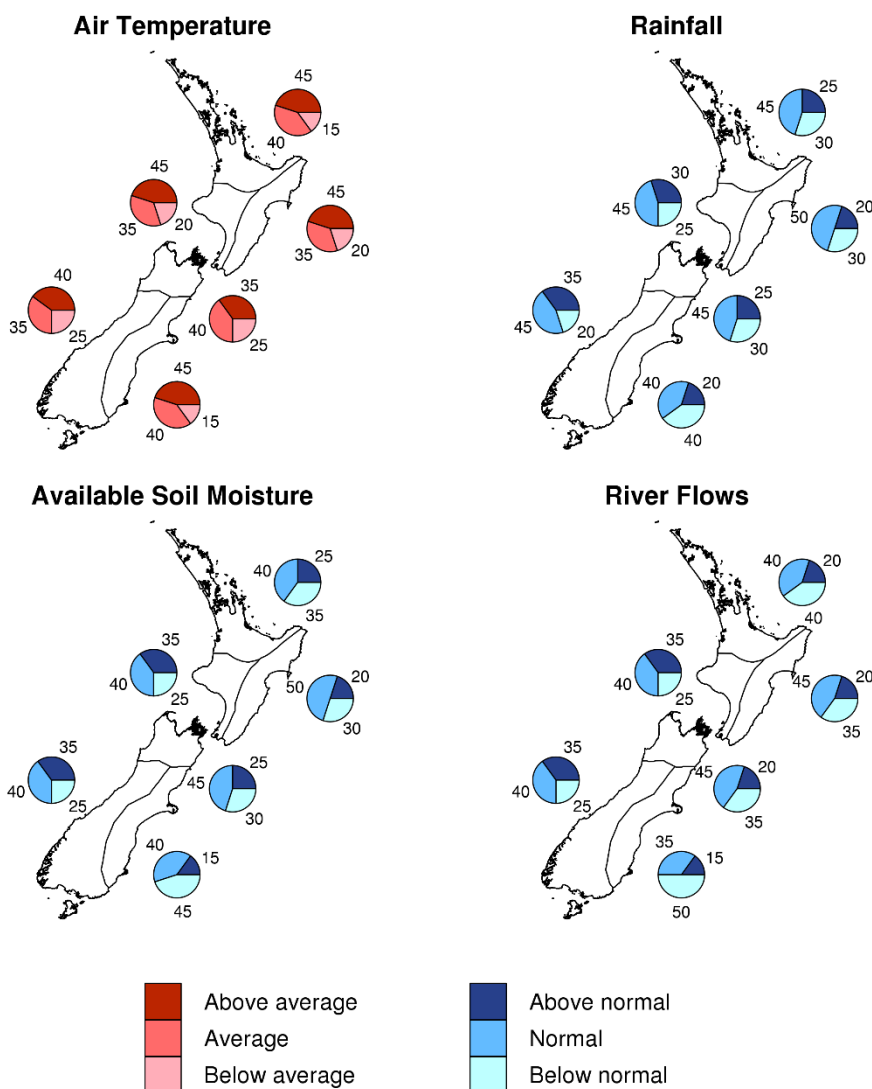
Temperatures are most likely to be average or above average for all regions of New Zealand, although cold snaps and frosts can be expected in some parts of the country as autumn advances into winter.

Rainfall is equally likely to be normal or below normal for the east of the South Island, and most likely to be near normal for all remaining regions of the country.

Soil moisture levels and river flows are about equally likely to be in the near normal or above normal range in the west of the North Island and the west of the South Island. Soil moisture levels and river flows are most likely to be in the near normal range in the east of the North Island and the north of the South Island.

In the north of the North Island, soil moisture levels and river flows are about equally likely to be in the near normal or below normal range. Finally, in the east of the South Island, soil moisture levels are about equally likely to be in the below normal or near normal range, and river flows are most likely to be in the below normal range.

Outlook for May - July 2015



Graphical representation of the regional probabilities, Seasonal Climate Outlook, May-July 2015.

The climate we predicted (February to April 2015) and what happened

Predicted rainfall: February – April 2015 rainfall is most likely to be in the near-normal range in the north of the North Island and the north and west of the South Island. Rainfall totals for the season as a whole are about equally likely to be near-normal or below normal in the east of the South Island. In the east and west of the North Island, the coming season's rainfall is about equally likely to be near or above normal.

Outcome: Actual temperatures were near normal in the districts of Opotoki, Gisborne, Waitomo, Ruapehu, Ashburton, Timaru, Dunedin, Clutha and eastern Southland. Temperatures were above normal elsewhere. In particular, coastal parts of Westland, and Buller experienced temperatures 1°C above normal.

Predicted air temperature: February – April 2015 temperatures are most likely to be in the above normal range for all regions of New Zealand.

Outcome: Actual rainfall was near normal for the majority of the South Island and the west of the North Island. Rainfall was below normal for the east of the North Island as well as for the districts of the Far North, Kaipara, Whangarei, parts of Hurunui and Waimate. Pockets of above normal rainfall were recorded in South Taranaki, Wanganui, Rangitikei, Manawatu, Horowhenua and coastal Buller.

For more information about NIWA's climate work, visit:

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