

New Zealand Climate Summary: **November 2019** Issued: 4 December 2019

# Hottest November on record for New Zealand

|  |  |
| --- | --- |
| Temperature | The nationwide average temperature in November 2019 was 15.3°C (1.6°C above average) making it New Zealand’s hottest November on record. Temperatures were well above average (>1.20°C above average) or above average (0.51-1.20°C above average) for most of the country. The exception was parts of Fiordland and the West Coast where temperatures were near average (±0.50°C of the November average). |
| Rainfall | Rainfall was above normal (120-149% of normal) or well above normal (>149% of normal) in many western and southern parts of the South Island. In contrast, rainfall was below normal (50-79% of normal) or well below normal rainfall (<50% of normal) for many eastern, inland and northern parts of the North Island, eastern Marlborough and South Canterbury. |
| Soil Moisture | As of 1 December, soil moisture levels were lower than normal for much of Northland, Auckland, Waikato, Bay of Plenty, Hawke’s Bay and Wairarapa. Soils were wetter than normal for the time of year for parts of Southland and eastern Otago. |

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## Overview

November 2019 was characterised by lower than normal sea level pressure over the South Island, and considerably lower than normal sea level pressure to the south and south west of the country. This pressure setup resulted from the Southern Hemisphere storm tracks being displaced northwards across the entire Southern Ocean including towards New Zealand, leading to more northwesterlies than normal.

The persistent northwesterly winds delivered warm temperatures to much of the country overall, with several periods of unusually hot temperatures. On 3 November, Kawerau (Bay of Plenty) recorded a maximum temperature of 34.6°C; New Zealand’s third-highest November temperature on record. This temperature was especially notable considering how early in the month it occurred – extreme maximum November temperatures typically occur towards the end of the month as the daylight gets longer and sea surface temperatures around New Zealand increase. Overall, the nationwide average temperature in November 2019 was 15.3°C, making it New Zealand’s hottest November on record. This was 1.6°C above the 1981-2010 November average from NIWA’s seven station temperature series which begins in 1909. This is also substantially warmer than the previous national record for November of 15.1°C, shared by the years 2013 and 1954. Notably, four of New Zealand’s hottest ten Novembers have occurred since 2009. The record for the highest average daily maximum temperature at any location was also broken with Wairoa (Hawke’s Bay) recording an average daily maximum temperature for November of 26.2°C.

Rainfall was plentiful for many western and southern parts of the South Island, with persistent northwesterly winds delivering frequent rainfall along and near the Southern Alps. As a result, hydro lake storage levels increased dramatically during the month. In contrast, it was a relatively dry month for many eastern, inland and northern parts of the North Island, as well as eastern parts of Marlborough and South Canterbury. Several active frontal systems brought brief periods of very unsettled weather to the country, including hail for Auckland and Timaru, and a tornado in Christchurch (see *Highlights and extreme events* for further details). Dust and bushfire smoke that originated in Australia were transported over New Zealand by the prevailing northwest winds, bringing a light haze to the sky at times for parts of the country.

Further Highlights:

* The highest temperature was 34.6°C, observed at Kawerau on 3 November. This is New Zealand’s third-highest November temperature on record.
* The lowest temperature was -1.6°C, observed at Hanmer Forest on 21 November.
* The highest 1-day rainfall was 185 mm, recorded at Milford Sound on 9 November.
* The highest wind gust was 191 km/h, observed at South West Cape on 22 November.
* Of the six main centres in November 2019, Tauranga was the warmest, driest and sunniest, Wellington was the wettest and least sunny, and Dunedin was the coldest.
* Of the available, regularly reporting sunshine observation sites, the sunniest four locations in 2019 so far (1 January – 30 November) are Wider Nelson (2584 hours), Marlborough (2529 hours), Hawke’s Bay (2476 hours) and Bay of Plenty (2420 hours).

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## Temperature: A very warm month for most

The nationwide average temperature in November 2019 was 15.3°C, making it New Zealand’s hottest November on record. This was 1.6°C above the 1981-2010 November average from NIWA’s seven station temperature series which begins in 1909. This is also substantially warmer than the previous national record for November of 15.1°C, shared by the years 2013 and 1954. The warmth was widespread, with many locations throughout the country observing record or near-record mean temperatures for November. Wairoa (Hawke’s Bay) recorded a mean maximum temperature for November of 26.2°C. This is a new record for New Zealand, exceeding the previous November record of 25.6°C (also recorded in Wairoa, in 1953). Kawerau (Bay of Plenty) recorded a mean maximum temperature of 25.3°C; New Zealand’s third-highest mean maximum temperature for November on record.

