

New Zealand Climate Summary: **Spring 2015** Issued: 4 December 2015

# A dry spring for many parts of the country.

|  |  |
| --- | --- |
| **Rainfall** | Rainfall was well below normal (< 50%) in Nelson and Marlborough, and below normal (50-79%) in eastern and inland parts of the South Island. In addition, southern, western, central and northern parts of the North Island received below normal rainfall. In contrast, rainfall was above normal (120-149%) or well above normal (> 149%) in Gisborne and Hawke’s Bay. |
| **Temperature** | Spring temperatures were near average (-0.50°C to + 0.50°C) for most of the country. The exception was parts of western Waikato, southern Hawke’s Bay, Wairarapa, the inland Canterbury Plains and Stewart Island where temperatures were below average (-1.20°C to -0.51°C). |
| **Soil moisture** | As of 1 December 2015, soil moisture levels were below normal for the time of year for extensive areas of New Zealand. In particular, soil moisture levels were much lower than normal in eastern and northern parts of the South Island, and southern, central, western and northern parts of the North Island. Soil moisture levels were above normal in Gisborne, southern Fiordland and Stewart Island. |
| **Sunshine** | Spring sunshine was abundant for southern, eastern, central and northern areas of the South Island, and parts of the central North Island, Bay of Plenty and Northland where sunshine totals were typically above normal (110-125%). |

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## Overview

Spring 2015 saw strong El Niño conditions persist in the Tropical Pacific. Overall, the season was characterised by mean sea level pressures that were higher than normal over Australia and the Tasman Sea, while lower pressures than normal occurred to the south-east of New Zealand. This pressure pattern resulted in a south-westerly airflow anomaly over much of the country, which is a characteristic of El Niño during spring. Rainfall was well below normal (< 50% of the spring normal) in Nelson and Marlborough, and below normal (50-79% of the spring normal) in most remaining areas of the South Island. The exceptions were coastal areas of Southland and Otago (south of Oamaru), where rainfall was near normal (within 20% of the spring normal). In the North Island, rainfall was typically below normal in Wellington, Wairarapa, Manawatu-Whanganui, Taranaki, southern and central Waikato and northern Northland. In contrast, rainfall was above normal (120-149% of the spring normal) or well above normal (> 149% of the spring normal) in Gisborne and Hawke’s Bay. This was likely to be as a result of two heavy rain events which occurred in these regions around mid-September and early-November. Remaining areas of the North Island typically received near average rainfall for the season. Soil moisture levels were near normal for many parts of the country in early spring. The notable exceptions were parts of coastal Hurunui, South Canterbury and North Otago where soil moisture levels were below normal for the time of year. Due to the prevalence of south-westerlies during spring, which are typical of El Niño, soils in many eastern areas became increasingly dry as the season progressed. As of 1 December 2015, soil moisture levels were below normal for the time of year for extensive areas of New Zealand, but especially for Canterbury, Nelson, Marlborough, Wellington, Wairarapa, Taranaki, southern Waikato and Northland. Soil moisture levels were above normal in Gisborne,.

For the season as a whole, temperatures were near average (-0.50°C to + 0.50°C of the spring average) across most of the country. The exception was parts of western Waikato, southern Hawke’s Bay, Wairarapa and the inland Canterbury Plains where temperatures were below average (0.51°C to 1.20°C below the spring average). Despite mostly near average temperatures for spring overall, there was noticeable variability from month-to-month. Specifically, many parts of the country observed below average temperatures in September, and above average temperatures (0.51°C to 1.20°C above the spring average) in October. The nation-wide average temperature in spring 2015 was 12.0°C (0.1°C below the 1981-2010 spring average from NIWA’s seven station temperature series which begins in 1909)[[1]](#footnote-1).

It was a sunny spring for the Far North, inland Bay of Plenty, southern Waikato, Nelson, Marlborough, Canterbury, Otago and Southland where sunshine totals were generally above normal (110-125% of the spring normal). Remaining areas of New Zealand observed near normal spring sunshine totals (within 10% of the spring normal).

