



Centennial Valley Water Report - February 2023

Please contact drought@centennialvalleyassociation.org if you have any questions, comments, or suggestions.

Greetings from the Centennial Valley Association!

The winter weather continued to blast Montana in the month of February! Winter storms brought heavy snows and low temperatures to most of Montana, with wind chills reaching -30 degrees Fahrenheit in some places. The combination of wind and snow caused another closure on I-15 between Dillon and Monida on February 22nd. Despite treacherous travel conditions, this weather has helped maintain snowpack. The Jefferson River Basin is currently at 101% of median snow water equivalent and 103% of median precipitation accumulation. With below average temperatures and above average precipitation forecasted for the month of March, hopefully snowpack continues to increase.

Although it may be bitterly cold, some Montanans were rewarded for venturing outside last week as the Aurora Borealis, also known as the Northern Lights, were visible across the state. Click the link below this paragraph to see photos taken of this spectacular event! To learn when the Aurora Borealis will likely be visible, you can visit the Space Weather Prediction Center. When the Planetary K-Index, shown in the graph in the link below, is above five, there is a chance that the Northern Lights will be visible in Montana.

Please don't hesitate to reach out to drought@centennialvalleyassociation.org if you have any suggestions as to how to make these reports more useful to you. Stay safe and warm!

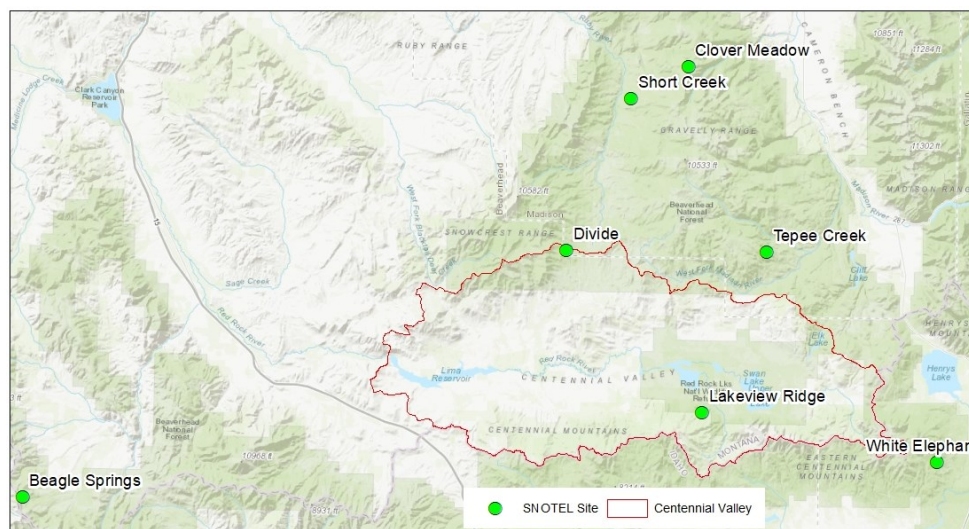
Aurora Borealis photos: <https://nbcmontana.com/news/slideshows/slideshow-northern-lights-across-montana>

Planetary K-Index: <https://www.swpc.noaa.gov/products/planetary-k-index>

Snowpack and Precipitation Data - As of February 28th, 2023

There are seven Natural Resources Conservation Service (NRCS) SNOTEL sites that surround the Centennial Valley (below). Percent of median for precipitation accumulation for the month of February ranged from 115% (White Elephant) to 149% (Divide). Percent of median for snow water equivalent ranged from 114% (Lakeview Ridge) to 150% (Short Creek). The White Elephant station received the most precipitation (4.5") and Short Creek received the least precipitation (0.6") during the month of February. The White Elephant Station has the deepest snow depth (90") and Short Creek has the lowest snow depth (30").

