

National Climate Summary-April 2010: North Island continues dry, sopping wet in southwest.

- **Rainfall:** Continued dry across much of the North Island, Marlborough, and Canterbury. Extraordinarily wet in the southwest of the South Island.
- **Soil moisture:** Significant deficits continue in many areas of the North Island, as well as Marlborough and Canterbury, even after helpful rain at the end of April.
- **Temperature:** Very warm in many regions of the South Island, as well as eastern Northland and Auckland, Coromandel and the Wairarapa. Near average temperatures elsewhere.
- **Sunshine:** Extremely sunny for the east coast of the North Island and Northland. Very cloudy in the west and south of the South Island.

More frequent anticyclones ('highs') were located over and to the east of the North Island during April, resulting in a very dry month for much of the North Island and upper South Island. Drought was declared for Auckland, Waikato, Bay of Plenty, South Taranaki, South Canterbury and Otago in April, joining Northland which was declared a drought area in January. Even after some helpful rainfall at the end of the month, significant soil moisture deficits remain in many areas of the North Island (except for Taranaki, Gisborne, and the Kapiti Coast), as well as in Marlborough and Canterbury. In contrast, enhanced northwest winds affected the South Island, producing extraordinarily high rainfall in the southwest of the South Island.

Well below normal April rainfall (less than 50 percent of normal) occurred across most of the North Island, as well as in Nelson, Marlborough and north Canterbury. Areas that received slightly more substantial rainfalls (between 50 and 80 percent of normal) included Taranaki, Gisborne, the Kapiti Coast, and south Canterbury. In comparison, it was an extraordinarily wet April in Fiordland, south Westland and parts of Southland, with more than double normal rainfall experienced there. Rainfall was also above normal (more than 120 percent of usual) in Otago, but near normal in north Westland and Buller.

It was an extremely warm April for much of the South Island, the Wairarapa, eastern Northland and eastern Auckland, with temperatures more than 1.2°C above average. In contrast, April temperatures were near average across the remainder of the North Island (within 0.5°C of the long-term average), as well as in Buller. The New Zealand national average temperature was 14.2°C (+0.8°C above the long-term April average).

April was an extremely sunny month for the eastern North Island and Northland, with totals above 125 percent of normal. It was also rather sunny (between 110 and 125 percent of normal) in the Central Plateau, Bay of Plenty, Manawatu-Wanganui, Wellington, Marlborough and Canterbury. It was a cloudy month for the West Coast, Southland and Otago, with below average sunshine (between 75 and 90 percent of normal).

Further Highlights:

- The highest April temperature was 28.6°C, recorded at Darfield on the 1st.
- The lowest April temperature was -3.1 °C, recorded at both Turangi and Hanmer on the 8th.
- The highest April 1-day rainfall was 314 mm, recorded at Milford Sound on the 25th (the 2nd - highest daily value for April at this site).
- The highest wind gust was 152 km/hr, recorded at Cape Turnagain on the 15th.
- Of the six main centres, Auckland and Tauranga were equally the warmest, Dunedin was the coolest, Christchurch was the driest, Auckland the wettest, and Tauranga the sunniest.

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RAINFALL: CONTINUED DRY ACROSS MUCH OF THE NORTH ISLAND, AS WELL AS MARLBOROUGH AND CANTERBURY. EXTRAORDINARILY WET IN THE SOUTHWEST OF THE COUNTRY.

Well below normal April rainfall (less than 50 percent of normal) occurred across most of the North Island, as well as in Nelson, Marlborough and north Canterbury. It was the driest April on record for Masterton and Culverden. Areas that received slightly more substantial rainfalls (between 50 and 80 percent of normal) included Taranaki, Gisborne, the Kapiti Coast, and south Canterbury. Drought was declared for Auckland, Waikato, Bay of Plenty, South Taranaki, South Canterbury and Otago in April, joining Northland which was declared a drought area in January. Even after some helpful rainfall at the end of the month, significant soil moisture deficits remain in many areas of the North Island (except for Taranaki, Gisborne, and the Kapiti Coast), as well as in Marlborough and Canterbury.

In comparison, it was an extraordinarily wet April in Fiordland, south Westland and parts of Southland, with more than double normal rainfall experienced there. Rainfall was also above normal (more than 120 percent of usual) in Otago, but near normal in north Westland and Buller. It was the wettest April on record for Milford Sound and Manapouri.

