

**National Climate Summary – April 2012: Anticyclones abound – dry & sunny for most**

- **Rainfall: Extremely dry over the southern South Island. Also dry elsewhere, except for the eastern North Island, North Canterbury and Kaikoura coast.**
- **Sunshine: Extremely sunny for the South Island and central-west North Island. Near normal sunshine in Northland and Gisborne.**
- **Temperatures: Well above average for Southland and Fiordland. Above average for West Coast, Otago, Bay of Plenty, Coromandel, Waikato, and parts of Auckland and Northland. Near average elsewhere.**
- **Soils remain drier than normal between Wanganui and Kapiti Coast, and Southland.**

April was characterised by markedly high pressures over the South Island and to the east of the Chatham Islands, with prevailing easterly winds (and high pressures) over the North Island. The frequent anticyclones ('highs') during the month resulted in very dry and extremely sunny conditions for April, for many regions of the country.

April rainfall was less than half of normal for Fiordland, Southland, Otago, the Lakes District, south Canterbury, Auckland, Coromandel, Western Bay of Plenty, Waikato, Taranaki, Taupo, and Manawatu-Wanganui. Central Otago was particularly dry, with rainfall less than a quarter of April normal there. Rainfall was also below normal for Westland, Nelson, and Northland. In contrast, rainfall was close to normal in north Canterbury, the Kaikoura coast, the Wairarapa and Napier. The Gisborne region experienced a wet April. At the end of April, soils were much drier than normal for the time of year between Wanganui and the Kapiti Coast, and in Southland.

Mean temperatures for April were well above average in Southland and Fiordland. It was also rather warm along the West Coast, as well as for Bay of Plenty, Coromandel, Waikato, and parts of Auckland and Northland (with mean temperatures between 0.5°C and 1.2°C above April average). Elsewhere, mean temperatures were generally close to average. Notably, afternoon (maximum) temperatures were extremely high for the south and west of the South Island, Nelson, between Wanganui and Palmerston North and northwards to the Waikato, the Central Plateau, Bay of Plenty, and parts of Auckland – reflecting the settled and sunny weather associated with the April anticyclones. The nation-wide average temperature in April was 13.7°C (0.3°C above the 1971–2000 April average), using NIWA's seven-station temperature series which begins in 1909.

It was extremely sunny across much of the South Island, as well as in many western and central regions of the North Island, with sunshine totals at least 125% of April normal. Sunshine totals were the highest on record for April for Te Kuiti, Taumarunui, New Plymouth, Nelson, Cheviot, Lake Tekapo, Dunedin and Cromwell – and some of these locations experienced an astounding one-and-a-half times typical April sunshine totals. Sunshine totals were closer to normal for the eastern Bay of Plenty, Gisborne, Northland, Wellington and the Wairarapa.

**Further Highlights:**

- The highest temperature was 27.3°C, observed at Firth of Thames on 4 April.
- The lowest temperature was -3.6°C recorded at Lake Pukaki on 24 April
- The highest 1-day rainfall experienced was 102 mm, recorded at Gisborne on 3 April.
- The highest gust recorded was 152 km/hr recorded at Akitio (Wairarapa) on 30 April.
- Of the six main centres, Auckland was the warmest, Christchurch the coolest but sunniest, Dunedin the driest, and Wellington was the wettest and cloudiest.

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**RAINFALL: EXTREMELY DRY SOUTHERN SOUTH ISLAND. DRY FOR MUCH OF THE REMAINDER THE COUNTRY, EXCEPT FOR EAST COAST NORTH ISLAND, NORTH CANTERBURY, AND MARLBOROUGH.**

Due to the prevailing anticyclones during April, it was a very dry month for many regions of the country. Notably, April rainfall was less than half of normal (less than 50 percent) for Fiordland, Southland, Otago, the Lakes District, south Canterbury, Auckland, Coromandel, Western Bay of Plenty, Waikato, Taranaki, Taupo, and Manawatu-Wanganui. Central Otago was particularly dry, with rainfall less than a quarter (25 percent) of April normal there. It was the driest April on record for Wanganui and Alexandra (see Table below).

Rainfall was also below normal (between 50 and 79 percent of April normal) for Westland, Nelson, and Northland. In contrast, April rainfall was close to normal (between 80 and 120 percent of normal) in north Canterbury, the Kaikoura coast, the Wairarapa and Napier. The Gisborne region experienced a wet April, with much of the rainfall occurring on the 3rd.

