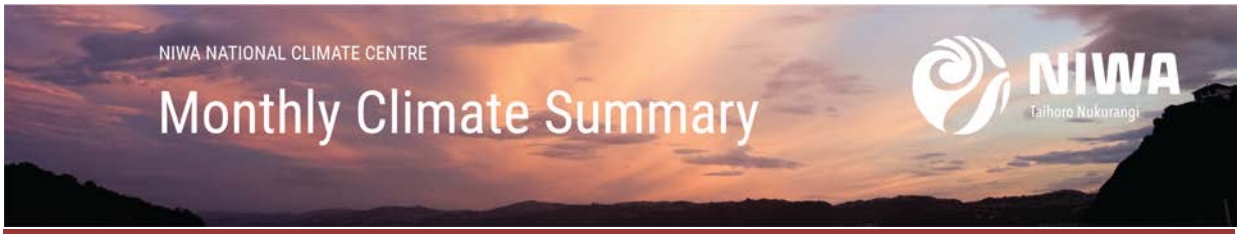

New Zealand Climate Summary: **July 2019** Issued: 5 July 2019

New Zealand's 2nd-warmest July on record

Temperature	Temperatures were above average (0.51°C to 1.2°C above average) or well above average (>1.2°C above average) nearly everywhere across New Zealand, with the most unusually warm temperatures in the interior South Island and parts of Manawatu-Whanganui. Many locations observed record or near-record warm mean, mean maximum, and mean minimum July temperatures.
Rainfall	Rainfall was above (120% to 149% of normal) or well above normal (>149% of normal) for the majority of the South Island with the exception being a portion of eastern Southland and lower and interior Otago where below normal rainfall (50% to 79% of normal) was observed. For the North Island, above or well above normal rainfall was observed in central and southwestern areas while near normal (80% to 119% of normal) or below normal rainfall was observed in the majority of the north and east.
Soil Moisture	As of 31 July, soil moisture was near normal for most locations while a small area in lower coastal Canterbury and upper coastal Otago observed below normal soil moisture.

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

Overview

July 2019 was characterised by higher than normal mean sea level pressure east of New Zealand. Lower than normal pressure was observed in the Tasman Sea and extended over the South Island. This set up resulted in more westerly air flows than normal across the country. The distinct lack of southerly winds throughout the month and warmer than average coastal and regional sea surface temperatures contributed to unseasonably warm temperatures and New Zealand's 2nd-warmest July on record. A central Pacific El Niño also influenced global patterns which led to the unusual mid-winter warmth.

It has now been 30 months since New Zealand experienced a nationwide average temperature that was below average (0.51˚C to 1.20˚C below the 1981-2010 average).

The nationwide average temperature in July 2019 was 9.6°C (1.7°C above the 1981-2010 July average from NIWA's seven station temperature series which begins in 1909).

Rainfall was variable throughout New Zealand. The majority of the South Island along with parts of central and southwestern North Island recorded above or well above normal rainfall. Rainfall totals about the upper and eastern North Island along with parts of southeastern South Island were near normal or below normal.

New Zealand's 2nd-warmest July on record ended on a chilly and stormy note as a wintry blast brought snow, strong winds, rain, hail, thunderstorms, and cold temperatures (refer to the highlights and extreme events section for details).

Further Highlights:

- The highest July temperature was 21.6°C, observed at Wakanui on 3 July.
- The lowest temperature was -6.2°C, observed at Clyde on 7 July.
- The highest 1-day rainfall was 126 mm, recorded at Milford Sound on 13 July.
- The highest wind gust was 169 km/h, observed at Cape Turnagain on 17 July.
- Of the six main centres in July 2019, Tauranga was the warmest, Christchurch was the coldest, Dunedin was the driest and least sunny, Wellington was the wettest and Auckland was the sunniest.
- Of the available, regularly reporting sunshine observation sites, the sunniest four regions in 2019 are Wider Nelson (1597 hours), Marlborough (1566 hours), Taranaki (1532 hours), and Bay of Plenty (1528 hours).

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Temperature: An unusually warm July

The nationwide average temperature in July 2019 was 9.6°C (1.7°C above the 1981-2010 July average from NIWA's seven station temperature series which begins in 1909). This made July 2019 the 2nd-warmest July on record, second only to July 1998.