**Record[[1]](#footnote-2) or near-record mean air temperatures for November were recorded at:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Mean  air temp. (oC) | Departure from normal (oC) | Year records began | Comments |
| High records or near-records | | | | |
| Kaikohe | 16.8 | 1.8 | 1973 | Highest |
| Whangaparaoa | 17.3 | 1.2 | 1982 | Highest |
| Tauranga | 18.1 | 2.2 | 1913 | Highest |
| Ngawi | 17.6 | 2.2 | 1972 | Highest |
| Wairoa | 19.3 | 3.6 | 1964 | Highest |
| Mahia | 16.4 | 1.5 | 1990 | Highest |
| Farewell Spit | 17.0 | 2.3 | 1971 | Highest |
| Kaikoura | 16.0 | 2.7 | 1963 | Highest |
| Le Bons Bay | 14.3 | 2.3 | 1984 | Highest |
| Nugget Point | 12.9 | 1.7 | 1970 | Highest |
| Whangarei | 18.3 | 1.8 | 1967 | 2nd-highest |
| Rotorua | 15.8 | 1.9 | 1964 | 2nd-highest |
| Hastings | 18.0 | 3.5 | 1965 | 2nd-highest |
| Wellington (Airport) | 15.8 | 1.3 | 1962 | 2nd-highest |
| Lumsden | 13.6 | 2.2 | 1982 | 2nd-highest |
| Campbell Island | 8.2 | 1.0 | 1991 | 2nd-highest |
| Whitianga | 17.4 | 1.6 | 1962 | 3rd-highest |
| Hamilton (Airport) | 16.3 | 1.6 | 1946 | 3rd-highest |
| Castlepoint | 16.7 | 2.3 | 1972 | 3rd-highest |
| Gisborne | 17.9 | 2.1 | 1905 | 3rd-highest |
| Puysegur Point | 12.5 | 1.4 | 1978 | 3rd-highest |
| Brothers Island | 14.4 | 0.6 | 1997 | 3rd-highest |
| Paeroa | 17.2 | 1.4 | 1947 | 4th-highest |
| Whakatane | 16.8 | 1.5 | 1974 | 4th-highest |
| Levin | 15.4 | 1.4 | 1895 | 4th-highest |
| Low records or near-records | | | | |
| None observed |  |  |  |  |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Mean maximum  air temp. (oC) | Departure from normal (oC) | Year records began | Comments |
| High records or near-records | | | | |
| Kerikeri | 23.0 | 2.6 | 1945 | Highest |
| Kaikohe | 21.6 | 2.8 | 1973 | Highest |
| Whangarei | 23.7 | 3.1 | 1967 | Highest |
| Whangaparaoa | 21.4 | 1.9 | 1982 | Highest |
| Auckland (Whenuapai) | 21.7 | 2.2 | 1945 | Highest |
| Whitianga | 24.3 | 4.1 | 1962 | Highest |
| Paeroa | 23.1 | 2.3 | 1947 | Highest |
| Tauranga | 23.2 | 3.1 | 1913 | Highest |
| Te Puke | 23.1 | 3.1 | 1973 | Highest |
| Kawerau | 25.3 | 4.7 | 1954 | Highest |
| Rotorua | 22.5 | 4.3 | 1964 | Highest |
| Taupo | 23.4 | 5.1 | 1949 | Highest |
| Hamilton | 22.7 | 2.8 | 1946 | Highest |
| Te Kuiti | 23.6 | 3.6 | 1959 | Highest |
| Lower Retaruke | 22.5 | 3.0 | 1966 | Highest |
| Masterton | 22.9 | 2.9 | 1906 | Highest |
| Takapau Plains | 21.0 | 2.5 | 1962 | Highest |
| Dannevirke | 20.9 | 2.7 | 1951 | Highest |
| Ngawi | 21.2 | 2.3 | 1972 | Highest |
| Gisborne | 25.0 | 4.0 | 1905 | Highest |
| Hastings | 24.7 | 4.9 | 1965 | Highest |
| Waipawa | 24.1 | 4.4 | 1945 | Highest |
| Wairoa | 26.2 | 5.3 | 1964 | Highest |
| Mahia | 20.3 | 2.1 | 1990 | Highest |
| Upper Hutt | 20.4 | 2.6 | 1939 | Highest |
| Stratford | 19.7 | 2.7 | 1960 | Highest |
| Ohakune | 21.2 | 4.5 | 1962 | Highest |
| Waiouru | 18.8 | 3.6 | 1962 | Highest |
| Farewell Spit | 21.9 | 3.5 | 1971 | Highest |
| Hanmer Forest | 24.4 | 5.5 | 1906 | Highest |
| Waiau | 23.8 | 4.1 | 1974 | Highest |
| Cheviot | 23.8 | 5.0 | 1982 | Highest |
| Waipara West | 23.2 | 3.4 | 1973 | Highest |
| Akaroa | 21.9 | 2.6 | 1978 | Highest |
| Le Bons Bay | 18.4 | 2.9 | 1984 | Highest |
| Oamaru | 20.2 | 3.4 | 1967 | Highest |
| Dunedin (Airport) | 20.3 | 2.5 | 1962 | Highest |
| Dunedin (Musselburgh) | 19.0 | 2.9 | 1947 | Highest |
| Balclutha | 19.3 | 2.1 | 1964 | Highest |
| Nugget Point | 17.2 | 2.3 | 1970 | Highest |
| Mokohinau | 19.5 | 0.8 | 1994 | 2nd-highest |
