



# Centennial Valley Water Report - July 2022

Please contact [drought@centennialvalleyassociation.org](mailto:drought@centennialvalleyassociation.org) if you have any questions, comments, or suggestions.

## Greetings from the Centennial Valley Association!

Warmer temperatures crept across Montana, with many places exceeding 100°F temperatures at the end of the month into August. The Centennial Valley experienced a warm-up, but fortunately did not exceed 100°. Weather stations in Lakeview (south-side) and the Sandhills (north-side) indicated that the highest temperatures were 86.7° and 88°, respectively. For the water year, the Jefferson River Basin was 104% of median for precipitation at the end of July, and the Red Rock subbasin, which includes the Centennial Valley, was 107% of median precipitation ([NRCS](#)). As temperatures are expected to be above normal and precipitation models being unclear between above or below normal, please be diligent about preventing wildfires while out recreating in August.



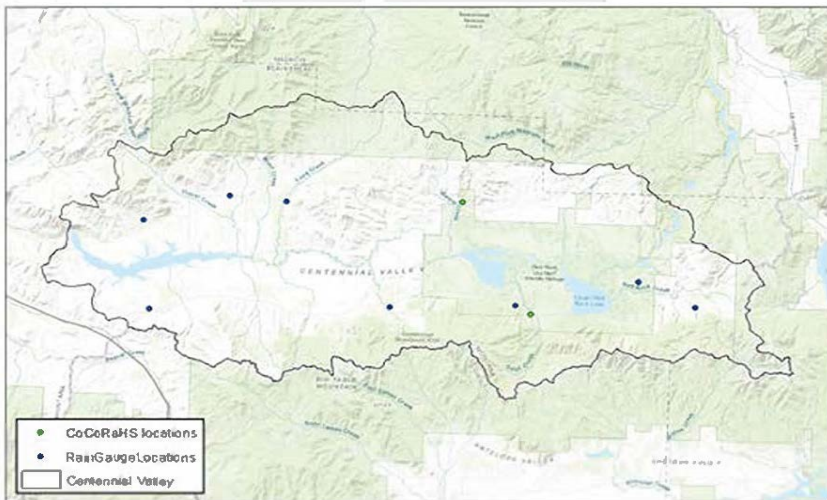
CVA would like to acknowledge and thank Shannon Wilkey for her hard work, dedication, and enthusiasm this summer season! Shannon was the Field Tech for CVA and The Nature Conservancy, helping with water monitoring, invasive weed management, and habitat surveys. She is headed back to University of Idaho to complete her Bachelor's Degree and graduate in December. Please help us thank Shannon and wish her luck in her final semester!

## Precipitation Data - July 2022

Compared to last month's precipitation totals, July did not bring as much moisture to the Centennial Valley. Rain events rolled through the Valley from early- and mid-July, but petered out later in the month. Significant rain events on July 2<sup>nd</sup>-4<sup>th</sup> and July 13-16<sup>th</sup> contributed to most of the rainfall around the Valley. On July 3<sup>rd</sup>, TNC reported a storm that rolled through produced 60mph+ winds and golf ball-sized hail! All sites reported near a half an inch of rainfall or more. Lakeview received the most rainfall at 1.93", and Alaska Basin reported the least amount of rainfall at 0.42".

\*Please note: The Wolverine gauge was damaged and not recording data after July 20<sup>th</sup>. It will be repaired as soon as possible.