**Further Highlights:**

* The highest temperature was 31.7°C, observed at Hastings on 26 November.
* The lowest temperature was -8.2°C, observed at Naseby Forest on 31 October.
* The highest 1-day rainfall was 291 mm, recorded at Milford Sound on 16 October.
* The highest wind gust was 172 km/hr, observed at Cape Turnagain on 5 October and South West Cape on 7 October.
* Of the six main centres in spring 2015, Auckland was the warmest, Dunedin was the coolest, Christchurch was the driest and sunniest, Hamilton was the wettest and Auckland was the cloudiest.
* Of the available, regularly reporting sunshine observation sites, the sunniest four locations so far in 2015 (1 January to 30 November) are: Blenheim (2519 hours), Whakatane (2476 hours), Appleby (2456 hours) and Lake Tekapo (2423 hours).

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## Rainfall: A dry spring for many areas.

Spring was a dry season overall for many parts of the country, with record or near-record low spring rainfall observed at 14 locations. Blenheim and Orari Estate (Canterbury, 6 km south-east of Geraldine) each received just 37% of normal spring rainfall. In contrast, it was a wet spring in Gisborne and Hawke’s Bay, which was largely as a result of infrequent heavy rainfalls. For example, Wairoa observed 37% (157 mm) of its spring rainfall on just two days.

**Record[[2]](#footnote-2) or near-record spring rainfall totals were recorded at:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Rainfall total (mm)** | **Percentage of normal** | **Year records began** | **Comments** |
| High records or near-records | | | | |
| Wairoa | 420 | 166 | 1964 | 3rd-highest |
| Low records or near-records | | | | |
| Turangi | 259 | 63 | 1968 | Lowest |
| Martinborough | 84 | 45 | 1924 | Lowest |
| Wellington (Airport) | 113 | 46 | 1958 | Lowest |
| Stratford | 313 | 57 | 1960 | Lowest |
| Blenheim | 63 | 37 | 1941 | Lowest |
| Orari Estate | 58 | 37 | 1897 | Lowest |
| Reefton | 258 | 48 | 1960 | 2nd-lowest |
| Waipara West | 75 | 46 | 1973 | 2nd-lowest |
| Campbell Island | 268 | 79 | 1992 | 2nd-lowest |
| Taupo | 139 | 59 | 1949 | 3rd-lowest |
| New Plymouth | 192 | 55 | 1944 | 3rd-lowest |
| Takaka | 272 | 49 | 1976 | 3rd-lowest |
| Westport | 368 | 66 | 1944 | 3rd-lowest |
| Kerikeri | 224 | 56 | 1981 | 4th-lowest |

## Temperature: Near average temperatures for most of the country.

Spring saw near average temperatures observed across many parts of the country, with relatively few locations observing record or near-record mean temperatures. The nation-wide average temperature in spring 2015 was 12.0°C (0.1°C below the 1981-2010 spring average from NIWA’s seven station temperature series which begins in 1909). A relatively warm spell occurred over most parts of the country in the last week of November. During this time a number of locations observed record or near-record daily maximum and daily minimum spring air temperatures (further details of this event are presented in the *Highlights and extreme events* section).