| Whakatane | 22.1 | 1.8 | 1974 | 2nd-highest |
| Whatawhata | 21.1 | 2.1 | 1952 | 2nd-highest |
| Taumarunui | 22.9 | 3.1 | 1947 | 2nd-highest |
| Turangi | 21.6 | 2.9 | 1968 | 2nd-highest |
| Castlepoint | 20.5 | 2.9 | 1972 | 2nd-highest |
| Martinborough | 21.6 | 2.3 | 1986 | 2nd-highest |
| Napier | 23.9 | 3.5 | 1870 | 2nd-highest |
| Wellington (Kelburn) | 18.0 | 1.5 | 1927 | 2nd-highest |
| Hawera | 19.0 | 2.3 | 1977 | 2nd-highest |
| Puysegur Point | 15.4 | 1.8 | 1978 | 2nd-highest |
| Blenheim | 22.5 | 2.4 | 1932 | 2nd-highest |
| Kaikoura | 20.2 | 3.2 | 1963 | 2nd-highest |
| Medbury | 22.3 | 2.8 | 1927 | 2nd-highest |
| Rangiora | 21.8 | 3.0 | 1965 | 2nd-highest |
| Orari Estate | 21.2 | 2.6 | 1972 | 2nd-highest |
| Campbell Island | 10.5 | 0.6 | 1991 | 2nd-highest |
| Ranfurly | 20.5 | 2.6 | 1897 | Equal 2nd-highest |
| Wellington (Airport) | 18.7 | 1.2 | 1962 | 3rd-highest |
| Lumsden | 19.2 | 2.3 | 1982 | 3rd-highest |
| Kaitaia | 22.1 | 2.5 | 1948 | 4th-highest |
| Hamilton (Ruakura) | 22.4 | 2.5 | 1906 | 4th-highest |
| Palmerston North | 20.6 | 2.0 | 1928 | 4th-highest |
| Arapito | 19.4 | 1.7 | 1978 | 4th-highest |
| Motueka | 21.3 | 1.5 | 1956 | 4th-highest |
| Christchurch | 21.6 | 2.7 | 1863 | 4th-highest |
| Timaru | 21.2 | 3.2 | 1885 | 4th-highest |
| South West Cape | 14.6 | 1.0 | 1991 | 4th-highest |
| Hicks Bay | 20.1 | 1.8 | 1969 | Equal 4th-highest |
| Low records or near-records | | | | |
| None observed |  |  |  |  |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Mean minimum  air temp. (oC) | Departure from normal (oC) | Year records began | Comments |
| High records or near-records | | | | |
| Ngawi | 14.0 | 2.1 | 1972 | Highest |
| Wellington (Kelburn) | 11.8 | 1.5 | 1927 | Highest |
| Kaikoura | 11.8 | 2.1 | 1963 | Highest |
| Culverden | 10.0 | 3.0 | 1928 | Highest |
| Medbury | 10.0 | 2.5 | 1927 | Highest |
| Cheviot | 9.7 | 2.5 | 1982 | Highest |
| Mt Cook (Airport) | 7.9 | 2.5 | 1929 | Highest |
| Waipara West | 10.5 | 2.4 | 1973 | Highest |
| Le Bons Bay | 10.2 | 1.8 | 1984 | Highest |
| Ranfurly | 7.4 | 2.8 | 1897 | Highest |
| Oamaru | 9.1 | 1.4 | 1967 | Highest |
| Wellington (Airport) | 13.0 | 1.6 | 1962 | 2nd-highest |
| Stratford | 10.0 | 2.0 | 1960 | 2nd-highest |
| Brothers Island | 12.4 | 0.7 | 1997 | 2nd-highest |
| Rangiora | 9.3 | 1.8 | 1965 | 2nd-highest |
| Tara Hills | 7.4 | 1.9 | 1949 | 2nd-highest |
| Dunedin (Musselburgh) | 10.2 | 1.6 | 1947 | 2nd-highest |
| Te Anau | 8.1 | 2.4 | 1963 | 2nd-highest |
| Roxburgh | 9.2 | 3.0 | 1950 | 2nd-highest |
| Campbell Island | 5.9 | 1.4 | 1991 | 2nd-highest |
| Te Puke | 11.7 | 1.8 | 1973 | 3rd-highest |
| Martinborough | 10.7 | 2.0 | 1986 | 3rd-highest |
| Mahia | 12.5 | 1.0 | 1990 | 3rd-highest |
| Porirua | 11.8 | 1.3 | 1968 | 3rd-highest |
| Hawera | 10.9 | 1.4 | 1977 | 3rd-highest |
| Blenheim | 11.2 | 1.8 | 1932 | 3rd-highest |
| Waiau | 9.4 | 2.4 | 1974 | 3rd-highest |
| Lincoln | 10.1 | 2.0 | 1881 | 3rd-highest |
| Orari Estate | 8.5 | 1.5 | 1972 | 3rd-highest |
| Wanaka | 9.1 | 2.1 | 1955 | 3rd-highest |
| Lumsden | 7.9 | 1.9 | 1982 | 3rd-highest |
| Gore | 8.5 | 1.7 | 1907 | 3rd-highest |
| Mokohinau | 14.7 | 0.5 | 1994 | 4th-highest |
| Port Taharoa | 13.7 | 1.7 | 1973 | 4th-highest |
| Wairoa | 12.4 | 1.9 | 1964 | 4th-highest |
| Paraparaumu | 11.9 | 1.5 | 1953 | 4th-highest |
| Akaroa | 10.5 | 1.8 | 1978 | 4th-highest |
| Nugget Point | 8.7 | 1.2 | 1970 | 4th-highest |
| Masterton | 9.9 | 2.1 | 1906 | Equal 4th-highest |
| Low records or near-records | | | | |
| None observed |  |  |  |  |

