

The year 2014: Near normal rainfall and near average temperatures for most of the country.

Rainfall	Annual rainfall was near normal for most parts of New Zealand in 2014. The exception was parts of the central North Island and Central Otago where rainfall was below normal, and isolated parts of Northland near Kaikohe where above normal rainfall was recorded. In addition, well above normal rainfall occurred near the far south-west of the South Island.
Temperatures	Annual temperatures were near average across much of the country. However, above average annual temperatures were recorded in isolated locations in the Bay of Plenty, Gisborne, Taranaki, Wairarapa, Westland and Central Otago. Notably, New Zealand observed its equal-warmest June on record (based on NIWA's seven-station series which begins in 1909).
Soil moisture	From late-summer through to mid-autumn soil moisture levels were lower than normal in many parts of New Zealand, including western areas of Northland and Auckland, central and western Waikato, eastern Bay of Plenty, Taranaki, Manawatu-Whanganui, Tasman and the upper West Coast. At the end of the year soil moisture levels were below or well below normal across Waikato, lower Hawke's Bay, Wairarapa, and along and east of the Divide in the South Island. Above normal soil moisture levels were evident over parts of the upper West Coast of the South Island, northern Gisborne, coastal Bay of Plenty, much of the Coromandel Peninsula and central and eastern areas of Northland.
Sunshine	2014 was sunnier than normal for parts of the Coromandel Peninsula, eastern Bay of Plenty, East Cape, northern Taranaki, southern Hawke's Bay and north Canterbury. Annual sunshine totals were near normal elsewhere.

Click on the following links to jump to the information you require:

[Overview](#)

[The year in review](#)

[Rainfall anomaly maps](#)

[Temperature anomaly maps](#)

[The numbers](#)

[Annual rainfall](#)

[Annual temperature](#)

[Annual sunshine](#)

[2014 climate in the six main centres](#)

[Significant weather and climate events in 2014](#)

Overview

Annual mean sea level pressures for 2014 were slightly lower than usual over and south of New Zealand, with a very weak south-westerly airflow anomaly over the country. The two most extreme months in 2014 in terms of the 7-station temperature series were January (much colder than average) and June (the warmest June on record). Both temperature extremes were associated with fairly extreme circulation anomalies. The cold January 2014 (1.0°C below the January average¹) was the ‘most southerly’² January since 2001, and the 11th most southerly on record (since 1896). The record warm June (1.6°C above the June average) was the ‘most northerly’¹ June since 2003, and the 8th most northerly June on record (since 1896). Slow-moving anticyclones dominated from mid-August through to the first half of September, resulting in a prolonged dry spell throughout the South Island, southern Taranaki and Whanganui. El Niño Southern Oscillation (ENSO)-neutral conditions prevailed for much of the year, although ENSO-positive conditions (indicating a developing El Niño event) were established towards the end of the year. Sea-surface temperatures around New Zealand were generally higher than normal throughout the year.

Annual rainfall totals for 2014 were near normal (within 20% of the annual normal) for the majority of the country. However, annual rainfall was below normal (50-79% of the annual normal) for parts of the central North Island and Central Otago. It was the second-driest year on record for Turangi and Dannevirke, with these locations recording just 69% and 72% of the normal annual rainfall respectively. In contrast, above normal rainfall (120-149% of normal) was recorded in isolated parts of Northland near Kaikohe, and well above normal rainfall (> 149% of normal) occurred near the far south-west of the South Island.

Annual mean temperatures for 2014 were near average (within 0.50°C of the annual average) for most parts of New Zealand. Above average annual mean temperatures (0.51-1.20°C above the annual average) were recorded in isolated locations throughout New Zealand including Te Puke, Gisborne, Stratford, Masterton, Reefton and parts of Central Otago. It was an especially warm June (1.6°C above the June average; equal-warmest June on record) and April (1.2°C above the April average), and an especially cold January (1.0°C below the January average), but temperature anomalies were typically near normal for remaining months of the year. The nation-wide average temperature for 2014 was 12.8°C (0.2°C above the 1981–2010 annual average), using NIWA’s seven-station temperature series which begins in 1909.

Below normal to well below normal soil moisture levels affected many parts of New Zealand from late-summer through until mid-autumn, although overall the dry conditions were not as severe as those observed during the drought of 2013. At the end of the year, soil moisture levels were below normal for the time of year across Waikato, lower Hawke’s Bay, Wairarapa, and along and east of the Divide in the South Island, and the threat of drought was especially prevalent in Canterbury. Above normal soil moisture levels were evident over parts of the upper West Coast of the South Island, northern Gisborne, coastal Bay of Plenty, much of the Coromandel Peninsula and central and eastern areas of Northland.

Annual sunshine hours were typically near normal (within 10% of annual normal) for most parts of the country. It was a particularly sunny year for parts of the Coromandel Peninsula, eastern Bay of Plenty, East Cape, northern Taranaki, southern Hawke’s Bay and north Canterbury where above normal (110-125% of normal) annual sunshine hours were recorded.

¹ Note all temperature, rainfall and sunshine anomalies reported in this document are relative to the 1981-2010 average/normal.

² Based on the Trenberth “M1 Index” derived from the Hobart minus Chatham Island pressure difference.

Section 1: The year in review

The monthly sequence of New Zealand climate (with some geographical exceptions) was as follows:

January 2014: Cool for most of New Zealand; dry for North Island except Taranaki to Wellington.

Temperatures were well below average for most of the South Island and much of the Waikato and Manawatu-Whanganui regions (more than 1.20°C below the January average). Rainfall was well below normal (less than 50% of the January normal) for Northland, parts of Waikato, Hawke's Bay, and around Christchurch. In contrast, well above normal rainfall (more than 149% of the January normal rainfall) was received in the Wellington region, parts of Marlborough, Central Otago, and Fiordland. At the end of the month, soils were much drier than normal across northern and central parts of the North Island, especially about western Northland, western and central Waikato, the Central Plateau, and inland Hawke's Bay.

February 2014: Widespread dryness throughout the country, particularly western and central North Island.

By the end of February, soil moisture levels were much lower than normal across most of the North Island. Similarly, soil moisture levels were lower than normal for much of the interior of the South Island, particularly in Tasman, Marlborough and much of Canterbury and Southland regions. Well below normal rainfall (less than 50% of the February normal) occurred for much of the North Island, as well as parts of north Canterbury and southern Marlborough regions, and throughout south Canterbury, Central Otago and northern Southland. Total sunshine hours were well below normal (less than 75% of the February normal) north of Auckland.

March 2014: Dryness persists for much of the North Island.

Well below normal rainfall (less than 50% of the March normal) occurred for a sizeable part of the North Island between the Manawatu-Whanganui and Auckland regions, with numerous locations observing at least their third-driest March on record. Conversely, above normal (120-149% of the March normal) or well above normal rainfall (more than 149% of the March normal) accumulated for eastern areas of the Canterbury and Otago regions with Christchurch (Riccarton) enduring its wettest March on record. At the end of March soil moisture levels were much lower than normal across some western areas of Northland and Auckland, central and western Waikato, Taranaki, Manawatu-Whanganui and the eastern Bay of Plenty. It was an especially bright start to autumn for the Waikato region where well above normal sunshine (more than 125% of the March normal) occurred.

April 2014: Warm, with much needed rain for some regions.

April was unusually warm for most of New Zealand, especially for most of the North Island and western regions of the South Island, where well above average temperatures (greater than 1.20°C above the April average) were recorded. In fact, many locations in the North Island observed at least their fourth-highest mean temperature for April on record, including several reporting stations in the Auckland region. The southern half of the North Island and the northern half of the South Island received well above normal

rainfall (more than 149% of the April normal), with in excess of 300% of April normal rainfall received in coastal north Canterbury and Marlborough.

May 2014: Dry and sunny across much of the North Island, wet in southern and western parts of the South Island.

Sunshine was well above normal (more than 125% of the May normal) or above normal (110-125% of the May normal) for most of the North Island. Likewise, Canterbury (north of Ashburton) and South Otago observed above normal or well above normal total sunshine hours for May. May rainfall was well above normal (more than 149% of the May normal) throughout Fiordland, western Southland, the Southern Lakes, Central Otago, and parts of the West Coast. In contrast, well below normal rainfall (less than 50% of the May normal) or below normal rainfall (50–79% of the May normal) was received throughout much of the North Island. Parts of Auckland and Northland observed record or near-record low May minimum temperatures on 28 May.