Temperatures were above average or well above average across much of the country. Many locations observed record or near-record warm mean, mean maximum, and mean minimum July temperature as shown in the table below. Notably, the mean temperature at Lake Tekapo during July was 4.7°C, which is 3.1°C warmer than average for this location, the highest since records began there in 1927. Also, a new July mean max temperature record of 14.9°C was set in Levin; that is 2.2°C warmer than average for the location, with records dating back all the way to 1895.

Also of note, Queenstown typically observes 7 days above 10°C in July, however this July they recorded 16 days over 10°C.

Record[1] or near-record mean air temperatures for July were recorded at:

Location	Mean air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Motu	8.0	1.9	1990	Highest
Ngawi	12.3	2.1	1972	Highest
Waipawa	9.1	1.4	1945	Highest
Levin	10.9	2.4	1895	Highest
Porirua	10.7	1.8	1968	Highest
Whanganui	11.9	2.4	1937	Highest
Blenheim	9.7	2.0	1932	Highest
Brothers Island	11.9	1.7	1997	Highest
Medbury	7.9	3.0	1927	Highest
Waiau	8.2	3.2	1974	Highest
Ashburton	8.0	2.3	1927	Highest
Lincoln	8.7	2.6	1881	Highest
Le Bons Bay	9.2	1.8	1984	Highest
Lake Tekapo	4.7	3.1	1927	Highest
Orari Estate	7.2	2.2	1972	Highest
Manapouri (West Arm Jetty)	6.7	3.8	1971	Highest
Cape Reinga	13.6	1.0	1951	2nd-highest
Dargaville	12.8	1.7	1943	2nd-highest
Taupō	8.7	2.2	1949	2nd-highest
New Plymouth	11.4	1.7	1944	2nd-highest
Lower Retaruke	9.1	1.8	1966	2nd-highest

[1] 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.

Martinborough	9.7	1.9	1986	2nd-highest
Hicks Bay	13.1	1.9	1969	2nd-highest
Hastings	10.4	2.2	1965	2nd-highest
Paraparaumu	10.7	2.0	1953	2nd-highest
Wellington (Kelburn)	10.8	1.9	1927	2nd-highest
Wellington (Airport)	11.2	1.6	1962	2nd-highest
Upper Hutt	9.7	1.8	1939	2nd-highest
Hawera	10.4	2.0	1977	2nd-highest
Farewell Spit	11.5	1.8	1971	2nd-highest
Reefton	7.4	2.2	1960	2nd-highest
Milford Sound	7.1	1.8	1934	2nd-highest
Cape Campbell	10.8	1.6	1953	2nd-highest
Kaikoura	10.0	1.9	1963	2nd-highest
Cheviot	8.1	2.1	1982	2nd-highest
Mt Cook Village	5.0	2.8	1929	2nd-highest
Waipara West	9.3	2.1	1973	2nd-highest
Tara Hills	4.5	2.6	1949	2nd-highest
Wanaka	6.2	2.9	1955	2nd-highest
Ranfurly	4.8	2.6	1897	2nd-highest
Oamaru	8.0	1.4	1967	2nd-highest
Dunedin (Musselburgh)	8.4	1.9	1947	2nd-highest
Queenstown	6.3	2.6	1871	2nd-highest
Cromwell	5.6	2.4	1949	2nd-highest
Lauder	5.2	3.2	1924	2nd-highest
Nugget Point	7.8	1.7	1970	2nd-highest
Whangārei	12.8	1.2	1967	3rd-highest
Mokohinau	14.1	1.0	1994	3rd-highest
Whangaparaoa	13.0	1.4	1982	3rd-highest
Whitianga	11.9	1.6	1962	3rd-highest
Tauranga	12.0	1.7	1913	3rd-highest
Te Puke	11.1	1.6	1973	3rd-highest
Rotorua	9.3	1.5	1964	3rd-highest
Port Taharoa	12.7	1.7	1973	3rd-highest
Te Kuiti	9.9	1.2	1959	3rd-highest
Masterton	9.1	1.8	1906	3rd-highest
Dannevirke	9.5	1.6	1951	3rd-highest
Mahia	11.5	1.5	1990	3rd-highest
Palmerston North	10.0	1.3	1928	3rd-highest
Ohakune	7.2	1.7	1962	3rd-highest
Waiouru	6.0	1.8	1962	3rd-highest
Haast	9.1	1.4	1949	3rd-highest
Secretary Island	10.0	0.9	1985	3rd-highest
Culverden	7.7	2.7	1928	3rd-highest
Rangiora	7.3	1.4	1965	3rd-highest
Te Anau	6.1	1.9	1963	3rd-highest
Five Rivers	5.5	1.6	1982	3rd-highest
Roxburgh	7.5	3.1	1950	3rd-highest
Kaikohe	12.3	1.3	1973	4th-highest

