

A cool October in the south and west South Island; very dry in Gisborne and Hawkes Bay

Temperature	A cool October for the south and west of the South Island, as well as Ruapehu to Hamilton, including inland Bay of Plenty. Near average elsewhere.
Rainfall	Frequent southwest winds produced a very wet month over the south and west of the South Island, as well as for south Canterbury. In contrast, it was a rather dry month across much of the North Island, north Canterbury and Marlborough, with less than half of usual October rainfall occurring in Gisborne, Hawkes Bay, and coastal Wairarapa.
Sunshine	A relatively sunny month for the lower half of the North Island, as well as Northland, Marlborough, and Canterbury. Cloudy for the south of the South Island. Near normal sunshine totals elsewhere.
Soil moisture	At the end of October, soils were much drier than usual in Gisborne, Hawkes Bay and the Wairarapa. Soil moisture levels were also below normal for the eastern Bay of Plenty, between Auckland and Whangarei, and around Wanganui. In contrast, soils remain wetter than usual in south Canterbury and the Clutha.

Click on the following links to jump to the information you require:

Overview

Rain

Temperature

Sunshine

October climate in the six main centres

Highlights and extreme events

Overview

It was a relatively stormy October, with more frequent southwest winds and lower pressures than usual affecting New Zealand. These southwesterly winds produced a rather cool October for the south and west of the South Island, and very dry conditions in the eastern North Island.

Well below average temperatures (around 1.2°C below the October average) were observed over the south and west of the South Island, as well as between Mt. Ruapehu and Hamilton and including inland Bay of Plenty, reflecting the frequent southwest winds during the month. Temperatures were also below average (between 0.5°C and 1.2°C below the October average) for Otago and parts of south Canterbury. For north Canterbury, Nelson, Marlborough, the southwest North Island between Wellington and Taranaki, and for the north and east of the North Island, temperatures were generally near average (within 0.5°C of the October average). The nation-wide average temperature in October 2012 was 11.8°C (0.4°C below the 1971-2000 October average), using NIWA's seven-station temperature series which begins in 1909.

Frequent southwest winds produced a very wet month over the south and west of the South Island, as well as for south Canterbury, with well above normal rainfall (more than 150 percent of October normal) experienced. In contrast, it was a rather dry month across much of the North Island, as well as north Canterbury and Marlborough (with between 50 and 79 percent of October normal rainfall observed). In Gisborne, Hawkes Bay, and the coastal Wairarapa, rainfall was less than half October normal. For Nelson, eastern Otago, north Taranaki and around the Central Plateau, rainfall was close to normal.

At the end of October, soils were much drier than usual in Gisborne, Hawkes Bay and Wairarapa. Soil moisture levels were also below normal for the eastern Bay of Plenty, between Auckland and Whangarei, in Central Otago, and around Wanganui. In contrast, soils remain wetter than usual across south Canterbury and in the Clutha. Elsewhere, soil moisture levels are close to normal for the time of year.

It was a relatively sunny October for the lower half of the North Island, as well as Northland, Marlborough, and Canterbury (with sunshine totals generally between 110 percent and 124 percent of October normal). In contrast, below normal sunshine totals were recorded for the south of the South Island (between 75 and 90 percent of October normal). Near normal sunshine totals were generally observed elsewhere.

Further Highlights:

- The highest temperature was 26.8°C, observed at Gisborne on 27 October.
- The lowest temperature was -8.3°C, recorded at Lake Tekapo on 14 October.
- The highest 1-day rainfall experienced was 150 mm at North Egmont on 13 October.
- The highest gust recorded was 185 km/hr at Cape Turnagain, on both 18 and 25 October.
- Of the six main centres in October 2012, Christchurch was the driest, Hamilton the wettest, Dunedin the coolest and also the cloudiest; Tauranga the sunniest, and Auckland the warmest.

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Temperature: A cool October across the south and west of the South Island, as well as Ruapehu to Hamilton and including inland Bay of Plenty.

Well below average temperatures (around 1.2°C below the October average) were observed over the south and west of the South Island, as well as between Mt. Ruapehu and Hamilton and including inland Bay of Plenty, reflecting the frequent southwest winds during the month. Temperatures were also below average (between 0.5°C and 1.2°C below the October average) for Otago and parts of south Canterbury. For north Canterbury, Nelson, Marlborough, the southwest North Island between Wellington and Taranaki, and for the north and east of the North Island, temperatures were generally near average (within 0.5°C of the October average).

The nation-wide average temperature in October 2012 was 11.8°C (0.4°C below the 1971-2000 October average), using NIWA's seven-station temperature series which begins in 1909¹.