## Rainfall: Dry for much of the North Island, wet in the west of the South Island

Rainfall was above normal (120-149% of normal) or well above normal (>149% of normal) in many western and southern parts of the South Island. Rainfall was particularly high for Manapouri (West Arm Jetty), which received 237% of normal November rainfall. It was also a very wet month in Arthur’s Pass (227% of the November normal) and Wanaka (223% of the November normal). In contrast, rainfall was below normal (50-79% of normal) or well below normal rainfall (<50% of normal) for many eastern, inland and northern parts of the North Island, eastern Marlborough and South Canterbury.

As of 1 December, soil moisture levels were lower than normal for much of Northland, Auckland, Waikato, Bay of Plenty, Hawke’s Bay and Wairarapa. Soils were wetter than normal for the time of year for parts of Southland and eastern Otago. Soil moisture levels were typically near normal for the time of year for remaining parts of the country.

**Record or near-record November rainfall totals were recorded at:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Rainfall total (mm) | Percentage of normal | Year records began | Comments |
| High records or near-records | | | | |
| Manapouri (West Arm Jetty) | 732 | 237 | 1971 | 3rd-highest |
| Low records or near-records | | | | |
| Orari Estate | 9 | 16 | 1897 | Lowest |
| Leigh | 22 | 31 | 1966 | 2nd-lowest |
| Takapau Plains | 21 | 30 | 1962 | 2nd-lowest |
| Whitianga | 36 | 35 | 1961 | 4th-lowest |

## November climate in the six main centres

November was a very warm month, with all main centres observing well above average temperatures. Tauranga observed its hottest November on record. The high temperatures were accompanied by a lack of rain in Hamilton and Tauranga, with each receiving just half of their usual November rainfall. Of the six main centres in November 2019, Tauranga was the warmest, driest and sunniest, Wellington was the wettest and least sunny, and Dunedin was the coldest.

**November 2019 main centre climate statistics:**

|  |  |
| --- | --- |
| Temperature | |
| Location | Mean temp. (oC) | Departure from normal (oC) | Comments | |
| Aucklanda | 17.5 | +1.4 | Well above average | |
| Taurangab | 18.1 | +2.2 | Highest on record | |
| Hamiltonc | 16.3 | +1.6 | Well above average | |
| Wellingtond | 14.9 | +1.5 | Well above average | |
| Christchurche | 15.5 | +2.0 | Well above average | |
| Dunedinf | 14.6 | +2.2 | Well above average | |
| Rainfall | |
| Location | Rainfall (mm) | % of normal | Comments | |
| Aucklanda | 56 | 86 | Near normal | |
| Taurangab | 38 | 51 | Below normal | |
| Hamiltonc | 44 | 49 | Well below normal | |
| Wellingtond | 105 | 107 | Near normal | |
| Christchurche | 45 | 98 | Near normal | |
| Dunedinf | 53 | 94 | Near normal | |
| Sunshine | |
| Location | Sunshine (hours) |
| Aucklanda | 265 |
| Taurangab | 296 |
| Hamiltong | 241 |
| Wellingtond | 209 |
| Christchurche | 220 |
| Dunedinf | 227 |  | |

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

## Highlights and extreme events

### Temperatures

The first week of November saw unusually high temperatures in most parts New Zealand. This heat was associated with a northwesterly airflow delivering warm, dry air from the interior of Australia. Dozens of locations observed record or near-record high daily maximum temperatures for November during this time. Most notable was Kawerau (Bay of Plenty), which recorded a maximum temperature of 34.6°C on 3 November. This was New Zealand’s third-highest November temperature on record. From 3-5 November, Kawerau observed daily maximum temperatures of 34.6°C, 33.0°C and 32.1°C. These three consecutive days all exceeded the previous hottest November temperature on record for Kawerau (32.0°C; recorded on 25 November 2007).

On 23 November, several inland parts of the North Island observed record or near-record high temperatures. Taupo reached a high of 32.8°C, exceeding its previous November record (29.5°C recorded in 2016) by 3.3°C. Rotorua recorded a high of 30.9°C; exceeding its previous November record by a remarkable 4.3°C. These extreme high temperatures mark the first time on record that 30°C has been exceeded in Taupo and Rotorua in November (records began in 1949 and 1964 respectively).

On 27 November, Wairoa recorded a high of 34.1°C, the equal fourth-highest November temperature on record in New Zealand.

