

National Climate Summary – July 2006: A month of contrasts, warmer than average overall

Rainfall: Very wet in Wairarapa, Wanganui, and Wellington (landslips and severe flooding in some areas); extremely dry in parts of Northland, Auckland, and parts of Otago
Temperature: Above average in the east of the North Island, Marlborough, Nelson, and Southern Lakes; below average in Northland, inland South Canterbury, and North Otago
Sunshine: Very sunny in the north and west of the North Island, as well as inland South Canterbury and coastal Otago

July was warmer than June (by 0.8 °C). This happens on average once in five years, and this year provided a reprieve from the very cold start to winter. In fact, overall this July temperatures were slightly above average. The national average temperature of 8.2 °C was 0.3 °C above the 1971-2000 normal. July 2006 temperatures were above average in the east of the North Island, Marlborough, Nelson, and Southern Lakes, and below average in Northland, inland South Canterbury, and North Otago.

An active low produced landslips, flooding and high rainfall in July in Wairarapa, and parts of Wanganui and Wellington during the first week of the month. Rainfall for the month was more than twice normal in Wairarapa (in some places it was the wettest July in more than 30 years), and more than one and a half times normal in King Country, Wanganui, Hawke's Bay, and Wellington (including the Kapiti coast). In contrast, July was rather settled in other areas with rainfall totals a mere 25 percent (a quarter) or less of normal in parts of Northland, and North Otago, and 50 percent (half) or less of normal in Auckland, Coromandel, Central and East Otago.

July was much sunnier than normal in the north and west of the North Island, as well as inland South Canterbury, and coastal Otago.

More anticyclones ('highs') in the Australian Bight extended over New Zealand producing more south easterlies to the north, with westerlies and southwesterlies to the south of the country.

Other Highlights:

The highest temperature during July 2006 was 20.2 °C recorded at Whakatu, Hastings, on the 31st. The lowest air temperature for the month was -12.2 °C recorded at Lake Tekapo on the 6th. Minimum air temperatures were -10 °C or lower in parts of inland South Canterbury/North Otago on the 1st, 5th, 6th, and 7th of July.

A wind gust of 148 km/h was recorded at Rock and Pillar, Otago on the 22nd, and 146 km/h at Mt. Kaukau, Wellington on the 5th. Tornadoes destroyed property in the Waikato on the 12th.

Severe flooding and landslips occurred after high rainfall from 4-6 July in the Wairarapa, Wanganui and Wellington regions. 100 mm was reported within 24 hours in parts of South Wairarapa, where people had to be evacuated from their homes. Martinborough was isolated by floodwaters, and surface flooding which also affected Greytown and Carterton. In Wairarapa, more than 50 roads were closed due to flooding or landslips. The settlement of Mangamahu (northeast of Wanganui) was isolated by the collapse of the Mangawhero river bridge. A house in Wanganui was struck by a landslide, with two others later affected in Hunterville. On 21 July, an Eastbourne house became perched above a landslide.

Snowfall closed the Desert Rd on the 6th, with many skiers stranded on Mt. Ruapehu. Showers of sleet and snow fell to low levels in the lower North Island on the 21st, and settled in the Queenstown area; and closing Queenstown airport.

Dunedin was the driest, Wellington the wettest, Auckland the sunniest, and Christchurch the coldest of the main centres. Rainfall was well above average in Wellington and below average in all four other main centres. Temperatures were above average in Wellington Dunedin, below average in Auckland, and near average in the other main centres. Sunshine totals were above average in all five main centres.

Rainfall: Rainfall was more than 200 percent (twice) of normal in Wairarapa, and more than 150 percent (one and a half) of normal in King Country, Wanganui, Hawke’s Bay, and Wellington (including the Kapiti coast). It was also wet in Manawatu, and scattered areas of Canterbury. In contrast, July rainfall totals were 25 percent (a quarter) or less of normal in parts of Northland, and North Otago, 50 percent (half) or less of normal in Auckland, Coromandel, Central and East Otago. Rainfall was also below normal in Bay of Plenty, Buller, Westland, Marlborough, South Canterbury, and West Otago.