### Rain Gauge Locations

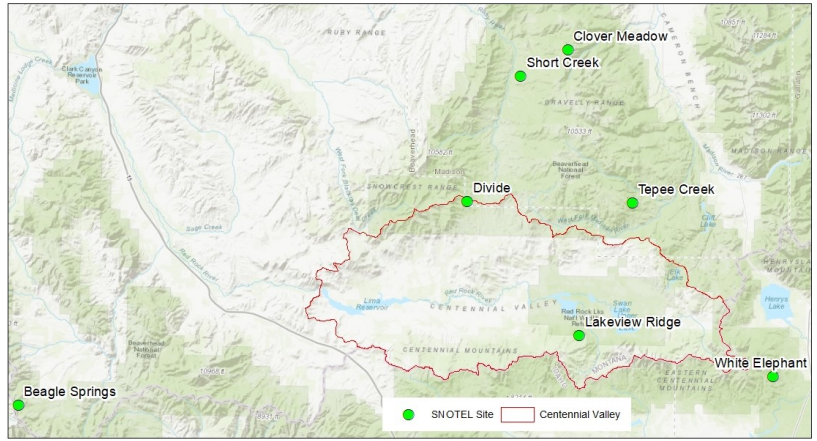


Source: CVA & Partner Monitoring

Rain Gauge Name	Precipitation Accumulation in inches (end of period values)
Elk Lake Road	0.47
Alaska Basin	0.42
RRLNWR CoCoRaHS	0.43
Lakeview	1.93
South Valley Road	0.62
Monida Hill	0.98
Lima Dam	0.65
Wolverine	1.10*
Long Creek	0.44
TNC CoCoRaHS	0.88
<a href="#">Red Rock BLM RAWS</a>	0.97

## Snowpack and Precipitation Data - As of July 31<sup>st</sup>, 2022

There are seven Natural Resources Conservation Service (NRCS) SNOTEL sites that surround the Centennial Valley (right). Despite it being summer, the SNOTEL reports for precipitation accumulation for the water year are holding out strong! Percent median for precipitation accumulation for the month of July ranged from 101% (Beagle Springs) to 129% (Short Creek). However, accumulation in July was not as high as it was in June. For comparison, Lakeview Ridge reported 4" precipitation accumulation in June and only 0.6" in July. In July, Clover Meadows reported 1.10" of precipitation accumulation, with Divide and Tepee Creek not far behind with an increase of 0.9" to precipitation accumulation totals for the water year. NRCS's site did not provide data information for the White Elephant SNOTEL site.



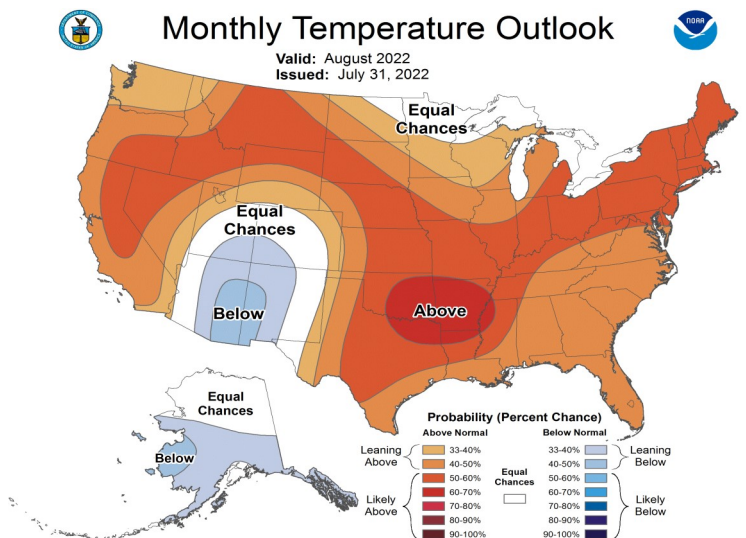
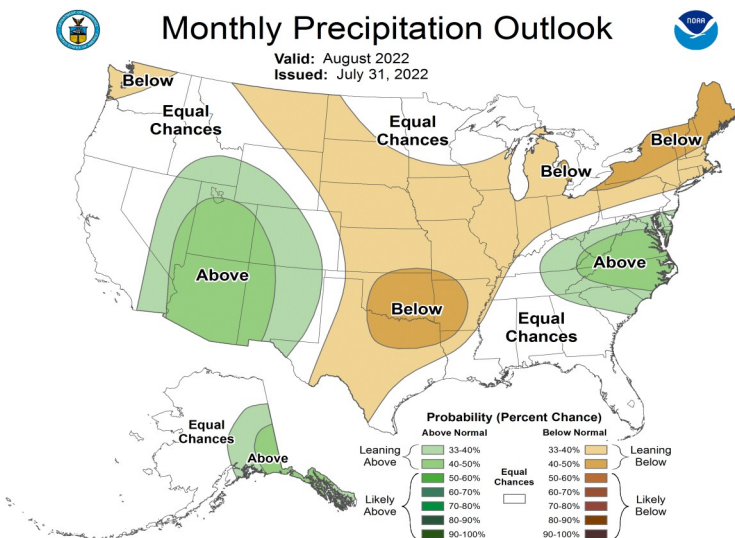
Source: [NRCS Report Generator](#)