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Location | Extreme maximum (°C) | Date of extreme temperature | | Year records began | Comments |
| High records or near-records | | | | | |
| Kaitaia | 26.4 | 4th | 1948 | | Highest |
| Kerikeri | 29.4 | 4th | 1945 | | Highest |
| Kaikohe | 28.4 | 4th | 1973 | | Highest |
| Whangarei | 29.4 | 5th | 1967 | | Highest |
| Mokohinau | 23.6 | 5th | 1994 | | Highest |
| Whitianga | 30.9 | 4th | 1962 | | Highest |
| Tauranga | 29.2 | 3rd | 1913 | | Highest |
| Te Puke | 31.5 | 3rd | 1973 | | Highest |
| Kawerau | 34.6 | 3rd | 1954 | | Highest |
| Rotorua | 30.9 | 23rd | 1964 | | Highest |
| Taupo | 32.8 | 23rd | 1949 | | Highest |
| Te Kuiti | 29.2 | 25th | 1959 | | Highest |
| Lower Retaruke | 29.5 | 23rd | 1966 | | Highest |
| Waipawa | 29.5 | 5th | 1945 | | Highest |
| Ohakune | 27.8 | 3rd | 1962 | | Highest |
| Hanmer Forest | 32.5 | 28th | 1906 | | Highest |
| Cheviot | 33.1 | 3rd | 1982 | | Highest |
| Waipara West | 32.1 | 3rd | 1973 | | Highest |
| Rangiora | 31.7 | 28th | 1965 | | Highest |
| Akaroa | 31.1 | 3rd | 1978 | | Highest |
| Le Bons Bay | 26.9 | 3rd | 1984 | | Highest |
| Lumsden | 27.5 | 2nd | 1982 | | Highest |
| Clyde | 32.5 | 2nd | 1978 | | Highest |
| Balclutha | 28.6 | 2nd | 1964 | | Highest |
| Hamilton (Airport) | 28.3 | 7th | 1946 | | Equal highest |
| Wairoa | 34.1 | 27th | 1964 | | Equal highest |
| Alexandra | 32.2 | 2nd | 1928 | | Equal highest |
| Dargaville | 26.2 | 7th | 1943 | | 2nd-highest |
| Paeroa | 27.4 | 4th | 1947 | | 2nd-highest |
| Whakatane | 31.9 | 4th | 1975 | | 2nd-highest |
| Motu | 28.1 | 4th | 1990 | | 2nd-highest |
| Whatawhata | 26.9 | 7th | 1952 | | 2nd-highest |
| Turangi | 28.7 | 3rd | 1968 | | 2nd-highest |
| Castlepoint | 27.6 | 3rd | 1972 | | 2nd-highest |
| Martinborough | 28.4 | 3rd | 1986 | | 2nd-highest |
| Gisborne | 32.6 | 5th | 1905 | | 2nd-highest |
| Hastings | 32.1 | 5th | 1965 | | 2nd-highest |
| Waiouru | 25.4 | 23rd | 1962 | | 2nd-highest |
| Farewell Spit | 26.2 | 3rd | 1971 | | 2nd-highest |
| Waiau | 31.6 | 3rd | 1974 | | 2nd-highest |
| Orari Estate | 32.3 | 2nd | 1972 | | 2nd-highest |
| Oamaru | 31.1 | 2nd | 1967 | | 2nd-highest |
| Nugget Point | 26.9 | 3rd | 1970 | | 2nd-highest |
| Whangaparaoa | 24.9 | 5th | 1982 | | Equal 2nd-highest |
| Mt Cook (Airport) | 28.5 | 2nd | 1929 | | Equal 2nd-highest |
| Lake Tekapo | 28.1 | 4th | 1925 | | Equal 2nd-highest |
| Ranfurly | 29.0 | 2nd | 1897 | | Equal 2nd-highest |
| Cape Reinga | 23.8 | 4th | 1951 | | 3rd-highest |
| Napier | 31.7 | 5th | 1868 | | 3rd-highest |
| Upper Hutt | 26.4 | 3rd | 1939 | | 3rd-highest |
| Stratford | 24.5 | 30th | 1960 | | 3rd-highest |
