

## **January 2007 Monthly Flow and Rainfall Report**

### **General**

January 2007 was a significantly warmer and drier month than December 2006. While the weather was still quite changeable with some rain in all areas at times, it was also quite cloudy in eastern coastal areas which tended to slow growth. Growth in January was much better than in December.

The weather pattern was mainly a series of fronts, troughs and ridges of high pressure from the west, but from 9–14 January, a period of cloudy easterly weather occurred. More northerly quarter winds and few southerlies with a third of the month dominated by anticyclones resulted in lower than average rainfalls throughout Otago with one raingauge recording only 15.5mm for the month. The frequency of more northerly quarter winds and less southerly quarter was the reason for the improved temperatures.

Farmers report growth is now excellent with good crops of grass and lucerne. However, the changeable weather has made it difficult to find settled periods for hay and baleage making.

### **North Otago**

Rainfalls were well below average throughout this area with falls varying between 37 and 73% below average. Total falls at the indicator sites (average monthly totals in brackets) included:

Omarama	15.55mm (57.6mm)	73% below average
Waikoura	23.5mm (49.9mm)	53% below average
Oamaru	29.4mm (46.6mm)	63% below average
Kauru, the Dasher	35.4mm (78.0mm)	55% below average
Islay Downs	38.4mm (62.2mm)	37% below average
Palmerston	30.0mm (56.4mm)	47% below average

Other raingauge totals in this area included Stoneburn 34.5mm and Oamaru Airport 24.2mm.

The most significant rainfalls in this area occurred around 13/14 January when Omarama recorded 10.3mm, Islay Downs 15.2mm, Palmerston 11.6mm while on 22 January, Waikoura 12.0mm and on 25 January, the Dasher 11.0mm.

Average monthly river flows were generally close to or above their long term averages for January. They all began well above average due to the cool wet December and generally they slowly declined during the month. Rain and cloudy conditions at times resulted in quite good flows for this time of the year with no irrigation restrictions being required.

Farmers report good conditions now. Things have dried out to the extent that irrigation has started again. Grass and crop growth is now good but 2-3 weeks later than usual.

## Central Otago

Below average rainfalls were recorded throughout this area in January but farmers report the season has now become one of the better ones after a slow start. Total falls at the indicator sites (average monthly totals in brackets) included:

Lindis Crossing	39.0mm (47.7mm)	22% below average
Cromwell	N/A	
Alexandra	33.8mm (42.9mm)	21% below average
Blackstone Hill	36.3mm (69.5mm)	48% below average
Ranfurlly	25.2mm (57.0mm)	56% below average
Tima	33.0mm (78.5mm)	58% below average

Significant falls during the month included: on 6 January, Tima 11.0mm; on 13/14 January, Lindis Crossing 10mm, Alexandra 10.6mm, Blackstone Hill 10.7mm, Ranfurlly 11.4mm; on 28 January, Tima 13.0mm; and on 29/30 January, Lindis Crossing 16.0mm.

Average monthly river flows were close to their long term averages for January. They began the month well above average due to the very wet and cool conditions in December 2006, but the warmer drier conditions in January saw flows drop steadily throughout the month. By the end of the month flows were down to the much lower flows, which are typical of this area in January although no flow restrictions were required.

Farmers report a very good month for grass and crop growth. The moisture from December and the heat in January have combined to create great growing conditions. Some rain during February would help.

## Lakes Wanaka, Wakatipu and Hawea and Surrounding Areas

Rainfalls were well below average in this region but in most areas there was still more than enough rain and warmth to keep grass and crops growing well. Total falls at the indicator sites included:

Makarora Station	115.2mm (170.5mm)	32% below average
Hunter Valley Station	61.2mm (102.0mm)	40% below average
Hawea Flat	34.1mm (59.8mm)	43% below average
Routeburn Station	142.2mm (240.0mm)	41% below average
Queenstown	48.3mm (74.8mm)	35% below average

Other raingauge totals in this area included Paradise 130mm, Halfway Bay 59mm, Arthurs Point 62.1mm, and Glenfinnan (Matukituki Valley) 113.7mm.

Significant falls during the month included: on 13 January, Makarora Station 22.8mm, Routeburn Station 19.5mm; on 21 January, Routeburn Station 26mm; and on 28-31 January, Makarora Station 63.3mm, Hunter Valley Station 39.4mm, Routeburn Station 82.4mm.

Average January river flows were generally close to or below average. They responded when the heavier rains occurred but no flooding resulted.

Levels in Lakes Wanaka and Wakatipu began the month at 277.54m and 310.28, 0.1m and 0.06m above average respectively. Both lakes slowly declined during the month and by the end of January, Wanaka's level was 0.3m below average and Wakatipu's level 0.25m below average.

Lake Hawea began the month at 344.93m, just 1.07m below full. The lake rose to about 345.19m when Contact Energy began releasing water to ensure there was some storage available should a heavy rain event occur. At the end of the month, Hawea was at 345.06m, 0.94m below full.

Farmers report a good month for growth but all crops are 2-3 weeks late. Some of the more southern parts of this area could do with more rain.

### **Strath Taieri, Lower Taieri and Dunedin**

Rainfall totals in this area were well below their long term averages for January. Total falls at the indicator sites (average monthly totals in brackets) included:

Garthmyl Middlemarch	23.9mm (63.0mm)	62% below average
Musselburgh Dunedin	44.2mm (71.7mm)	38% below average
Lee Flat	39.6mm (79.0mm)	50% below average
Maungatua	50.9mm (79.2mm)	36% below average
Dunedin Airport	37.0mm (75.8mm)	49% below average
Sullivans Dam	72.5mm (102mm)	29% below average

Other raingauge totals in this area included Ross Creek 54.6mm, Nenthorn 24mm, Deep Stream 20.5mm, Riccarton Road 31mm.

Significant falls during the month included: on 6 January, Pine Hill 14mm, Musselburgh 10.6mm; on 20/21 January, Musselburgh 13.4mm, Maungatua 11.5mm, Pine Hill 16.5mm; on 25 January Pine Hill 14mm; on 29 January, Lee Flat 18.4mm; and on 30 January Pine Hill 13.5mm.

River flows in this area began the month well above average but ended the month well below average. They generally declined throughout the month to end January at flows more typical for this time of the year. No particularly low flows occurred and no irrigation restrictions were required.

Farmers report a very good month for growth and they look forward to more sunshine and just a little rain in February.

### **South and West Otago**

Like the rest of Otago, rainfall totals for January were well below average. Total falls at the indicator sites (average monthly totals in brackets) included:

Tuapeka Mouth	39.5mm (78.6mm)	50% below average
Balclutha	33/0mm (71.9mm)	51% below average
Waikoikoi	49.2mm (92.6mm)	47% below average

Slopedown 50.1mm (134.4mm) 63% below average

Other raingauge totals in this area included Moa Flat 72mm, Clarks Flat 37.5mm.

Significant falls during the month included: on 6 January, Slopedown 16.3mm; and on 11 January Waikoikoi 11.6mm.

At the beginning of January, river flows were well above average due to all the rain and cool temperatures in December. However, they steadily declined throughout the month to end January at low but typical flows for this time of the year. No high or particularly low flows occurred during the month.

Farmers report January has been a particularly good month for growth of grass, clover and crops. Similar weather and growth in February would be most welcome.

**D.W. Stewart**  
**Hydrological Consultant**  
**Raineffects Limited.**

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