	Precipitation Accumulation (in)	Median Precipitation Accumulation (1991-2020) (in)	Precipitation Accumulation % of Median (1991-2020)
Beagle Springs (8,850 ft)	20.2	20.0	101%
Clover Meadow (8,600 ft)	32.4	27.2	119%
Divide (7,800 ft)	24.0	21.0	114%
Lakeview Ridge (7,400 ft)	29.8	23.4	127%
Short Creek (7,000 ft)	20.2	15.6	129%
Tepee Creek (8,000 ft)	26.8	23.4	115%
White Elephant (7,710 ft)	N/R	41.8	N/R

## Precipitation and Temperature Outlook – August 2022

The precipitation outlook for western, southwestern, and portions of central Montana indicates an equal chance for above or below normal precipitation for the month of August. The temperature outlook has a 50% to 60% chance of being above normal in most of Montana, including the Centennial Valley.

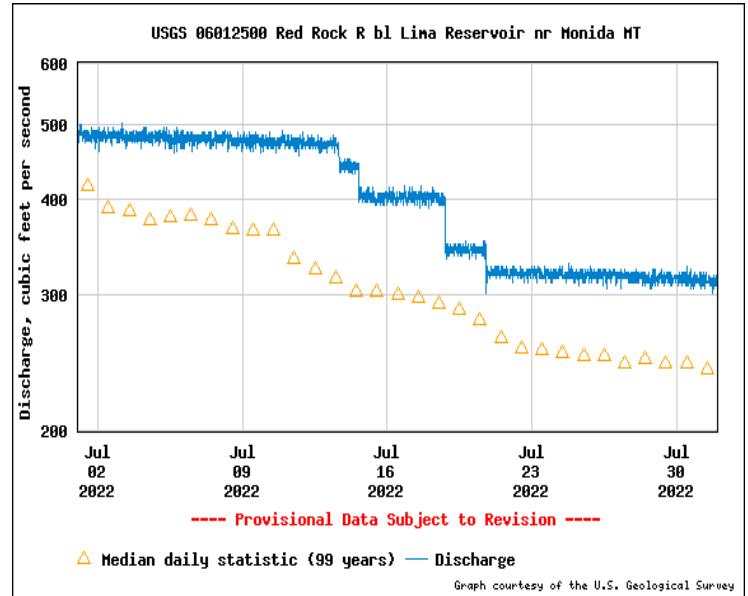
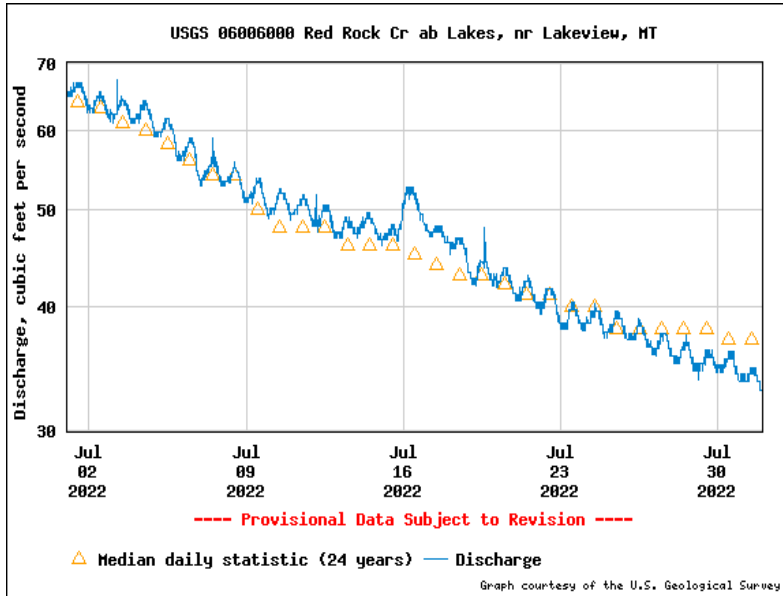
Source: [NWS NOAA Climate Prediction Center](#)