Record² or near-record mean air temperatures for October were recorded at:

Location	Mean air temp. (°C)	Departure from normal ³ (°C)	Year records began	Comments		
Record low or near-record low						
Puysegur Point	9.3	-0.8	1978	3rd-lowest		
Arthurs Pass	5.8	-1.2	1973	4th-lowest		
Lake Tekapo	7.4	-1.4	1927	4th-lowest		
Tiwai Point	9.3	-1.0	1970	4th-lowest		
Balclutha	9.1	-1.4	1964	4th-lowest		
Nugget Point	8.7	-1.2	1970	3rd-lowest		

³ This climate summary uses the updated 'normal' period, 1981-2010. (A 'normal' period is a 30 year window of time from which the normal (average) and percentage of normal are calculated from).

¹ Interim monthly value

² The rankings (1st, 2nd, 3rd.etc) in all 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 due to the practical limitations of performing homogeneity checks in real-time.

Rainfall: Very wet over the south and west of the South Island, as well as for south Canterbury. In contrast, a rather dry month across much of the North Island, north Canterbury and Marlborough. Less than half of usual October rainfall occurring in Gisborne, Hawkes Bay, and coastal Wairarapa.

Frequent southwest winds produced a very wet month over the south and west of the South Island, as well as for south Canterbury, with well above normal rainfall (more than 150 percent of October normal) experienced. In contrast, it was a rather dry month across much of the North Island, as well as north Canterbury and Marlborough (with between 50 and 79 percent of October normal rainfall observed). In Gisborne, Hawkes Bay, and the coastal Wairarapa, rainfall was less than half October normal. For Nelson, eastern Otago, north Taranaki and around the Central Plateau, rainfall was close to normal.

It was the wettest October on record for Hokitika and Invercargill, in records that began in 1963 and 1939, respectively.

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

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments		
Record high or near-record high						
Hokitika	507	184	1963	Highest		
Lumsden	112	144	1982	4th-highest		
Invercargill	177	186	1939	Highest		
Tiwai Point	145	151	1970	3rd-highest		
Record low or near-record low						
Mahia	25	32	1990	4th-lowest		

At the end of October, soils were much drier than usual in Gisborne, Hawkes Bay and the Wairarapa. Soil moisture levels were also below normal for the eastern Bay of Plenty, between Auckland and Whangarei, in Central Otago, and around Wanganui. In contrast, soils remain wetter than usual across south Canterbury and in the Clutha. Elsewhere, soil moisture levels are close to normal for the time of year.

Sunshine: A relatively sunny month for the lower half of the North Island, as well as Northland, Marlborough, and Canterbury. Cloudy for the south of the South Island.

It was a relatively sunny October for the lower half of the North Island, as well as Northland, Marlborough, and Canterbury (with sunshine totals generally between 110 percent and 124 percent of October normal). In contrast, below normal sunshine totals were recorded for the south of the South Island (between 75 and 90 percent of October normal). Near normal sunshine totals (between 90 and 109 percent of October normal) were generally observed elsewhere.

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

Location	Sunshine hours	Percentage of normal	Year records began	Comments	
Record high or near-record high					
Te Kuiti	199	134	1962	3rd-highest	
Cheviot	216	117	1983	4th-highest	

October climate in the six main centres

Of the six main centres, Christchurch was the driest, Hamilton the wettest, Dunedin the coolest and also the cloudiest; Tauranga the sunniest, and Auckland the warmest.

October 2012 main centre climate statistics:

Temperature			
Location	Mean temp. (°C)	Departure from normal (°C)	Comments
Auckland ^a	14.2	-0.2	Near average
Tauranga ^b	13.9	-0.2	Near average
Hamilton ^c	12.4	-0.6	Below average
Wellington ^d	12.2	0.2	Near average
Christchurch ^e	10.9	-0.5	Below average
Dunedin ^f	10.2	-0.7	Below average
Rainfall			
Location	Rainfall (mm)	% of normal	Comments
Auckland ^a	62	68%	Below normal
Tauranga ^b	58	65%	Below normal
Hamilton ^c	117	119%	Near normal
Wellington ^d	71	61%	Below normal
Christchurch ^e	55	112%	Near normal
Dunedin ^f	57	92%	Near normal
Sunshine			
Location	Sunshine (hours)	% of normal	Comments
Auckland ^a	182	103%	Near normal
Tauranga ^b	236	111%	Above normal
Hamilton ^g	177	100%	Near normal
Wellington ^d	212	110%	Above normal
Christchurch ^e	212	104%	Near normal
Dunedin ^f	152	90%	Near normal

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

Highlights and extreme events

Rain and slips

The highest 1-day rainfall experienced in October was 150 mm at North Egmont on 13 October.

