

A mild winter for much of the country.

Temperature	It was a mild winter for much of the country, but especially for the South Island where winter temperatures were predominantly above average (0.5 to 1.2°C above average). The exception was parts of Central Otago, where winter temperatures were well above average (more than 1.2°C above average), and isolated parts of mid-Canterbury, where near average winter temperatures were observed (within 0.5°C of average). Winter temperatures were above average or near average across the entire North Island.
Rainfall	There was a notable dichotomy of winter rainfall anomalies experienced within both the North and South Islands. In the North Island, winter rainfall was well above normal (more than 149% of normal) throughout Northland, yet it was below normal (50-79% of normal) for a number of central, eastern and southern parts. In the South Island, winter rainfall was above normal (120-149% of normal) in Arthur's Pass, Mount Cook National Park and Wanaka. In contrast, winter rainfall was below normal for the majority of the eastern South Island.
Sunshine	Winter sunshine was abundant for much of Waikato, North Canterbury, the Mackenzie Country, the Southern Lakes and Central Otago where winter sunshine was above normal (110-125% of normal), and in some cases well above normal (more than 125% of normal). In contrast, parts of southern Wairarapa received below normal winter sunshine (75-89% of normal).
Soil moisture	At the start of winter, soils were drier than normal for parts of Northland, Auckland, northern Gisborne, the Central Plateau and Hawke's Bay, whereas they were wetter than normal throughout the eastern South Island, the Southern Lakes and Central Otago. As of 1 September 2014 soil moisture levels were near normal for large parts of the country. The exception was parts of Taranaki, the West Coast and Tasman as well as the districts of Selwyn, Waimakariri and Timaru, where soils were slightly drier than normal for the time of year.

Click on the link to jump to the information you require:

[Overview](#)

[Temperature](#)

[Rain](#)

[Sunshine](#)

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

[Highlights and extreme events](#)

Overview

Overall, winter 2014 was characterised by mean sea level pressures that were higher than normal over and to the west of New Zealand. This resulted in an anomalous westerly flow across most of the country with the exception of the north of the North Island where anomalous easterly flow occurred. These westerly and easterly flow anomalies respectively contributed to the difference in rainfall anomalies observed across New Zealand during the season, with eastern parts of the South Island observing a drier than normal winter and Northland observing a winter that was much wetter than normal. Notably, it was an exceptionally warm start to winter. In June 2014, a north-easterly flow anomaly dominated across the country, and this was a contributing factor to what was New Zealand's warmest June on record.

As noted above, winter temperatures across the country were mild overall. The season started out extraordinarily warm, however temperatures returned to near-normal in July and August. Winter was especially mild for the South Island where temperatures were predominantly above average (0.5 to 1.2°C above average). Additionally, some parts of Central Otago observed winter temperatures that were well above average (more than 1.2°C above average). An exception was isolated parts of mid-Canterbury and coastal Marlborough, where near average winter temperatures were observed (within 0.5°C of average). In the North Island, winter temperatures were above average in parts of Northland, Auckland, Waikato, Bay of Plenty, Gisborne, Hawke's Bay, Manawatu and Wellington, with near average temperatures across the remainder of the island. The nation-wide average temperature in winter 2014 was 9.1°C (0.8°C above the 1971-2000 winter average from NIWA's seven station temperature series which begins in 1909)¹.

There was a notable difference in winter rainfall anomalies experienced within both the North and South Islands. In the North Island, winter rainfall was well above normal (more than 149% of normal) throughout Northland, yet rainfall was below normal (50-79% of normal) in southern Waikato, Hawke's Bay, Manawatu and the Kapiti Coast. In the South Island, winter rainfall was above normal (120-149% of normal) in Arthur's Pass, Mount Cook National Park, Wanaka and south-western parts of Southland. In contrast, rainfall was below normal for large parts of the eastern South Island. Areas around Blenheim, Kaikoura, Christchurch, Timaru and Dunedin only received approximately half to two-thirds of normal winter rainfall. Winter rainfall was near normal for remaining areas of the South Island.