| Motueka | 28.7 | 22nd | 1956 | | 3rd-highest |
| Cromwell | 31.2 | 2nd | 1949 | | 3rd-highest |
| Auckland (Whenuapai) | 25.8 | 5th | 1945 | | Equal 3rd-highest |
| Warkworth | 26.8 | 5th | 1966 | | 4th-highest |
| Auckland (Mangere) | 25.8 | 6th | 1959 | | 4th-highest |
| Taumarunui | 29.7 | 23rd | 1947 | | 4th-highest |
| Palmerston North | 26.7 | 23rd | 1918 | | 4th-highest |
| Whanganui | 26.9 | 8th | 1937 | | 4th-highest |
| Medbury | 30.8 | 3rd | 1927 | | 4th-highest |
| Christchurch | 31.4 | 3rd | 1863 | | 4th-highest |
| Lincoln | 31.5 | 3rd | 1881 | | 4th-highest |
| Te Anau | 25.9 | 2nd | 1963 | | 4th-highest |
| Pukekohe | 25.8 | 7th | 1969 | | Equal 4th-highest |
| Takaka | 27.7 | 24th | 1978 | | Equal 4th-highest |
| Dunedin (Musselburgh) | 29.4 | 2nd | 1947 | | Equal 4th-highest |
| Low records or near-records | | | | | |
| Akaroa | 9.8 | 11th | 1978 | | Equal 3rd-lowest |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Extreme minimum (°C) | Date of extreme temperature | Year records began | Comments |
| High records or near-records | | | | |
| Akaroa | 20.5 | 28th | 1978 | Highest |
| Dunedin (Airport) | 18.3 | 27th | 1972 | Highest |
| Motueka | 16.7 | 8th | 1972 | Equal highest |
| Martinborough | 17.8 | 9th | 1986 | 2nd-highest |
| Ngawi | 19.1 | 23rd | 1972 | 2nd-highest |
| Upper Hutt | 17.3 | 10th | 1972 | 2nd-highest |
| Arapito | 16.2 | 8th | 1978 | 2nd-highest |
| Milford Sound | 15.4 | 28th | 1935 | 2nd-highest |
| Kaikoura | 17.7 | 28th | 1972 | 2nd-highest |
| Cheviot | 18.2 | 9th | 1982 | 2nd-highest |
| Ashburton | 18.8 | 28th | 1928 | 2nd-highest |
| Ranfurly | 15.8 | 27th | 1897 | 2nd-highest |
| Queenstown | 15.4 | 28th | 1871 | 2nd-highest |
| Secretary Island | 14.6 | 28th | 1988 | Equal 2nd-highest |
| Puysegur Point | 15.0 | 27th | 1978 | Equal 2nd-highest |
| Five Rivers | 15.5 | 28th | 1982 | Equal 2nd-highest |
| Nugget Point | 13.2 | 4th | 1972 | Equal 2nd-highest |
| Mokohinau | 17.6 | 29th | 1994 | 3rd-highest |
| Porirua | 16.1 | 10th | 1972 | 3rd-highest |
| Waipara West | 19.6 | 10th | 1973 | 3rd-highest |
| Lincoln | 17.9 | 9th | 1881 | 3rd-highest |
| Le Bons Bay | 17.9 | 28th | 1984 | 3rd-highest |
| Dunedin (Musselburgh) | 16.1 | 27th | 1947 | 3rd-highest |
| Whakatane | 17.5 | 9th | 1975 | Equal 3rd-highest |
| Port Taharoa | 17.6 | 10th | 1974 | 4th-highest |
| Paraparaumu | 17.0 | 10th | 1972 | 4th-highest |
| Hawera | 16.5 | 10th | 1977 | 4th-highest |
| Reefton | 15.1 | 9th | 1972 | 4th-highest |
| Lake Tekapo | 15.2 | 24th | 1928 | 4th-highest |
| Tiwai Point | 14.6 | 5th | 1972 | 4th-highest |
| Stratford | 14.8 | 10th | 1972 | Equal 4th-highest |
| Low records or near-records | | | | |
| None observed |  |  |  |  |