## USGS Stream Gage Data - July 2022

Below are the graphs that represent the streamflow of Red Rock Creek and Red Rock River for the month of July. As of August 5<sup>th</sup>, at 2:30pm, the stream gage at Red Rock Creek near Lakeview is at 2.83 feet and discharging around 32.8 CFS. This is a decrease from July 2<sup>nd</sup>, when the site was at 3.35 feet and discharging around 66.7 CFS. As of August 5<sup>th</sup>, at 2:30pm, the stream gage at Red Rock River near Lima Reservoir is at 2.73 feet and discharging around 318 CFS. This is a decrease from July 2<sup>nd</sup>, when the site was at 3.21 feet and discharging around 479 CFS.

Source: [USGS Streamflow Data](#)

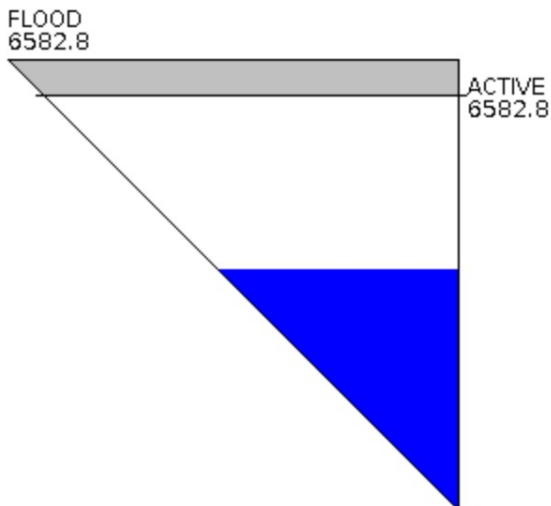


## Lima Reservoir Data - As of August 4<sup>th</sup>, 2022

The Lima Reservoir currently has a pool elevation of 6569.2 feet and is 33.1% full. The reservoir inflow is 69.7 CFS and the outflow is 309.7 CFS. On July 1<sup>st</sup>, 2022, the Lima Reservoir had a pool elevation of 6574.6 feet and was 52.5% full. The reservoir inflow was 262.1 CFS and the outflow was 483.6 CFS.

Source: [Bureau of Reclamation](#)

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



### Daily Reservoir Data as of 08/04/2022

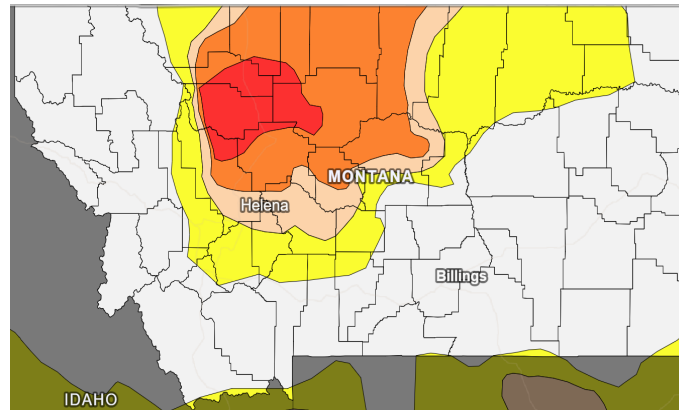
Pool Elevation is 6569.2 Feet  
Reservoir Storage is 27836.2 Acre-Feet  
Reservoir Inflow is 69.7 CFS  
Reservoir Outflow is 309.7 CFS  
Reservoir is 33.1 % Full\*  
Reservoir Flood Control Pool is filled 0.0 %

