



Centennial Valley Water Report - March 2023

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

Greetings from the Centennial Valley Association!

Although spring has officially sprung, you wouldn't know it in Montana! Winter storms have continued to bring snow accumulation and frigid temperatures to the region. Snow drifts at Monida Pass caused a train derailment on March 15th. Between March 24th and 26th, a storm brought significant accumulation to much of Southwest Montana, with Bozeman receiving a few feet of snow. Over the weekend, blowing snow continued to make travel along Monida Pass difficult.

Even though we might be looking forward to warmer days, the snow we have received has helped maintain snowpack throughout the basin. The Jefferson River Basin is currently at 120% of median snow water equivalent and 118% of median precipitation accumulation. In comparison, the Jefferson River Basin was at 80% of median snow water equivalent as of April 1st, 2022. The Red Rock River Basin is currently at 125% of median snow water equivalent.

Throughout the rest of the week, the Centennial Valley has slight chances of snow each day with highs in the mid-30's to 40's and lows in the teens and 20's. Sunday will be sunny and could see a high of up to 48 degrees, so be sure to break out shorts and a tank top for the occasion.

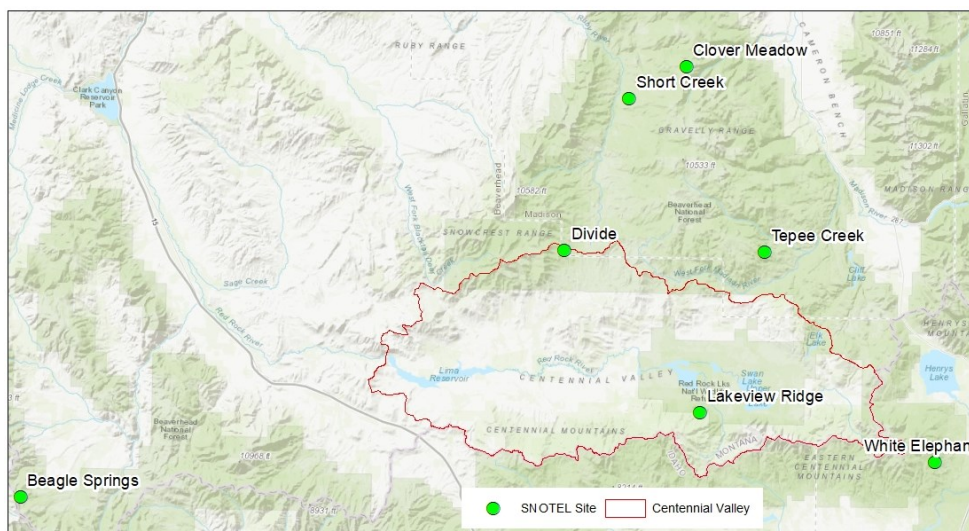
Please don't hesitate to reach out to drought@centennialvalleyassociation.org if you have any suggestions as to how to make these reports more useful to you. Stay safe and warm!

Train derailment: <https://www.montanarightnow.com/butte/train-derails-at-monida-crossing-in-beaverhead-county/>

Snowpack and Precipitation Data - As of March 31st, 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 122% (Beagle Springs) to 148% (Lakeview Ridge). Percent of median for snow water equivalent ranged from 121% (Divide) to 148% (Short Creek). The White Elephant station received the most precipitation (9.7") and Red Rock BLM RAWS Station received the least (0.53"). White Elephant has the deepest snow depth (111") and Short Creek has the lowest snow depth (35").

Source: [NRCS Report Generator](#)



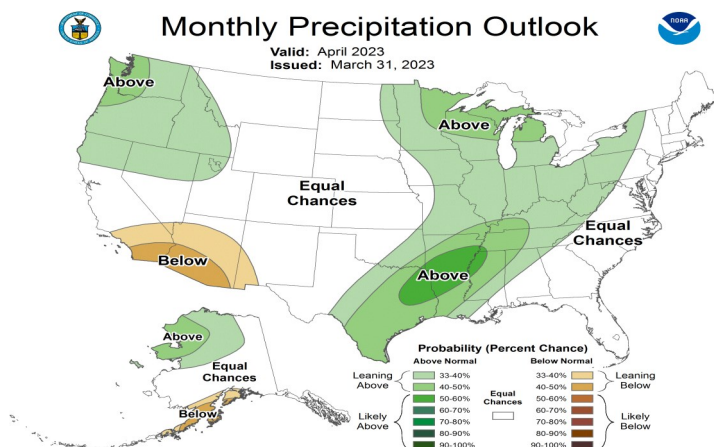
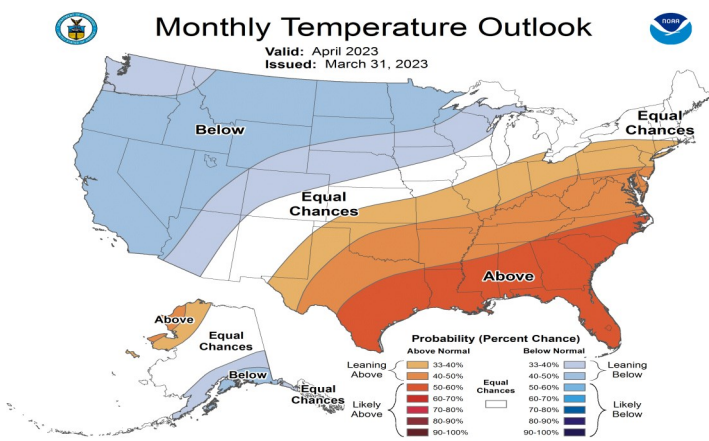
Snowpack and Precipitation Data - End of Day Values for March 31st, 2023