Source: [NRCS Report Generator](#)



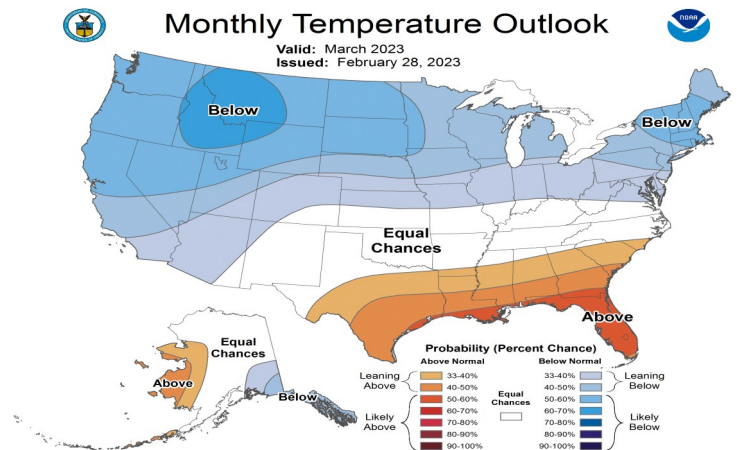
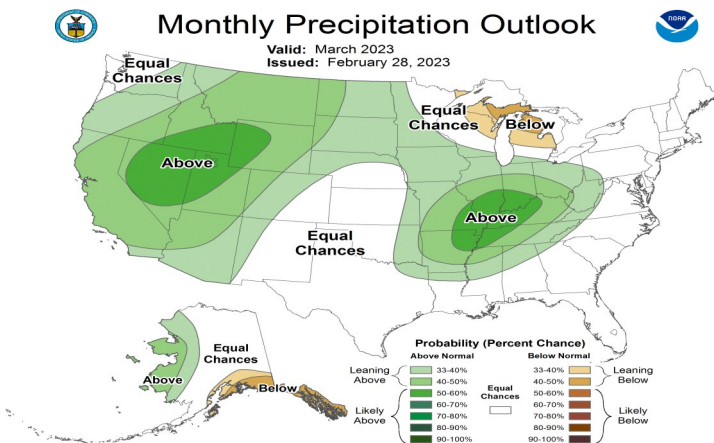
Snowpack and Precipitation Data - End of Day Values for February 28th, 2023

	Precipitation Accumulation (in)	Median Precipitation Accumulation (1991-2020) (in)	Precipitation Accumulation % of Median (1991-2020)	Snow Water Equivalent (in)	Median Snow Water Equivalent (1991-2020)	Snow Water Equivalent % of Median (1991-2020)	Snow Depth (in)
Beagle Springs (8,850 ft)	8.9	7.4	120%	8.9	7.2	124%	39
Clover Meadow (8,600 ft)	15.9	12.6	126%	15.2	12.3	124%	56
Divide (7,800 ft)	12.7	8.5	149%	9.5	7.7	123%	40
Lakeview Ridge (7,400 ft)	15.0	11.2	134%	9.5	8.3	114%	40
Short Creek (7,000 ft)	8.0	6.0	133%	6.9	4.6	150%	30
Tepee Creek (8,000 ft)	15.1	11.4	132%	13.2	10.3	128%	51
White Elephant (7,710 ft)	26.7	23.3	115%	25.1	20.4	123%	90
Red Rock BLM RAWS	0.56	-	-	-	-	-	-
Lakeview Rain Gauge	0.44	-	-	-	-	-	-

Precipitation and Temperature Outlook – March 2023

During the month of March, most of Montana has a 40-50% chance of above normal precipitation and the northwest corner has a 33-40% chance of above normal precipitation. The Centennial Valley and western Montana have a 60-70% chance of below normal temperatures during March, while eastern Montana and the far northwest corner have a 50-60% chance of below normal temperatures.