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

## Drought Data - August 2022

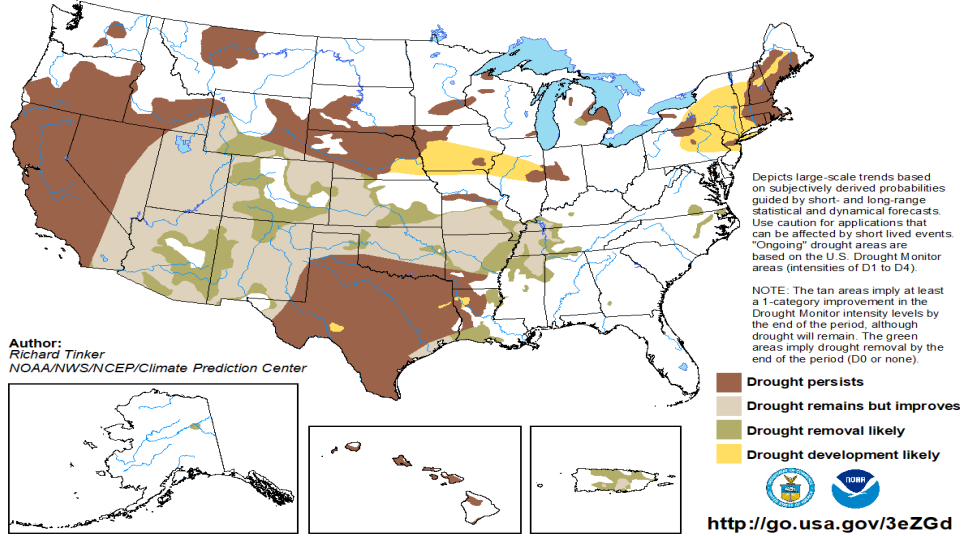
Drought status across the state continued to improve across the state. No part of Montana is considered in exceptional drought anymore! As of August 2<sup>nd</sup>, 39.2% of Montana is experiencing some level of drought, which is down from 55.3% at the start of July. In Beaverhead County, 5.57% of the county is experience abnormally dry conditions, down from 30.5% in early July, which is concentrated along the Idaho border, including the Centennial Mountains and portions of the valley floor.

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



## U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for August 2022  
Released July 31, 2022



## Drought Outlook – August 2022

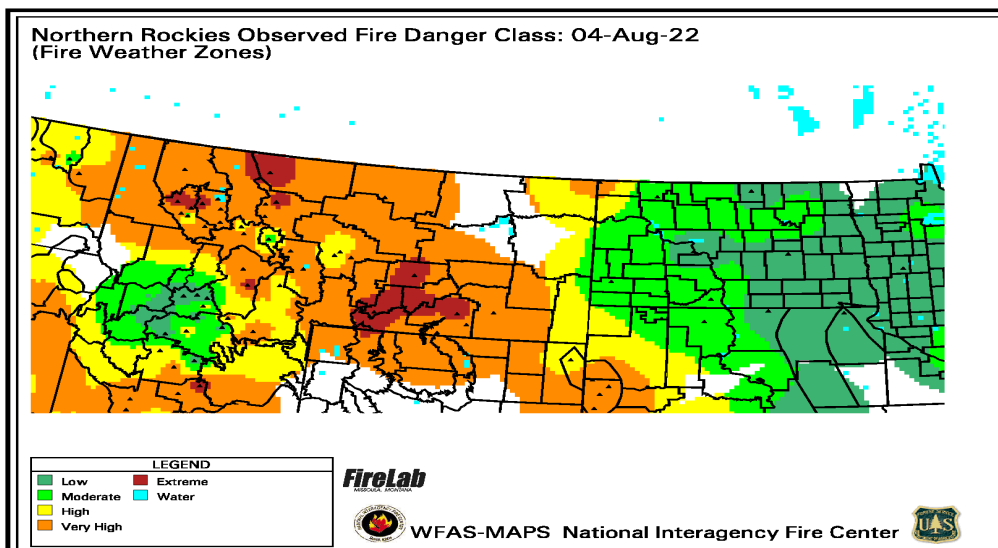
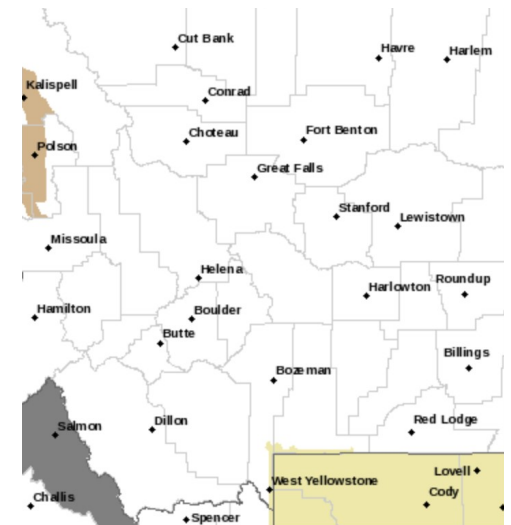
Montanans in north-central Montana will see drought persist through August, as will those in southeast and south Idaho. For the rest of Montana, drought is not predicted.