	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)	11.2	9.2	122%	12.1	9.3	131%	50
Clover Meadow (8,600 ft)	19.6	16.0	123%	19.4	16.2	128%	70
Divide (7,800 ft)	15.6	10.6	147%	11.9	9.8	121%	49
Lakeview Ridge (7,400 ft)	19.8	13.4	148%	14.4	9.8	147%	51
Short Creek (7,000 ft)	9.8	7.3	134%	8.6	5.8	148%	35
Tepee Creek (8,000 ft)	19.3	13.8	140%	17.6	13.1	134%	64
White Elephant (7,710 ft)	36.4	27.2	134%	35.9	26.6	135%	111
Red Rock BLM RAWS	0.53	-	-	-	-	-	-
Lakeview Rain Gauge	1.37	-	-	-	-	-	-

Precipitation and Temperature Outlook – April 2023

Most of Montana has a 40-50% chance of below normal temperatures during the month of April, while the northwest corner has a 33-40% chance of below normal temperatures. Most of the state has equal chances of above or below normal precipitation for the month of April. The western edge of Montana has a 33-40% chance of above normal precipitation.

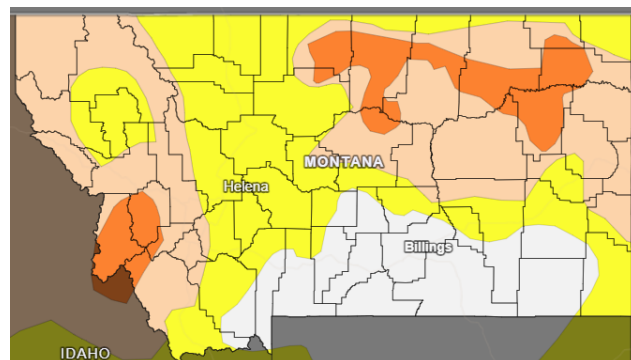
Source: [NWS NOAA Climate Prediction Center](#)



Drought Data - March 2023

During the month of March, the percentage of Montana experiencing some level of drought decreased from 95% to 81.1%. The percentage of the state experiencing extreme drought has decreased from 3.7% in February to 0% in March! Currently, 56.82% of Beaverhead County is experiencing drought conditions, a decrease from 76.4% in February. The western part of the Centennial Valley is currently listed as experiencing abnormally dry conditions, while Elk Lake and Alaska Basin are not experiencing drought conditions.

Source: [National Integrated Drought Information System](#)

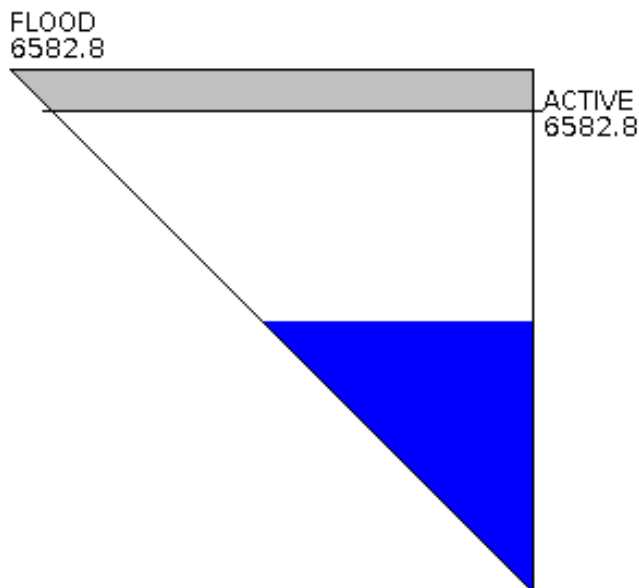


Lima Reservoir Data - As of April 4th, 2023

As of April 4th, the Lima Reservoir had a pool elevation of 6568.5 feet and was 31.2% full. The reservoir inflow and outflow were not available. 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 were not available.