### Rain and slips

From 10-11 November, heavy rain fell in northern parts of the South Island and southern parts of the North Island. A large slip closed SH6 between Korere and Glenhope, north of Murchison. Wellington (Kelburn) observed its third-highest November 1-day rainfall total since records began in 1928. The heavy rain there caused a slip on SH2 at Horokiwi.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Extreme 1-day rainfall (mm) | Date of extreme rainfall | Year records began | Comments |
| Wellington (Airport) | 77 | 10th | 1958 | 2nd-highest |
| Wellington (Kelburn) | 70 | 10th | 1928 | 3rd-highest |
| Campbell Island | 29 | 27th | 1991 | 4th-highest |

### Wind

On 18 November, a tornado struck parts of Christchurch between 1.45-2.00 p.m. Damage was reported from Sydenham to New Brighton, including roofing material being torn off buildings and severed vegetation. The storm briefly cut power to 1000 homes. As the severe thunderstorm moved offshore, waterspouts were reported over the ocean.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Extreme wind gust (km/h) | Date of extreme gust | Year records began | Comments |
| Clyde | 96 | 22nd | 1983 | Highest |
| South West Cape | 191 | 22nd | 1991 | Highest |
| Waiouru | 120 | 14th | 1970 | 2nd-highest |
| Paeroa | 80 | 10th | 1991 | 4th-highest |
| Secretary Island | 135 | 8th | 1994 | 4th-highest |

### Lightning and hail

On 10 November, at least 66,000 lightning strikes were recorded around New Zealand and the Tasman Sea. Eight flights into and out of Auckland Airport were cancelled.