At the start of winter, soils were drier than normal for parts of Northland, Auckland, northern Gisborne, the Central Plateau and Hawke's Bay, whereas they were wetter than normal throughout the eastern South Island, the Southern Lakes and Central Otago. As of 1 September 2014 soil moisture had returned to near normal levels for large parts of the country. The exception was parts of Taranaki, the West Coast and Tasman as well as the districts of Selwyn, Waimakariri and Timaru, where soils were slightly drier than normal for the time of year.

Winter sunshine was abundant for much of Waikato, North Canterbury, the Mackenzie Country, the Southern Lakes and Central Otago where winter sunshine was above normal (110-125% of normal), and in some cases well above normal (more than 125% of normal). In contrast, parts of southern Wairarapa received below normal winter sunshine (75-89% of normal). Remaining areas of New Zealand observed near normal winter sunshine totals (within 10% of normal).

¹ Interim value

Further Highlights:

- The highest temperature was 23.6°C, observed at Christchurch (Riccarton) on 2 August.
- The lowest temperature was -9.8°C, observed at Lake Tekapo on 16 July.
- The highest 1-day rainfall was 229 mm, recorded at Chiltern (Coromandel Peninsula) on 10 June.
- The highest wind gust was 191 km/hr, observed at Cape Turnagain on 5 July.
- Of the six main centres in winter 2014, Auckland was the warmest and wettest, Tauranga was the sunniest, Dunedin was the driest, Wellington was the cloudiest and Christchurch was the coolest.
- Of the available, regularly reporting sunshine observation sites, the sunniest four centres² so far in 2014 (January to August) are: Whakatane (1793 hours), Tauranga (1622 hours), Nelson (1557 hours) and Lake Tekapo (1554 hours). Gisborne and Blenheim³ are in fifth-equal place with 1543 hours recorded at those locations.

For further information, please contact:

Mr Chris Brandolino

NIWA Forecaster – NIWA National Climate Centre

Tel. (09) 375 6335, Mobile (027) 866 0014

Temperature: Above average or near average temperatures across the country.

It was a mild winter for New Zealand overall, with record or near-record high temperatures recorded at several locations throughout the country (refer to the tables beginning on the following page). In contrast, no locations recorded record or near-record low temperatures. Despite June 2014 being New Zealand's warmest on record, the season wasn't record breaking for warmth due to near average temperatures in July and August. The nation-wide average temperature in winter 2014 was 9.1°C (0.8°C above the 1971-2000 winter average from NIWA's seven station temperature series which begins in 1909). A relatively warm spell occurred over the country from late July to early August. During this time a number of locations observed record or near-record daily maximum and daily minimum winter air temperatures (further details of this event are presented in the *Highlights and extreme events* section).

² New Plymouth sunshine is still omitted from this ranking while recent instrumentation changes are assessed.

³ In the July Monthly Climate Summary, the Blenheim sunshine record had a few missing values, but these have been recovered and the record is now up to date for 2014.

Record⁴ or near-record mean air temperatures for winter were recorded at:

Location	Mean air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Stratford	9.5	1.4	1960	Highest
Orari Estate	6.8	1.1	1972	Highest
Ranfurlly	4.6	1.5	1975	Highest
Lauder	5.0	1.7	1924	Highest
Te Puke	11.5	1.7	1973	2nd-highest
Cheviot	7.4	0.8	1982	2nd-highest
Timaru	7.9	1.4	1885	2nd-highest
Gore	6.5	1.1	1971	2nd-highest
Campbell Island	6.0	0.9	1991	2nd-highest
Kaitaia	13.2	0.9	1948	3rd-highest
Kerikeri	12.5	0.8	1981	3rd-highest
Hamilton (Ruakura)	10.5	1.0	1906	3rd-highest
Masterton	9.5	1.6	1992	3rd-highest
Gisborne	11.0	1.1	1905	3rd-highest
Reefton	7.3	1.2	1960	3rd-highest
Tara Hills	4.3	1.2	1949	3rd-highest
Oamaru	7.6	0.6	1908	3rd-highest
Invercargill	6.9	1.0	1905	3rd-highest
Whangarei	12.8	0.8	1967	4th-highest
Waiau	7.0	1.2	1974	4th-highest