Source: [Bureau of Reclamation](#)

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



Daily Reservoir Data as of 04/04/2023

Pool Elevation is 6568.5 Feet
Reservoir Storage is 26204.4 Acre-Feet
Reservoir Inflow is 998877. CFS
Reservoir Outflow is 998877. CFS
Reservoir is 31.2 % Full*
Reservoir Flood Control Pool is filled 0.0 %
Note: 998877. Indicates A Missing Value

Using Soil Moisture to Predict Wildfires

As wildfires are becoming more common and severe, it is more important than ever to be able to predict wildfire danger. A recent study suggests that we can use soil moisture data to predict the current fuel loads and fuel moisture, leading to more accurate forecasts of wildfire season. This soil moisture data can be collected by on-the-ground monitoring, remote sensing, or modeling. Although research is still being done to understand the limitations of this kind of forecasting, scientists are hopeful that this will aid western states during fire season and help keep people safe.



Link: <https://www.drought.gov/news/using-soil-moisture-information-better-understand-and-predict-wildfire-danger-2023-03-09>

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](#)

Winter in the Centennial Valley



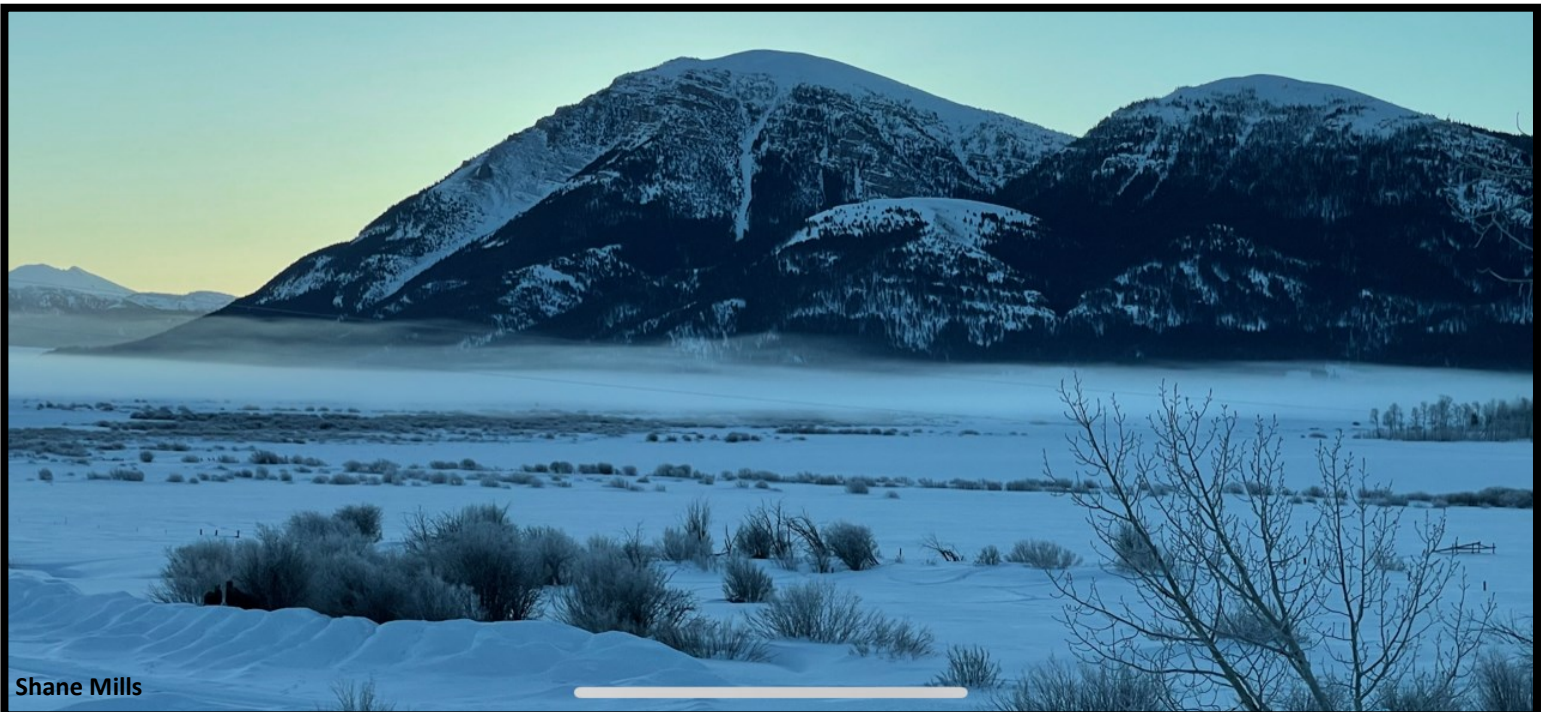
Shane Mills



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