



Centennial Valley Water Report - January 2024

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

Greetings from the Centennial Valley Association!

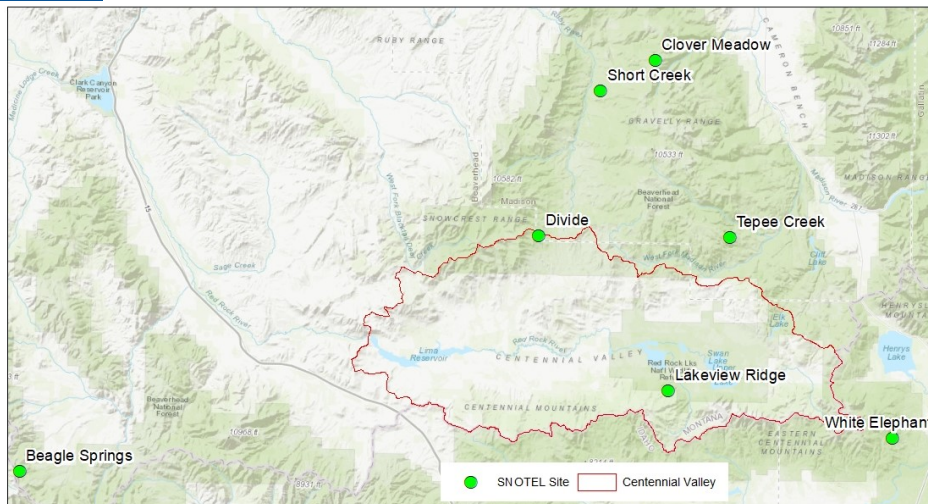
Happy February! January brought a variety conditions to the valley, from low to unseasonably warm temperatures and minimal snow and precipitation levels. The lack of snowpack is concerning, with anticipation to its effects on watersheds and water resources this summer and fall. However, winter isn't over yet, so let's hope for snow in February! Just last weekend a bit of precipitation came through the valley, Lakeview Ridge & Divide SNOTELs saw 0.6" of precipitation, Tepee Creek saw 0.7" and White Elephant saw 1.0".

At the end of the day on January 31st, 2024, the Red Rock River subbasin reported 66% of median for snow water equivalent, while the Jefferson basin was at 55% of median snow water equivalent on January 31st (NRCS). The BLM RAWS site indicated that the average high for the month was 28.7°F and the average low was 5.5°F. Temperatures reached extreme lows in mid-January, followed by uncharacteristically warm weather. The US National Weather Service in Great Falls analyzed weather stations across north-central and southwest Montana, and the spread for the highest maximum and lowest minimum temperatures in January were all over a 100°F difference. The largest spread in the area was recorded in Lewistown at 115°F, with a high of 64°F and a low of -51°F.

Snowpack and Precipitation Data - As of January 31st, 2024

There are seven Natural Resources Conservation Service (NRCS) SNOTEL sites that surround the Centennial Valley (below). Percent of median for precipitation for the month of January ranged from 76% (Lakeview Ridge) to 93% (Beagle Springs). Percent of median for snow water equivalent was not looking great at the end of January, with the lowest sites at 36% (Lakeview Ridge & Short Creek) and the highest at 87% (Beagle Springs) of median for snow water equivalent. In January, all SNOTEL sites received over 0.5" of precipitation for the month. White Elephant received the most precipitation in January (3.6"), and Short Creek received the least precipitation (0.8").

Source: [NRCS Report Generator](#)



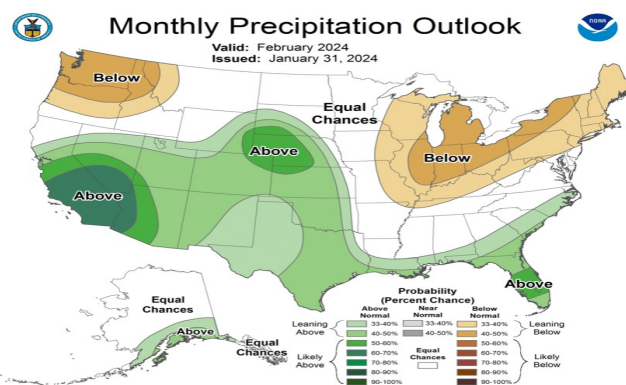
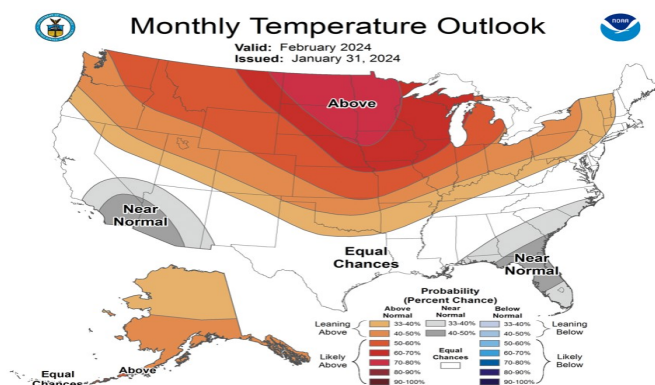
Snowpack and Precipitation Data - End of Day Values for January 31st, 2024