Record or near-record mean maximum air temperatures for winter were recorded at:

Location	Mean maximum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Te Puke	16.0	1.3	1973	Highest
Stratford	13.3	1.4	1960	Highest
Kerikeri	17.0	0.8	1981	2nd-highest
Tauranga	15.8	1.0	1913	2nd-highest
Auckland (Mangere)	15.8	0.9	1959	2nd-highest
Wanganui	15.1	1.3	1937	2nd-highest
Masterton	14.1	0.9	1992	3rd-highest
Reefton	12.2	1.4	1960	3rd-highest
Mt Cook	9.4	1.7	1929	3rd-highest
Christchurch (Riccarton)	12.9	1.0	1863	3rd-highest

⁴ The rankings (1st, 2nd, 3rd.etc) in all Tables in this summary 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 due to the practical limitations of performing homogeneity checks in real-time.

Orari Estate	12.1	0.9	1972	3rd-highest
Timaru	12.8	1.9	1885	3rd-highest
Ranfurly	9.9	1.6	1975	3rd-highest
Tiwai Point	11.3	1.1	1970	3rd-highest
Campbell Island	7.8	0.6	1991	3rd-highest
Hamilton (Airport)	15.0	0.7	1946	4th-highest
Paraparaumu	14.0	0.9	1953	4th-highest
Milford Sound	11.2	1.1	1934	4th-highest
Kaikoura	12.4	0.9	1963	4th-highest
Waiau	13.0	1.2	1974	4th-highest
Lauder	10.2	1.9	1924	4th-highest
Gore	10.4	1.3	1971	4th-highest

Record or near-record mean minimum air temperatures for winter were recorded at:

Location	Mean minimum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Te Puke	7.1	2.1	1973	Highest
Masterton	4.8	2.4	1992	Highest
Campbell Island	4.2	1.2	1991	Highest
Cape Reinga	11.3	0.8	1951	2nd-highest
Culverden	1.5	1.6	1928	2nd-highest
Cheviot	2.1	1.1	1982	2nd-highest
Timaru	2.9	1.0	1885	2nd-highest
Ranfurly	-0.7	1.3	1975	2nd-highest
Lauder	-0.2	1.5	1924	2nd-highest
Gore	2.6	1.0	1971	2nd-highest
South West Cape	6.7	0.9	1991	2nd-highest
Kaitaia	10.0	1.1	1948	3rd-highest
Ngawi	8.9	0.6	1972	3rd-highest
Gisborne	6.6	1.6	1905	3rd-highest
Motu	2.9	0.9	1990	4th-highest
Stratford	5.7	1.4	1960	4th-highest
Farewell Spit	8.3	1.6	1971	4th-highest
Orari Estate	1.6	1.2	1972	4th-highest
Tara Hills	-0.9	1.1	1949	4th-highest
Oamaru	3.2	0.6	1908	4th-highest
Invercargill	3.1	1.4	1905	4th-highest

Rainfall: Very wet for Northland, dry for eastern parts of the South Island.

Winter was a particularly wet season for Northland, where record or near-record high winter rainfall totals were observed throughout the region. Kaikohe recorded 1172 mm of rain during the season, which is equivalent to 76% of the normal annual rainfall for the town (normal annual rainfall in Kaikohe is 1532 mm). In contrast, winter was relatively dry in eastern parts of the South Island, where winter rainfall totals typically ranged from half to two-thirds of normal. Three locations recorded their fourth-lowest rainfall total for the season.