On 6 October, the afternoon stage of the Yunca Junior Cycle Tour of Southland was abandoned for the first time in the event's 29-year history because of horrendous weather conditions (both wind and rainfall) at Te Tipua.

On 10 October, SH6 was affected by flooding between Harihari and Haast.

On 13 October, a 200-metre slip came down on the road to Milford Sound following heavy rain, closing it for at least three days. Stranded tourists got out by helicopter. In Canterbury, the old Waimakariri Bridge (not SH1) was closed after high rainfall and rising river levels threatened its safety. In the Hokitika area, heavy rain caused surface flooding, and creeks burst their banks, flooding paddocks and access roads. Surface flooding also caused problems in Nelson, and in the Pelorus Valley, rivers burst their banks, flooding paddocks and a rugby field in Canvastown.

On 18 October a washout was reported on SH73 between Griffin and Kumara, closing the road. In New Plymouth, the police station was flooded to a depth of about 20 cm in the early hours of the morning after a sudden downpour.

On 26 October, a slip came down on SH4 between Wanganui and Raetahi, blocking the southbound lane and obstructing the northbound lane.

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

Location	Extreme 1- day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Takaka	114	12th	1976	3rd-highest
Lumsden	37	12th	1982	3rd-highest

Temperatures

The highest temperature was 26.8°C, observed at Gisborne on 27 October. Kaikohe recorded 22.5°C on the 27th, a new October record at that site [see Table overleaf]. The lowest temperature was recorded at Lake Tekapo on 14 October, being -8.3°C (a new low October record there).

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

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Comments		
Low records or near-records						
Turangi	-2.8	24th	1968	4th-lowest		
Lake Tekapo	-8.3	14th	1925	Lowest		

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

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Comments			
High records or near-reco	High records or near-records						
Kaikohe	22.5	27th	1973	Highest			
Leigh	23.1	27th	1966	3rd-highest			
Motu	21.1	27th	1990	4th-highest			
Whatawhata	22.8	30th	1952	Equal 3rd-highest			
Hamilton	24.3	16th	1906	3rd-highest			
Te Kuiti	24.6	29th	1959	2nd-highest			
Turangi	24.6	31st	1968	Equal 2nd-highest			
Martinborough	25.2	31st	1986	3rd-highest			
Palmerston North	23.7	30th	1991	2nd-highest			
Farewell Spit	23.6	31st	1971	Highest			
Reefton	24.9	29th	1960	Equal 2nd-highest			
Ranfurly	23.6	30th	1975	3rd-highest			
Low records or near-reco	rds						
Dargaville	13.3	23rd	1951	4th-lowest			
Greymouth	10.4	6th	1972	4th-lowest			
Secretary Island	8.4	6th	1989	Equal lowest			
Arthurs Pass	1.2	8th	1973	Equal 2nd-lowest			
Wanaka	5.8	13th	1972	4th-lowest			
Manapouri	5.9	6th	1973	3rd-lowest			
Cromwell	6.8	13th	1949	4th-lowest			
Balclutha	7.8	6th	1972	4th-lowest			

Wind

The highest wind gust recorded in October was 185 km/hr, observed at Cape Turnagain on both 18 and 25 October.

On 4 October, strong winds damaged the main lift at Mt Dobson ski area, closing the field early for the season.

On 5 October, wind warnings were issued for SH73 at Porters Pass, SH85 between Palmerston and Kyeburn, SH8 between Fairlie and Omarama, and SH7 between the Hanmer Springs turn-off and Springs Junction. In central Wellington, strong winds were spun round by surrounding tall buildings creating a swirling effect.

On 8 October, wind warnings were issued for SH6 between Harihari and Haast.

On 13 October, unusually strong winds affected Northland, Auckland and the Waikato [See Table overleaf]. Strong winds in Whangarei brought down a tree, trapping two young brothers underneath. Fortunately they were not injured. Trees were also brought down in Auckland, blocking roads and, in one case, crashing into a house. Further south, the wind brought afternoon power cuts to the Thames area. On the Mahia Peninsula, extreme winds were identified as a major factor in reigniting and spreading two vegetation fires. Near Tolaga Bay, power lines brought down by the wind started a grass fire and blew the transformer for the East Coast. In Canterbury, trampolines and

greenhouses were damaged, and about 700 passengers on the Sea Princess could not rejoin their ship in Akaroa Harbour, but were forced to stay on land overnight. Wind warnings were issued for SH6 from Harihari to Franz Josef, particularly for high-sided vehicles, with several trucks pulling off the road in the hazardous conditions, and a campervan blown off the road.