June 2014: Equal-warmest June on record for New Zealand.

It was an exceptionally warm start to winter with just about all of New Zealand reporting above normal (0.51-1.20°C above the June average) to well above normal (more than 1.20°C above the June average) temperatures for June. Dozens of locations observed at least their fourth-warmest June on record, whilst it was the country's equal-warmest June ever recorded (1.6°C above the June average) using New Zealand's Seven Station Series. The central North Island from Taumarunui to Palmerston North received well above normal sunshine (more than 125% of June normal).

July 2014: Near average temperatures for most, with exceptional rainfall for Northland

Significant rainfall events occurred in Northland and south-west Southland during the month, which contributed to the well above normal (more than 149% of the July normal) rainfall in these regions. The central North Island, Bay of Plenty, eastern Nelson-Marlborough and Canterbury regions experienced well below normal rainfall (less than 50% of the July normal). A mid-winter warm spell hit the eastern South Island and some areas of the North Island on the last day of July setting new maximum daily temperature records for July at several locations. It was an unusually sunny mid-winter for many areas, with the Waikato and Bay of Plenty experiencing well above normal (more than 125% of the July normal) sunshine hours.

August 2014: Highly variable rainfall but plenty of sunshine.

Considerable variations in rainfall anomalies were observed across the country in August. Above normal rainfall (120-149% of the August normal) occurred throughout eastern Far North, Manawatu-Wanganui, Gisborne, Southland and parts of Central Otago. Conversely rainfall was below normal (50-79% of the August normal) in the Waikato and Bay of Plenty, and well below normal (less than 50% of the August normal) in Tasman, Nelson, Marlborough and Canterbury. It was a sunny month for Northland, Waikato, Bay of Plenty, Central Otago as well as parts of the West Coast and Canterbury where above normal sunshine (110-125% of the August normal) was experienced.

September 2014: Dry for the South Island, warm and wet in the North Island.

Below normal rainfall (50-79% of the September normal) was recorded for much of the South Island with pockets of well below normal rainfall (less than 50% of the September normal) observed in some locations. Conversely, above normal rainfall (120-149% of the September normal) occurred in several North Island regions including parts of Auckland, Bay of Plenty, Gisborne, Hawke's Bay, Manawatu-Whanganui and Taranaki. It was a mild September for the majority of the North Island and parts of the West Coast where temperatures were mostly above average (0.51-1.20°C above the September average).

October 2014: Dry for some of New Zealand with near average temperatures for most.

Rainfall was below normal (50-79% of October normal) or well below normal (less than 50% of October normal) for many eastern and northern areas of the South Island, Wellington, Wairarapa, the Kapiti Coast, Hawke's Bay, Gisborne and the Bay of Plenty. At the end of the month, soil moisture levels for most eastern and northern parts of the South Island were below normal for the time of year, while soil moisture levels were above normal in the Far North, Auckland, Hawke's Bay and parts of Manawatu-Whanganui. It was a sunny October for the lower half of the North Island as well as northern, central and south-eastern areas of the South Island, with above normal sunshine (110-125% of October normal) recorded throughout most of these areas.

November 2014: A cool month for most of New Zealand.

November temperatures were particularly low for Fiordland, inland parts of the South Island and central-western parts of Waikato where temperatures were well below average (more than 1.20°C below the November average). Rainfall was below normal (50-79% of the November normal) or well below normal (less than 50% of the November normal) for Central Otago, South Canterbury, Nelson, Marlborough, Wellington, Kapiti Coast, Hawke's Bay, Gisborne, Bay of Plenty, Coromandel Peninsula and Auckland. Conversely, rainfall was above normal (120-149% of the November normal) or well above normal (more than 149% of the November normal) for western and southern parts of the South Island.

December 2014: Soil moisture quite low for most of New Zealand.

By the end of December 2014, soil moisture levels were below normal for the time of year for extensive areas of New Zealand, but especially for the Waikato, lower Hawke's Bay and Wairarapa regions. Soil moisture levels for the South Island were below to well below normal for the time of year for areas along and east of the Divide. Rainfall was below normal (50-79% of the December normal) or well below normal (less than 50% of the December normal) for many areas of the South Island along and east of the Divide. December temperatures were above (0.51°C to 1.20°C above the December average) or well above average (more than 1.20°C above the December average) for much of the South Island, particularly for areas along and west of the Divide. In contrast, parts of the eastern North Island recorded below average December temperatures (0.51°C to 1.20°C below the December average).

Section 2: Monthly rainfall (as a percentage of the 1981-2010 monthly normals).

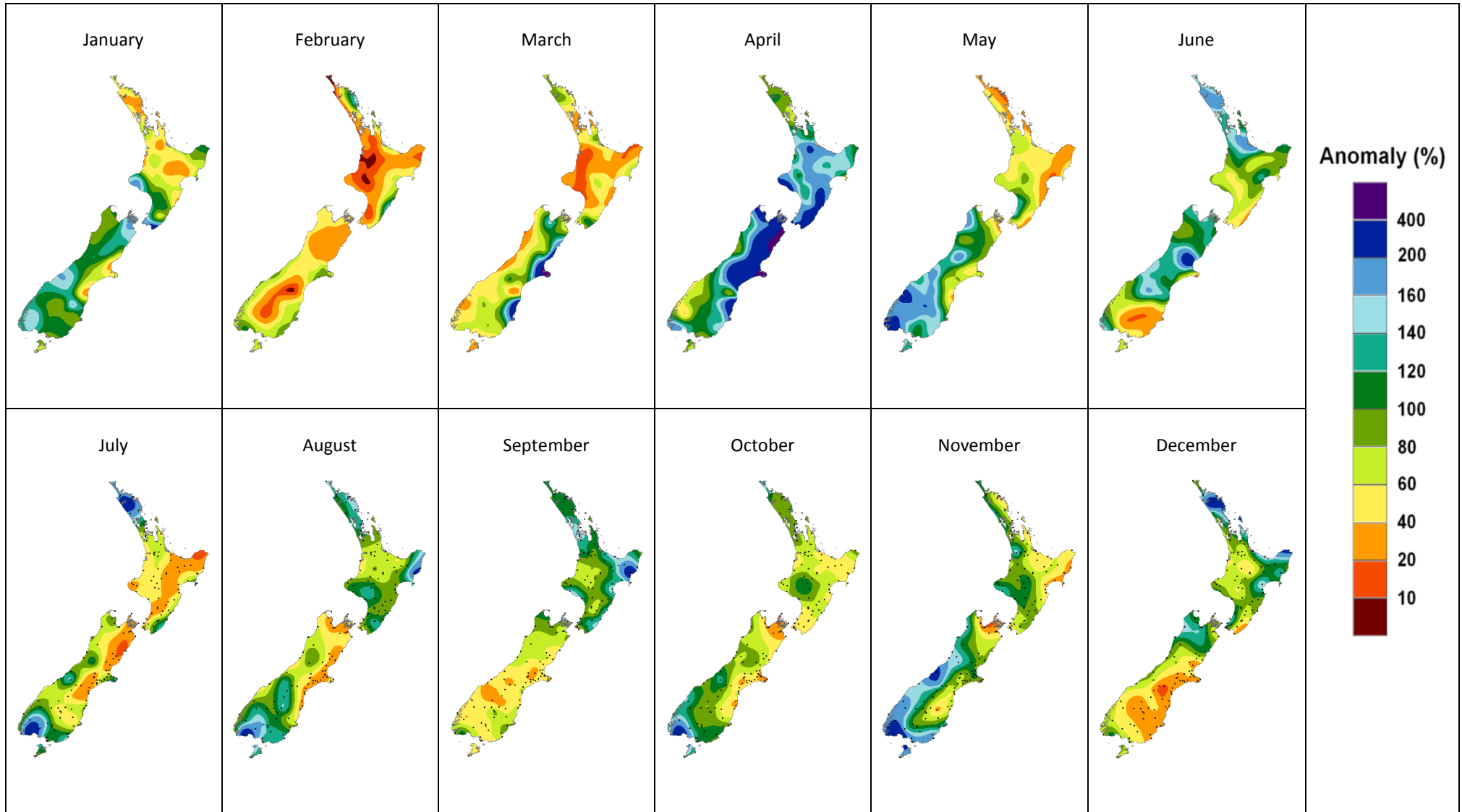


Figure 1: Monthly rainfall as a percentage of the 1981-2010 monthly normals for each month of 2014.

