



Centennial Valley Water Report - December 2022

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

Greetings from the Centennial Valley Association!

Happy New Year! As we all hunkered down for the holidays, Montana was blasted with frigid temperatures. On December 22nd, temperatures reached -44 degrees Fahrenheit in the Centennial Valley, with similar temperatures across much of Montana. Although December brought some intense cold, it also brought welcome precipitation. As of December 31st, all SNOTEL stations are above 121% of median snow water equivalent and above 115% of median precipitation. All of this precipitation is helping to pull Beaverhead County out of drought conditions. Since August, 100% of Beaverhead County has experienced moderate drought conditions, in the least. This finally changed in December with 77.1% of the county experiencing moderate drought conditions, a 22.9% decrease. NOAA, the National Oceanic and Atmospheric Administration, predicts that Montana will continue to experience cold and wet conditions throughout March, which may help alleviate the drought Montana is currently experiencing.

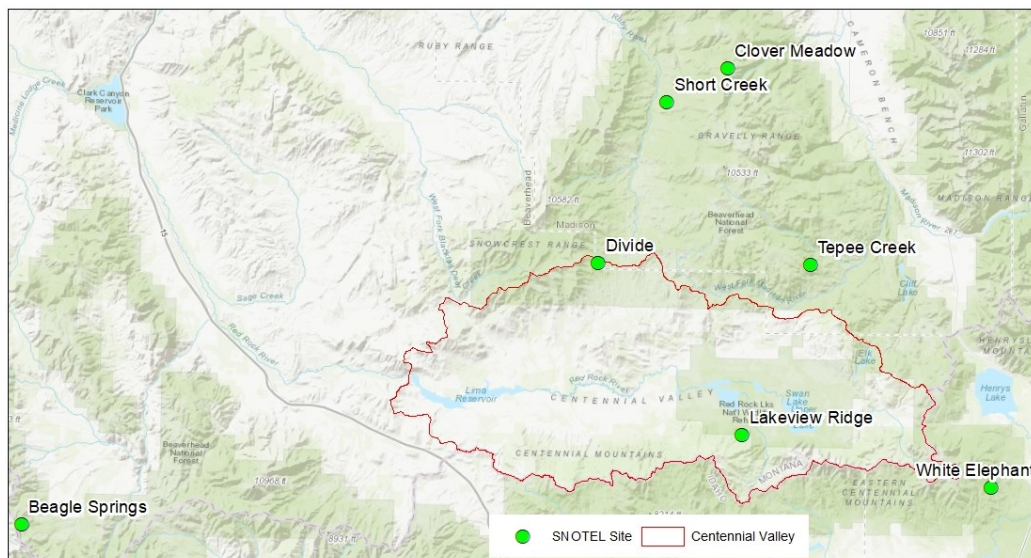
Please note that CVA will be sending out a survey for the Water & Drought Awareness Program next week. We are working on growing the program based on community feedback. Our goal is to make sure the program is beneficial to the community and our partners. This is a great opportunity to share your thoughts!

In the meantime, 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.

Snowpack and Precipitation Data - As of December 31st, 2022

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 December ranged from 124% (Short Creek) to 160% (Lakeview Ridge). Percent of median for snow water equivalent ranged from 121% (Clover Meadow) to 162% (Short Creek). The White Elephant station received the most precipitation (7.3") and the Red Rock BLM RAWS station received the least precipitation (0.5"). The White Elephant Station has the deepest snow depth (59") and Short Creek has the lowest snow depth (20").

Source: [NRCS Report Generator](#)

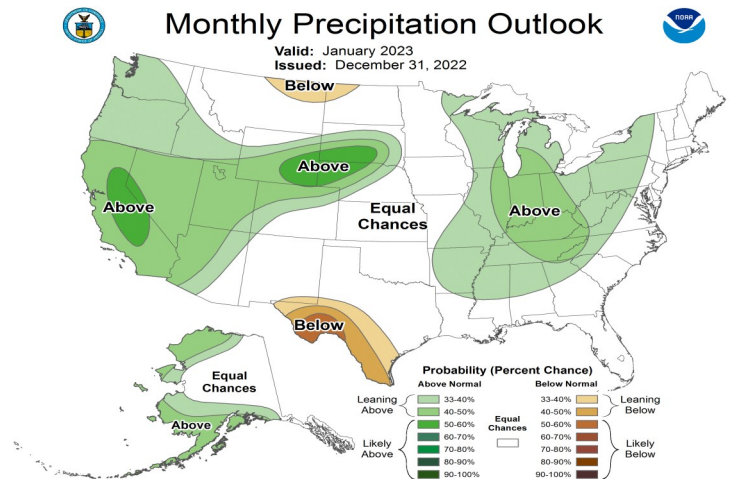
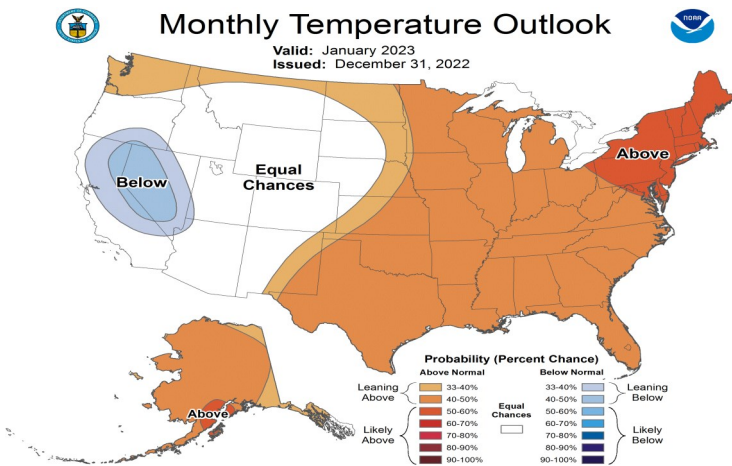