At the end of April, soils were much drier than normal for the time of year between Wanganui to the Kapiti Coast, and in Southland. Soils remain wetter than is usual at this time of year in Gisborne and Hawkes Bay, and eastern Northland.

**Record or near-record April rainfall totals were recorded at:**

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
Dargaville	27	28	1943	2nd-lowest
Dannevirke	23	26	1951	3rd-lowest
Palmerston North	31	45	1991	2nd-lowest
Ohakune	31	30	1961	2nd-lowest
Wanganui	28	39	1987	Lowest
Dunedin (Musselburgh)	20	34	1918	2nd-lowest
Lumsden	37	52	1982	4th-lowest
Cromwell	5	15	1949	2nd-lowest
Alexandra	5	16	1983	Lowest
Balclutha	16	34	1964	2nd-lowest

**TEMPERATURES: WELL ABOVE AVERAGE IN SOUTHLAND AND FIORDLAND. ABOVE AVERAGE ON WEST COAST, OTAGO, AS WELL AS BAY OF PLENTY, COROMANDEL, WAIKATO, AND PARTS OF AUCKLAND AND NORTHLAND. NEAR AVERAGE ELSEWHERE.**

Mean temperatures for April were well above average (more than 1.2°C above average) across Southland and Fiordland. It was also rather warm along the West Coast, as well as for Bay of Plenty, Coromandel, Waikato, and parts of Auckland and Northland (with mean temperatures between 0.5°C and 1.2°C above April average). Elsewhere, mean temperatures were generally close to average (within 0.5°C of average). The nation-wide average temperature in April was 13.7°C (0.3°C above the 1971–2000 April average), using NIWA’s seven-station temperature series which begins in 1909<sup>1</sup>.

Due to the prevailing anticyclones (‘highs’) during the month, which often brought light winds and clear skies, there were notable differences between morning (minimum) temperatures, and afternoon (maximum) temperatures during April. In particular, afternoon (maximum) temperatures were extremely high for the south and west of the South Island, Nelson, between Wanganui and Palmerston North and northwards to the Waikato, the Central Plateau, Bay of Plenty, and parts of

<sup>1</sup> Interim monthly value.

Auckland - reflecting the settled and sunny weather associated with these April anticyclones (see later in the summary for sunshine information). April maximum temperature records were broken at Wanganui, Lake Rotoiti, Puysegur Point, Mt Cook, Manapouri, and Invercargill (see Table below).

Mornings tended to be somewhat cooler than usual across the country, due to the light winds and clear skies allowing heat to be lost 'upwards'. Morning (minimum) temperatures in April were unusually low for the northeast South Island, as well as Taumarunui.

**Record<sup>2</sup> or near-record monthly-average maximum air temperatures for April were recorded at:**

Location	Mean maximum air temperature (°C)	Departure from normal (°C)	Year records began	Comments
Leigh	21.8	1.7	1966	3rd-highest
Te Puke	20.9	1.2	1973	4th-highest
Port Taharoa	21.4	1.6	1973	4th-highest
Turangi	18.9	1.4	1968	2nd-highest
Palmerston North	20.0	1.4	1991	3rd-highest
Wanganui	19.7	1.0	1987	Highest
Takaka	20.2	1.7	1978	2nd-highest
Westport	18.7	1.6	1937	3rd-highest
Lake Rotoiti	17.5	2.4	1965	Highest
Milford Sound	17.2	1.6	1934	3rd-highest
Puysegur Point	15.8	1.4	1978	Highest
Motueka	20.8	2.2	1956	2nd-highest
Appleby	19.8	1.6	1943	2nd-highest
Nelson	19.6	1.4	1943	2nd-highest
Cheviot	19.0	0.7	1982	4th-highest
Mt Cook	17.4	2.8	1929	Highest
Tara Hills	18.7	2.8	1949	2nd-highest
Dunedin (Musselburgh)	16.7	1.2	1947	4th-highest
Manapouri	17.6	2.6	1963	Highest
Lumsden	16.8	1.3	1982	4th-highest
Invercargill	17.2	1.9	1948	Highest
Tiwai Point	16.2	1.6	1970	2nd-highest

**Record or near-record monthly-average minimum air temperatures for April were recorded at:**

Location	Mean minimum air temperature (°C)	Departure from normal (°C)	Year records began	Comments
Puysegur Point	11.7	2.3	1978	Highest
Taumarunui	5.3	-2.1	1947	4th-lowest
Motueka	5.6	-1.6	1956	4th-lowest
Appleby	4.4	-4.2	1943	Lowest
Hanmer Forest	1.1	-3.1	1906	2nd-lowest
Cheviot	4.2	-1.3	1982	3rd-lowest
Timaru	3.5	-2.0	1990	2nd-lowest

<sup>2</sup> The rankings (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>....etc) in 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 because of the practical limitations of performing homogeneity checks in real-time.

