

**National Climate Summary – April 2004**

- **Rainfall: Dry in many northern and central North Island areas, and western and inland areas of the South Island. Wetter in Bay of Plenty, Nelson, and Southland**
- **Temperatures: Cold in many parts of the North Island, and parts of the South Island.**
- **Soil moisture: Significant deficits persist in North and Central Otago**
- **Sunshine: Sunny in the northeast of the North Island, southern parts of the South Island**

April climate continued the generally cold dry theme of March. Rainfall was well below average over much of the northern half of the North Island until almost the end of the month. Less than 50 percent (half) of average April totals occurred in Northland, Auckland, much of Waikato, the central North Island Plateau, Westland, Fiordland, south Canterbury, and the Southern Lakes district. In contrast, rainfall was well above average in parts of Bay of Plenty and Southland. Soil moisture levels were below average in the north and east of the North Island, with some significant deficits in North and Central Otago. Mean temperatures were well below normal throughout much of New Zealand, being 2.0°C below normal in the King Country, and the Wairarapa. It was sunny in parts of the north, and the southern half of the South Island.

The generally cooler, drier April climate pattern was due to more frequent anticyclones (“highs”) in the south Tasman Sea extending across the South Island to the Chathams, with above average pressures over New Zealand. This pattern produced more frequent easterlies to the north of the North Island. The period from the 13–26th was dominated by generally very settled anticyclonic conditions.

**Highlights:**

- The highest April 2004 temperature was 28.9°C, recorded at Darfield on the 2nd. This was their highest April temperature in measurements that commenced in 1939. Kaikoura recorded 27.5°C on the same day, the 3rd highest April temperature in measurements that commenced in 1964.
- The lowest temperature for the month was –8.0°C, recorded at Fairlie on the 9th, the 2nd lowest for April since observations started in 1925.
- A cold southerly outbreak produced snowfall in Canterbury near the foothills on the 6th. Snowfall occurred to about 500 m in the North Island on the same day, and hail was widespread throughout Wanganui; a storm produced a thick layer of hailstones (up to 20 cm deep in places) in the city, damaging roofs, and causing disruptions to traffic.
- High intensity rainfall totalling 124 mm occurred in Motueka on the 8th. Further high rainfall totalling 207 mm occurred at Tauranga Airport over the 27–28th (130 mm on the 28th) with flooding, and totals exceeding 100 mm in other parts of Bay of Plenty. Stanmore Bay (Whangaparaoa Peninsula) had a violent electrical storm on the 29th.
- Wellington was the sunniest and Auckland the driest main centre. Rainfall was well below average in Auckland. Temperatures were below average in all four centres. Sunshine hours were well above normal in Dunedin, near normal in Auckland and Wellington, and below average in Christchurch.

**Rainfall**

Rainfall was less than 50 percent (half) of average April totals in Northland, Auckland, much of Waikato, the central North Island Plateau, Westland, Fiordland, south Canterbury, and the Southern Lakes district. Totals were well above average in parts of Bay of Plenty and Southland.

**Temperature**

The April national average temperature of 12.1°C was 1.3°C below normal, equal lowest since April 1993. Mean temperatures were up to 2.0°C below normal in the King Country and the Wairarapa.

**Sunshine**

Sunshine totals were above normal in Bay of Plenty, Gisborne, the MacKenzie Basin, much of Otago, and south Westland.

**For further information, please contact:**

**Dr Jim Salinger – Senior Climate Scientist, NIWA National Climate Centre, Auckland,**

**Below or average rainfall over much of the North Island, and western and inland South Island**

**Above average rainfall in Bay of Plenty, Nelson, and Southland**

Rainfall was less than 50 percent (half) of average April totals in Northland, Auckland, much of Waikato, the central North Island Plateau, Westland, Fiordland, south Canterbury, and the Southern Lakes district. Totals were 125–200 percent (one and a quarter to two times) of average in much of Bay of Plenty, Nelson, and Southland, and near average in most other districts.

**Near or record low April rainfall was recorded at:**

Location	April rainfall (mm)	Percentage of normal	Year records began	Comments
Cape Reinga	18	18	1920	3rd lowest
Kaitaia Observatory	19	15	1986	2nd lowest
Owairaka, Auckland	39	37	1949	2nd lowest
Pukekohe	30	27	1970	2nd lowest
Whitianga Airport	30 <sup>a</sup>	22	1991	Lowest
Paeroa	26 <sup>a</sup>	25	1914	3rd lowest
Ruakura	24	26	1906	3rd lowest
Turangi	52	44	1968	3rd lowest
Waiouru MWD	22	28	1951	Lowest
Hokitika Airport	88	35	1964	3rd lowest
Franz Josef	37	8	1983	Lowest
Mt Cook Village	81	22	1930	3rd lowest
Lake Tekapo	6	12	1927	3rd equal lowest
Wanaka Airport	8	15	1993	Equal lowest