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Mean**  **air temp. (oC)** | **Departure from normal (oC)** | **Year records began** | **Comments** |
| High records or near-records | | | | |
| Kaikohe | 14.6 | 1.0 | 1973 | 3rd-highest |
| Cheviot | 11.7 | 0.5 | 1982 | 3rd-highest |
| Low records or near-records | | | | |
| Martinborough | 11.3 | -1.0 | 1986 | Lowest |
| Te Kuiti | 11.8 | -1.3 | 1959 | 2nd-lowest |
| Port Taharoa | 13.3 | -0.8 | 1973 | 4th-lowest |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Mean maximum**  **air temp. (oC)** | **Departure from normal (oC)** | **Year records began** | **Comments** |
| High records or near-records | | | | |
| Kaikohe | 18.4 | 1.3 | 1973 | Highest |
| Cheviot | 17.8 | 0.8 | 1982 | 2nd-highest |
| Christchurch (Riccarton) | 19.1 | 1.9 | 1863 | 2nd-highest |
| Leigh | 20.2 | 2.5 | 1966 | 3rd-highest |
| Motu | 15.8 | 1.1 | 1990 | 3rd-highest |
| Whatawhata | 18.2 | 0.9 | 1952 | 4th-highest |
| Low records or near-records | | | | |
| Martinborough | 16.3 | -0.9 | 1986 | 2nd-lowest |
| South West Cape | 11.3 | -1.1 | 1991 | 2nd-lowest |
| Campbell Island | 8.0 | -0.9 | 1991 | 2nd-lowest |
| Port Taharoa | 15.8 | -1.6 | 1973 | 3rd-lowest |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Mean minimum**  **air temp. (oC)** | **Departure from normal (oC)** | **Year records began** | **Comments** |
| High records or near-records | | | | |
| None observed |  |  |  |  |
| Low records or near-records | | | | |
| Turangi | 4.7 | -1.6 | 1968 | Lowest |
| Te Kuiti | 6.5 | -1.5 | 1959 | 2nd-lowest |
| Appleby | 5.0 | -2.3 | 1932 | 2nd-lowest |
| Martinborough | 6.2 | -1.1 | 1986 | 3rd-lowest |
| Winchmore | 4.0 | -1.5 | 1928 | 3rd-lowest |
| Le Bons Bay | 6.6 | -0.5 | 1984 | 3rd-lowest |

## Sunshine: Abundant sunshine in parts of both islands.

It was a sunny spring for many parts of the country. Record or near-record high sunshine hours for the season were observed in 13 locations, including Greymouth and Hokitika which received 127% and 132% of normal spring sunshine, respectively. Of the available, regularly reporting sunshine observation sites, the sunniest four locationsso far in 2015 (1 January to 30 November) are: Blenheim (2519 hours), Whakatane (2476 hours), Appleby (2456 hours) and Lake Tekapo (2423 hours).

**Record or near-record spring sunshine hours were recorded at:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Sunshine hours** | **Percentage of normal** | **Year records began** | **Comments** |
| High records or near-records | | | | |
| Kaitaia | 639 | 112 | 1985 | Highest |
| Turangi | 617 | 123 | 1976 | Highest |
| Hokitika | 652 | 132 | 1912 | Highest |
| Blenheim | 777 | 120 | 1947 | Highest |
| Lake Tekapo | 789 | 113 | 1928 | Highest |
| Dunedin (Musselburgh) | 600 | 128 | 1980 | Highest |
| Cromwell | 752 | 119 | 1979 | Highest |
| Balclutha | 660 | 139 | 1964 | 2nd-highest |
| New Plymouth | 669 | 120 | 1972 | 3rd-highest |
| Takaka | 694 | 102 | 1985 | 3rd-highest |
| Cheviot | 669 | 129 | 1983 | 3rd-highest |
| Te Kuiti | 528 | 121 | 1962 | 4th-highest |
| Greymouth | 578 | 127 | 1947 | 4th-highest |
| Low records or near-records | | | | |
| None observed |  |  |  |  |

## Spring climate in the six main centres

Spring temperatures were near average in all main centres. It was a particularly dry spring for Wellington and Christchurch, with these cities each receiving less than two-thirds of normal rainfall for the season. Dunedin enjoyed a very sunny spring, observing 130 more sunshine hours than the spring normal. Sunshine hours were near normal for the remaining main centres. Of the six main centres in spring 2015, Auckland was the warmest, Dunedin was the coolest, Christchurch was the driest and sunniest, Hamilton was the wettest and Auckland was the cloudiest.