Record or near-record winter rainfall totals were recorded at:

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
High records or near-records				
Kaitaia	750	162	1985	Highest
Kaikohe	1172	235	1956	Highest
Dargaville	593	160	1943	4th-highest
Low records or near-records				
Blenheim	108	56	1941	4th-lowest
Dunedin Airport	69	52	1962	4th-lowest
Alexandra	43	54	1983	4th-lowest

Sunshine: A sunny winter for many inland parts of the country.

Winter sunshine was plentiful across parts of Waikato, Taranaki, Kapiti Coast, North Canterbury, the Mackenzie Country, the Southern Lakes and Central Otago. The skies weren't quite so clear across southern Wairarapa, where Martinborough recorded its second-lowest winter sunshine total since records began in 1986. From mid-August, a blocking high pressure system became established over the South Island. This contributed to a two-week period of consistent clear skies for inland parts of the South Island, with the exception of the diurnal formation of low cloud and fog in some valleys and basins. Skiing conditions in the Southern Lakes ski areas were excellent at this time, with the remarkable run of 'bluebird' (sunny) days a great follow-up to consistent falls of snow which occurred earlier in August. Of the available, regularly reporting sunshine observation sites, the sunniest four centres so far in 2014 (January to August) are: Whakatane (1793 hours), Tauranga (1622 hours), Nelson (1557 hours) and Lake Tekapo (1554 hours).

Record or near-record winter sunshine hours were recorded at:

Location	Sunshine hours	Percentage of normal	Year records began	Comments
High records or near-records				
Taumarunui	404	148	1947	Highest
Turangi	443	118	1976	2nd-highest

Paraparaumu	467	125	1953	2nd-highest
Cheviot	413	127	1983	2nd-highest
Lake Tekapo	511	113	1928	2nd-highest
Queenstown	433	154	1930	2nd-highest
New Plymouth	498	119	1972	3rd-highest
Cromwell	394	117	1979	4th-highest
Low records or near-records				
Martinborough	286	81	1986	2nd-lowest

Winter climate in the six main centres

Temperatures were above average or near average for all main centres. Auckland and Tauranga each recorded their second-highest mean maximum temperature for winter in records that began in 1959 and 1913 respectively. It was a dry winter for Dunedin, with the city receiving just over half of normal rainfall for the season. Of the six main centres in winter 2014, Auckland was the warmest and wettest, Tauranga was the sunniest, Dunedin was the driest, Wellington was the cloudiest and Christchurch was the coolest.

Winter 2014 main centre climate statistics:

Temperature			
Location	Mean temp. (°C)	Departure from normal (°C)	Comments
Auckland ^a	12.3	0.9	Above average
Tauranga ^b	11.6	0.9	Above average
Hamilton ^c	9.6	0.4	Near average
Wellington ^d	9.9	0.6	Above average
Christchurch ^e	6.8	0.3	Near average
Dunedin ^f	7.9	0.7	Above average
Rainfall			
Location	Rainfall (mm)	% of normal	Comments
Auckland ^a	365	99%	Near normal
Tauranga ^b	336 ⁵	95%	Near normal
Hamilton ^c	363 ⁶	98%	Near normal
Wellington ^d	263 ⁷	68%	Below normal
Christchurch ^e	124	67%	Below normal
Dunedin ^f	93	54%	Below normal
Sunshine			
Location	Sunshine (hours)	% of normal	Comments
Auckland ^a	417	106%	Near normal
Tauranga ^b	469	102%	Near normal
Hamilton ^g	434	120%	Above normal
Wellington ^d	348	95%	Near normal
Christchurch ^e	401 ⁷	101%	Near normal
Dunedin ^f	- ⁸	-	-

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

⁵ Missing 13 days of data. ⁶ Missing 2 days of data. ⁷ Missing 1 day of data. ⁸ No data available for August due to sensor replacement.

Highlights and extreme events

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

Temperatures

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 10 ski areas had been forced to delay opening.