Temperature: Mean temperatures were generally near average over the country. However, they were above average in the east of the North Island, Marlborough, Nelson, and Southern Lakes. In contrast, temperatures were below average in Northland, inland South Canterbury and North Otago.

Sunshine: Sunshine hours and/or solar radiation were at least 120 percent of normal in parts of Northland, Auckland, Taranaki, Wellington, inland South Canterbury, and coastal Otago, and about 110 percent of normal in Waikato, Manawatu, and Nelson.

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RAINFALL: VERY WET IN WAIRARAPA, WANGANUI, AND WELLINGTON; EXTREMELY DRY IN PARTS OF NORTHLAND, AUCKLAND, AND PARTS OF OTAGO

Rainfall was more than 200 percent (twice) of normal in Wairarapa, and more than 150 percent (one and a half) of normal in King Country, Wanganui, Hawke’s Bay, and Wellington (including the Kapiti coast). It was also wet, with at least 125 percent (one and a quarter) of normal rainfall in Manawatu, and scattered areas of Canterbury. In contrast, June rainfall totals were 25 percent (a quarter) or less of normal in parts of Northland, and North Otago, 50 percent (half) or less of normal in Auckland, Coromandel, Central and East Otago, and 75 percent (three quarters) or less of normal in Bay of Plenty, Buller, Westland, Marlborough, South Canterbury, and West Otago.

High July rainfall was recorded at:

Location	July Rainfall (mm)	Percentage of normal	Year Records began	Comments
Taumarunui	285 ^a	187	1914	Well above normal
East Taratahi	251 ^b	268	1972	Highest
Martinborough	215	240	2001	Highest
Wellington, Kelburn	270	198	1862	Well above normal
Wellington Airport	206	182	1960	2 nd highest
Waiouru MWD	194 ^b	182	1950	2 nd highest
Wanganui, Spriggens Pk.	176	200	1890	3 rd highest

^a Missing 5-days, ^b missing 1-day

Low July rainfall was recorded at:

Location	July Rainfall (mm)	Percentage of normal	Year Records began	Comments
Kerikeri EWS	64	36	1982	2 nd lowest
Kaikohe	50 ^a	29	1986	2 nd lowest
Whangarei Airport	33	21	1937	2 nd lowest
Warkworth	57	31	1972	2 nd lowest
Auckland, Mangere	46	33	1959	3 rd lowest
Ranfurlly	8	31	2001	2 nd lowest
Middlemarch	5	14	2001	Lowest
Lauder	7	22	1986	Well below normal

^a Missing 1-day

TEMPERATURE: ABOVE AVERAGE IN THE EAST OF THE NORTH ISLAND, MARLBOROUGH, NELSON, AND SOUTHERN LAKES; BELOW AVERAGE IN NORTHLAND, INLAND SOUTH CANTERBURY, AND NORTH OTAGO

Mean temperatures were near average throughout much of New Zealand. However, they were at least 0.5 °C above average in the east of the North Island, Marlborough, Nelson, and Southern Lakes. In contrast, temperatures were about 0.5 °C below average in Northland, inland South Canterbury and North Otago.

High July mean temperatures were recorded at:

Location	July Mean air temperature (°C)	Departure from normal (°C)	Year Records began	Comments
Chatham Is.	9.4	+1.3	1957	2 nd highest

SUNSHINE: WELL AVERAGE IN THE NORTH AND WEST OF THE NORTH ISLAND, AS WELL AS INLAND SOUTH CANTERBURY AND COASTAL OTAGO

Sunshine hours and/or solar radiation were at least 120 percent of normal in parts of Northland, Auckland, Taranaki, Wellington, inland South Canterbury, and coastal Otago, about 110 percent of normal in Waikato, Manawatu, and Nelson, and near normal in most other regions.