**SUNSHINE: EXTREMELY SUNNY FOR THE SOUTH ISLAND AND CENTRAL-WEST NORTH ISLAND. SUNSHINE TOTALS NEAR NORMAL IN NORTHLAND, GISBORNE, EASTERN BAY OF PLENTY, WELLINGTON AND THE WAIRARAPA.**

The effect of the persistent anticyclones across New Zealand during April was evident in the observed sunshine totals. It was extremely sunny across much of the South Island, as well as in many western and central regions of the North Island, with sunshine totals at least 125% of April normal. Sunshine totals were the highest on record for April for Te Kuiti, Taumarunui, New Plymouth, Nelson, Cheviot, Lake Tekapo, Dunedin and Cromwell – and some of these locations experienced an astounding one-and-a-half times typical April sunshine totals.

Sunshine totals were closer to normal (between 90 and 110 percent of normal) for the eastern Bay of Plenty, Gisborne, Northland, Wellington and the Wairarapa.

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

Location	Sunshine (hours)	Percentage Of normal	Year records began	Comments
Kaitaia	185	117	1985	4th-highest
Auckland	190	121	1963	4th-highest
Hamilton	191	122	1936	4th-highest
Te Kuiti	197	147	1962	Highest
Taumarunui	186	145	1947	Highest
Turangi	200	123	1976	Equal 2nd-highest
New Plymouth	231	134	1972	Highest
Paraparaumu	202	127	1953	Equal 4th-highest
Takaka	210	113	1985	4th-highest
Nelson	248	132	1948	Highest
Appleby	240	128	1948	3rd-highest
Blenheim	228	122	1947	3rd-highest
Cheviot	212	124	1983	Highest
Mt Cook	163	136	1930	2nd-highest
Christchurch	206	129	1930	3rd-highest
Lake Tekapo	245	160	1928	Highest
Dunedin	184	152	1947	Highest
Cromwell	213	127	1979	Highest
Invercargill	159	143	1932	2nd-highest
Balclutha	166	144	1964	2nd-highest

**APRIL CLIMATE IN THE SIX MAIN CENTRES**

April was very dry and extremely sunny for most of the six main centres. Notably, Dunedin experienced its sunniest April on record, Christchurch its 3rd-sunniest April on record, and Auckland and Hamilton their 4th-sunniest April on record.

Of the six main centres, Auckland was the warmest, Christchurch the coolest but sunniest, Dunedin the driest (with Auckland close behind), and Wellington was the wettest and cloudiest.

### April 2012 main centre climate statistics:

Location	Mean temp. (°C)	Departure from normal (°C)	Comment	Rainfall (mm)	% of normal	Comment	Sunshine (hours)	% of normal	Comment
Auckland <sup>a</sup>	16.9	0.6	Above average	22	23%	Well below normal	190	121%	4 <sup>th</sup> sunniest April on record
Tauranga <sup>b</sup>	16.8	1.3	Well above average	47	42%	Well below normal	192	109%	Near normal
Hamilton <sup>c</sup>	14.6	0.4	Near average	39	41%	Well below normal	191 <sup>g</sup>	116%	4 <sup>th</sup> sunniest April on record
Wellington <sup>d</sup>	14.0	0.2	Near average	71	71%	Below normal	167	108%	Near normal
Christchurch <sup>e</sup>	11.8	-0.3	Near average	33	64%	Below normal	206	129%	3 <sup>rd</sup> sunniest April on record
Dunedin <sup>f</sup>	12.6	0.7	Above average	20	34%	2 <sup>nd</sup> lowest for April	184	152%	Sunniest April on record

<sup>a</sup> Mangere <sup>b</sup> Tauranga Airport <sup>c</sup> Hamilton Airport <sup>d</sup> Kelburn <sup>e</sup> Christchurch Airport <sup>f</sup> Musselburgh <sup>g</sup> Ruakura

### HIGHLIGHTS AND EXTREME EVENTS

- **Rain and slips**

The highest 1-day rainfall experienced was 102mm recorded at Gisborne on 3 April. There were no record 1-day rainfalls observed during April.