On 14 October, continuing high winds brought down trees in Auckland, disrupting power to many areas. At Auckland Airport a catering truck was blown over into the side of an aircraft. Winds also caused power outages in Bells Junction, Hihitahi, Kakatahi, Karioi, Rangiwai, the upper Whanganui Valley and Waiouru, with some rural customers having no power overnight. In the Rotorua district, several large trees were toppled by the wind.

On 17 October, four large trees were blown over, damaging one vehicle, and blocking both northbound lanes of SH1 north of Wellington. In the Wairarapa, fire fighters were forced to abandon a re-ignited blaze in a pine forest near Carterton because of the dangerous conditions caused by the wind. On SH2, a car was blown into the bank near the top of the Rimutaka Hill. The ambulance attending the scene was damaged when a gust of wind folded back its door. In Queenstown, windblown embers from a rubbish fire caused a vegetation blaze near Arthur's Point.

On 18 October, wind brought down a tree on SH29 over the Kaimai Ranges, closing the road for a short time. South of Tolaga Bay, high winds reignited blazes started by fallen power lines on the 13th, damaging trees on several hectares of land at Okitu. On SH5, the Napier-Taupo Road, a campervan was blown off the road near Tapawera. Further south, a northbound truck carrying four empty water tanks was blown over on SH1 near Kaikoura. Two cyclists who had been leaving Kaikoura about the same time turned back to town, fearing for their safety. Wind warnings were issued for SH73 between Christchurch and Arthur's Pass.

On 22 October, Labour Day, a tornado whipped through Hector and Ngakawau, destroying property, bringing down trees, and cutting power to the area. In Hawkes Bay, two kayakers were blown out to sea, but made it back to shore under their own steam. In a Hastings car park, a shopping trolley with a two-year old child in the seat, was blown over, causing minor injuries to the child.

On 24 October, wind warnings were issued for SH1 between Milton and Gore, and SH8 between Milton and Raes Junction.

On 25 October, wind warnings were issued for SH1 between Gore and Dunedin, SH7 at the Lewis Pass, and SH73 between Springfield and Arthur's Pass.

Record or near record October extreme wind gusts were recorded at:

Location	Extreme wind gust (km/hr)	Date of extreme gust	Year records began	Comments
Kaikohe	85	13th	1986	4th-highest
Whenuapai	93	13th	1972	Equal 4th-highest
Paeroa	91	13th	1991	2nd-highest
Rotorua	85	13th	1972	Equal 3rd-highest
Pukekohe	78	13th	1986	2nd-highest
Hamilton	85	13th	1991	Highest
Hawera	95	8th	1986	Equal 2nd-highest
Farewell Spit	98	6th	1973	Equal 2nd-highest
Gore	109	24th	1987	4th-highest

Lightning and hail

On 4 October, an intense hail storm stopped traffic at Matawai, between Gisborne and Opotiki.

Snow and ice

Snow fell on the Desert Road on 2 October, causing poor driving conditions, but the road remained open.

On 5 October snow closed SH94 overnight.

On 8 October, SH3 was closed by snow overnight at both Arthurs Pass and Porters Pass. The snow that closed the road extended the ski season at Mt Hutt.

Snow warnings remained in place for SH73 between Springfield and Otira on 9 October.

On 12-13 October, both Arthur's Pass and Porter's Pass were closed overnight by snow.

On 19 October, a snow warning was issued for SH73 between Arthur's Pass and Otira, with chains required on all vehicles.

On 22 October, snow fell in South Canterbury. All roads remained open but the final section of the three-day "Hard Labour" event, a 90 km cycle around the canal routes near Lake Tekapo village, was cancelled, because of the conditions.

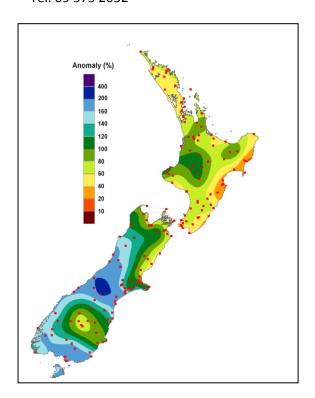
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October 2012 rainfall, expressed as an anomaly from normal October conditions (percent of October normal rainfall). The light blue colour indicates rainfall exceeding 140 percent of October normal, such as in seen over the south and west of the South Island, as well as in south Canterbury. In contrast, an orange colour indicates rainfall less than 40 percent of October normal (as seen in Gisborne and Hawkes Bay).

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