On Wednesday 30 July a strong north-westerly flow became established over the South Island, bringing anomalously warm temperatures to eastern locations of the island. Thursday 31 July was an especially warm day for the time of year for eastern South Island locations, with many towns and cities recording a maximum temperature in the late-teens or early-twenties (°C). The north-westerly flow continued into the early days of August, resulting in further anomalously warm temperatures for many locations. Perhaps most notably, Christchurch and Dunedin recorded their highest daily maximum air temperature for winter during this time (records began in 1863 and 1947, respectively), and Queenstown recorded its third-highest daily maximum air temperature for winter (records began in 1871).

In winter 2014, the highest temperature recorded was 23.6°C, observed at Christchurch (Riccarton) on 2 August. Lake Tekapo observed the lowest temperature in winter 2014, with -9.8°C recorded on 16 July.

Record or near-record daily maximum air temperatures for winter were recorded at:

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Waione	22.2	Jun-8th	1991	Highest
Reefton	19.4	Aug-23rd	1960	Highest
Stephens Island	16.2	Jun-6th	1973	Highest
Christchurch (Riccarton)	23.6	Aug-2nd	1863	Highest
Dunedin (Musselburgh)	21.7	Aug-1st	1947	Highest
Lumsden	18.8	Aug-1st	1982	Highest
Gore	19.4	Aug-1st	1971	Highest
Tiwai Point	19.1	Aug-1st	1970	Highest
Nugget Point	19.9	Aug-1st	1970	Highest

Kaitaia	20.8	Jun-3rd	1948	2nd-highest
Auckland (Whenuapai)	21.2	Aug-2nd	1945	2nd-highest
Kopua	20.1	Jun-8th	1962	2nd-highest
Ngawi	21.4	Jul-4th	1972	2nd-highest
Puysegur Point	17.6	Jun-24th	1978	2nd-highest
Balclutha	20.9	Aug-1st	1964	2nd-highest
Campbell Island	12.6	Jun-29th	1991	2nd-highest
Kerikeri	21.3	Jun-17th	1981	Equal 2nd-highest
Cape Reinga	20.1	Jun-3rd	1951	3rd-highest
Dannevirke	20.7	Aug-2nd	1951	3rd-highest
Waipawa	21.7	Aug-2nd	1945	3rd-highest
Ranfurlly	18.4	Aug-1st	1975	3rd-highest
Manapouri	17.4	Jun-5th	1963	3rd-highest
Queenstown	18.9	Aug-1st	1871	3rd-highest
South West Cape	16.1	Jun-24th	1991	3rd-highest
Kaikohe	20.3	Jun-12th	1973	4th-highest
Masterton	20.6	Aug-1st	1992	4th-highest
Wanganui	21.1	Jun-8th	1937	4th-highest
Westport	18.3	Jun-9th	1937	4th-highest
Secretary Island	18.1	Jun-10th	1985	4th-highest
Crail Bay (Pelorus Sound)	18.1	Jun-26th	1982	4th-highest
Cheviot	21.8	Aug-2nd	1982	4th-highest
Stratford	17.6	Jun-17th	1960	Equal 4th-highest
Waiau	21.9	Aug-2nd	1974	Equal 4th-highest
Low records or near-records				
Taihape	1.0	Jul-19th	1972	Lowest
Westport	6.9	Jul-2nd	1966	3rd-lowest

Record or near-record daily minimum air temperatures for winter were recorded at:

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Whangaparaoa	15.5	Jun-9th	1982	Highest
Te Puke	15.5	Aug-3rd	1973	Highest
Masterton	13.9	Aug-2nd	1992	Highest
Ngawi	16.0	Jun-26th	1972	Highest
Westport	13.9	Jun-10th	1966	Highest
Hanmer Forest	14.5	Aug-2nd	1972	Highest
Culverden	15.9	Aug-2nd	1930	Highest
Cheviot	13.1	Jul-31st	1982	Highest
Waipara West	16.0	Aug-1st	1973	Highest
Orari Estate	11.9	Aug-29th	1972	Highest
Ranfurlly	11.9	Aug-2nd	1975	Highest
Campbell Island	9.1	Jun-30th	1991	Highest
Mahia	14.2	Aug-3rd	1990	Equal highest