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

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
Milford Sound	1424	240	1929	Highest
Manapouri	271	316	1961	Highest
Lumsden	141	198	1982	2 nd -highest
Alexandra	47	168	1983	4th-highest
Gore	150	199	1950	4th-highest
Warkworth	30	27	1966	3rd-lowest
Whangaparaoa	15	18	1946	2nd-lowest
Kumeu	44	40	1978	2nd-lowest
Whitianga	45	30	1961	4th-lowest
Masterton	14	21	1926	Lowest
Takapau Plains	27	31	1962	Equal 3rd-lowest
Dannevirke	23	26	1951	2nd-lowest
Martinborough	11	19	1924	3rd-lowest
Wellington (Airport)	27	33	1958	4th-lowest
Ohakune	43	41	1961	4th-lowest
Waiouru	30	35	1950	3rd-lowest
Wanganui	31	44	1987	2nd-lowest
Blenheim	5	8	1927	2nd-lowest
Hanmer Forest	18	20	1905	3rd-lowest
Kaikoura	10	14	1898	4th-lowest
Culverden	4	8	1921	Equal lowest

TEMPERATURES: VERY WARM IN THE SOUTH ISLAND, EASTERN NORTHLAND AND AUCKLAND, COROMANDEL AND THE WAIRARAPA. NEAR AVERAGE TEMPERATURES ELSEWHERE.

It was an extremely warm April for much of the South Island, the Wairarapa, eastern Northland and eastern Auckland, with temperatures more than 1.2°C above average. In contrast, April temperatures were near average across most of the North Island (within 0.5°C of the long-term average), as well as in Buller. The New Zealand national average temperature was 14.2°C (+0.8°C above the long-term April average)¹.

April minimum temperatures were the highest on record at Whangaparaoa, Ngawi, Takaka, Nelson,

¹ Interim monthly value.

Blenheim, Le Bons Bay and Cromwell. April maximum temperatures were the highest on record for Arthurs Pass and Alexandra.

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

Location	Mean maximum air temperature (°C)	Departure from normal (°C)	Year records began	Comments
Kaikohe	21.1	1.8	1973	2nd-highest
Whangaparaoa	21.5	2.3	1982	Highest
Te Puke	20.8	1.1	1973	4th-highest
Whakatane	20.9	0.7	1974	4th-highest
Dannevirke	19.0	1.4	1951	4th-highest
Martinborough	20.2	1.1	1986	4th-highest
Ngawi	19.7	1.8	1972	Highest
Hastings	21.5	1.9	1965	3rd-highest
Wallaceville	19.7	1.9	1939	2nd-highest
Takaka	20.0	1.5	1978	Highest
Lake Rotoiti	16.6	1.5	1965	2nd-highest
Motueka	20.3	1.7	1956	2nd-highest
Appleby	19.5	1.3	1943	Equal highest
Nelson	19.8	1.6	1943	Highest
Blenheim	21.1	2.2	1932	Highest
Hanmer Forest	19.9	2.5	1906	2nd-highest
Kaikoura	18.4	2.0	1963	2nd-highest
Mt Cook	16.4	1.8	1929	4th-highest
Winchmore	20.1	3.1	1928	2nd-highest
Waipara West	20.5	2.2	1973	3rd-highest
Christchurch (Airport)	19.9	2.5	1863	2nd-highest
Lincoln	19.6	2.1	1881	3rd-highest
Le Bons Bay	17.9	2.4	1984	Highest
Lake Tekapo	17.6	2.6	1927	3rd-highest
Orari Estate	18.9	1.9	1972	4th-highest
Tara Hills	18.5	2.6	1949	2 nd -highest
Wanaka	17.8	1.4	1955	4th-highest
Dunedin (Airport)	17.7	1.1	1947	2 nd -highest
Cromwell	20.0	2.8	1949	Highest
Alexandra	19.4	1.9	1983	4th-highest