Auckland (Whenuapai)	11.4	1.2	1945	4th-highest
Paeroa	11.2	1.5	1947	4th-highest
Whakatāne	10.9	2.0	1974	4th-highest
Pukekohe	11.4	1.2	1969	4th-highest
Gisborne	11.0	1.5	1905	4th-highest
Arapito	9.7	1.2	1978	4th-highest
Winchmore	7.6	2.0	1927	4th-highest
Ōamaru	7.1	1.6	1967	4th-highest
Lumsden	5.5	1.6	1982	4th-highest
Alexandra	5.1	2.1	1929	4th-highest
Gore	6.3	1.8	1907	4th-highest
South West Cape	8.6	1.1	1991	4th-highest
Low records or near-records				
None observed				

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

Location	Mean maximum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Whangaparaoa	15.6	1.5	1982	Highest
Whitianga	16.7	1.9	1962	Highest
Te Kuiti	15.6	2.1	1959	Highest
New Plymouth	14.8	1.5	1944	Highest
Gisborne	16.5	2.3	1905	Highest
Waipawa	14.9	2.5	1945	Highest
Levin	14.9	2.2	1895	Highest
Porirua	14.4	2.0	1968	Highest
Hawera	13.9	1.9	1977	Highest
Ohakune	12.2	2.9	1962	Highest
Whanganui	15.7	2.4	1937	Highest
Brothers Island	13.5	1.6	1997	Highest
Medbury	13.7	3.0	1927	Highest
Waiau	14.5	3.6	1974	Highest
Ranfurly	10.4	3.2	1897	Highest
Manapouri (West Arm Jetty)	9.3	3.9	1971	Highest
Whangārei	17.1	1.6	1967	Equal highest
Hanmer Forest	13.0	2.9	1906	Equal highest
Kerikeri	17.4	1.5	1945	2nd-highest
Taupō	13.1	2.1	1949	2nd-highest
Motu	12.4	2.4	1990	2nd-highest
Auckland (Mangere)	15.9	1.6	1959	2nd-highest
Martinborough	14.5	2.1	1986	2nd-highest
Ngawi	14.6	2.0	1972	2nd-highest
Hicks Bay	16.0	1.8	1969	2nd-highest
Wairoa	16.1	2.2	1964	2nd-highest
Mahia	14.1	1.6	1990	2nd-highest

Palmerston North	14.4	1.7	1928	2nd-highest
Wellington (Kelburn)	13.1	1.7	1927	2nd-highest
Upper Hutt	14.5	2.1	1939	2nd-highest
Blenheim	14.7	1.7	1932	2nd-highest
Waipara	14.3	2.3	1973	2nd-highest
Le Bons Bay	11.5	1.7	1984	2nd-highest
Lake Tekapo	9.5	3.3	1927	2nd-highest
Wanaka	10.7	3.1	1955	2nd-highest
Tauranga	15.8	1.3	1913	3rd-highest
Whakatāne	16.0	1.3	1974	3rd-highest
Rotorua	13.2	1.4	1964	3rd-highest
Hamilton	15.0	1.2	1946	3rd-highest
Dannevirke	13.6	1.9	1951	3rd-highest
Napier	15.7	1.8	1870	3rd-highest
Whakatu	15.7	2.3	1965	3rd-highest
Paraparaumu	14.2	1.7	1953	3rd-highest
Wellington (Airport)	13.8	1.5	1962	3rd-highest
Waiouru	9.5	1.6	1962	3rd-highest
Farewell Spit	14.4	1.1	1971	3rd-highest
Arapito	14.1	1.0	1978	3rd-highest
Reefton	11.9	2.0	1960	3rd-highest
Cheviot	13.9	2.2	1982	3rd-highest
Mt Cook (Airport)	9.1	2.5	1929	3rd-highest
Ashburton	13.1	2.3	1928	3rd-highest
Christchurch	13.2	2.3	1863	3rd-highest
Tara Hills	10.0	3.1	1949	3rd-highest
Ōamaru	12.4	1.5	1967	3rd-highest
Dunedin (Musselburgh)	11.8	1.8	1947	3rd-highest
Queenstown	10.2	2.0	1871	3rd-highest
Cromwell	11.1	3.1	1949	3rd-highest
Manapouri (Airport)	9.9	2.0	1963	3rd-highest
Cape Reinga	15.6	0.7	1951	4th-highest
Kaikohe	15.4	1.4	1973	4th-highest
Paeroa	15.4	1.1	1947	4th-highest
Lower Retaruke	13.3	1.1	1966	4th-highest
Masterton	14.4	1.8	1906	4th-highest
Napier	15.7	2.1	1870	4th-highest
Hastings	15.6	2.2	1965	4th-highest
Greymouth	13.1	1.0	1947	4th-highest
Milford Sound	10.7	1.5	1934	4th-highest
Lincoln	12.9	2.1	1881	4th-highest
Orari Estate	12.6	2.3	1972	4th-highest
Balclutha	10.9	1.5	1964	4th-highest
Nugget Point	10.3	1.4	1970	4th-highest
Low records or near-records				
None observed				

