

**National Climate Summary – April 2005**

- **Rainfall: Below average over much of New Zealand, especially Northland, Auckland, Coromandel, Bay of Plenty, Nelson and central Marlborough, with significant soil moisture deficits still present**
- **Sunshine: Above average in most regions, with records in Northland, Auckland, Nelson and Dunedin**
- **Temperature: Cooler in the lower North Island and much of the South Island**

April 2005 was exceptionally dry and very sunny month overall, with less than 25 percent of normal rainfall and near or record low rainfall totals in parts of Northland, Auckland, Coromandel, Bay of Plenty, Nelson and central Marlborough. Many locations in these regions recorded rainfall totals of less than 10 mm for the whole month. There was only 1 day in April with rainfall totalling at least 1.0 mm in both Whangarei and Nelson. Above normal rainfall occurred only in a few coastal areas of Hawke's Bay and Wairarapa, and Central Otago. Severe soil moisture deficits occurred in Northland, with significant deficits in Auckland, Horowhenua, the Kapiti coast, Marlborough, and parts of Canterbury. Much of Northland has had only 20 to 30 mm of rainfall since the end of February. April's sunshine hours were well above average for most, with new April record totals in Northland, Auckland, Nelson and Dunedin. While it was warmer than normal in parts of Northland, mean temperatures were below average south of Waikato and Gisborne, and in much of the South Island. The cooler conditions were due to frequent clear nights, along with cold southerly outbreaks toward the end of April. The national average temperature for April was 12.5°C (0.7°C below normal). With the passage of active fronts on 23<sup>rd</sup> and 24<sup>th</sup>, a vigorous cold southerly air-mass brought wintry conditions to the south and east, and snow settled on the North Island's Desert Road, the Rimutaka Hill Road, and as low as 400 metres in the South Island. During April, anticyclones ('highs') were often centred west of New Zealand during April, with more frequent southerlies over the North Island. Apart from ANZAC weekend, depressions occurred well away to the south or east of the country.

**Highlights:**

- The highest temperature during April 2005 was 27.3°C recorded at Henderson (Auckland) on the 8<sup>th</sup>. The lowest temperature for the month was -5.8°C, recorded at Motu on the 29<sup>th</sup>.
- A series of waterspouts were sighted off the Whangamata coast on the 1<sup>st</sup>. A small tornado was sighted in Greymouth on the 4<sup>th</sup>.
- Fog and low cloud closed Wellington Airport from late afternoon to the evening on the 12<sup>th</sup>.
- Major thunderstorms affected southern and eastern regions during the night of 23/24 and evening of 24 April, with lightning, wind squalls, and large hail stones, followed by wintry conditions.
- Of the four main centres Auckland was easily the warmest, sunniest and driest. Rainfall was below average in all four main centres. Temperatures were near average in Auckland and below average in Wellington, Christchurch and Dunedin. Sunshine hours were well above average in Auckland and Dunedin, and below average in the other main centres.

**Rainfall:** Rainfall was well below average (less than 25 percent of normal) throughout much of Northland, parts of Auckland, Coromandel, Bay of Plenty, Nelson and central Marlborough. Totals were less than 50 percent of normal in Waikato, Taranaki, Marlborough, Buller, Westland and Fiordland, and also below normal in the west of the North Island from Wanganui to Wellington as well as Ruapehu, Tongariro and coastal areas of both Southland and Otago. Rainfall was at least 125 percent of normal in scattered coastal areas of Hawke's Bay, Wairarapa and Central Otago.

**Sunshine:** Sunshine hours were at least 120 percent of average in parts of Northland, Auckland, Nelson, Westland, inland south Canterbury, Southland, and Otago. New April records totals occurred in Northland, Auckland, Nelson and Dunedin. It was also sunnier than average in most other regions. Hours of bright sunshine were near average in South Taranaki.