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

Location	Mean minimum air temperature (°C)	Departure from normal (°C)	Year records began	Comments
Wellington (Airport)	12.8	1.3	1962	4th-highest
Reefton	8.6	2.1	1960	4th-highest
Haast	10.3	1.9	1949	4th-highest
Puysegur Point	10.2	0.8	1978	4th-highest
Cape Campbell	12.5	2.6	1953	4th-highest
Arthurs Pass	6.4	2.5	1978	Highest
Mt Cook	5.9	1.6	1929	4th-highest
Waipara West	8.7	1.5	1973	4th-highest
Darfield	8.7	2.0	1939	4th-highest
Le Bons Bay	10.4	1.2	1984	3 rd -highest
Tara Hills	5.7	2.0	1949	3 rd -highest
Alexandra	6.0	2.3	1983	Highest
Warkworth	10.7	-2.0	1966	3 rd -lowest
Waipawa	5.4	-2.2	1945	4th-lowest
Appleby	5.5	-3.2	1943	2 nd -lowest

SUNSHINE: EXTREMELY SUNNY IN THE EAST OF THE NORTH ISLAND AND NORTHLAND, VERY CLOUDY IN THE SOUTHWEST

April was an extremely sunny month for the eastern North Island and Northland, with totals above 125 percent of normal. It was the sunniest April on record for Martinborough, in records that began in 1986. It was also rather sunny (between 110 and 125 percent of normal) in the Central Plateau, Bay of Plenty, Manawatu-Wanganui, Wellington, Marlborough and Canterbury. It was a cloudy month for the West Coast, Southland and Otago, with below average sunshine (between 75 and 90 percent of normal).

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

Location	Sunshine (hours)	Percentage Of normal	Year records began	Comments
Dannevirke	192	137	1963	2nd-highest
Martinborough	203	134	1986	Highest
Gisborne	227	146	1905	2nd-highest
Waipawa	222	151	1945	2nd-highest
Hokitika	101	71	1964	3rd-lowest

APRIL CLIMATE IN THE SIX MAIN CENTRES

Of the six main centres, Auckland and Tauranga were equally the warmest, Dunedin was the coolest, Christchurch was the driest, Auckland the wettest, and Tauranga the sunniest.

It was a warm April for all of the main centres, except Auckland (where temperatures were close to average). It was a dry month for all of the main centres, except Dunedin (which recorded near normal April rainfall). Sunshine totals in all of the main centres were near to April normal, except Tauranga (which experienced above normal sunshine hours).

April 2010 main centre climate statistics:

Location	Mean temp. (°C)	Departure from normal (°C)		Rainfall (mm)	% of normal		Sunshine (hours)	% of normal	
Auckland ^a	16.2	-0.1C	Near average	67	68%	Below normal	165	105%	Near normal
Tauranga ^b	16.2	+0.7C	Above average	27	24%	Well below normal	207	118%	Above normal
Hamilton ^c	14.9	+0.7C	Above average	37	39%	Well below normal	163	99%	Near normal
Wellington ^d	14.7	+0.9C	Above average	39	39%	Well below normal	164	106%	Near normal
Christchurch ^e	13.2	+1.1C	Above average	24	47%	Well below normal	167	104%	Near normal
Dunedin ^f	12.7	+0.8C	Above average	50	86%	Near normal	119	98%	Near normal

^a Mangere ^b Tauranga Airport ^c Hamilton Airport ^d Kelburn ^e Christchurch Airport ^f Musselburgh ^g Ruakura

HIGHLIGHTS AND EXTREME EVENTS

• Heavy rain and flooding

The highest 1-day rainfall in April was 314 mm, recorded at Milford Sound on the 25th (the 2nd-highest daily value for April at this site). Several other sites in the southwest of the country also broke April 1-day rainfall records on the 25th, namely Manapouri, Queenstown, and Lumsden.

Heavy rain on 25 April caused flooding on the road to Milford Sound, stranding visitors.

On 26 April, flooding closed SH94 from Milford Sound to Te Anau, and from Te Anau east to Mossburn. SH97 was closed between Five Rivers and Mossburn, and SH6 between Kingston and Athol was affected by surface water. About 120 trampers were evacuated by helicopter from the Milford Track. Te Anau residents were without telephone links after flooding cut the main fibre optic cable at Whitestone Bridge at about 1.30 pm. An alternative radio link was set up about 7.30 pm. Mobile phone sites were also affected. A property in Lowther Rd, about 12 km north of Lumsden, was evacuated when floodwater flowed through the house. Fences on the property were also underwater. The Dart River breached its banks, flooding Kinloch Road, which was closed by the Queenstown Lakes District Council.

