

April 2007 Monthly Flow and Rainfall Report

General

April was a very mixed month for weather in Otago. The month began with a front, trough and southwesterlies and was followed by a high-pressure ridge and fine weather for 6 days.

From 10 – 15 April, a very strong cold southwesterly airstream with several fronts buffeted the region and did bring some snow as low as 300m in some places.

A 5-day fine period was then followed by a slow-moving front which brought some rain to the region but also brought persistent easterly quarter drizzly periods along the East Coast. These conditions lasted from the 23-27 April and the weather eventually cleared on 28/29 April.

While the weather system in the middle of the month was quite extreme in terms of wind, for the rest of the month, winds were very light. Since the weather system from 10-15 April was the only significant system bringing southerly quarter winds, then the predominant wind during the month was from a northeasterly quarter and this resulted in average daily temperatures being above average especially inland where the cool easterly quarter winds did not have as much effect as they did along the east coast. Queenstown and Alexandra temperatures were above average, Palmerston temperatures were average and Oamaru Airport and Dunedin temperatures were below average. Also rainfall totals for the month were below average throughout most of the region.

North Otago

Rainfalls varied from close to average to well below average in this area. Total falls at the indicator sites (average monthly totals in brackets) included:

Omarama	8.3mm (42.3mm)	80% below average
Waikoura	31.5mm (45.0mm)	30% below average
Oamaru	34.6mm (36.1mm)	4% below average
Kauru the Dasher	15.3mm (62.0mm)	75% below average
Islay Downs	20.8mm (50.0mm)	58% below average
Palmerston	21.0mm (45.4mm)	54% below average
Stoneburn	26.0mm (38.0mm)	32% below average

No heavy or significant falls were recorded at any of the indicator sites.

Average monthly river flows remained well below their long term averages throughout the month and irrigation restrictions were imposed.

Farmers generally report a dry month with slow grass growth caused mainly by a lack of moisture. Some rain now may assist with growth but it is likely to be slow through winter. There were less frosts than usual.

Central Otago

Below average rainfalls were recorded in most of this area in April with the exception being the more southern parts of the area where rainfalls were close to average. Total falls at the indicator sites (average monthly totals in brackets) included:

Lindis Crossing	23.0mm (41.9mm)	45% below average
Alexandra	15.1mm (30.0mm)	50% below average
Blackstone Hill	37.6mm (52.0mm)	28% below average
Ranfurlly	21.0mm (40.0mm)	47% below average
Tima	47.5mm (48.0mm)	average

The only significant falls during the month occurred at Tima where 26.5mm fell during 11-13 April and Blackstone Hill where 15.6mm fell on 11/12 April, most of it as snow.

Average monthly river flows were well below their long term averages for the month and with low rainfalls, no rises occurred. They are likely to rise from 1 May as irrigation generally ceases around that date.

Farmers report that the weather has been good for growth but growth has remained slow due to a lack of moisture. It is too late in the season for significant growth now before winter even if it did rain significantly.

Lakes Wanaka, Wakatipu and Hawea and Surrounding Areas

Some unusually low rainfalls were recorded in this area in April, especially around the Wanaka and Hawea catchments. Total falls at the indicator sites (average monthly totals in brackets) included:

Makarora Station	32.8mm (165.0mm)	80% below average
Hunter Valley Station	22.5mm (80.0mm)	72% below average
Hawea Flat	18.1mm (59.0mm)	69% below average
Routeburn Station	91.5mm (157.0mm)	42% below average
Queenstown	45.2mm (73.6mm)	39% below average

Other raingauge totals in this area included Halfway Bay Station 41.5mm and Glenfinnan (Matukituki Valley) 44.5mm.

Significant falls included: on 10/11 April, Hunter Valley Station 16.0mm, Routeburn Station 37.8mm, Queenstown 23.3mm; and on 23/24 April, Routeburn Station 40.0mm.

Average monthly river flows were well below their long term averages for the month and no significant rises occurred in any of the rivers.

As a result of the below average inflows, levels in both Lakes Wanaka and Wakatipu declined throughout the month. Wanaka began the month 0.35m below its longterm average of 277.27m and Wakatipu 0.12m below its longterm average of 309.91m. Both declined slowly through the month and by the end of April they were at 276.51m and 309.55m, 0.76m and 0.36m below average respectively.

Lake Hawea fell 1.5m during the month as Contact Energy slowly increased its releases from the dam for power generation. At the end of the month it was at 342.89m, 3.11m below its full level.

Farmers report a reasonably dry but pleasant month with slow to good grass growth throughout the region. As the ground is still relatively warm, some rain now would allow some growth to occur.

Strath Taieri, Lower Taieri and Dunedin

Rainfalls in this area varied from 40% below average to 20% above average. Total falls at the indicator sites (average monthly totals in brackets) included:

Garthmyl Middlemarch	22.4mm (38.0mm)	41% below average
Musselburgh Dunedin	36.0mm (65.0mm)	45% below average
Lee Flat	73.0mm (60.0mm)	22% above average
Maungatua	57.4mm (47.9mm)	20% above average
Dunedin Airport	37.4mm (49.0mm)	24% below average
Pine Hill	43.5mm (65.0mm)	33% below average
Sullivans Dam	71.5mm (95.0mm)	25% below average

Other raingauge totals in this area included Ross Creek 43.8mm, and Southern Reservoir 44.8mm.

Significant falls during the month included: on 3 April, Middlemarch 10mm, Lee Flat 11.0mm, Maungatua 10.8mm; and on 11-13 April, Lee Flat 34.6mm, Maungatua 17.5mm.

River flows were very low for the first 14 days of the month but the rain on 11-13 April resulted in rises in all of them. The Taieri at Outram rose more than one metre at this time. All rivers then slowly declined after that.

Farmers report that apart from the stormy 5-day period from 10-15 April, the rest of the month was calm. Along the coast, persistent fog and drizzle late in the month was not helpful for growth. Growth was generally slow and frosts were starting to occur.

South and West Otago

Rainfall totals were generally close to average in this area. Total falls at the indicator sites (average monthly totals in brackets) included:

Tuapeka Mouth	46.9mm (54.5mm)	14% below average
Balclutha	25.5mm (50.0mm)	49% below average
Waikoikoi	68.7mm (75.0mm)	8% below average
Slopedown	97.5mm (112.7mm)	13% below average
Clarks Flat	48.5mm (54.0mm)	10% below average
Moa Flat	71.5mm (64.0mm)	12% above average

Significant falls during the month included: on 11-13 April, Waikoikoi 35.6mm, Slopedown 61.1mm; and on 23 April, Waikoikoi 16.5mm, Moa Flat 14.5mm.

Apart from the Clutha which flowed at close to average flows throughout the month mainly due to releases of water from Lake Hawea for power generation, other river flows were quite low for the first 13 days of the month. The rain over 11-13 April resulted in all the rivers except the Clutha rising briefly. The Pomahaka at Burkes Ford rose 1.4m and the Waipahi at Waipahi rose about 1m. Flows then fell slowly during the rest of the month.

Farmers report a good month for grass growth with sufficient rain and warmth. Not many frosts were recorded during the month.

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* Data sources – Private individuals, Dunedin City Council, Otago Regional Council, NIWA