**Temperature:** Mean temperatures were above average in parts of Northland. However, they were below average throughout the lower North Island, as well as in Buller, north Westland, and eastern South Island regions from Marlborough to Southland. Mean temperatures were more than 1.0°C below average in parts of Horowhenua, Kapiti, Wairarapa, Marlborough, and inland Southland. Temperatures were near average elsewhere.

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**BELOW AVERAGE RAINFALL OVER MUCH OF NEW ZEALAND, ESPECIALLY  
NORTHLAND, AUCKLAND, COROMANDEL, BAY OF PLENTY, TARANAKI, NELSON,  
CENTRAL MARLBOROUGH AND INLAND SOUTH CANTERBURY**

Rainfall was less than 25 percent of normal throughout much of Northland, parts of Auckland, Coromandel, Bay of Plenty, Nelson and central Marlborough, with many locations recording totals less than 10 mm. Totals were less than 50 percent of normal in Waikato, Taranaki, Marlborough, Buller, Westland and Fiordland, and less than 75 percent of normal rainfall in the west of the North Island from Wanganui to Wellington as well as Ruapehu, Tongariro and coastal areas of both Southland and Otago. Rainfall was 125 percent or more of normal in scattered coastal areas of Hawke's Bay, Wairarapa and Central Otago, and near average elsewhere.

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

Location	April rainfall (mm)	Percentage Of normal	Year Records began	Comments
Cape Reinga	10	9	1920	2 <sup>nd</sup> lowest
Kaitia Observatory	17	13	1986	2 <sup>nd</sup> lowest
Kerikeri EWS	21	16	1982	Lowest
Kerikeri Airport	11	9	1978	Lowest
Kaikohe	13	10	1973	Lowest
Dargaville	30	30	1943	3 <sup>rd</sup> equal lowest
Whangarei Airport	5	4	1937	Lowest
Mokohinau Island	13	9	1935	3 <sup>rd</sup> lowest
Warkworth	22	19	1972	Lowest
Whangaparaoa AWS	24	30	1987	2 <sup>nd</sup> lowest
Auckland, Owairaka	20	19	1949	2 <sup>nd</sup> lowest
Whitianga Airport	13	10	1991	Lowest
Paeroa	19	18	1914	2 <sup>nd</sup> lowest
Matamata, Hinuera	13	13	1999	Lowest
Tauranga Airport	14	13	1898	2 <sup>nd</sup> lowest
Te Puke	22	16	1973	2 <sup>nd</sup> lowest
Whakatane Airport	5	6	1975	Lowest
Rotorua Airport	10	9	1964	2 <sup>nd</sup> lowest
Taupo Airport	18	27	1976	Lowest
Motu	26	16	1991	Lowest
Auckland, Mangere	11	11	1959	Lowest
Auckland Airport	21	22	1963	2 <sup>nd</sup> equal lowest
Stratford	43	27	1961	Lowest
Takaka	5	3	1971	Lowest
Farewell Spit	5	5	1874	Lowest
Lake Rotoiti	17	12	1934	Lowest
Franz Josef	118	27	1983	2 <sup>nd</sup> lowest
Stephens Island	4	6	1894	Lowest
Motueka, Riwaka	7	6	1943	3 <sup>rd</sup> lowest
Nelson Airport	5	5	1941	Equal lowest
Nelson, Appleby	3	4	1932	Lowest
Blenheim Research	5	12	1986	2 <sup>nd</sup> lowest
Blenheim Airport	6	9	1941	2 <sup>nd</sup> lowest
Awatere Valley	17	28	2001	Lowest

**Near record high April rainfall was recorded at:**

Location	April Rainfall (mm)	Percentage of normal	Year records began	Comments
Chatham Islands	153	219	1951	2 <sup>nd</sup> highest

**WELL ABOVE AVERAGE SUNSHINE IN THROUGHOUT MUCH OF NEW ZEALAND**

Sunshine hours were at least 120 percent of average in parts of Northland, Auckland, Nelson, Westland, inland south Canterbury, Southland, and Otago, and at least 110 percent of average in most other regions. Hours of bright sunshine were near average in South Taranaki. New record April totals occurred in Northland, Auckland, Nelson and Dunedin.