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

Location	Mean minimum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Ngawi	10.0	2.2	1972	Highest
Haast	5.7	1.9	1949	Highest
Brothers Island	10.4	1.8	1997	Highest
Cape Campbell	9.1	2.1	1953	Highest
Kaikoura	7.1	1.8	1963	Highest
Culverden	2.2	3.1	1928	Highest
Medbury	2.1	3.0	1927	Highest
Mt Cook Village	1.2	3.4	1929	Highest
Ashburton	2.8	2.3	1928	Highest
Lincoln	4.5	3.1	1881	Highest
Le Bons Bay	7.0	2.1	1984	Highest
Lake Tekapo	-0.1	2.9	1927	Highest
Orari Estate	1.9	2.2	1972	Highest
Dunedin (Musselburgh)	5.0	1.9	1947	Highest
Te Anau	3.0	2.8	1963	Highest
Manapouri (West Arm Jetty)	4.1	3.8	1971	Highest
Roxburgh	3.7	3.9	1950	Highest
Cape Reinga	11.5	1.3	1951	2nd-highest
New Plymouth	7.9	1.8	1944	2nd-highest
Lower Retaruke	4.8	2.4	1966	2nd-highest
Levin	6.9	2.6	1895	2nd-highest
Porirua	6.9	1.5	1968	2nd-highest
Wellington (Kelburn)	8.5	2.2	1927	2nd-highest
Hawera	7.0	2.3	1977	2nd-highest
Whanganui	8.1	2.5	1937	2nd-highest
Farewell Spit	8.6	2.4	1971	2nd-highest
Cheviot	2.3	1.9	1982	2nd-highest
Wanaka	1.7	2.6	1955	2nd-highest
Ōamaru	3.6	1.4	1967	2nd-highest
Queenstown	2.3	3.2	1871	2nd-highest
Lumsden	1.4	2.1	1982	2nd-highest
Lauder	0.1	2.9	1924	2nd-highest
Nugget Point	5.3	1.9	1970	2nd-highest
Mokohinau	12.7	1.1	1994	3rd-highest
Te Puke	7.0	2.3	1973	3rd-highest
Whakatāne	6.8	2.6	1974	3rd-highest
Port Taharoa	9.9	2.3	1973	3rd-highest
Hicks Bay	10.1	1.8	1969	3rd-highest
Hastings	5.1	2.1	1965	3rd-highest
Mahia	8.9	1.3	1990	3rd-highest
Paraparaumu	7.1	2.4	1953	3rd-highest
Wellington (Airport)	8.6	1.7	1962	3rd-highest
Hokitika	5.0	2.1	1866	3rd-highest