**Spring 2015 main centre climate statistics:**

|  |  |
| --- | --- |
| **Temperature** | |
| **Location** | **Mean temp. (oC)** | **Departure from normal (oC)** | **Comments** |
| Aucklanda | 14.9 | +0.4 | Near average |
| Taurangab | 14.3 | 0.2 | Near average |
| Hamiltonc | 12.8 | -0.2 | Near average |
| Wellingtond | 11.8 | -0.3 | Near average |
| Christchurche | 11.2 | -0.3 | Near average |
| Dunedinf | 10.7 | -0.2 | Near average |
| **Rainfall** | |
| **Location** | **Rainfall (mm)** | **% of normal** | **Comments** |
| Aucklanda | 196 | 75% | Below normal |
| Taurangab | 208 | 84% | Near normal |
| Hamiltonc | 317 | 110% | Near normal |
| Wellingtond | 190 | 61% | Below normal |
| Christchurche | 83 | 61% | Below normal |
| Dunedinf | 156 | 94% | Near normal |
| **Sunshine** | |
| **Location** | **Sunshine (hours)** | **% of normal** | **Comments** |
| Aucklanda | 513 | 99% | Near normal |
| Taurangab | 600 | 98% | Near normal |
| Hamiltong | 521 | 102% | Near normal |
| Wellingtond | 584 | 103% | Near normal |
| Christchurche | 622 | 104% | Near normal |
| Dunedinf | 600 | 128% | Well above normal |  |

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

## Highlights and extreme events

This section contains information pertaining to some of the more significant highlights and extreme events that occurred in spring 2015. Note that a more detailed list of significant weather events for spring 2015 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>

### Rain and slips

On the night of 20 September, a stalling low to the east of the North Island began to direct heavy rainfall to the Gisborne region with many residents waking up to surface flooding. Fallen trees and many slips were reported throughout the region. The town of Te Karaka was cut off on both sides with the closure of State Highway 2 between Napier and Wairoa as well as between Ormond and Opotiki. Diluted wastewater was released into the Taruheru, Waimata and Turanganui rivers from Gisborne’s sewer network in order to avoid sewers flowing back on to private property.

The highest 1-day rainfall for spring 2015 was 291 mm, recorded at Milford Sound on 16 October.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Extreme 1-day rainfall**  **(mm)** | **Date of extreme rainfall** | **Year records began** | **Comments** |
| Maungatautari | 73 | Sep-20th | 1975 | Highest |
| Waikeria | 83 | Sep-20th | 1977 | Highest |
| Brentwood | 135 | Sep-23rd | 1966 | Highest |
| Orepuki | 54 | Oct-16th | 1967 | Highest |
| Cambridge | 71 | Sep-20th | 1966 | 2nd-highest |
| Mokairau | 145 | Sep-20th | 1947 | 2nd-highest |
| Mahia | 82 | Nov-4th | 1990 | 2nd-highest |
| Glenledi | 48 | Oct-16th | 1984 | 2nd-highest |
| Nithdale | 44 | Oct-16th | 1946 | 2nd-highest |
| Balclutha | 43 | Oct-16th | 1964 | 2nd-highest |
| Morrinsville | 43 | Sep-1st | 1978 | 3rd-highest |
| Kopua | 77 | Sep-23rd | 1962 | 3rd-highest |
| Castlepoint Station | 62 | Sep-13th | 1994 | 3rd-highest |
| Ahititi Station | 167 | Sep-20th | 1973 | 3rd-highest |
| Te Pohue | 180 | Sep-20th | 1983 | 3rd-highest |
| Ripia | 109 | Sep-21st | 1967 | 3rd-highest |
| Te Kura | 62 | Sep-23rd | 1993 | 3rd-highest |
| Wairoa | 186 | Sep-21st | 1911 | 3rd-highest |
| Mandeville | 49 | Oct-16th | 1967 | 3rd-highest |
| Hillend | 48 | Oct-16th | 1967 | 3rd-highest |
| Quarry Hills | 60 | Oct-16th | 1939 | 3rd-highest |
| Kawhia | 68 | Sep-20th | 1905 | 4th-highest |
| Otoko | 101 | Sep-20th | 1913 | 4th-highest |
| Gisborne | 104 | Sep-20th | 1937 | 4th-highest |
| Waihau | 98 | Sep-20th | 1985 | 4th-highest |
| Hastings | 91 | Sep-23rd | 1983 | 4th-highest |
| Ongaonga | 67 | Sep-23rd | 1969 | 4th-highest |
| Tiwai Point | 45 | Oct-16th | 1970 | 4th-highest |
| Campbell Island | 34 | Nov-26th | 1991 | 4th-highest |