Stratford	12.5	Aug-1st	1972	Equal highest
Kerikeri	16.4	Jun-9th	1981	2nd-highest
Whakatane	15.5	Aug-3rd	1975	2nd-highest
Waione	14.9	Aug-1st	1993	2nd-highest
Gisborne	16.4	Aug-3rd	1940	2nd-highest
Wairoa	16.1	Aug-3rd	1972	2nd-highest
Secretary Island	13.0	Jul-12th	1988	2nd-highest
Dunedin (Musselburgh)	13.3	Aug-1st	1947	2nd-highest
Alexandra	11.6	Aug-2nd	1983	Equal 2nd-highest
Nugget Point	10.5	Aug-1st	1972	Equal 2nd-highest
Kaikohe	15.3	Jun-9th	1973	3rd-highest
Martinborough	14.2	Aug-1st	1986	3rd-highest
Okarito	11.6	Jun-17th	1983	3rd-highest
Haast	13.0	Aug-2nd	1949	3rd-highest
Milford Sound	11.5	Aug-1st	1935	3rd-highest
Waiau	14.7	Aug-1st	1974	3rd-highest
Winchmore	13.3	Aug-2nd	1928	3rd-highest
Lumsden	11.5	Aug-1st	1982	3rd-highest
Lauder	12.2	Aug-2nd	1924	3rd-highest
Motu	11.0	Aug-3rd	1990	Equal 3rd-highest
Dannevirke	13.6	Aug-1st	1951	Equal 3rd-highest
Wellington (Airport)	14.2	Aug-1st	1972	Equal 3rd-highest
Farewell Spit	13.9	Aug-2nd	1972	Equal 3rd-highest
Greymouth	12.9	Aug-1st	1972	Equal 3rd-highest
Arthurs Pass	8.4	Jun-6th	1973	Equal 3rd-highest
South West Cape	11.0	Aug-1st	1991	Equal 3rd-highest
Kaitia	16.5	Jun-9th	1948	4th-highest
Whangarei	16.1	Jun-9th	1967	4th-highest
Whitianga	15.5	Aug-3rd	1971	4th-highest
Franz Josef	10.6	Jul-12th	1982	4th-highest
Tara Hills	8.5	Aug-2nd	1949	4th-highest
Low records or near-records				
Taihape	-9.1	Jul-24th	1972	Lowest
Le Bons Bay	-0.2	Aug-8th	1984	2nd-lowest
Hokitika	-3.7	Jul-22nd	1866	4th-lowest

Rain and slips

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. Farther north, a slip partially blocked SH 2 on the Rimutaka Hill Road. On the Coromandel Peninsula, flooding was also reported on SH 25 south of Whitianga, and many rural roads in Northland were closed by floodwaters.

On 25 June, extensive surface flooding and road closures occurred in Nelson as a result of heavy rain. Eight shops around Victory Square were flooded, whilst homes on Murphy Street were evacuated. Surface flooding also affected many state highways along the West Coast.

From 8 to 12 July, heavy rain fell in many parts of the Far North, resulting in considerable surface flooding and road closures. 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.

On 19 and 20 July, heavy rain again struck the Far North. In Maungaturoto (south of Whangarei), fourteen people were stranded in their houses as floodwaters passed through their properties. Nearby, a car heading along SH 12 was swept away by a flash flood before coming to rest in a ditch, with the occupant requiring rescue from emergency services. SH 1 between Auckland and Whangarei was blocked by three slips and flooding at Brynderwyn, with traffic diversions necessary.

On 19 August heavy rain swept through Auckland and Northland with the heaviest rain falling in the evening. In the two hours from 6-8pm, 54.8mm of rain was recorded in Kerikeri. This weather system also affected Rotorua on 20 August where the torrential rain brought flash flooding to the area. The local Fire Service received approximately 30 flooding-related callouts. A number of roads were blocked, several homes were evacuated and some schools closed as a result of the flooding.