	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)	5.5	5.9	93%	4.7	5.4	87%	22.0
Clover Meadow (8,600 ft)	8.5	10.4	82%	6.0	9.8	61%	25.0
Divide (7,800 ft)	6.6	6.9	96%	3.7	6.1	61%	16.0
Lakeview Ridge (7,400 ft)	6.8	9.0	76%	2.1	5.8	36%	11.0
Short Creek (7,000 ft)	4.0	5.2	77%	1.3	3.6	36%	7.0
Tepee Creek (8,000 ft)	7.4	9.3	80%	5.8	8.0	73%	24.0
White Elephant (7,710 ft)	15.0	16.8	89%	11.1	15.0	74%	40.0
Red Rock BLM RAWS	0.25"	-	-	-	-	-	-
Lakeview Rain Gauge	0.03"	-	-	-	-	-	-

Precipitation and Temperature Outlook – February 2024

For the month of February, southwest and western Montana have 50%-60% chances of being above normal temperature. Northeastern Montana has a 60-70% chance of above normal temperatures. For precipitation in February, the majority of the state has an equal chance of being above or below normal for precipitation. The northwestern corner of Montana has 33%-50% chance of precipitation being below normal.

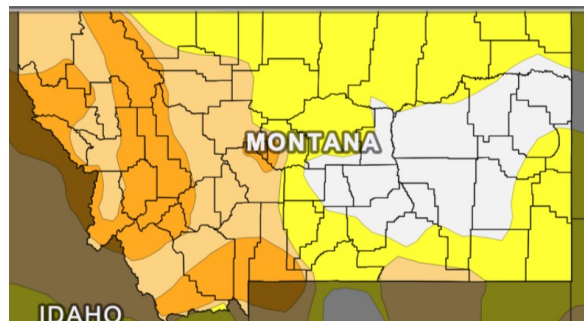
Source: [NWS NOAA Climate Prediction Center](https://www.noaa.gov/climate-prediction-center)



Drought Data - January 2024

During the month of January, 40.6% of the state is experiencing a drought designation, while 39.5% of the state is experiencing abnormally dry conditions. The majority of the western half of the state is in moderate to severe drought. In Beaverhead County, 97.9% of the county is experiencing drought, rated moderate to severe, which is over a 30% increase from December. The Red Rock watershed and Centennial Valley are experiencing moderate to severe drought conditions, with a small sliver near Alaska Basin experiencing abnormally dry conditions.

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

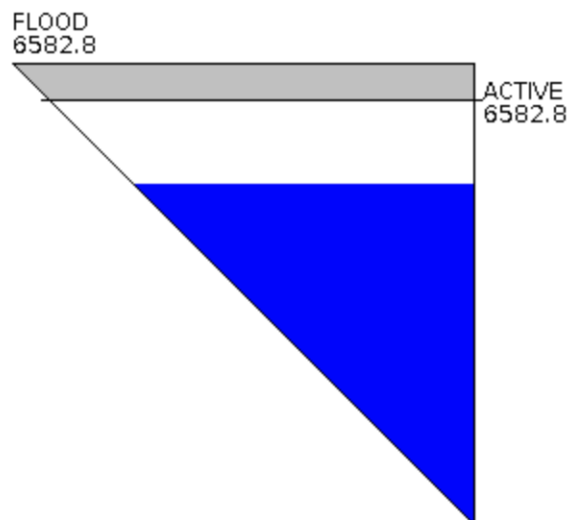


Lima Reservoir Data - As of February 1st, 2024

The Lima Reservoir currently has a pool elevation of 6576.9 feet and is 63.7% full. The reservoir inflow is 43.5 CFS and the outflow is 0.0 CFS. On January 7th, 2024, the Lima Reservoir had a pool elevation of 6576.3 feet and 60.7% full. The Reservoir inflow was -30.2 CFS and the outflow was 12.2 CFS.

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

Source: [Bureau of Reclamation](#)



Daily Reservoir Data as of 02/01/2024

Pool Elevation is 6576.9 Feet
Reservoir Storage is 53507.6 Acre-Feet
Reservoir Inflow is 43.5 CFS
Reservoir Outflow is 0.0 CFS
Reservoir is 63.7 % Full*
Reservoir Flood Control Pool is filled 0.0 %

** Reservoir is considered "full" when pool elevation is at top of active conservation pool. Percentage is based on total reservoir volume below that level.*

CBS News interviews Montana State expert about 'snow drought' in western U.S.

Professor Eric Sproles discusses this years warm and dry weather in the western United States and how it's expected with conditions in the Pacific Ocean where warm waters push the jet stream south, also known as El Niño. During El Niño years there's usually less snowpack and more rain. Without sufficient snowpack, recharge to streams and groundwater will be affected, as well as potential impacts to agriculture and hydropower.

Link: <https://www.montana.edu/news/23398/cbs-news-interviews-montana-state-expert-about-snow-drought-in-western-u-s>

Season 2 of Working Wild U Podcast

The Working Wild U podcast recently began its second season. The first episode discusses efforts to help arctic grayling in the Big Hole Valley with a variety of stakeholders, starting with landowners. The second episode discusses the grizzly bear and its expanding range and the challenges that come along with this in working landscapes. The podcast takes into account the complexities of these working lands and sparks discussion for collaborative solutions.

Link: <https://workingwild.us/>

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](#)