### Temperatures

Much of the first week of October was dominated by a north-westerly airflow. This contributed to temperatures which were considerably warmer than normal for the time of year, especially in eastern parts of the country. Temperatures on 6 and 7 October were particularly warm, with numerous locations seeing daily maximum temperatures reach the late-20s. Most notable was Kaikoura, which reached 31.8°C on 7 October.

The final week of November also saw persistent north-westerly airflows that resulted in relatively high temperatures throughout the country. During this time, a number of locations observed record or near-record high daily maximum and daily minimum air temperatures (see tables below).

In spring 2015, the highest temperature recorded was 31.7°C, observed at Hastings on 26 November. Naseby Forest observed the lowest temperature in spring 2015, with -8.2°C recorded on 31 October.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Extreme maximum (°C)** | **Date of extreme temperature** | **Year records began** | **Comments** |
| High records or near-records | | | | |
| Kaikohe | 25.8 | Nov-26th | 1973 | Highest |
| Leigh | 27.1 | Nov-26th | 1966 | Highest |
| Whatawhata | 27.1 | Nov-25th | 1952 | Highest |
| Hastings | 31.7 | Nov-26th | 1965 | Highest |
| Cheviot | 31.3 | Nov-26th | 1982 | Highest |
| Te Puke | 27.4 | Nov-9th | 1973 | Equal highest |
| Auckland (Mangere) | 26.8 | Nov-26th | 1959 | Equal highest |
| Whangarei | 27.4 | Nov-27th | 1967 | 2nd-highest |
| Mokohinau | 22.8 | Nov-26th | 1994 | 2nd-highest |
| Waipawa | 29.1 | Nov-27th | 1945 | 2nd-highest |
| Wairoa | 30.6 | Oct-7th | 1964 | 2nd-highest |
| Kaikoura | 30.6 | Oct-7th | 1963 | 2nd-highest |
| South West Cape | 21.3 | Nov-26th | 1991 | 2nd-highest |
| Whangaparaoa | 24.4 | Nov-28th | 1982 | Equal 2nd-highest |
| Waiau | 30.6 | Nov-26th | 1974 | Equal 3rd-highest |
| Warkworth | 25.6 | Nov-27th | 1966 | 4th-highest |
| Hawera | 23.4 | Nov-27th | 1977 | 4th-highest |
| Puysegur Point | 21.3 | Nov-26th | 1978 | 4th-highest |
| Auckland (Airport) | 25.5 | Nov-27th | 1959 | Equal 4th-highest |
| Low records or near-records | | | | |
| Le Bons Bay | 5.0 | Sep-20th | 1984 | Lowest |
| Campbell Island | 0.4 | Sep-6th | 1991 | Lowest |
| Castlepoint Station | 9.5 | Sep-7th | 1994 | Equal lowest |
| Puysegur Point | 7.0 | Sep-5th | 1978 | Equal lowest |
| Stewart Island | 6.0 | Sep-6th | 1975 | Equal lowest |
| Wairoa | 9.2 | Sep-21st | 1972 | 2nd-lowest |
| Motueka | 8.4 | Sep-1st | 1972 | 2nd-lowest |
| Nugget Point | 4.3 | Sep-6th | 1972 | 2nd-lowest |
| Tautuku | 4.5 | Sep-6th | 1976 | 2nd-lowest |
| South West Cape | 5.5 | Sep-6th | 1991 | 2nd-lowest |
| Port Taharoa | 10.6 | Sep-20th | 1974 | 3rd-lowest |
| Ngawi | 9.2 | Sep-21st | 1972 | 3rd-lowest |
| Cheviot | 6.6 | Sep-20th | 1982 | 3rd-lowest |
| Lumsden | 5.3 | Sep-6th | 1982 | 3rd-lowest |
| Balclutha | 6.0 | Sep-6th | 1972 | 3rd-lowest |
| Hanmer Forest | 2.7 | Sep-20th | 1972 | Equal 3rd-lowest |
| Orari Estate | 5.5 | Sep-1st | 1972 | Equal 3rd-lowest |
| Martinborough | 8.8 | Sep-19th | 1986 | 4th-lowest |
| Farewell Spit | 10.6 | Sep-19th | 1972 | 4th-lowest |