Puysegur Point	7.3	1.5	1978	3rd-highest
Blenheim	4.8	2.3	1932	3rd-highest
Waiau	1.9	2.8	1974	3rd-highest
Waipara	4.2	1.9	1973	3rd-highest
Tara Hills	-1.1	2.0	1949	3rd-highest
Five Rivers	1.1	1.8	1982	3rd-highest
Alexandra	-0.3	1.9	1929	3rd-highest
Gore	2.7	1.9	1907	3rd-highest
South West Cape	6.9	1.3	1991	3rd-highest
Martinborough	4.9	1.6	1986	Equal 3rd-highest
Dargaville	9.3	1.5	1943	4th-highest
Rotorua	5.6	2.1	1964	4th-highest
Castlepoint	9.0	1.5	1972	4th-highest
Waiouru	2.5	2.0	1962	4th-highest
Reefton	2.9	2.4	1960	4th-highest
Milford Sound	3.6	2.5	1934	4th-highest
Secretary Island	7.8	1.5	1985	4th-highest
Winchmore	2.3	1.8	1928	4th-highest
Low records or near-records				
None observed				

Rainfall: Wet for many, dry for some

New Zealand's rainfall patterns were mixed during July, although a predominant westerly air flow meant that western areas were generally wetter (compared to normal) than eastern areas. Notably, Hokitika recorded 452 mm of rainfall during the month of July, which is the 2nd-wettest July since records began there in 1866.

The month started on a very dry note and Watercare urged residents in Auckland to use water wisely, as the city's total water storage was down to 59.2%, 25% less than normal for the time of year. But an active front preceded by a moist northerly flow from the tropical Pacific brought some beneficial rain to the North Island on 4 July.

By the end of July, soils moisture levels were mostly near normal.

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

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
High records or near-records				
Hokitika	452	246	1866	2nd-highest
Appleby	178	178	1932	Equal 3rd-highest
Low records or near-records				
None recorded				

July climate in the six main centres

July temperatures were above or well above average for all main centres with Wellington and Dunedin both recording their 2nd-warmest July on record. Auckland, Hamilton, Wellington and Dunedin experienced near normal July rainfall, while Tauranga and Christchurch observed above normal rainfall. Of the six main centres in July 2019, Tauranga was the warmest, Christchurch was the coldest, Dunedin was the driest and least sunny, Wellington was the wettest, and Auckland was the sunniest.

July 2019 main centre climate statistics:

Temperature			
Location	Mean temp. (°C)	Departure from normal (°C)	Comments
Auckland[a]	11.9	+1.0	Above average
Tauranga[b]	12.0	+1.7	Well above average (3rd-warmest on record)
Hamilton[c]	10.0	+1.3	Well above average
Wellington[d]	10.8	+1.9	Well above average (2nd-warmest on record)
Christchurch[e]	7.6	+1.8	Well above average
Dunedin[f]	8.4	+1.9	Well above average (2nd-warmest on record)

Rainfall			
Location	Rainfall (mm)	% of normal	Comments
Auckland[a]	140	102	Near normal
Tauranga[b]	152	129	Above normal
Hamilton[c]	113	96	Near normal
Wellington[d]	159	116	Near normal
Christchurch[e]	86	133	Above normal
Dunedin[f]	49	87	Near normal

Sunshine	
Location	Sunshine (hours)
Auckland[a]	159
Tauranga[b]	122
Hamilton[g]	126
Wellington[d]	112
Christchurch[e]	110
Dunedin[f]	92

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

Highlights and extreme events

Rain and slips

On 4 July, an active front preceded by a moist northerly flow brought heavy rain and high elevation snow to central and upper North Island and caused localised surface flooding and traffic delays.

- Parts of State Highway 2 in Whakatāne closed due to flooding.
- Farmers in the Bay of Plenty and Hawke's Bay were being urged to move stock to higher ground.
- Te Wharekura o Ruatoki school closed for the day.

On 14 July, a strong front moved up the North Island and brought heavy rain and strong winds to many. Wellington City Council warned residents to stay off the roads due to localised flooding.

On 30 July Heavy rain fell across the Selwyn District in Canterbury leading to flooding of several properties.

The highest daily rainfall for the month was 126 mm, recorded at Milford Sound on 13 July.

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

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Taupō	84	4th	1949	Highest
Waiouru	61	4th	1950	2nd-highest
Secretary Island	63	28th	1985	3rd-highest
Manapouri Airport	48	13th	1963	3rd-highest
Hokitika	117	28th	1866	4th-highest

Temperatures

Several record or near-record high daily maximum and minimum temperatures were broken on 3-4 July as a mild air flow from the sub-tropics brought above average temperatures to most regions. Notably, Dunedin (Musselburgh) observed 20.3°Con 3 July which is the warmest July temperature since records began there in 1947. On the same day, a new July max temperature record of 17.6°C was set in Ranfurly, with records dating back all the way to 1897.