On 11 November, heavy falls of hail were reported in parts of Auckland, especially about Orewa. The unsettled spell of weather brought lightning and downpours of rain, with considerable surface flooding reported in Manly.

On 18 November, lightning and hail were reported in Christchurch. Lightning strikes were thought to have started four small fires in trees in Leeston, with another fire in the sand dunes at Waikuku Beach. Approximately 1100 lightning strikes were recorded over Christchurch city. Farther south, considerable falls of hail were reported about Waimate, with local strawberry growers reporting some damage to their crops. In Palmerston, a house was reportedly struck by lightning, blowing fuses and power plugs off the wall.

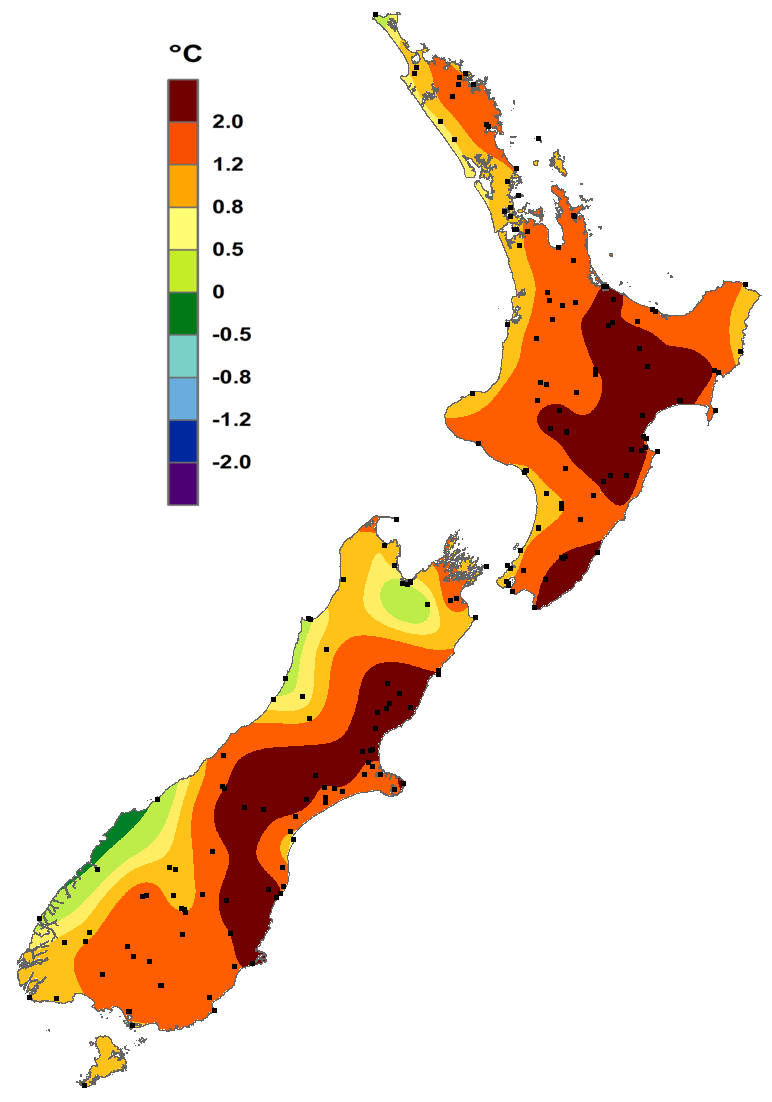
On 20 November, significant hail struck Timaru about midday. The thunderstorm associated with the hail travelled slowly north along the Canterbury plains during the early-mid afternoon, with 1500 lightning strikes recorded.

**For further information, please contact:**

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November 2019 temperature expressed as a difference from average (1981-2010 average).

Temperatures were above or well above average for most parts of the country (indicated by orange and red shading).

Kawerau recorded 34.6°C on 3 November: New Zealand’s third-highest November temperature on record.

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

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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. [↑](#footnote-ref-2)