Snowpack and Precipitation Data - End of Day Values for December 31st, 2022

	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)	6.0	5.0	125%	5.9	4.0	148%	27
Clover Meadow (8,600 ft)	9.7	8.4	115%	8.8	7.3	121%	37
Divide (7,800 ft)	8.2	5.4	152%	5.7	4.4	130%	29
Lakeview Ridge (7,400 ft)	11.2	7.0	160%	6.2	4.5	138%	25
Short Creek (7,000 ft)	5.2	4.2	124%	4.2	2.6	162%	20
Tepee Creek (8,000 ft)	11.0	7.1	155%	8.9	6.1	146%	39
White Elephant (7,710 ft)	18.2	13.6	134%	15.4	10.8	143%	59
Red Rock BLM RAWS	0.50	-	-	-	-	-	-
Lakeview Rain Gauge	2.24	-	-	-	-	-	-

Precipitation and Temperature Outlook – January 2023

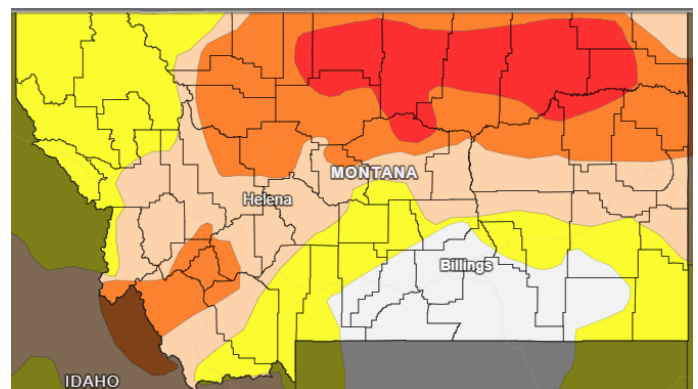
The temperature outlook for the majority of Montana has equal chances of being above or below normal in January. The northern border of Montana has a 33-40% chance of above normal temperatures. Most of Montana has equal chances of below normal or above normal precipitation for the month of January. Northeast Montana has a 33-40% chance of below normal precipitation. Source: [NWS NOAA Climate Prediction Center](#)



Drought Data - December 2022

Drought conditions have improved, albeit very slightly, through the month of December. Currently, 87.9% of Montana is experiencing some level of drought compared to 88% in November. The percentage of the state experiencing extreme drought has decreased from 15.5% in November to 12.2% in December. Currently, 77.1% of Beaverhead County is experiencing drought, which is a 22.9% decrease from November. The Centennial Valley is currently listed as experiencing abnormally dry conditions.

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

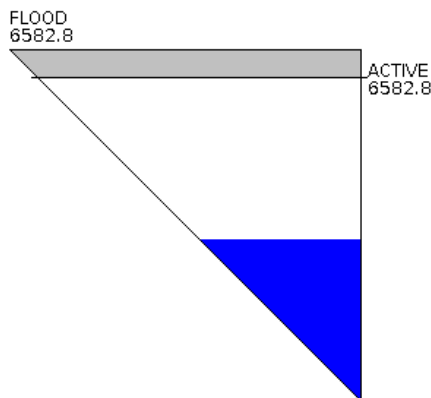


Lima Reservoir Data - As of January 4th, 2023

As of January 4th, the Lima Reservoir has a pool elevation of 6565.9 feet and is 24.4% full. The reservoir inflow is 62.3 CFS and the outflow is 0.0 CFS. On December 4th, the Lima Reservoir had a pool elevation of 6564.8 feet and was 21.9% full.

Source: [Bureau of Reclamation](#)

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



Daily Reservoir Data as of 01/04/2023

Pool Elevation is 6565.9 Feet
Reservoir Storage is 20524.6 Acre-Feet
Reservoir Inflow is 62.3 CFS
Reservoir Outflow is 0.0 CFS
Reservoir is 24.4 % Full*
Reservoir Flood Control Pool is filled 0.0 %

An end to Montana's drought?

As Montana enters the third consecutive year of La Niña, which brings cool, wet conditions, there is a possibility that one of the worst droughts in recent history will come to an end. NOAA, the National Oceanic and Atmospheric Administration, is predicting cool and wet conditions across Montana through the end of March. Even if it does not eliminate drought, these conditions should help increase snowpack which will lead to increased late-season streamflow.

Link: <https://www.greatfallstribune.com/story/news/local/2022/12/16/drought-montana-weather-forecast-cool-wet-soil-conditions-2023/69732882007/>



Confronting the “Human Component” of the Water Cycle

Are you interested in diving deeper into the complexity of watershed management? Montana Watershed Coordination Council is hosting a webinar to spark conversation about the human component of watershed management versus natural hydrology. This webinar will be hosted on Wednesday, January 11th at 12:00PM MST. To register for this Zoom meeting, click the link below.

Link: <https://us02web.zoom.us/meeting/register/tZloceGsqDMiHN2wmJbSabpbVPdPNIWVUSAr>

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](#)