Section 3: Monthly temperature (in °C, as a departure from the 1981-2010 monthly averages).

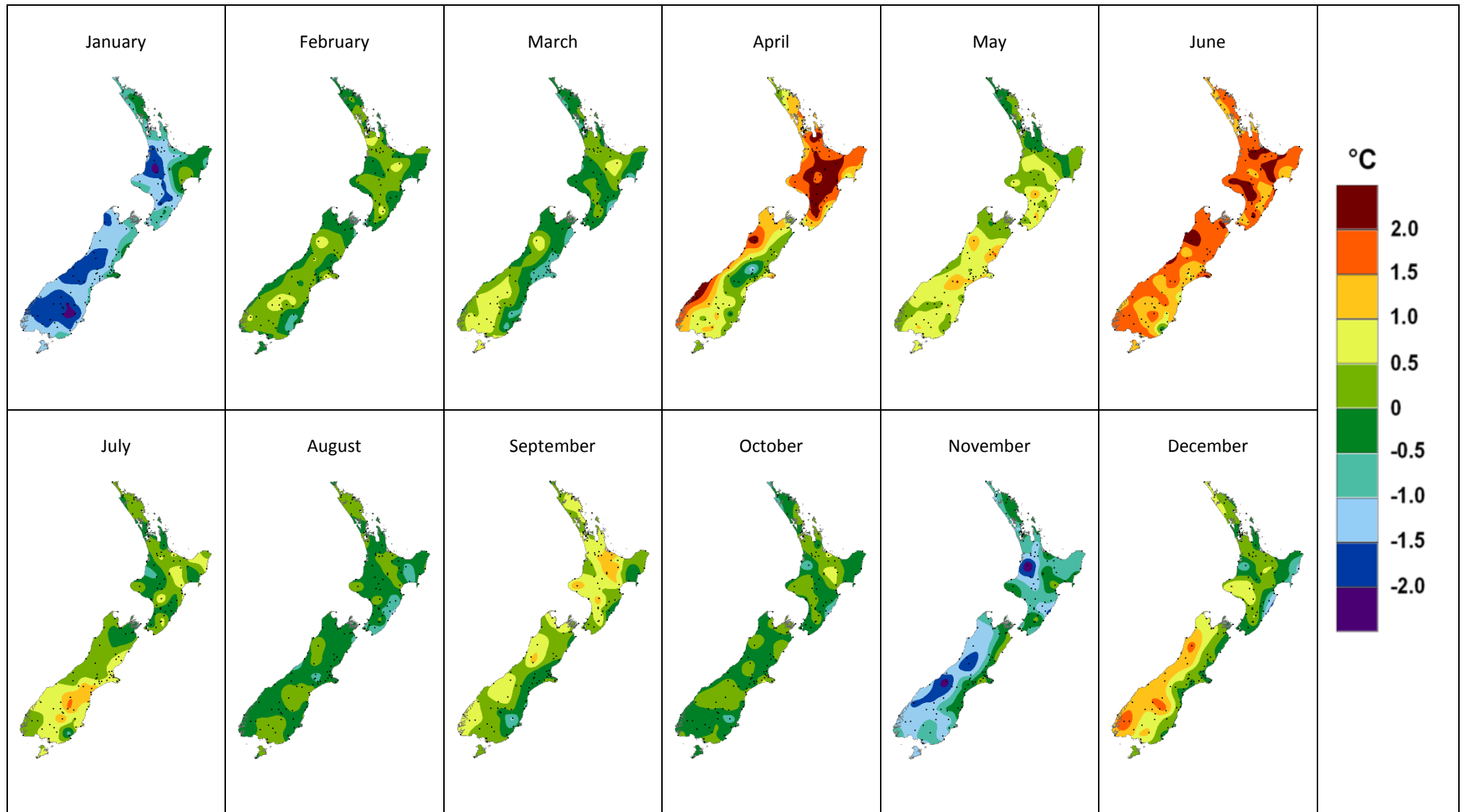


Figure 2: Monthly temperature anomalies (compared to the 1981-2010 monthly averages) for each month of 2014.

Section 4: The numbers

NIWA analyses of month-by-month records show:

- Whangarei recorded the highest annual average temperature for 2014 (16.1°C), followed by Musick Point (Auckland) with 16.0°C. Kaitaia and Auckland (Mangere) recorded the third-highest annual average temperature with 15.9°C.
- The highest air temperature of the year was 35.7°C recorded at Clyde on 20 February, followed by 34.9°C at Alexandra on the same day and 34.6°C at Leeston on 18 February.
- The two lowest air temperatures of the year were recorded at Lake Tekapo in mid-July. The town recorded -9.8°C on 17 July and -9.7°C on 18 July. The third-lowest air temperature of the year was -9.5°C at Arthur's Pass on 4 July.
- The nation-wide average temperature for 2014 was 12.8°C (0.2°C above the 1981–2010 annual average), using NIWA's seven-station temperature series which begins in 1909. 2014 was the equal 23rd-warmest year since 1909, based on this seven-station series.
- The highest confirmed wind gusts for 2014 were all observed at Cape Turnagain: 209 km/hr was recorded on 18 November, 202 km/hr was recorded on 25 May and 196km/h was recorded on 6 October.
- The top 3 daily rainfall totals from regularly reporting gauges in 2014 were 311 mm at North Egmont on 2 August, 258 mm at Kekerengu Station (North Canterbury) on 17 April and 256 mm observed at Milford Sound on 22 May.
- The driest rainfall recording locations (based on data available at time of writing) were: Alexandra with 305 mm of rainfall recorded for the year, followed by Middlemarch with 310 mm, and then Clyde with 319 mm.
- Of the regularly reporting gauges (based on data available at time of writing), the wettest locations in 2014 were Cropp River (West Coast, 975 metres above sea level) with 11866 mm, Tuke River (West Coast, 975 metres above sea level) with 9066 mm and Ivory Glacier (West Coast, 1400 metres above sea level) with 7476 mm.
- Whakatane was the sunniest location in 2014, recording 2711 sunshine hours, followed by Blenheim (2509 hours) and Lake Tekapo (2505 hours).
- Of the six main centres, for 2014 as a whole, Auckland was the warmest, Tauranga was the sunniest, Christchurch was the driest, Wellington was the wettest, and Dunedin was the coldest.

Ranked annual mean temperatures, total rainfall and sunshine hours for the stations available at time of writing are displayed on the following three pages.

Location	Mean temp (°C)
WHANGAREI AERO AWS ³	16.1
MUSICK PT EWS ⁴ , AUCKLAND	16.0
KAITAIA AERO EWS	15.9
AUCKLAND, MANGERE EWS	15.9
WHANGAPARAOA AWS	15.7
AUCKLAND AERO	15.6
TAURANGA AERO AWS	15.4
KERIKERI AERODROME AWS	15.3
DARGAVILLE 2 EWS	15.3
HICKS BAY AWS	15.3
PORT TAHAROA AWS	15.2
AUCKLAND, WHENUAPAI AWS	14.9
TE PUKE EWS	14.9
WHITIANGA AERO AWS	14.8
PUKEKOHE EWS	14.8
GISBORNE AWS	14.7
WARKWORTH EWS	14.5
PAEROA AWS	14.5
NAPIER AERO AWS	14.5
HAMILTON, RUAKURA 2 EWS	14.4
WANGANUI, SPRIGGENS PARK	14.4
WHAKATANE AERO AWS	14.3
MAHIA AWS	14.3
FAREWELL SPIT AWS	14.3
TOENEPI EWS	14.2
WAIROA, NORTH CLYDE EWS	13.9
WANGANUI AWS	13.9
HAMILTON AWS	13.7
WELLINGTON AERO	13.7
NEW PLYMOUTH AWS	13.6
CASTLEPOINT AWS	13.6
PALMERSTON NORTH AWS	13.5