| Dunedin (Musselburgh) | 6.1 | Sep-6th | 1947 | Equal 4th-lowest |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Extreme minimum (°C)** | **Date of extreme temperature** | **Year records began** | **Comments** |
| High records or near-records | | | | |
| Kaikohe | 18.5 | Nov-28th | 1973 | Highest |
| Whangarei | 19.0 | Nov-28th | 1967 | Highest |
| Whangaparaoa | 17.3 | Nov-28th | 1982 | Highest |
| Whitianga | 18.8 | Nov-28th | 1971 | Highest |
| Whakatane | 17.9 | Nov-28th | 1975 | Highest |
| Rotorua | 17.0 | Nov-28th | 1972 | Highest |
| Motu | 14.9 | Nov-28th | 1990 | Highest |
| Hastings | 20.2 | Nov-28th | 1972 | Highest |
| Mahia | 17.1 | Nov-28th | 1990 | Highest |
| Hanmer Forest | 19.1 | Nov-27th | 1972 | Highest |
| Waiau | 21.6 | Nov-27th | 1974 | Highest |
| Cheviot | 20.9 | Nov-27th | 1982 | Highest |
| Waipara West | 20.3 | Nov-27th | 1973 | Highest |
| Lincoln | 20.7 | Nov-27th | 1881 | Highest |
| Le Bons Bay | 18.4 | Nov-26th | 1984 | Highest |
| Orari Estate | 18.8 | Nov-27th | 1972 | Highest |
| Kerikeri | 18.7 | Nov-28th | 1981 | Equal highest |
| Kaitaia | 18.4 | Nov-28th | 1948 | 2nd-highest |
| Kaikoura | 17.4 | Nov-27th | 1972 | 2nd-highest |
| Culverden | 19.9 | Nov-27th | 1930 | 2nd-highest |
| Timaru | 17.1 | Nov-27th | 1885 | 2nd-highest |
| Manapouri | 14.2 | Nov-26th | 1973 | 2nd-highest |
| Lumsden | 16.6 | Oct-7th | 1982 | 2nd-highest |
| Auckland (Whenuapai) | 17.9 | Nov-28th | 1951 | Equal 2nd-highest |
| South West Cape | 12.9 | Nov-26th | 1991 | Equal 2nd-highest |
| Whatawhata | 17.7 | Nov-28th | 1952 | 3rd-highest |
| Port Taharoa | 17.7 | Nov-28th | 1974 | 3rd-highest |
| Ashburton | 17.9 | Nov-27th | 1928 | 3rd-highest |
| Mokohinau | 17.3 | Nov-27th | 1994 | Equal 3rd-highest |
| Te Puke | 17.1 | Nov-28th | 1973 | Equal 3rd-highest |
| Taupo | 16.0 | Nov-28th | 1950 | Equal 3rd-highest |
| Auckland (Mangere) | 18.3 | Nov-28th | 1961 | Equal 3rd-highest |
| Auckland (Airport) | 18.3 | Nov-28th | 1961 | Equal 3rd-highest |
| Hamilton | 17.4 | Nov-28th | 1946 | Equal 3rd-highest |
| Hicks Bay | 17.0 | Nov-28th | 1972 | Equal 3rd-highest |
| Tautuku | 13.5 | Oct-16th | 1976 | Equal 3rd-highest |
| Cape Reinga | 16.6 | Nov-28th | 1971 | 4th-highest |
| Paeroa | 17.8 | Nov-28th | 1971 | 4th-highest |
| Tauranga | 17.8 | Nov-28th | 1941 | 4th-highest |
| Ohakune | 14.1 | Nov-28th | 1972 | 4th-highest |
| Christchurch (Riccarton) | 19.1 | Nov-27th | 1863 | 4th-highest |
| Orari Estate | 14.8 | Oct-7th | 1972 | 4th-highest |
| Reefton | 14.4 | Nov-27th | 1972 | Equal 4th-highest |
| Low records or near-records | | | | |
| Napier | -2.2 | Sep-8th | 1868 | Lowest |
| Taihape | -5.0 | Sep-11th | 1972 | Lowest |
| Naseby Forest | -8.2 | Oct-31st | 1983 | Lowest |
| Alexandra | -5.5 | Sep-26th | 1992 | Equal lowest |
| Mahia | 2.9 | Sep-13th | 1990 | 2nd-lowest |
| Appleby | -2.6 | Sep-30th | 1932 | 3rd-lowest |
| Cheviot | -4.1 | Sep-9th | 1982 | 3rd-lowest |
| Le Bons Bay | 0.7 | Sep-6th | 1984 | 4th-lowest |
| Balclutha | -3.2 | Sep-21st | 1964 | Equal 4th-lowest |
| Campbell Island | -2.9 | Sep-6th | 1991 | Equal 4th-lowest |