On 31 August heavy rain hit Auckland Northland once again. Farmers near Kaeo were forced to move stock to higher ground as the river flats became extensively flooded. Around 250 homes lost power in parts of Kaipara and Whangarei due to outages caused by a slip and falling trees.

The highest 1-day rainfall for winter 2014 was 229 mm, recorded at Chiltern (Coromandel Peninsula) on 10 June.

Record or near record winter extreme 1-day rainfall totals were recorded at:

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Kaikohe	159	Jul-8th	1956	Highest
Coroglen (Coromandel)	153	Jun-10th	1988	Highest
Te Puke	137	Jun-11th	1973	Highest
Lottin Point	188	Jun-11th	1965	Highest
Woodend	95	Jun-9th	1981	Highest
Chiltern	229	Jun-10th	1950	2nd-highest
Te Puia Springs	186	Jun-11th	1946	2nd-highest
Smedley	115	Jun-11th	1964	2nd-highest
Kowhitirangi	152	Jun-5th	1965	2nd-highest
Kerikeri	117	Jul-8th	1981	3rd-highest
Parakao	112	Jul-19th	1951	3rd-highest
Mairetahi	72	Jul-11th	1951	3rd-highest
Waiheke Island	88	Jul-12th	1980	3rd-highest
Oropi	109	Jun-10th	1972	3rd-highest
Horsham Downs	69	Jun-11th	1973	3rd-highest
Awanui	124	Jun-11th	1983	3rd-highest

Ross	173	Jun-5th	1909	3rd-highest
Amberley	69	Jun-9th	1987	3rd-highest
Waipara West	80	Jun-9th	1973	3rd-highest
Mamaranui	78	Jun-10th	1951	4th-highest
Kennedy Bay	107	Jun-10th	1988	4th-highest
Waitoa	55	Jun-11th	1987	4th-highest
Rukuhanga	128	Jun-11th	1930	4th-highest
Raglan	61	Jun-10th	1983	4th-highest
Stratford	111	Aug-2nd	1960	4th-highest
South West Cape	40	Aug-1st	1991	4th-highest

Snow and ice

On 2 July, snow fell and settled to low levels across much of the South Island, including inland parts of Southland, Otago, and Canterbury. The snowfall wasn't especially heavy for most areas, yet it provided a welcome addition to New Zealand ski area snowpack's, which were relatively thin across the board at the beginning of the month. Schools in Te Anau were closed because of the snow, and many businesses in Central Otago closed early to enable staff time to return home safely in the icy conditions.

On 3 July, black ice was a contributing factor in at least twenty accidents that occurred in the Clutha and wider Dunedin districts, and icy conditions contributed to four road accidents in Taranaki.

On 21 July and 22 July, snow showers fell to low levels across southern and eastern parts of the South Island, and southern and central parts of the North Island. Both the Desert Road (SH 1) and the Rimutaka Hill road (SH 2) were closed for a time because of snow.

Snow on 8 August closed all kindergartens, primary, intermediate and some high schools for the day in Dunedin, and a number of flights at Queenstown Airport were cancelled due to snowfall.

On 14 August snowfall occurred across the Central Plateau, closing the Desert Road (SH 1). Black ice on the roads contributed to several crashes that were reported in Taupo and Bay of Plenty, with one car over-turning. At the height of this early evening storm, 13 cars and a truck-and-trailer unit were trapped north of Wellington at the summit of the Rimutaka Hill road.

Wind

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 properties, 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 Kaitaia 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 across the Far North.

A tornado struck Blaketown (Greymouth) on 2 August, damaging ten properties, and leaving three families temporarily homeless. No injuries were reported.

On 7 August strong winds snapped wooden power poles near Invercargill and blew out panes of glass in the city.