MATAMATA, HINUERA EWS	13.4
BLENHEIM RESEARCH EWS	13.4
LEVIN AWS	13.3
NELSON AERO	13.3
PARAPARAUMU AERO	13.2
WELLINGTON, KELBURN AWS	13.2
NELSON AWS	13.2
BROTHERS ISLAND AWS	13.2
PARAPARAUMU AERO AWS	13.1
WESTPORT AERO AWS	12.9
LYTTELTON HARBOUR	12.9
ROTORUA AERO AWS	12.8
HAWERA AWS	12.8
MOTUEKA, RIWAKA EWS	12.8
BLENHEIM AERO AWS	12.8
KAIKOURA AWS	12.8
MARTINBOROUGH EWS	12.7
TAKAKA EWS	12.7
CAPE CAMPBELL AWS	12.7
WHAKATU EWS	12.6
STRATFORD EWS	12.6
WALLACEVILLE EWS	12.5
CHRISTCHURCH, KYLE ST EW	12.4
REEFTON EWS	12.3
TAUPO AWS	12.1
HOKITIKA AERO	11.9
SECRETARY ISLAND AWS	11.9
LINCOLN, BROADFIELD EWS	11.9
HOKITIKA AWS	11.8
TIMARU EWS	11.8
TAKAPAU PLAINS AWS	11.7
RANGIORA EWS	11.7
TURANGI 2 EWS	11.5

CHRISTCHURCH AERO	11.5
MOTU EWS	11.4
HAAST AWS	11.4
FRANZ JOSEF EWS	11.3
OAMARU AWS	11.1
DUNEDIN, MUSSELBURGH EWS	11.1
WANAKA AERO AWS	11.0
CROMWELL EWS	10.9
MILFORD SOUND	10.8
TIMARU AERO AWS	10.6
OAMARU AIRPORT AWS	10.6
TIWAI POINT EWS	10.6
DUNEDIN AERO AWS	10.4
GORE AWS	10.3
INVERCARGILL AERO	10.3
LAUDER EWS	10.2
HANMER FOREST EWS	10.1
TARA HILLS AWS	10.1
QUEENSTOWN AERO AWS	9.9
RANFURLY EWS	9.8
LUMSDEN AWS	9.8
MANAPOURI AERO AWS	9.5
LAKE TEKAPO EWS	9.1
MIDDLEMARCH EWS	9.1
MT COOK EWS	9.0
MT RUAPEHU, CHATEAU EWS	7.9
CAMPBELL ISLAND AWS	7.6

³ AWS = Automatic Weather Station (operated by MetService)

⁴ EWS = Electronic Weather Station (operated by NIWA)

Location	Rainfall (mm)
CROPP RIVER	11866
TUKE RIVER	9066
IVORY GLACIER CWS	7476
MT COOK EWS	4637
FRANZ JOSEF EWS	4630
MANAPOURI, WEST ARM JETTY	4209
MT RUAPEHU, CHATEAU EWS	2788
WAITUTU CWS	2782
EGLINGTON, KNOBS FLAT CWS	2509
GREYMOUTH AERO EWS	2377
TAKAHE VALLEY CWS	2369
STRATFORD EWS	1718
TE PUKE EWS	1597
WHATAWHATA 2 EWS	1528
KAITAIA AERO EWS	1425
OTAMATUNA, TE MAPOU HUT	1370
PUREORA FOREST CWS	1356
WARKWORTH EWS	1347
CAMPBELL ISLAND AWS	1319
AKAROA EWS	1209
MOTUEKA, RIWAKA EWS	1203
WELLINGTON, KELBURN AWS	1197
TUTIRA CWS	1170
DARGAVILLE 2 EWS	1160
AKITIO EWS	1158
HAWERA AWS	1153
WALLACEVILLE EWS	1117
INVERCARGILL AERO	1113
TURANGI 2 EWS	1088
AUCKLAND AERO	1070
HAMILTON AWS	1067
PAHIATUA EWS	1044
HAMILTON, RUAKURA 2 EWS	1023

TIWAI POINT EWS	1017
TAURANGA AERO AWS	1014
GISBORNE EWS	982
HANMER FOREST EWS	975
AUCKLAND, MANGERE EWS	964
LAKE KARAPIRO CWS	916
TOENEPI EWS	893
NELSON AERO	861
WANGANUI, SPRIGGENS PARK	849
DANNEVIRKE EWS	808
MASTERTON, TE ORE ORE CWS	790
CHRISTCHURCH (RICCARTON)	775
BALCLUTHA, TELFORD EWS	751
CHEVIOT EWS	749
MARTINBOROUGH EWS	723
QUEENSTOWN AERO AWS	701
METHVEN CWS	683
DUNEDIN, MUSSELBURGH EWS	674
NAPIER AERO AWS	658
CHRISTCHURCH AERO	639
LINCOLN, BROADFIELD EWS	618
CHERTSEY CWS	597
RANGIORA EWS	595
BLenheim AERO AWS	592
WHAKATU EWS	585
LAKE TEKAPO EWS	515
WANAKA AERO AWS	509
LAUDER EWS	345
CROMWELL EWS	330
CLYDE 2 EWS	319
MIDDLEMARCH EWS	310
ALEXANDRA CWS	305

Location	Sunshine (hours)
WHAKATANE	2711
BLENHEIM RESEARCH EWS	2509
LAKE TEKAPO EWS	2505
NELSON AERO	2486
GISBORNE AWS	2482
WAIPARA WEST EWS	2460
APPLEBY 2 EWS	2441
TAURANGA AERO	2414
TAKAKA EWS	2368
CROMWELL EWS	2306
CHEVIOT EWS	2297
RANGIORA EWS	2284
AKITIO EWS	2256
KAWERAU AWS	2243
AUCKLAND, MANGERE EWS	2204
KAITAIA EWS	2190
ASHBURTON AERO AWS	2179
TURANGI 2 EWS	2170
HAMILTON, RUAKURA 2 EWS	2126
PARAPARAUMU AERO	2111
CHRISTCHURCH AERO	2110
AKAROA EWS	2082
WELLINGTON, KELBURN	2057
DARGAVILLE 2 EWS	2044
BALCLUTHA, TELFORD EWS	2043
TAUMARUNUI AWS	2037
MARTINBOROUGH EWS	2035
DANNEVIRKE EWS	2028
STRATFORD EWS	2006
GREYMOUTH AERO EWS	1999
OHAKUNE EWS	1974
PALMERSTON NORTH EWS	1828
MIDDLEMARCH EWS	1798

HOKITIKA AERO	1797
WALLACEVILLE EWS	1792
INVERCARGILL AERO	1696
REEFTON EWS	1676
MT COOK EWS	1591

Section 5: Annual Rainfall – Near normal for most but dry in isolated inland parts of the North Island and Central Otago.

Turangi, Dannevirke and Masterton observed near-record dry years. Turangi observed its second-lowest annual rainfall total on record; this after recording its driest year on record in 2013. It was also a dry year for parts of Central Otago, with Cromwell and Lauder each recording approximately three-quarters of normal annual rainfall. The driest rainfall recording locations (based on data available at time of writing) were: Alexandra with 305 mm of rainfall recorded for the year, followed by Middlemarch with 310 mm, and then Clyde with 319 mm. Of the regularly reporting gauges (based on data available at time of writing), the wettest locations in 2014 were Cropp River (West Coast) with 11866 mm, Tuke River (West Coast) with 9066 mm and Ivory Glacier (West Coast) with 7476 mm.

Table 1: Record or near-record annual rainfall totals for the year 2014⁵.

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
High records or near-records				
None observed				
Low records or near-records				
Turangi	1088	69	1968	2nd-lowest
Dannevirke	808	78	1951	2nd-lowest
Masterton	790	84	1992	4th-lowest

The top three 1-day rainfall totals from regularly reporting gauges in 2014 were 311 mm at North Egmont on 2 August, 258 mm at Kekerengu Station (North Canterbury) on 17 April and 256 mm observed at Milford Sound on 22 May. Christchurch recorded its second-highest 1-day extreme rainfall on 4 March. March and April were particularly wet in Christchurch: parts of the city recorded 71% of the average *annual* rainfall during those two months alone.

Table 2: Record or near-record high extreme 1-day rainfall totals that occurred in 2014.

Location	1-day extreme rainfall (mm)	Date	Year records began	Comments
Christchurch (Riccarton)	123	Mar-4th	1873	2nd-highest

⁵ The rankings (1st, 2nd, 3rd....etc) in Tables 1 to 12 are relative to climate data from a *group* of nearby stations, some of which may no longer be operating. The current climate value is compared against all values from any member of the group, without any regard for homogeneity between one station's record, and another. This approach is used because of the practical limitations of performing homogeneity checks in real-time.