### Wind

On 4 October very strong winds occurred throughout the South Island. At least 2200 homes in Canterbury and Otago were without power as winds brought down trees onto power lines. The Waimate and Mackenzie Districts were worst affected and parts of these areas remained without power the following day. Fire crews responded to numerous callouts for downed trees, power lines and out of control fires from Southland to north Canterbury. A dust storm struck in Twizel, where the strongest winds were replaced by rain and thunder during the afternoon. Flights at Invercargill Airport were cancelled due to wind gusts which peaked at 130 km/hr, stranding dozens of passengers. Cancelled and diverted flights were also reported at Dunedin and Queenstown airports. Approximately $680,000 in insurance claims were lodged with rural insurance companies, and these included damage to houses, farm buildings and irrigators.

A combination of very strong winds, high temperatures and low humidity created the perfect recipe for extreme fire danger in eastern parts of the South Island on 7 October. Four homes were damaged by a large fire which burned on Saddle Hill (south of Mosgiel). Residents of 30 properties were forced to evacuate due to the fire. Farther north, residents of Dunback (Otago, north of Dunedin) were evacuated due to an uncontrolled fire which threatened property there. Several buildings were destroyed by a vegetation fire near Dunsandel (Canterbury, south of Christchurch), and SH 75 near Akaroa was closed due to an uncontrolled fire.

On 27 November, strong winds occurred in many parts of the country. In Wellington, approximately 12 flights were cancelled or diverted and the *East by West* ferry services to Eastbourne were cancelled. At least seven helicopters were used to fight a forest fire at Whareama (east of Masterton), with strong winds meaning conditions were too dangerous for fire fighters to tackle the blaze from the ground. Numerous roads were closed and power was out across parts of the Southern Lakes and Central Otago, where there was considerable damage to vegetation (mostly downed trees) resulting from strong winds. Specifically, power was reportedly out to consumers in parts of Wanaka, Dalefield, Lake Hayes, Lake Hayes Estate, Makarora, Cadrona, Glenorchy, Closeburn, and Alexandra.

The highest wind gust for spring 2015 was 172 km/hr, observed at Cape Turnagain on 5 October and South West Cape on 7 October.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Extreme wind gust (km/hr)** | **Date of extreme gust** | **Year records began** | **Comments** |
| Puysegur Point | 170 | Nov-27th | 1986 | Highest |
| Tara Hills | 107 | Oct-4th | 1985 | Highest |
| Gore | 122 | Oct-4th | 1987 | 2nd-highest |
| Secretary Island | 143 | Nov-27th | 1994 | Equal 3rd-highest |
| South West Cape | 172 | Oct-7th | 1991 | Equal 3rd-highest |
| Dannevirke | 106 | Oct-22nd | 1961 | 4th-highest |
| Mahia | 100 | Sep-11th | 1991 | 4th-highest |
| Cape Campbell | 122 | Sep-10th | 1963 | 4th-highest |
| Oamaru | 95 | Oct-4th | 1984 | 4th-highest |
| Manapouri | 87 | Nov-26th | 1991 | 4th-highest |

