

# Montana Drought/Precipitation Summary

December 5, 2003

## Montana weather and precipitation summary, November 2003.

After an October with nearly normal precipitation and above normal temperatures across the state, November 2003 had wide extremes in precipitation totals and cooler than average temperatures. November is generally one of the driest months in eastern Montana. Some areas west of the continental divide received near their monthly normals with much below conditions across most of eastern Montana. Most areas of the state averaged from two to eight degrees below normal. Including the mild temperatures from October, the current water year's temperatures are averaging near to slightly below normal. Strong winds have plagued sections of the state east of the divide. This has caused periods of blowing dust in the dry conditions.

**Historical Rank of Precipitation (inches)  
for the Past Month and Water Year to Date**

| Location    | Nov 1 - Nov 30 | % of Normal | Oct 1 - Nov 30 | % of Normal | Rank                     | Percentile       | Years of Record |
|-------------|----------------|-------------|----------------|-------------|--------------------------|------------------|-----------------|
| Billings    | 0.30           | 40          | 1.68           | 84          | 31 <sup>st</sup> wettest | 44 <sup>th</sup> | 70              |
| Bozeman     | 0.30           | 37          | 0.84           | 44          | 10 <sup>th</sup> driest  | 16 <sup>th</sup> | 63              |
| Broadus     | 0.37           | 62          | 1.02           | 47          | 15 <sup>th</sup> driest  | 27 <sup>th</sup> | 55              |
| Butte       | 0.26           | 43          | 0.37           | 27          | 8 <sup>th</sup> driest   | 7 <sup>th</sup>  | 110             |
| Culbertson  | 0.26           | 54          | 0.95           | 71          | 53 <sup>rd</sup> driest  | 56 <sup>th</sup> | 95              |
| Cut Bank    | 0.16           | 38          | 0.49           | 55          | 37 <sup>th</sup> driest  | 37 <sup>th</sup> | 101             |
| Dillon      | 0.08           | 21          | 0.24           | 19          | 4 <sup>th</sup> driest   | 6 <sup>th</sup>  | 64              |
| Glasgow     | 0.44           | 116         | 1.03           | 94          | 56 <sup>th</sup> driest  | 50 <sup>th</sup> | 111             |
| Glendive    | 0.38           | 78          | 1.19           | 80          | 61 <sup>st</sup> driest  | 58 <sup>th</sup> | 106             |
| Great Falls | 0.18           | 31          | 0.45           | 30          | 6 <sup>th</sup> driest   | 5 <sup>th</sup>  | 112             |
| Havre       | 0.09           | 20          | 0.46           | 43          | 16 <sup>th</sup> driest  | 13 <sup>th</sup> | 124             |
| Helena      | 0.20           | 42          | 0.65           | 57          | 22 <sup>st</sup> driest  | 18 <sup>th</sup> | 124             |
| Kalispell   | 0.93           | 64          | 2.22           | 91          | 49 <sup>th</sup> driest  | 47 <sup>th</sup> | 105             |
| Lewistown   | 0.22           | 30          | 1.26           | 70          | 23 <sup>rd</sup> driest  | 21 <sup>st</sup> | 108             |
| Livingston  | 0.47           | 64          | 1.50           | 61          | 32 <sup>nd</sup> driest  | 32 <sup>nd</sup> | 101             |
| Miles City  | 0.09           | 18          | 1.51           | 92          | 43 <sup>rd</sup> driest  | 39 <sup>th</sup> | 111             |
| Missoula    | 1.09           | 114         | 1.76           | 98          | 56 <sup>th</sup> wettest | 50 <sup>th</sup> | 111             |

For an automated version of this chart, updated daily, go to  
<http://www.wrh.noaa.gov/cgi-bin/greatfalls/getproduct.pl?PCPNTOTALS>

For a state map of % of normal water year precipitation (updated around the 7<sup>th</sup> of each month), go to:  
[http://www.wrh.noaa.gov/Greatfalls/txf.php?TEXT+wateryear\\_percent.html](http://www.wrh.noaa.gov/Greatfalls/txf.php?TEXT+wateryear_percent.html)

For the latest information on mountain snow pack from the NRCS, go to:  
<http://www.mt.nrcs.usda.gov/snow/index.html>

For the latest U.S. Drought Monitor, issued weekly by the Climate Prediction Center (CPC), go to:  
<http://www.drought.unl.edu/dm/monitor.html>

### Montana precipitation/temperature forecast.

As of December 1<sup>st</sup>, CPC forecasts equal chances of wetter or drier than normal conditions across Montana for the period through December 2003, with equal chances of cooler or warmer than normal temperatures forecast. A similar forecast is made for the period December 2003 through February 2004. Graphics and text relating to these outlooks, and additional long-range forecasts can be found at

[http://www.cpc.ncep.noaa.gov/products/predictions/multi\\_season/13\\_seasonal\\_outlooks/color/seasonal\\_forecast.html](http://www.cpc.ncep.noaa.gov/products/predictions/multi_season/13_seasonal_outlooks/color/seasonal_forecast.html)

Further inquiries about the moisture conditions can be directed to Dave Bernhardt, Gina Loss, or Ken Pomeroy at (406) 453-2081. Many more links can be found on the Drought Information Page of the NWS Great Falls web site at  
<http://www.wrh.noaa.gov/Greatfalls/txf.php?HTML+drought>