Section 6: Annual Temperature – Near average for much of the country.

Mean temperatures were near average across most of New Zealand in 2014, however 11 locations did observe record or near-record high mean temperatures. Middlemarch (with a temperature anomaly of -0.8°C) was the only recording station in New Zealand where the mean annual temperature was below average. This was largely a result of the mean minimum temperature there which was 1.1°C below the annual average. This suggests a prevalence of fine weather and clear skies at night during the year there, and is supported by rainfall data which shows Middlemarch (310 mm) received just two-thirds of normal annual rainfall.

Table 3: Near-record or record high or low annual average temperature departures for 2014.

Location	Mean air temp. ($^{\circ}\text{C}$)	Departure from normal ($^{\circ}\text{C}$)	Year records began	Comments
Mean temperature				
Te Puke	14.9	0.9	1973	Highest
Campbell Island	7.6	0.5	1991	Highest
Masterton	13.7	1.3	1992	2nd-highest
Gisborne	15.2	0.9	1905	2nd-highest
Stratford	12.6	0.8	1960	2nd-highest
Reefton	12.3	0.9	1960	3rd-highest
Cheviot	11.8	0.3	1982	3rd-highest
Ranfurlly	9.8	0.9	1975	3rd-highest
Waiau School	12.1	0.7	1974	4th-highest
Lauder	10.2	0.6	1924	4th-highest
Gore	10.3	0.5	1971	4th-highest
Mean maximum temperature				
Te Puke	19.8	0.8	1973	2nd-highest
Gisborne	20.4	0.9	1905	2nd-highest
Stratford	17.0	0.9	1960	2nd-highest
Motu	16.6	1.2	1990	3rd-highest
Masterton	19.3	0.9	1992	3rd-highest
Wallaceville (Upper Hutt)	17.9	0.8	1939	3rd-highest
Cheviot	17.6	0.2	1982	3rd-highest
Ranfurlly	16.2	1.1	1975	3rd-highest
Motueka	18.8	0.7	1956	4th-highest
Waiau School	18.4	0.7	1974	4th-highest
Cape Campbell	14.9	-0.6	1953	3rd-lowest
Secretary Island	14.7	0.0	1985	4th-lowest
Mean minimum temperature				
Campbell Island	5.6	0.8	1991	Highest
Te Puke	10.1	1.2	1973	2nd-highest
Masterton	8.1	1.7	1992	2nd-highest
Stratford	8.3	0.8	1960	2nd-highest
Reefton	7.0	0.9	1960	2nd-highest
Cheviot	6.0	0.4	1982	3rd-highest

Timaru	7.2	0.5	1885	4th-highest
Turangi	5.7	-0.9	1968	Lowest
Tiwai Point	6.5	-0.7	1970	3rd-lowest
Taumarunui	6.5	-0.8	1947	4th-lowest
Hanmer Forest	2.7	-0.9	1906	4th-lowest

Extreme high or low temperatures were quite uncommon in 2014, with just one location (Whangaparaoa) experiencing its lowest minimum temperature on record, and no new extreme maximum air temperature records established.

Table 4: Near-record or record high or low annual temperature extremes for 2014.

Location	Temperature (°C)	Date of occurrence	Year records began	Comments
Highest extreme maximum temperatures				
Secretary Island	25.9	Feb-9th	1985	2nd-highest
Motu	28.6	Feb-19th	1990	4th-highest
Ranfurly	32.4	Feb-20th	1975	4th-highest
Lowest extreme maximum temperatures				
Westport	6.9	Jul-2nd	1966	3rd-lowest
Highest extreme minimum temperatures				
Ranfurly	16.7	Feb-22nd	1975	4th-highest
Lowest extreme minimum temperatures				
Whangaparaoa	0.9	Oct-7th	1982	Lowest

Section 7: Annual Sunshine – A sunny year for areas of the Coromandel Peninsula, eastern Bay of Plenty, East Cape, northern Taranaki, southern Hawke’s Bay and north Canterbury.

Whakatane was the sunniest location in 2014, recording 2711 sunshine hours, followed by Blenheim (2509 hours) and Lake Tekapo (2505 hours). Near-record high annual sunshine hours were recorded at Cheviot and Turangi. Mt Cook Village received the fewest sunshine hours (1591 hours).

Table 5: Near-record or record sunshine hours for the year 2014.

Location	Sunshine (hours)	Percent of normal	Year records began	Comments
High records or near-records				
Cheviot	2297	119	1983	2nd-highest

Turangi	2170	109	1976	3rd-highest
---------	------	-----	------	-------------

Note on New Plymouth sunshine: The raw New Plymouth sunshine data in NIWA’s climate database indicates New Plymouth as having the second highest sunshine hours in New Zealand (after Whakatane) during 2014. However, the instrument used to record sunshine hours in New Plymouth has been rigorously tested and found to be inaccurate:

- The New Plymouth sunshine measurements were being overestimated, as bright sunshine was being recorded even during mostly cloudy conditions;
- It isn’t possible to apply a reliable correction to the New Plymouth sunshine data recorded by the faulty instrument, therefore the total sunshine hours for New Plymouth in 2014 cannot be accurately estimated.

A replacement instrument is now established in New Plymouth and it is anticipated that accurate sunshine hour measurements will be obtained from the site henceforth.

Section 8: 2014 climate in the six main centres

Of the six main centres, for 2014 as a whole, Auckland was the warmest, Tauranga was the sunniest, Christchurch was the driest, Wellington was the wettest, and Dunedin was the coldest.

Table 6: 2014 climate in the six main centres.

Temperature			
Location	Mean temp. (°C)	Departure from normal (°C)	Comments
Auckland ^a	15.9	0.5	Near average
Tauranga ^b	15.4	0.5	Near average
Hamilton ^c	13.7	0.1	Near average
Wellington ^d	13.2	0.3	Near average
Christchurch ^e	11.5	-0.1	Near average
Dunedin ^f	11.1	0.0	Near average
Rainfall			
Location	Rainfall (mm)	% of normal	Comments
Auckland ^a	964	86%	Near normal
Tauranga ^b	1014 ⁶	85%	Near normal
Hamilton ^c	1067 ⁷	89%	Near normal

⁶ Missing 23 days of data.

⁷ Missing two days of data.

Wellington ^d	1197 ⁸	98%	Near normal
Christchurch ^e	639 ⁹	108%	Near normal
Dunedin ^f	674	91%	Near normal
Sunshine			
Location	Sunshine (hours)	% of normal	Comments
Auckland ^a	2204	108%	Near normal
Tauranga ^b	2414	103%	Near normal
Hamilton ^g	2126 ⁹	107%	Near normal
Wellington ^d	2057 ⁹	98%	Near normal
Christchurch ^e	2110 ⁷	99%	Near normal
Dunedin ^f	1780 ¹⁰	106%	Near normal

^a Mangere ^b Tauranga Airport ^c Hamilton Airport ^d Kelburn ^e Christchurch Airport ^f Musselburgh
^g Ruakura

⁸ Missing three days of data.

⁹ Missing one day of data.

¹⁰ Missing 32 days of data.

Section 9: Significant weather and climate events in 2014

This section contains information pertaining to some of the more significant weather and climate events that occurred in 2014. Note that a more detailed list of significant weather event for 2014 can be found in the *Highlights and extreme events* section of NIWA's Monthly Climate Summaries. These summaries are available online at <http://www.niwa.co.nz/climate/summaries>.

Drought and low rainfall

Low soil moisture levels were prevalent throughout many parts of New Zealand from late-summer through to mid-autumn, however the dry conditions generally were not as severe as those experienced during the drought of the previous year. From the period of mid-August through to mid-September, slow-moving anticyclones became established over New Zealand and contributed to significant dry spells¹¹ for a number of locations (see Table 7). At the end of 2014 soil moisture levels were below normal for the time of year across Waikato, lower Hawke's Bay, Wairarapa, and along and east of the Divide in the South Island, and the threat of drought was especially prevalent in Canterbury.

Table 7: August – September 2014 dry spell information.