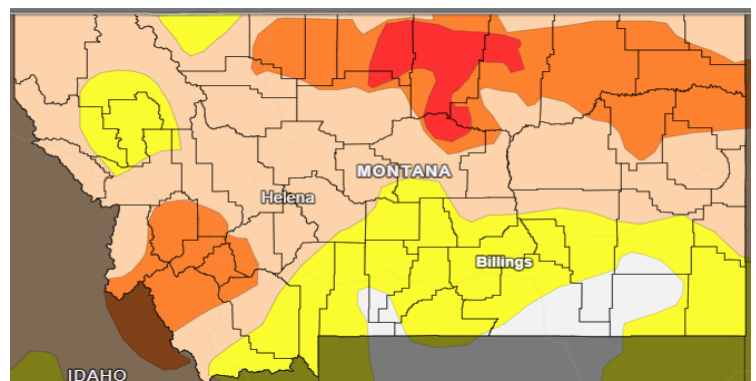
Source: [NWS NOAA Climate Prediction Center](https://www.noaa.gov/climate-prediction-center)



Drought Data - February 2023

During the month of February, the percentage of Montana experiencing some level of drought decreased, albeit slightly, from 95.2% to 95%. The percentage of the state experiencing extreme drought has decreased from 10.8% in January to 3.7% in February. Currently, 76.4% of Beaverhead County is experiencing drought conditions, which is no change from January. The Centennial Valley is currently listed as experiencing abnormally dry conditions.

Source: [National Integrated Drought Information System](https://www.drought.gov/)

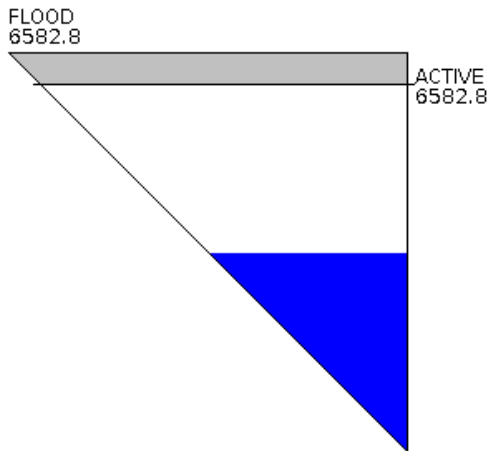


Lima Reservoir Data - As of March 4th, 2023

As of March 4th, the Lima Reservoir had a pool elevation of 6567.6 feet and was 28.9% full. The reservoir inflow and outflow was not available. As of February 5th, the Lima Reservoir had a pool elevation of 6566.8 feet and was 26.9% full. The reservoir inflow was 54.1 CFS and the outflow was 0.0 CFS.

Source: [Bureau of Reclamation](#)

Water Users Irrigation Company Current Reservoir Data for Lima Reservoir, MT



Daily Reservoir Data as of 03/04/2023

Pool Elevation is 6567.6 Feet
Reservoir Storage is 24307.7 Acre-Feet
Reservoir Inflow is 998877. CFS
Reservoir Outflow is 998877. CFS
Reservoir is 28.9 % Full*
Reservoir Flood Control Pool is filled 0.0 %

Note: 998877. Indicates A Missing Value

Impacts of Recreation on the Upper Yellowstone River

East of the Centennial Valley, a study is taking place to understand the impacts of recreation on the Upper Yellowstone River. The study, which began in 2020, is a partnership between the Upper Yellowstone Watershed Group, Institute for Tourism and Recreational Research at the University of Montana, and Montana Fish, Wildlife & Parks. These groups hope to collect data on river usage to understand how it may be impacting the river. The study notes that river users and landowners alike have expressed concern that with an increase in recreational use of the Upper Yellowstone may come an increased potential for impact on natural resources. To dive deeper into this study, follow the link below.



Link: <https://www.upperyellowstone.org/recreational-use>

If you have any questions, comments, or trouble interpreting the data, please contact drought@centennialvalleyassociation.org!



Helpful Links:

[Montana Drought Status Percentage](#)
[NRCS SNOTEL Report Generator](#)
[USGS Streamflow Data](#)
[Lima Reservoir](#)
[Palmer Drought Severity Index](#)
[BLM Weather Station](#)