On 27 April, SH99 was closed between Underwood and Wallacetown. Thousands of hectares of farmland were under water after rivers overflowed, with many stock isolated on patches of higher ground. In Tuatapere, the Waiau River burst its banks flooding the Domain, and sending 950 mm of water through the rugby clubrooms. The domestic water supply and all electronic communication ceased at 1.33 am. Water supplies were re-instated about 8.45 am, but residents were asked to conserve water, and boil drinking water. On the Milford and Routeburn Tracks, several bridges were washed away, and there were many slips and washouts, causing DoC to close the tracks. Access roads into Mt Aspiring National Park were also damaged.

On 29 April, the high levels of Lake Wakatipu caused some roads and reserves on the Queenstown foreshore to be flooded, mainly due to wind-blown waves. At 8am on 30 April, Lake Wakatipu had risen to its "threshold" level where water overflowed on to foreshore streets and parks, but major flooding such as seen in 1999 was largely avoided because of flood protection measures.

Record or near record high extreme 1-day rainfall totals were recorded at:

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year Records Began	Comments
Milford Sound	314	25th	1929	2nd-highest
Manapouri	79	25th	1963	Highest
Queenstown	62	25th	1890	Highest
Lumsden	52	25th	1982	Highest
Gore	40	25th	1967	2nd-highest

• **Temperature**

The highest April temperature was 28.6°C, recorded at Darfield on the 1st, the 4th-highest April temperature recorded in this area since records began in 1939.

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

Location	Extreme maximum temperature (°C)	Date of extreme temperature	Year Records began	Comments
Kaikohe	25.3	4th	1973	2nd-highest
Whangaparaoa	23.8	4th	1982	3rd-highest
Whakatane	24.9	5th	1975	Equal 4th-highest
Ngawi	24.3	27th	1972	4th-highest
Takaka	23.9	1st	1978	4th-highest
Cheviot	27.4	11th	1982	3rd-highest
Waipara West	27.5	1st	1973	3rd-highest
Darfield	28.6	1st	1939	4th-highest
Woodbury	27.0	1st	1973	Equal 4th-highest
Dunedin (Airport)	26.1	2nd	1947	4th-highest

The lowest April temperature was -3.1 °C, recorded at both Turangi and Hanmer on the 8th. The Turangi temperature was the equal-lowest April minimum temperature recorded in the area since records began in 1968. In contrast, the highest April minimum temperatures were experienced in Hanmer Forest and Waipara West on the 26th, and Alexandra on the 13th, both associated with northwesterly winds drying and warming as they traverse the Southern Alps.

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

Location	Extreme minimum temperature (°C)	Date of extreme temperature	Year Records began	Comments
Turangi	-3.1	8th	1968	Equal lowest
Wanganui	3.4	9th	1987	4th-lowest
Dunedin (Airport)	-1.8	5th	1947	2nd-lowest
Balclutha	-2.3	5th	1964	Equal 2nd-lowest
Whangaparaoa	18.1	27th	1982	Equal 4th-highest
Haast	15.2	26th	1949	Equal 4th-highest
Puysegur Point	15.9	12th	1978	2nd-highest
Hanmer Forest	17.6	26th	1972	Highest
Cheviot	16.6	15th	1982	2nd-highest
Waipara West	19.2	26th	1973	Highest
Darfield	16.7	13th	1954	3rd-highest
Le Bons Bay	17.0	1st	1984	Equal 2nd-highest
Tara Hills	13.0	1st	1949	Equal 4th-highest
Wanaka	15.6	1st	1972	Equal highest
Manapouri	13.4	1st	1973	3rd-highest
Lumsden	12.3	23rd	1982	3rd-highest
Cromwell	16.2	1st	1949	3rd-highest
Alexandra	15.2	13th	1983	Highest
Invercargill	14.0	13th	1948	4th-highest
Balclutha	12.9	1st	1972	4th-highest

- **High winds**

The highest wind gust in April was 152 km/hr, recorded at Cape Turnagain on the 15th (not a record).

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	Comments
Kaikohe	72	27th	1986	2nd-highest
Hawera	74	27th	1986	Equal 4th-highest

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