<sup>a</sup> missing one day

**High April rainfall was recorded at:**

Location	April rainfall (mm)	Percentage of normal	Year records began	Comments
Tauranga Airport	229	219	1898	Well above average
Tiwai Point	200	191	1971	2nd highest
Raoul Island	208	201	1938	Well above average

**Colder than normal throughout New Zealand**

Mean temperatures were 1.0 to 1.5°C below normal throughout much of New Zealand, and 1.6 to 2.0°C below normal in parts of Auckland, King Country, the central North Island Plateau, the east of the North Island, Wellington, Buller, and parts of north Canterbury and Southland.

**Near or record low April mean air temperatures were recorded at:**

Location	Mean temperature	Departure from average (°C)	Records began	Comments
Warkworth	13.9	-1.6	1972	2nd equal lowest
Henderson, Auckland	14.6	-1.3	1986	2nd lowest
Owairaka, Auckland	14.7	-1.4	1949	Well below average
Pukekohe	13.8	-1.6	1971	3rd lowest
Taumarunui	11.4	-2.0	1947	3rd equal lowest
Turangi	10.7	-1.6	1968	3rd lowest
Castlepoint	12.6	-2.3	1972	2nd lowest
East Taratahi	11.4	-2.0	1973	3rd lowest
Gisborne Airport	13.3	-1.5	1905	Well below average
Napier Airport	12.9	-1.4	1974	3rd equal lowest
Paraparaumu Airport	12.1	-1.6	1953	3rd lowest
Wellington Airport	12.6	-1.9	1962	2nd lowest
Hokitika Airport	11.2	-1.4	1964	3rd equal lowest
Blenheim Airport	11.7	-1.7	1941	2nd equal lowest
Timaru Airport	9.2	-2.1	1962	Lowest
Gore	8.1	-2.5	1972	Lowest
Tiwai Point	9.6	-1.6	1971	Lowest

**Sunny in the northeast of the North Island, and southern parts of the South Island**

Sunshine and solar radiation totals were at least 110 percent of normal in Bay of Plenty, Gisborne, the MacKenzie Basin, much of Otago, and south Westland. Sunshine was near normal elsewhere.

**April climate in the four main centres**

Of the four main centres Wellington was the sunniest and Auckland the driest. Rainfall was near average in Wellington, Christchurch, and Dunedin, and well below average in Auckland. Temperatures were below average in all four centres. Sunshine hours were well above normal in Dunedin, near normal in Auckland and Wellington, and below average in Christchurch.

Location	April Mean Temp. (°C)	Dep. from normal (°C)		April rainfall (mm)	% of normal		April Sunshine (hours)	% of normal	
Auckland	15.3 <sup>a</sup>	-1.0	Below average	39	37	Well below average	155	102	Near average
Wellington	12.2	-1.5	Well below average	90	90	Near average	163	105	Near average
Christchurch	10.4 <sup>d</sup>	-1.7	Well below average	43 <sup>d</sup>	83	Near average	140 <sup>c</sup>	87	Below average
Dunedin	10.5	-1.4	Below average	49	82	Near average	153	126	Well above Average

a Auckland Airport b Mt. Albert c Whenuapai d Christchurch Airport

## Highlights and extreme events

- The highest April 2004 temperature was 28.9°C, recorded at Darfield on the 2nd. This was the highest April temperature in measurements that commenced in 1939. Kaikoura recorded 27.5°C on the same day, the 3rd highest April temperature in measurements that commenced in 1964.
- The lowest temperature for the month was –8.0°C, recorded at Fairlie on the 9th, the 2nd lowest for April since observations started in 1925.
- A cold southerly outbreak produced snowfall in Canterbury near the foothills on the 6th, with a few cm of snow lying at both Oxford and Darfield. The air temperature at Snowden was just 3°C at 3 pm that afternoon. Snowfall occurred to about 500 m in the North Island on the same day, and hail was widespread throughout Wanganui, after a 30-minute storm that struck about 3.30 pm, producing a thick layer of hailstones (up to 20 cm deep in places) whitening the ground in the city, damaging roofs, and causing disruptions to traffic.
- High-intensity rainfall totalling 124 mm occurred in Motueka on the 8th.
- Further high rainfall totalling 207 mm occurred at Tauranga Airport over the 27-28th (130 mm in the 28th). Rainfall exceeded 100 mm in other parts of Bay of Plenty during the same period. The high rainfall was the highest there since 2001 and resulted in floods, as drains were unable to cope with the deluge.
- Violent electrical storms occurred over Stanmore Bay, Whangaparoa Peninsula on the 29th, resulting in power outages.

### For further information, please contact:

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