### Lightning and hail

On 22 November prolonged thunderstorms impacted northern parts of the North Island. Approximately 10,000 lightning strikes were recorded, of which 1300 occurred in Auckland. More than 2000 Auckland homes lost powers during the severe weather due to trees that were brought down onto power lines.

### Snow and ice

On 11 September, snowfall associated with a southerly blast brought the total snowfall for the season at *Coronet Peak* (Queenstown) to over three metres. This was a new record for the ski area, surpassing the previous record set in 2010.

### Cloud and fog

On 14 September a blanket of fog delayed or cancelled 48 domestic flights at Auckland Airport.

**For further information, please contact:**

**Mr Chris Brandolino**

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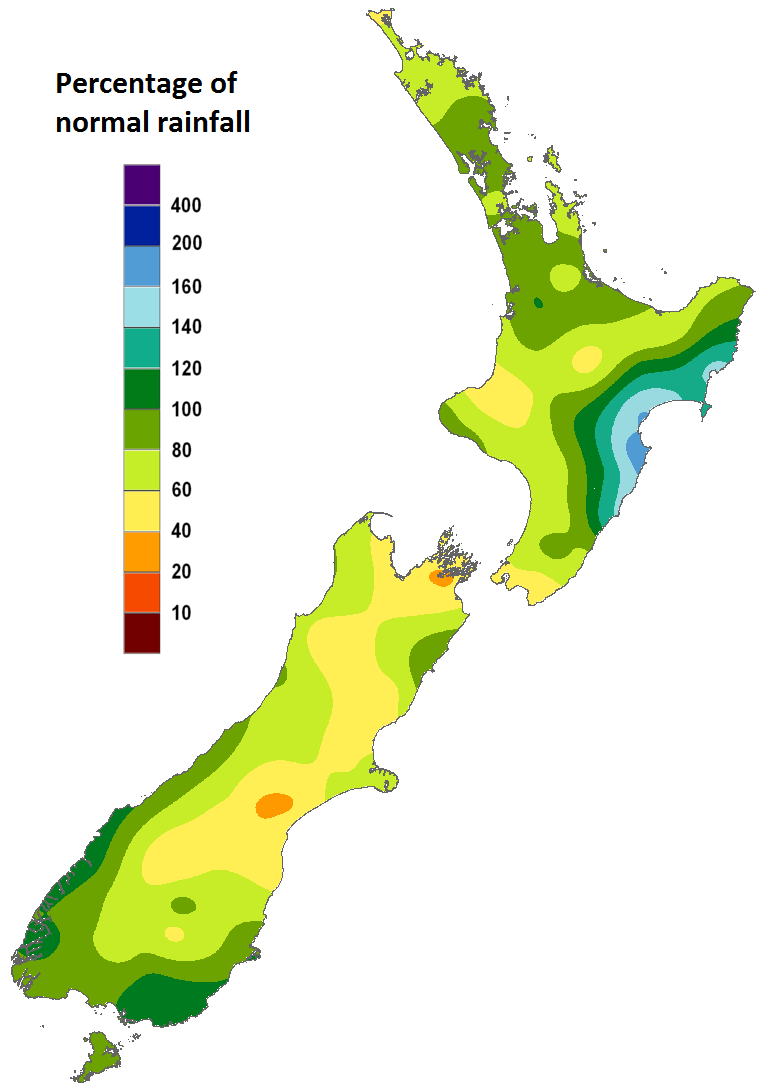
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*Spring 2015 rainfall expressed as a percentage of normal, illustrating that it was a dry season in many parts of the country (indicated by light green, yellow and orange shades).*

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1. Interim value [↑](#footnote-ref-1)
2. 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)