

National Climate Summary – November 2007: Sunny with low rainfall - severe soil moisture deficits in Marlborough and Central Otago – hot spell in the north and east

- **Rainfall: Well below normal in many regions, especially Marlborough, Nelson, and Otago**
- **Temperature: Near average, apart from high temperatures in the north and east between the 20th and 26th**
- **Sunshine: Above normal in many regions**

November 2007 was extremely dry in many regions, especially in the South Island, with totals of less than 10 mm throughout much of Nelson, Marlborough, and central Otago. The second half of November was very dry and very warm, with little rainfall in many areas. Severe soil moisture deficits (more than 130 mm) developed in Hawke's Bay, Marlborough, and parts of Canterbury and Otago, with significant soil moisture deficits (more than 110 mm) in Bay of Plenty, Taupo, Gisborne, Wanganui, Wellington, and Nelson. Temperatures were cooler than average in the first half of November, while the second half of the month was noticeably warmer. The national average temperature of 13.4 °C was 0.3 °C below average. The month was one of the sunniest November's on record in Golden Bay, Nelson, Marlborough, Taranaki, and inland areas of Canterbury. Cloudy skies prevailed in the Far North. Anticyclones ('highs') were more frequent than normal in the Tasman Sea and over New Zealand.

The month's overall weather pattern was produced by more frequent anticyclones in the Tasman Sea, often extending ridges of high pressure over New Zealand. This resulted in more frequent dry southerly quarter winds than usual over New Zealand.

Further Highlights:

- The lowest air temperature during the month was -3.4 °C recorded at Lauder on the 6th.
- A hot spell affected the north and east of both islands between 20 and 26 November, with record high November temperatures recorded in many of these regions. The highest temperature during November 2007 was 32.8 °C recorded at Blenheim Airport on the 25th.
- Isolated areas of high rainfall occurred in coastal Waikato and Ruapehu on the 4th and parts of Fiordland on the 12th.
- The highest wind gust of the month was 137 km/h from the south, recorded at Mt Kau Kau (Wellington) on the 14th.
- Of the five main centres, Auckland was the warmest and wettest, Christchurch the sunniest, and Dunedin the driest of the five main centres.

Rainfall: Rainfall was less than 25 percent (quarter) of normal in Nelson and Marlborough, less than 50 percent (half) of normal in many other South Island and most eastern north Island regions. Rainfall was also below normal in Taranaki, Wellington, and coastal areas of South Canterbury, Otago, and Southland. Horowhenua was wetter than usual.

Temperature: Mean temperatures were about 0.5 °C below average in many regions overall, but at least 1.0 °C below average in north Taranaki. In contrast they were 0.5 °C above average in Nelson.

Sunshine: Sunshine hours were well above normal in Taranaki, Manawatu, Kapiti, Wellington, Golden Bay, Nelson, Marlborough, north Westland, and inland areas of Canterbury, and also above normal in Gisborne, along the Canterbury coast, Otago, and Southland. Cloudy skies prevailed in the Far North.

For further information, please contact:

**Dr Jim Salinger – Principal Scientist – Climate, NIWA National Climate Centre, Auckland,
Tel. (09) 375 2053 (work) or (027) 521 9468 (mobile) or (09) 576 9468 (Home).**

Stuart Burgess – Climatologist – NIWA National Climate Centre, Wellington, Tel. (04) 386 0569.

RAINFALL: WELL BELOW NORMAL IN MANY REGIONS, ESPECIALLY MARLBOROUGH, NELSON, AND OTAGO

Rainfall was less than 25 percent (quarter) of normal in Nelson and Marlborough, less than 50 percent (half) of normal in many other South Island and most eastern north Island regions, and less than 75 percent (three quarters) of normal in Taranaki, Wellington, and coastal areas of South Canterbury, Otago, and Southland.

November rainfall totals were less than 10 mm throughout much of Nelson, Marlborough, and central Otago.

Horowhenua was wetter than usual, with about 125 percent (one and a quarter) of normal October rainfall, and rainfall was near normal in Northland, Auckland, and coastal areas of Waikato.

Near or record low November rainfall was recorded at:

Location	November Rainfall (mm)	Percentage of normal	Year records began	Comments
Whitianga Airport	46	39	1989	2 nd Lowest
Paeroa	31	34	1914	Equal 3 rd lowest
Te Puke	27	23	1973	Lowest
Whakatane Airport	10	12	1975	Lowest
Rotorua Airport	25	25	1964	Lowest
Taupo Airport	18	23	1976	Lowest
East Taratahi	22	31	1972	2 nd lowest
Wairoa, North Clyde	20	25	1991	Lowest
Wellington Airport	16	20	1960	3 rd lowest
Stratford	30	18	1960	Lowest
Hokitika Airport	60	25	1963	2 nd lowest
Reefton	25	15	1960	2 nd lowest
Franz Josef EWS	63	14	2003	Lowest
Motueka, Riwaka	3	3	1943	Lowest
Nelson Airport	7	9	1941	2 nd lowest
Appleby	3	3	1932	Lowest
Blenheim Research	9	17	1927	Equal 3 rd lowest
Awatere Valley, Dashwood	11	28	2001	Lowest
Culverden	14	28	1983	Lowest
Mt Cook Village	38	10	1929	2 nd lowest
Le Bons Bay	22	33	1990	2 nd lowest
Lake Tekapo	10	23	1925	Well below normal
Wanaka Airport	9	18	1992	Lowest
Middlemarch	10	20	1916	Equal 3 rd lowest
Dunedin, Musselburgh	22	34	1918	2 nd lowest
Manapouri Airport	18	19	1991	Lowest
Queenstown Airport	4	8	1968	Lowest
Lauder	18	39	1942	Equal 3 rd lowest
Clyde	5	19	1983	Lowest

TEMPERATURE: NEAR AVERAGE THROUGHOUT MUCH OF NEW ZEALAND OVERALL

Mean temperatures were about 0.5 °C below average in many regions, but at least 1.0 °C below average in north Taranaki. In contrast they were 0.5 °C above average in Nelson. The national average temperature of 13.4 °C was 0.3 °C below average. However, afternoon maxima were above normal and overnight minima were below normal.