The highest July temperature was 21.6°C, observed at Wakanui on 3 July. The lowest July temperature was -6.2°C, observed at Clyde on 7 July.

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

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Porirua	17.4	24th	1968	Highest
Ranfurly	17.6	3rd	1897	Highest
Dunedin (Musselburgh)	20.3	3rd	1947	Highest
Manapouri (West Arm Jetty)	18.7	9th	1971	Highest
Whanganui	19.9	3rd	1937	2nd-highest

Lincoln	21.5	3rd	1881	2nd-highest
Mokohinau	17.7	3rd	1994	3rd-highest
Ohakune	16.8	3rd	1962	3rd-highest
Haast	18.2	21st	1949	3rd-highest
Waiau	20.6	3rd	1974	3rd-highest
Cheviot	21.0	3rd	1982	3rd-highest
Ashburton	21.6	3rd	1928	3rd-highest
Le Bons Bay	17.2	3rd	1984	3rd-highest
Waipara	21.3	3rd	1973	Equal 3rd-highest
Martinborough	18.4	2nd	1986	4th-highest
Levin	18.1	29th	1895	4th-highest
Reefton	16.7	3rd	1960	4th-highest
Winchmore	21.3	3rd	1928	4th-highest
Tara Hills	15.5	3rd	1949	4th-highest
Timaru	20.5	3rd	1885	Equal 4th-highest
Low records or near-records				
None observed				

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

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Cape Reinga	16.0	4th	1971	Highest
Kaitaia	17.0	4th	1948	Highest
Kerikeri	16.9	4th	1952	Highest
Kaikohe	15.6	4th	1973	Highest
Whangārei	16.7	4th	1967	Highest
Mokohinau	16.5	4th	1994	Highest
Whangaparaoa	15.3	4th	1982	Highest
Whitianga	16.2	4th	1971	Highest
Paeroa	14.8	4th	1971	Highest
Tauranga	16.0	4th	1941	Highest
Te Puke	15.3	4th	1973	Highest
Whakatāne	16.1	4th	1975	Highest
Rotorua	13.6	4th	1972	Highest
Taupō	12.6	4th	1950	Highest
Motu	11.7	4th	1990	Highest
Auckland (Mangere)	16.1	4th	1961	Highest
Pukekohe	14.7	4th	1969	Highest
Hicks Bay	15.9	4th	1972	Highest
Dargaville	15.0	4th	1951	2nd-highest
Warkworth	15.8	4th	1966	2nd-highest
Hamilton (Ruakura)	14.2	4th	1940	2nd-highest
Port Taharoa	14.1	14th	1974	2nd-highest
Lower Retaruke	12.6	4th	1972	2nd-highest

Ngawi	14.8	4th	1972	2nd-highest
Balclutha	7.8	21st	1972	2nd-highest
Martinborough	13.0	4th	1986	Equal 2nd-highest
Waiouru	8.8	4th	1972	3rd-highest
Paraparaumu	12.9	4th	1972	Equal 3rd-highest
Manapouri (West Arm Jetty)	7.6	28th	1972	Equal 3rd-highest
Mahia	13	4th	1990	4th-highest
Levin	12.8	4th	1950	4th-highest
Brothers Island	12.5	28th	1997	4th-highest
Tūrangi	10.8	4th	1968	Equal 4th-highest
Low records or near-records				
Manapouri (West Arm Jetty)	-6.2	10th	1971	3rd-lowest

Wind

On 4 July, Victoria St West between Nelson St and Hobson St in Central Auckland closed down after strong winds ripped a 40 kg cladding panel off an upper storey building. The road closure caused long traffic delays and people exiting the Sky City carpark during peak travel times experienced up to 45-minute delays just to get out on to the street.

On 12 July, a tornado near New Plymouth caused damage to trees, two buildings, and a trampoline.

On 14 July, strong winds caused a campervan to overturn on State Highway 5, two kilometres south of Te Haroto in Hawke's Bay. Luckily no one got injured.

Also on 14 July, strong winds caused over 600 power outages in Taranaki.