Location	Dry spell length	Start date	End date
Fairlie	32 days	12 August	12 September
Wanaka	31 days	12 August	11 September
Timaru	31 days	13 August	12 September
Tara Hills	31 days	13 August	12 September
Lake Tekapo	30 days	13 August	11 September
Oamaru	29 days	15 August	12 September
Queenstown	28 days	15 August	11 September
Alexandra	28 days	15 August	11 September
Cromwell	28 days	15 August	11 September
Clyde	28 days	15 August	11 September
Ranfurly	28 days	15 August	11 September
Middlemarch	28 days	15 August	11 September
Mt Cook Village	28 days	15 August	11 September
Roxburgh	28 days	15 August	11 September
Manapouri	28 days	15 August	11 September
Westport	24 days	18 August	10 September
Milford Sound	24 days	19 August	11 September
Nelson	22 days	21 August	11 September
Haast	21 days	19 August	9 September
Gore	18 days	21 August	7 September
Lumsden	17 days	22 August	7 September
Dunedin	17 days	22 August	7 September

¹¹ A dry spell is defined as a period of at least 15 consecutive days with less than 1 mm rainfall on each day.

Floods and high rainfall

Heavy rain on 4 and 5 March caused considerable flooding throughout Christchurch and surrounding areas. On 4 March, Christchurch recorded its second-highest ever 1-day rainfall total (123 mm) since records began in 1873. On 5 March, a number of Christchurch schools were closed due to the flooding, whilst a slip closed a section of Dyers Pass Road. It was reported that at least 100 homes in Woolston, Richmond, St Albans and Mairehau had been inundated with water. Flooding caused a number of road closures, and residents of Akaroa and Sumner were temporarily isolated by flooding.

On 10 June, considerable flooding occurred throughout North Canterbury. Local police said flooding on many roads in that area had never been worse, and many schools were closed. Twenty-one elderly people were forced to evacuate a rest home in Rangiora due to flooding caused by heavy rain. Police urged motorists to exercise extreme caution on SH 1 near Kaikoura after rock falls onto the highway, and significant flooding was reported on SH 1 near the Ashley River. SH 1 between Amberley and Waikuku was closed. Flooding was reported across both lanes of SH 1 about halfway between Blenheim and Kaikoura.

From 8 to 12 July, heavy rain fell in many parts of the Far North, resulting in considerable surface flooding and road closures. Roads affected by flooding included SH 1 at Hukerenui, Rangiahua and Turntable Hill, SH 1 between Whangarei and Ruakaka, SH 11 between Kawakawa and Paihia and SH 12 at Taheke. Two people required rescue from their vehicles which had become stuck in floodwaters at the bottom of Lemon's Hill on SH 11 at Kawakawa. Both Kerikeri and Kaikohe received record high extreme 1-day rainfall totals for July during this event.

Table 8: Record high monthly extreme 1-day rainfall totals were recorded in 2014 at:

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Ranking
January				
Mahia	55	26th	1990	Highest
March				
Christchurch (Riccarton)	123	4th	1873	Highest (2nd-highest)
April				
Winchmore	97	28th	1927	Highest
June				
Te Puke	137	11th	1973	Highest
Waipara West	80	9th	1973	Highest
July				
Kaikohe	159	8th	1956	Highest
Kerikeri	117	8th	1981	Highest
September				
Hawera	80	13th	1977	Highest

Note that rainfall rankings in brackets are all-month rankings

Temperature extremes

In early January, frequent westerly to north-westerly airflows over the eastern North Island resulted in an extended warm spell for areas of Gisborne and Hawke’s Bay. Over the first eleven days of the month, the average daily maximum temperature for Gisborne, Napier and Hastings was 26.5°C, 26.4°C and 26.6°C respectively. In Wairoa (Hawke’s Bay), the average daily maximum temperature over the first twelve days of the month was 27.2°C, with the maximum daily temperature exceeding 28.0°C on seven out of twelve days.

Near the end of the first week of April, very warm temperatures for the time of year were experienced in many central and northern locations across the North Island. On 6 April, nine locations observed their highest or equal-highest April maximum temperature on record. However, temperatures were even higher for some of those locations on the following day – six of the nine locations (i.e. Hamilton, Tauranga, Paeroa, Te Puke, Whakatane and Rotorua) established new April maximum temperature records.

Many ski areas throughout New Zealand were forced to delay their opening for the 2014 season due to warmer than average temperatures for much of June. These temperatures hindered the ability to generate man-made snow, compounding the troubles resulting from a lack of natural snowfalls during the month. As at 30 June, only Coronet Peak, Cardrona, Snow Farm (cross-country ski area) and Mt Hutt had begun operations for the season with skiable terrain generally limited to on-piste only, whilst ten ski areas had been forced to delay opening.

Table 9: Extremes of high daily maximum temperature in 2014 were recorded at:

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Ranking
February				
Ohakune	30.7	20th	1962	Highest
March				
Motu	25.8	19th	1990	Highest
Paraparaumu	30.0	16th	1953	Highest
Wallaceville (Upper Hutt)	30.8	16th	1939	Highest
April				
Whitianga	27.8	6th	1962	Highest
Paeroa	26.9	7th	1947	Highest
Tauranga	28.4	7th	1913	Highest
Te Puke	27.4	7th	1973	Highest
Whakatane	29.6	7th	1975	Highest
Rotorua	25.0	7th	1964	Highest
Motu	23.5	18th	1990	Highest
Whatawhata	27.0	1st	1952	Highest
Hamilton	27.9	7th	1946	Highest
Turangi	25.1	6th	1968	Highest
Masterton	28.3	2nd	1992	Highest

Paraparaumu	26.3	18th	1953	Highest
Wallaceville (Upper Hutt)	26.0	3rd	1939	Highest
Reefton	25.6	3rd	1960	Highest
Secretary Island	23.4	18th	1985	Highest
Mt Cook Village	24.4	3rd	1929	Highest
Wanaka	25.3	3rd	1955	Highest
Alexandra	28.4	2nd	1983	Highest
Manapouri	23.8	3rd	1963	Highest
Te Kuiti	27.8	6th	1959	Equal highest
Taumarunui	28.3	6th	1947	Equal highest
Ranfurly	25.6	2nd	1975	Equal highest
May				
Ngawi	24.3	26th	1972	Highest
Stratford	20.6	19th	1960	Highest
Motu	21.9	4th	1990	Equal highest
June				
Kaitaia	20.8	3rd	1948	Highest
Waione	22.2	8th	1991	Highest
Hokitika	18.6	12th	1866	Highest
Secretary Island	18.1	10th	1985	Highest
Puysegur Point	17.6	24th	1978	Highest
Manapouri	17.4	5th	1963	Highest
Campbell Island	12.6	29th	1991	Highest
Kerikeri	21.3	17th	1981	Equal highest
July				
Auckland (Mangere)	19.2	31st	1959	Highest
Ngawi	21.4	4th	1972	Highest
Timaru	22.7	31st	1885	Highest
Ranfurly	17.3	31st	1975	Highest
Lumsden	17.2	31st	1982	Highest
Cromwell	18.5	31st	1949	Highest
Nugget Point	17.2	31st	1970	Highest
August				
Masterton	20.6	1st	1992	Highest
Dunedin (Musselburgh)	21.7	1st	1947	Highest
Lumsden	18.8	1st	1982	Highest
Gore	19.4	1st	1971	Highest
Tiwai Point	19.1	1st	1970	Highest
Balclutha	20.9	1st	1964	Highest
Nugget Point	19.9	1st	1970	Highest
Reefton	19.4	23rd	1960	Highest
Auckland (Whenuapai)	21.2	2nd	1945	Highest
Dannevirke	20.7	2nd	1951	Highest
Waione	22.1	2nd	1991	Highest
Waipawa	21.7	2nd	1945	Highest
Christchurch (Riccarton)	23.6	2nd	1863	Highest
Wanganui	20.6	2nd	1937	Equal highest

September				
Motueka	23.9	24th	1956	Highest
October				
Kaikohe	22.9	15th	1973	Highest
Tiwai Point	23.1	13th	1970	Highest
December				
Puysegur Point	24.7	30th	1978	Equal highest

Table 10: Extremes of low daily maximum temperature in 2014 were recorded at:

Location	Extreme low maximum (°C)	Date of extreme temperature	Year records began	Ranking
April				
Farewell Spit	12.3	28th	1972	Lowest
Takaka	12.6	28th	1978	Equal lowest
May				
Le Bons Bay	5.1	26th	1984	Lowest
September				
Martinborough	8.1	28th	1986	Lowest
October				
Kerikeri	12.5	10th	1981	Lowest
December				
Cheviot	10.9	10th	1982	Lowest

Table 11: Extremes of low daily minimum temperature in 2014 were recorded at:

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Ranking
January				
Nugget Point	3.0	30th	1970	Lowest
February				
Kaitaia	6.0	8th	1967	Lowest
March				
Kaitaia	4.7	17th	1967	Lowest
Motu	-2.7	4th	1990	Equal lowest
May				
Kerikeri	1.6	28th	1981	Lowest
Warkworth	-1.4	28th	1966	Lowest
Auckland (Whenuapai)	-2.3	28th	1945	Lowest
Rotorua	-3.6	28th	1964	Lowest
Turangi	-5.3	28th	1968	Lowest
Ngawi	0.0	27th	1972	Lowest

October				
Whangaparaoa	0.9	7th	1982	Lowest (Lowest)
Wallaceville (Upper Hutt)	-3.2	5th	1939	Lowest
December				
Kerikeri	4.5	5th	1981	Lowest
Te Kuiti	1.9	2nd	1959	Lowest
Turangi	-0.5	3rd	1968	Lowest
Martinborough	-1.6	1st	1986	Lowest
Motueka	1.9	2nd	1956	Lowest
Appleby	0.9	2nd	1932	Lowest
Blenheim	-0.3	2nd	1932	Lowest

Note that temperature rankings in brackets are all-month rankings

Table 12: Extremes of high daily minimum temperature in 2014 were recorded at:

Location	Extreme high minimum (°C)	Date of extreme temperature	Year records began	Ranking
May				
Waiau	16.8	6th	1974	Highest
Cheviot	15.4	6th	1982	Highest
June				
Campbell Island	9.1	30th	1991	Highest
Whangaparaoa	15.5	9th	1982	Equal highest
July				
Milford Sound	11.1	12th	1935	Highest
Secretary Island	13.0	12th	1988	Highest
Cheviot	13.1	31st	1982	Highest
Orari Estate	8.3	31st	1972	Highest
August				
Cape Reinga	15.0	2nd	1971	Highest
Kaitaia (Airport)	16.0	2nd	1948	Highest
Whangarei	15.6	3rd	1967	Highest
Whitianga	15.5	3rd	1971	Highest
Tauranga	15.4	3rd	1941	Highest
Te Puke	15.5	3rd	1973	Highest
Whakatane	15.5	3rd	1975	Highest
Rotorua	12.6	3rd	1972	Highest
Motu	11.0	3rd	1990	Highest
New Plymouth	13.8	2nd	1944	Highest
Masterton	13.9	2nd	1992	Highest
Dannevirke	13.6	1st	1951	Highest
Waione	14.9	1st	1993	Highest
Ngawi	15.1	2nd	1972	Highest
Hicks Bay	15.3	3rd	1972	Highest

Gisborne	16.4	3rd	1940	Highest
Wairoa	16.1	3rd	1972	Highest
Mahia	14.2	3rd	1990	Highest
Paraparaumu	13.5	1st	1972	Highest
Wellington	14.2	1st	1972	Highest
Wallaceville (Upper Hutt)	13.4	1st	1972	Highest
Stratford	12.5	1st	1972	Highest
Hawera	13.0	2nd	1977	Highest
Farewell Spit	13.9	2nd	1972	Highest
Westport	12.3	1st	1966	Highest
Greymouth	12.9	1st	1972	Highest
Haast	13.0	2nd	1949	Highest
Milford Sound	11.5	1st	1935	Highest
Secretary Island	12.6	1st	1988	Highest
Hanmer	14.5	2nd	1972	Highest
Kaikoura	12.3	1st	1972	Highest
Culverden	15.9	2nd	1930	Highest
Winchmore	13.3	2nd	1928	Highest
Waipara West	16.0	1st	1973	Highest
Orari Estate	11.9	29th	1972	Highest
Ranfurly	11.9	2nd	1975	Highest
Lumsden	11.5	1st	1982	Highest
South West Cape	11.0	1st	1991	Highest
Kaikohe	14.9	3rd	1973	Equal highest
October				
Kerikeri	17.1	29th	1981	Highest
November				
Te Puke	17.8	26th	1973	Highest
Lumsden	16.1	2nd	1982	Highest
Whitianga	18.1	26th	1971	Equal highest
December				
Motu	16.6	21st	1990	Equal highest
Puysegur Point	18.9	27th	1978	Highest
Manapouri	17.1	27th	1973	Highest

Strong winds

For the year as a whole, 2014 was the 4th ‘windiest’ year of the past 49 years (Figure 3¹²), with 53 ‘windy days’. The three windier years were: 1988 (65 windy days), 2002 (55 windy days), and 1982 (54 windy days). The windiest two months of the year were November (10 windy days, a strong south-westerly month where the 7-station temperature anomaly was -0.4°C), followed by May (8 windy days, a strong north-westerly month where the 7-station temperature anomaly was +0.5°C).

¹² In these graphs, a ‘windy day’ is defined as one where the daily Auckland – Christchurch 9 a.m. pressure difference corresponds to a mean wind speed exceeding 60 km/hr (either westerly or easterly). Thus, it is a broad measure and won’t capture southerlies, northerlies or local wind enhancements.

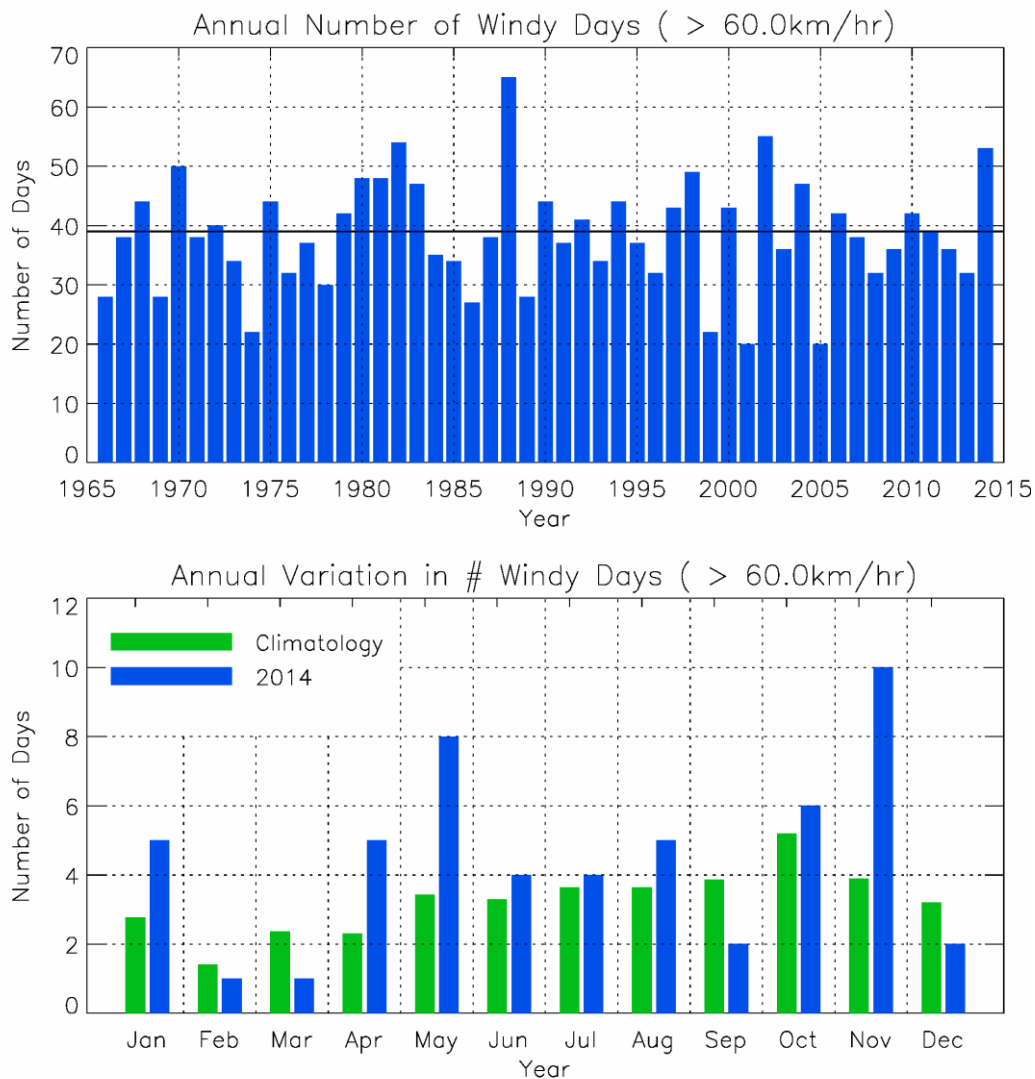


Figure 3: (Top) Number of 'windy days' per calendar year, 1966 to 2014, with horizontal line indicating the 1981-2010 average (39.0 days); (Bottom) Number of 'windy days' by month, comparing the months of 2014 (blue histogram) with the 1981-2010 average (green).