**High April sunshine hours were recorded at:**

Location	April sunshine (hours)	Percentage of normal	Year Records began	Comments
Kaitia Observatory(28 days)	187	117	1986	Highest
Dargaville	184	134	1944	Highest
Auckland, Mangere	223	141	1963	Highest
Nelson Airport	246	131	1949	Highest
Mt Cook Village	151	127	1930	Well above average
Lake Tekapo	226	142	1928	2 <sup>nd</sup> highest
Dunedin, Musselburgh	179	148	1948	Highest
Invercargill Airport	140	127	1964	Well above average

**WARMER IN PARTS OF NORTHLAND, COOLER THROUGHOUT THE LOWER NORTH ISLAND AND MUCH OF THE SOUTH ISLAND**

Mean temperatures were about 0.5°C above average in parts of Northland. However, they were at least 0.5°C below average throughout the lower North Island, south of Waikato and Gisborne, as well as in Buller, north Westland, and eastern South Island regions from Marlborough to Southland. Mean temperatures were more than 1.0°C below average in parts of Horowhenua, Kapiti, Wairarapa, Marlborough, and inland Southland. Mean temperatures were near average elsewhere.

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

Location	Mean temperature	Departure from average (°C)	Records Began	Comments
Castlepoint	12.9	-2.1	1972	3 <sup>rd</sup> lowest
East Taratahi	11.7	-1.7	1973	Well below average

**APRIL'S CLIMATE IN THE FOUR MAIN CENTRES**

Of the four main centres Auckland was easily the warmest, sunniest and driest. Rainfall was below average in all four main centres. Temperatures were near average in Auckland and below average in Wellington, Christchurch and Dunedin. Sunshine hours were well above average in Auckland and Dunedin, and below average in the other main centres. The Auckland total was a new record.

Location	April Mean Temp. (°C)	Dep. from normal (°C)		April rainfall 1 (mm)	% of normal		April Sunshine (hours)	% of normal	
Auckland	16.1 <sup>a</sup>	-0.1	Near average	20 <sup>b</sup>	19	Well below average	223 <sup>a</sup>	141	Highest
Wellington	12.9	-0.9	Below average	44	44	Below average	183	118	Above average
Christchurch	11.2 <sup>c</sup>	-1.0	Below average	22 <sup>c</sup>	43	Below average	194	121	Above average
Dunedin	11.5	-0.4	Below average	30	50	Below average	179	148	Highest

a-Mangere    b Mt Albert    c Christchurch Airport

## HIGHLIGHTS AND EXTREME EVENTS

- **Temperature**

The highest temperature during April 2005 was 27.3°C recorded at Henderson (Auckland) on the 8<sup>th</sup>. The lowest temperature for the month was -5.8°C, recorded at Motu on the 29<sup>th</sup>, the 2<sup>nd</sup> lowest there for April since records commenced in 1991. Severe ground frost occurred in Canterbury on the 26<sup>th</sup>.

- **High winds**

The highest wind gust recorded during April 2005 was 174 km/h from the northwest, measured at Southwest Cape (Stewart Island) on the 3<sup>rd</sup>.

- **Waterspouts and a Tornado**

A series of waterspouts were sighted off the Whangamata coast on the 1<sup>st</sup>. A small tornado was sighted in Greymouth on the 4<sup>th</sup>.

- **Fog**

Wellington Airport was closed briefly, due to fog, from late afternoon through evening on the 12<sup>th</sup>.

- **Southerly storms: Lightning, hail, high winds, and rough seas**

Thunderstorms affected southern and eastern regions, accompanied by extensive lightning, wind squalls, and large hail stones, along with wintry low temperatures following the passage active the frontal bands during the night of 23/24 and evening of 24 April. Southerly gales resulted in rough seas through Cook Strait. Snowfall settled on the North Island's Desert Road, the Rimutaka Hill Road, and as low as 400 metres in the South Island.

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