

### **The coldest November in 10 years with average precipitation**

In contrast to the very warm October, November came in about a degree below average making it the coldest November in 10 years and the first below average month since July. The temperatures during the month were rarely average with 3 distinct warm periods and 3 distinct cold periods. The high temperature for November was 13.5 °C on the 14th and the low was -10.9 °C on the 23rd.

For only the second time this year we had more than the average amount of precipitation, we got 83.7 mm which is just above the average of 82.3 mm. But that is still within the "average" range of precipitation for the month (What does this mean? – see the explanation below). The last time we had an above average month of precipitation was last December.

Half of the precipitation for the month came during a three day period between the 20th and the 22nd, and in particular the 29.7 mm on the 21st made it the third wettest day of the year so far (behind 33.4 mm on May 15th and 32.0 mm on August 7th).

With an average month of precipitation we are still about 250 mm below the average precipitation for this time of year (585.2 mm compared to the average of 830.3 mm).

**\*\*What does the “average” range mean?**

To determine the average range for precipitation, data from a 30 year period is examined (we use the current Environment Canada standard which is from 1971 to 2000) and the top one third (10 years in this example) are considered to be above average. The bottom one third are considered to be below average and the years in between are considered average. Thus instead of only one number for the average there is actually an average range, for example the average range is between 61.3 mm and 91.2 mm for November. Thus a monthly precipitation total between these two numbers would be considered average month of precipitation, lower than 61.3 mm would be a below average November and higher than 91.2 mm would make it an above average month for precipitation. (A similar analysis is also done with temperature data)

Environment Canada prediction of temperature for the month: Average  
Actual Temperature: Below Average

Summary for November 2007:

Maximum Temperature 13.5 °C

Minimum Temperature -10.9 °C

Average Daily High Temperature 5.0 °C (Long term average 5.9 °C)

Average Daily Low Temperature -2.5 °C (Long term average -1.6 °C)

Total Precipitation 83.7 mm (Long term average 82.3 mm)

(Long term averages based on 1971-2000 data for the Waterloo Wellington Airport)