Strong winds associated with ex-Tropical Cyclone Lusi caused a number of issues across New Zealand on 15 and 16 March. Electricity infrastructure faults caused by storm damage resulted in a loss of power to many parts of Banks Peninsula with power out for more than 12 hours in Lyttelton. Power outages were also experienced by 1400 households in the Bay of Plenty, 7000 customers in Auckland, and a further 3000 customers in Northland. In Nelson, the *Weet-Bix Kids Tryathlon* and the open day at the Brook Waimarama Sanctuary were cancelled, whilst in the Hawke's Bay organisers of the *Triple Peaks Challenge* were forced to modify the course in the interests of participants' safety. In central Paihia, high swells pushed seawater and debris onto a stretch of SH 11, forcing it to be temporarily closed. In addition, 35 Paihia businesses along the waterfront were closed for a few days to allow clean-up required due to broken windows and seawater infiltration.

On 17 April, strong winds associated with ex-Tropical Cyclone Ita struck much New Zealand. In Auckland, around 17,000 properties were without power – mostly as a result of trees blowing onto power lines. Strong winds and high-tide combined to cause severe flooding on Tamaki Drive, as waves crashed over the sea wall there. More than 1000 Waikato customers were without power. In Manawatu, power was out for around 9300 properties due to faults caused by strong winds, including in parts of Aokautere, Apiti, Ashurst and Pohangina. Many roads in the West Coast region were closed due to downed trees and powerlines, whilst a number of vehicles, including several buses, were blown over. Westport lost its power supply, and many roofs were lifted in the township and surrounds. In Greymouth, the central business district was closed in the afternoon because of danger from flying debris after a roof had lifted off an industrial building. Strong winds felled a number of trees in Nelson and surrounding areas, and the power supply to thousands of properties throughout Golden Bay, Stoke and Richmond was affected.

On 10 and 11 June, very strong winds struck many parts of the upper North Island. On 10 June, Civil Defence warned Northland residents to stay indoors overnight due to danger associated with the strong winds. Power was lost for a time at 90,000 Auckland premises, with a number of schools in the city forced to close as a result of the power outage. The Auckland Harbour Bridge was closed due to strong wind gusts that also blew a truck onto its side there. Ferry services on the North Shore were disrupted due to power outages, whilst the *Bayswater Ferry* was unable to operate as a result of extensive damage to its wharf.

On 8 and 9 July, damaging winds struck many parts of the upper North Island, with widespread damage occurring in Northland. At least twelve homes had their roofs blown off, with property damage especially severe around the Kaitiā and south Hokianga areas. At least 20,000 Far North households lost power for a time, and both the Bay of Islands and Dargaville Hospitals were operating on generator power. Concrete electricity poles had blown down, and even snapped in some cases, and many trees were blown down in the Far North.

Table 13. Maximum wind gust extremes in 2014 were recorded at:

Location	Maximum wind gust (km/hr)	Date of maximum wind gust	Year records began	Ranking
January				
Paeroa	104	21st	1991	Highest
Wanganui	102	26th	1977	Highest
Westport	124	13th	1973	Highest
Cape Reinga	133	21st	1974	Equal highest
March				
Hawera	104	16th	1986	Highest
April				
Kaikohe	87	17th	1986	Highest
Paeroa	100	17th	1991	Highest
Baring Head	146	17th	1991	Highest
Palmerston North	93	17th	1991	Highest
Levin	104	17th	1971	Highest

Farewell Spit	104	17th	1973	Highest
Westport	126	17th	1973	Highest (Highest)
June				
Leigh	122	10th	1972	(Equal 4th-highest)
July				
Kaitaia	119	8th	1985	Highest
Gisborne	122	16th	1972	Highest
August				
Tara Hills	98	1st	1985	Highest
Wanaka	93	1st	1992	Highest
Manapouri	80	7th	1991	Highest
Gore	107	7th	1987	Equal highest
September				
Hamilton (Ruakura)	83	22nd	1991	Highest
Baring Head	154	22nd	1991	Highest
Whanganui	98	22nd	1977	Highest
Cape Campbell	122	22nd	1963	Highest
October				
Auckland (Whenuapai)	109	29th	1972	Highest
Rotorua	104	6th	1972	Highest
Paraparaumu	130	6th	1972	Highest
Palmerston North	102	6th	1991	Highest
Wanganui	109	6th	1977	Highest
Farewell Spit	115	3rd	1973	Highest
Kaikohe	102	7th	1986	Equal highest
New Plymouth	106	29th	1972	Equal highest
Kaikoura	150	6th	1972	(Equal 4th-highest)
November				
Dannevirke	111	15th	1961	Highest
Winchmore	100	15th	1970	Highest
Wanaka	83	2nd	1992	Highest
Ashburton	93	15th	1970	Equal highest
December				
Cape Reinga	128	16th	1974	Highest

Note that rankings in brackets are all-month rankings

Snow

On 26 May snow fell and settled to low levels in many areas of the South Island, but especially about Southland and Otago. Light snow was reported to sea level in Dunedin and Invercargill, whilst heavier falls occurred inland and at higher elevations including northern and eastern Southland, Queenstown Lakes District and Central Otago. Snow also settled at St Arnaud in the Tasman District, and at higher elevations of the Desert Road in the North Island. Many Dunedin and Northern Southland schools were closed for the day. An emergency operation centre was established at Dunedin Hospital as staff and patients had difficulty getting to the hospital. Staff attempting to access *Cardrona* ski area were forced to turn back at the 12 km mark on the access road due to at

least 50 cm of snow on the road, whilst 50 cm of new snow was reported by staff at *The Remarkables* ski area. Numerous roads throughout the south were affected by snow, and several trucks slid off the northern motorway out of Dunedin prior to the road being closed.

On 5 November, residents of Hanmer Springs awoke to an unseasonable settling of snow in the township. The snow in the town had melted by 10 a.m. but remained to relatively low elevations on the surrounding hills and mountains. *Mount Hutt* ski area, which by this stage had closed for the season, received approximately 25 cm of fresh snow. Ski area staff described this as the largest snowfall of the year (highlighting what a lean season it had been for the ski area snow-wise).

Tornadoes and waterspouts

On 23 February, a supercell storm swept through northern and mid-Canterbury. Two tornadoes formed, one in Amberley (north Canterbury) around 6 p.m. and one in Leeston (mid-Canterbury) earlier in the day. The Amberley tornado ripped the roof off a home, lifted tiles off roofs near the Burnham Military Camp area, smashed windows, felled trees, and brought down power lines. Trees that fell on power lines in Southbridge sparked a fire in a paddock. More than 1000 homes lost power in the storm. The Leeston tornado was much weaker, only kicking up dust.

For media comment, please contact:

Mr Chris Brandolino

NIWA Forecaster – NIWA National Climate Centre
Tel. 09 375 6335, Mobile (027) 886 0014

For climate data, please contact:

Mr Gregor Macara

Climate Scientist, NIWA Wellington
Tel. 04 386 0509

Note for editors:

Climate measurements have been made in New Zealand for about 150 years, with reasonable coverage of reliable data from at least 1900. NIWA makes its raw climate data publicly available for free on-line. Journalists are advised, however, to take extreme care when interpreting trends from raw data to ensure they have not been compromised by changes in site location, urbanisation, exposure, or instrumentation over time. If in any doubt, please call us.

© Copyright NIWA 2015. All rights reserved

Acknowledgement of NIWA as the source is required.