The highest wind gust for winter 2014 was 191 km/hr, observed at Cape Turnagain on 5 July.

Record or near record winter extreme wind gusts were recorded at:

Location	Extreme wind gust (km/hr)	Date of extreme gust	Year records began	Comments
Kaitaia	119	Jul-8th	1985	Highest
Manapouri	80	Aug-7th	1991	Equal highest
Tara Hills	98	Aug-1st	1985	Highest
Wanaka	93	Aug-1st	1992	Highest
South West Cape	165	Aug-7th	1991	2nd-highest
Ashburton	100	Aug-2nd	1970	Equal 2nd-highest
Cape Reinga	169	Jul-8th	1974	4th-highest
Wanganui	96	Aug-14th	1977	Equal 4th-highest

Cloud and fog

On 14 July, international and domestic flights at Auckland Airport were delayed, diverted or cancelled due to fog. Auckland Ferry services were also disrupted by fog, with ferries forced to lower their speeds because of poor visibility.

On 1 August heavy fog in Auckland caused domestic flight cancellations and the delay of some harbour ferry crossings. The radiation fog was caused by a humid air mass moving over cooler ground temperatures.

Lightning and hail

On 2 July, lightning strikes hit switch boards in Auckland, causing power outages in the suburbs of Papakura and Pukekohe. A Papakura resident's bed caught fire after a lightning strike travelled up their telephone wire and through to the modem in the bedroom, and several windows were broken at a neighbouring property.

On 30 and 31 July, lightning strikes forced the suspension of chairlift operations at *Coronet Peak* and *The Remarkables* ski areas in Queenstown, and *Treble Cone* ski area in Wanaka due to safety concerns.

On 14 August a violent storm of thunder, lightning and hail struck Wellington. Lightning struck the Zephyrometer sculpture near Wellington Airport causing it to explode.

For further information, please contact:

Mr Chris Brandolino

NIWA Forecaster – NIWA National Climate Centre

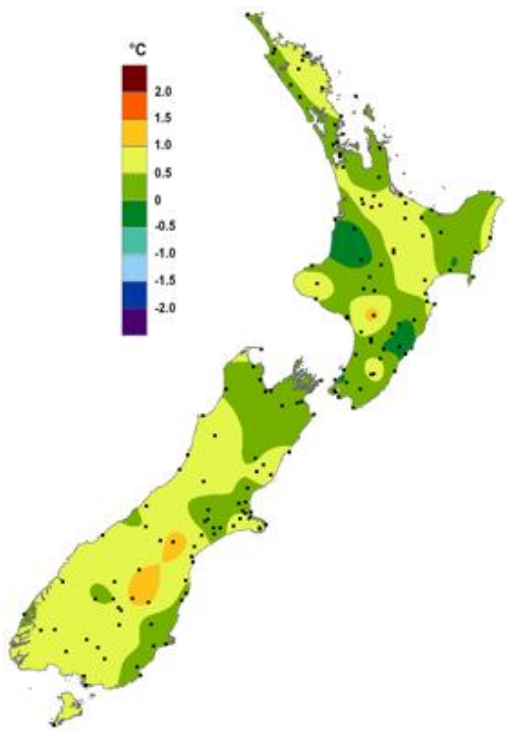
Tel. (09) 375 6335, Mobile (027) 866 0014

For climate data enquiries, please contact:

Mr Gregor Macara

Climate Scientist, NIWA Wellington

Tel. (04) 386 0509



Mean Temperature Anomaly,
9am 01/06/2014 to 9am 01/09/2014

Winter 2014 mean temperature expressed as a difference from average, illustrating that mean temperatures were higher than average for many parts of New Zealand.

Mean temperatures were above average for many parts of the North and South Islands (0.5 to 1.2°C above winter average – yellow shades), with mostly near average mean temperatures recorded elsewhere (within 0.5°C of winter average – green shades).

<http://www.niwa.co.nz/climate> © Copyright NIWA 2014.

All rights reserved.