SUNSHINE: ABOVE NORMAL IN MANY REGIONS

Sunshine hours were at least 120 percent of normal in Taranaki, Manawatu, Kapiti, Wellington, Golden Bay, Nelson, Marlborough, north Westland, and inland areas of Canterbury, and at least 110 percent of normal in Gisborne, along the Canterbury coast, Otago, and Southland. Cloudy skies prevailed in the Far North. Sunshine was near normal elsewhere.

Near or record November sunshine was recorded at:

Location	November Sunshine (hours)	Percentage of normal	Year records began	Comments
New Plymouth Airport	259	127	1972	Highest
Palmerston North	235	137	1930	Well above normal
Wellington, Kelburn	260	124	1928	4 th highest
Takaka EWS	279	124	1986	2 nd highest
Motueka, Riwaka	303	133	1965	Equal highest
Nelson Airport	304	135	1948	2 nd highest
Blenheim Research	288	124	1985	2 nd highest
Mt Cook Village	232	156	1930	Highest
Lake Tekapo	285	124	1928	Well above normal

NOVEMBER'S CLIMATE IN THE FIVE MAIN CENTRES

Auckland was the warmest and wettest, Christchurch the sunniest, and Dunedin the driest of the five main centres. Rainfall was below normal everywhere. Temperatures were below normal in the North Island main centres, and near normal in Christchurch and Dunedin. Sunshine hours were above normal in Wellington, Christchurch, and Dunedin, and near normal in the two other main centres.

November 2007 main centre climate statistics:

Location	Nov. mean temp. (°C)	Dep. from normal (°C)		Nov. rainfall (mm)	% of normal		Nov. Sunshine (hours)	% of normal	
Auckland	15.7	-0.5	Below normal	66 ^a	71	Below normal	184	96	Near normal
Hamilton	14.3	-0.7	Below normal	51	55	Below normal	190	96	Near normal
Wellington	12.9	-0.5	Below normal	42	43	Below normal	260	124	Well above normal
Christchurch ^b	13.2	-0.3	Near normal	31	68	Below normal	248	115	Above normal
Dunedin	12.5	+0.2	Near normal	22	34	Well below normal	192	118	Above normal

^a Owairaka ^b Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

- **Temperature**

The lowest air temperature during the month was -3.4 °C recorded at Lauder on the 6th.

A hot spell affected the north and east of both islands between 20 and 26 November, with record high November temperatures recorded in many of these regions. The highest temperature during November 2007 was 32.8 °C recorded at Blenheim Airport on the 25th.

Near or record low high maximum temperatures were recorded in November at:

Location	Maximum temperature (°C)	Date	Year Records began	Comments
Tauranga Airport	28.1	25 th	1913	Equal 2 nd highest
Te Puke	27.8	26 th	1973	Highest
Kawerau	32.0	25 th & 26 th	1954	Equal highest
Wairoa, North Clyde	29.0	23 rd	1991	2 nd highest
East Taratahi	28.5	25 th	1972	Highest
Martinborough EWS	27.2	25 th	2002	Highest
Ngawi AWS	28.8	25 th	1999	Highest
Nelson Airport	28.4	24 th	1943	2 nd highest
Appleby	27.8	24 th	1932	2 nd highest
Motueka, Riwaka	29.2	25 th	1956	Highest
Blenheim Research	31.7	25 th	1932	Highest
Blenheim Airport	32.8	25 th	1941	Highest
Awatere Valley, Dashwood	31.8	25 th	2001	Highest
Hanmer Forest	30.3	21 st	1906	Highest
Culverden	32.0	21 st	1983	Highest
Alexandra	31.0	20 th & 21 st	1928	Record is 31.7 °C in 1958
Clyde	29.5	21 st	1983	3 rd highest

Data in italics are rounded to the nearest whole number

- **High winds**

A southerly wind gust of 137 km/h was recorded at Mt Kau Kau (Wellington) on the 14th.

- **High rainfall**

Isolated areas of high rainfall (90-120 mm) occurred in coastal Waikato and Ruapehu on the 4th, and rainfall totalled 75-90 mm in parts of Fiordland on the 12th.

For further information, please contact:

**Dr Jim Salinger – Principal Scientist – Climate, NIWA National Climate Centre, Auckland,
Tel. (09) 375 2053 (work) or (027) 521 9468 (mobile) or (09) 576 9468 (Home);**

Stuart Burgess – Climatologist – NIWA National Climate Centre, Wellington, Tel. (04) 386 0569;

Geoff Baird, NIWA Communications Manager Tel. (04) 386-0543 or (027) 229-6314.

www.niwascience.co.nz/ncc

Copyright NIWA 2007. All rights reserved.