Record or near-record July extreme wind gusts were recorded at:

Location	Extreme wind gust (km/h)	Date of extreme gust	Year records began	Comments
Te Puke	57	14th	1987	4th-highest

Lightning and hail

On 13 July, a family outside of Aranga, Northland was left shaken after their car windscreen was struck by a lightning strike. Fortunately the family was left unharmed.

On 14 July, over 5500 lightning strikes were recorded over central New Zealand and two Air New Zealand flights, one from Wellington to Dunedin and one from Hamilton to Wellington were struck by lightning.

On 31 July, a hailstorm caused a bit of confusion in Auckland as the large amount of hail looked almost like snow.

Snow and ice

On 4 July, Desert Road was temporarily closed overnight due to snow.

On 16 July, State Highway 7 over the Lewis Pass closed due to snow and drivers were urged to drive with caution on the icy roads between Fairlie and Twizel, and over the Lindis Pass.

On 30-31 July, a winterly blast moved up the country and brought snow, rain, thunderstorms, strong winds and even some hail. The snow brought its usual mixed feelings, leaving ski field operators thrilled but causing disruptions on the roads and caused several road closures in the South Island. The snow was well-timed as the Snow Farm (the cross-country ski area in Otago) was celebrating its 30th anniversary.

Cloud and fog

On 10 July, sea fog caused several delays and cancellations to and from Auckland Airport and caused disruption for travellers. Sea fog is formed when moist air moves over cooler water. A low level northwest wind flow transported the fog in over the city.

Foggy morning in Auckland on 10 July

On 11 July, for the second consecutive day, heavy fog caused a number of flight delays and cancelations out of Auckland Airport. In addition, several flights in and out of Nelson, Christchurch and Wellington Airports were also impacted by the fog.

Between 22-26 July, a mix of sea fog and radiation fog caused flight cancelations and delays out of many airports, including Auckland, Tauranga, Wellington and Christchurch. On 22 July, an All Blacks media conference that had been planned to take place in Wellington was cancelled due to a flight delay caused by the fog. For radiation fog to form you need a mix of clear skies, light winds, and a moist airmass near the ground.

On 30 July, fog caused approximately 10 domestic flight delays and four domestic flight cancellations out of Auckland Airport.

For further information, please contact:

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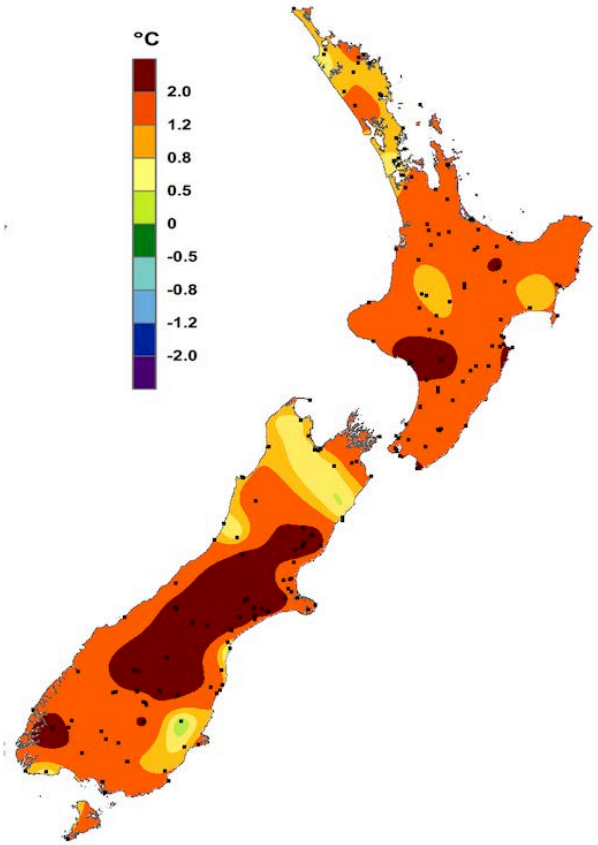

July temperature, expressed as a departure from the 1981-2010 average.

Most of New Zealand experienced above or well above average temperatures for the time of year, with the most unusual warmth across the interior South Island and parts of Manawatu-Wanganui.

Overall, the month ranked as the 2nd-warmest July on record.

It has now been 30 months since New Zealand experienced a nationwide average temperature that was below average (0.51˚C to 1.20˚C below the 1981-2010 average).

https://www.niwa.co.nz/our-science/climate