Well above average July sunshine hours were recorded at:

Location	July Sunshine (hours)	Percentage of normal	Year records began	Comments
Dargaville	149	134	1943	3 rd highest
Auckland, Mangere	159	122	1963	Well above average
New Plymouth	168	126	1973	Well above average
Stratford	153	127	1963	Well above average
Wellington, Kelburn	143	122	1928	Well above average
Lake Tekapo	138	127	1928	Well above average
Dunedin, Musselburgh	134	132	1948	Well above average

JULY'S CLIMATE IN THE FIVE MAIN CENTRES

Dunedin was the driest, Wellington the wettest, Auckland the sunniest, and Christchurch the coldest of the main centres. Rainfall was well above average in Wellington and below average in the other main centres. Temperatures were above average in Wellington and Dunedin, below average in Auckland, and near average in the other main centres. Sunshine totals were above average in all five main centres.

Location	July Mean Temp. (°C)	Dep. from normal (°C)		July rainfall (mm)	% of Normal		July Sunshine (hours)	% of Normal	
Auckland	10.5	-0.4	Below average	75 ^a	51	Below average	159	122	Well above average
Hamilton	8.7	-0.2	Near average	101	79	Below average	143	118	Above average
Wellington	9.2	+0.4	Above average	270	198	Well above average	143	122	Well above average
Christchurch	6.0	+0.2	Near average	52 ^b	73	Below average	137 ^b	111	Above average
Dunedin	6.9	+0.3	Above average	29	44	Below average	134	132	Well above average

^a Owhairaka ^b Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

Temperature

The highest temperature during July 2006 was 20.2 °C recorded at Whakatu, Hastings, on the 31st. The lowest air temperature for the month was -12.2 °C recorded at Lake Tekapo on the 6th. Minimum air temperatures were -10 °C or lower in parts of inland South Canterbury/North Otago on the 1st, 5th, 6th, and 7th of July.

High winds

A wind gust of 148 km/h from the southwest was recorded Rock and Pillar, Otago on the 22nd, and 146 km/h from the south at Mt. Kaukau, Wellington on the 5th. On the 5th, gale force southerlies and 7 m swells resulted in the cancellation of Cook Strait ferry sailings, and high winds damaged several roofs in Wellington. Twin tornados destroyed a garage and trees in the Waikato, from Hamilton to Eureka, on the 12th.

High rainfall and floods

High rainfall totalling 100 to 160 mm or more over 3-days occurred throughout Wairarapa, Wanganui, and Wellington during 4-6 July. This resulted in high rivers and severe surface flooding throughout much of southern Wairarapa, along with substantial landslips in parts of the Wanganui and Wellington regions. 100 mm was reported within 24 hours in parts of South Wairarapa, where people had to be evacuated from their homes. Martinborough was isolated by the floodwaters, and surface flooding also affected Greytown and Carterton. In Wairarapa, more than 50 roads were closed due to flooding or landslips. In Wellington, a landslip occurred on SH2 affecting traffic between the city and the Hutt Valley. The settlement of Mangamahu (northeast of Wanganui) was isolated by the collapse of the Mangawhero river bridge (damages estimated at \$10 million) following the high rainfall. 125 people were evacuated from Whangaehu, and Turakina. A house in Wanganui was hit by a landslide, with two others later affected in Hunterville. In Taranaki SH45 was closed due to surface flooding. On 21 July, an Eastbourne house became perched above a landslide, putting several others below it at risk.

High rainfall during 4-6 July was measured at:

Location	Rainfall (mm) 4-6 July 2006
East Taratahi	155
Martinborough	122
Ngawi	158
Hawera	127
Wanganui Airport	101
Wellington, Kelburn	134

Snowfall

Cold southerlies resulted in 10 cm of fresh snow lying at Tekapo on the 4th. Snowfall closed the North Island's Desert Rd on the 6th, with many skiers stranded on Mt. Ruapehu. Showers of sleet and snow fell to low levels in the lower North Island on the 21st, and chains were required due to heavy snowfall in the Queenstown area, which closed Queenstown airport.

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