On 2 April, a slip closed one lane of SH2 at Devil's Elbow, north of Napier. A further slip on 5 April closed SH2 between Napier and Wairoa. In Gisborne, roads and three schools were closed after heavy rain.

On 27 April, heavy rain caused flooding in Nelson, damaging a school, and private and commercial properties.

On 28 April, heavy rain, strong winds and very cold temperatures caused problems for a group of walkers on the Tongariro Crossing. When police rescued the group, some members were showing signs of hypothermia.

- **Temperatures**

The highest temperature was 27.3°C, observed at Firth of Thames on 4 April, during a notable Foehn (dry and warm wind) southeasterly event across the upper North Island. Hamilton experienced its warmest April morning on record (19.3°C) on 24 April.

The lowest temperature was -3.6°C recorded at Lake Pukaki on 24 April.

### Record or near-record daily minimum air temperatures for April were recorded at:

Location	Extreme minimum temperature (°C)	Date of extreme temperature	Year records Began	Ranking
Whangaparaoa	18.4	5th	1982	Equal 3rd-highest
Tauranga	19.5	4th	1941	Equal 2nd-highest
Te Puke	18.1	4th	1973	Equal 4th-highest
Whakatane	19.0	4th	1975	Equal 3rd-highest
Rotorua	17.1	4th	1972	3rd-highest
Hamilton	19.3	24th	1940	Highest
Puysegur Point	16.8	26th	1978	Equal highest
Nugget Point	1.8	30th	1970	4th-lowest

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

Location	Extreme maximum temperature (°C)	Date of extreme temperature	Year Records Began	Ranking
Tauranga	26.3	4th	1913	3rd-highest
Auckland	25.9	27th	1959	Equal 2nd-highest
Pukekohe	26.1	4th	1969	4th-highest
Hamilton	25.8	4th	1946	2nd-highest
Port Taharoa	26.4	3rd	1973	Highest
New Plymouth	24.8	2nd	1944	2nd-highest
Wanganui	25.2	2nd	1987	2nd-highest
Takaka	24.7	10th	1978	2nd-highest
Dunedin (Airport)	7.5	30th	1972	Lowest
Dunedin (Musselburgh)	7.8	30th	1947	4th-lowest
Tiwai Point	9.3	30th	1972	Equal 4th-lowest
Balclutha	8.4	30th	1972	4th-lowest
Nugget Point	6.0	30th	1972	Lowest

- **Wind**

The highest gust recorded was 152 km/hr recorded at Akitio (Wairarapa) on 30 April.

On 3 and 4 April, a strong southeasterly regime affected the entire North Island (with some wind records set for April, see Table below).

On 13 April, wind warnings were issued for SH1 between Allantown and Gore.

On 27 April, strong winds brought down trees, damaging power lines and cutting power to some suburbs of New Plymouth.

On 29 April, a mini-tornado struck Hokitika, knocking out power and causing property damage. A tree was blown onto a transformer, setting the line and nearby trees on fire. Greymouth also lost power during the evening. Storm damage was also reported in Ross. In Canterbury, the wind and rain caused power outages in the Hororata area.

On 30 April, gales in Wellington and Horowhenua downed trees and lifted roofing iron.

**Near-record high extreme wind gusts for April were recorded at:**

Location	Extreme wind gust speed (km/hr)	Date of extreme gust	Year records Began	Ranking
Whangarei	80	3rd	1973	3rd-highest
Motu	76	3rd	1991	Highest
Lauder	104	29th	1981	2nd-highest

- **Lightning and hail**

On 29 April, a thunderstorm, with associated heavy rain, provided a dramatic end to the Arrowtown Autumn Festival.

On 30 April, lightning struck the metal roof of the gymnasium at Southland Girls' High School in Invercargill, setting off the fire alarm, causing the evacuation of the school. Lightning also affected traffic lights in the city.

- **Snow and ice**

On 30 April, snow fell in South Otago and Southland.

**For further information, please contact:**

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