Source: [NWS NOAA Climate Prediction Center](https://www.noaa.gov/news/drought-outlook-august-2022/)

## Fire Weather Conditions - August 4<sup>th</sup>, 2022

Southwest Montana is at a high to very high fire danger classification, with predictions lowering danger to a moderate to high classification in the coming days. According to the National Weather Service, there is nothing of significant concern across southwestern Montana. However, near Salmon, ID, they have an air quality alert and the Yellowstone area has a hazardous weather outlook, specifically for showers and thunderstorms.

Sources: [US Forest Service Wildland Fire Assessment System](https://www.fs.fed.us/land/fire/); [National Weather Service](https://www.weather.gov/)

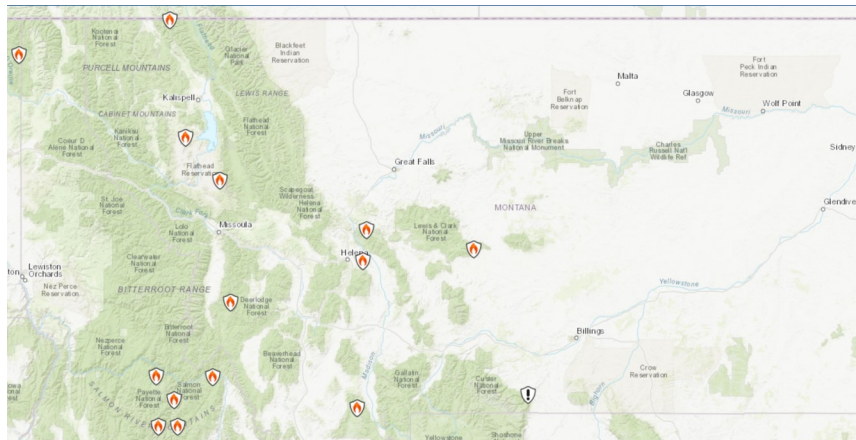


## Fire Report - July 2022

Unfortunately, July brought wildfires to Montana and Idaho. At the end of July, the [Incident Information System](#) was reporting eight (8) significant fires in Montana, five (5) in Idaho, three (3) in Wyoming, and one in eastern Washington. The largest in Montana is the Elmo Fire, which is west of Flathead Lake and south and west of Lake Mary Ronan. It started on July 29<sup>th</sup>, and as of August 5<sup>th</sup>, 2022, the Elmo Fire was 21,182 -acres and 15% contained. It is still under investigation for its cause.

Near the Centennial Valley is the Clover Fire, which was started on July 13<sup>th</sup> as a result of lightning. The fire is located in the Middle Fork of Warm Springs Creek drainage in the Gravelly Mountains. The Clover Fire is 1,098-acres and 33% contained as of August 4<sup>th</sup>, 2022. There is a [closure order](#) in the area per the Beaverhead-Deerlodge National Forest.

Finally, the Moose Fire is the largest burning in the area north of Salmon in the North Fork area. This fire started on July 17<sup>th</sup> and is currently 67,466-acres, 11% contained, and under investigation for its cause.



### More Fire Resources

DNRC Interactive Fire Map: <https://gis.dnrc.mt.gov/apps/firemap/>

Montana Wildfire News: <https://www.npr.org/podcasts/490249415/montana-wildfire-news>

Northern Rockies Fire Weather Daily Outlook: [https://gacc.nifc.gov/nrcc/predictive/weather\\_Day1.jpg](https://gacc.nifc.gov/nrcc/predictive/weather_Day1.jpg)

Northern Rockies Significant Fire Potential: [https://fsapps.nwcg.gov/psp/npsq/data/conus-sevenday/d1\\_0.png](https://fsapps.nwcg.gov/psp/npsq/data/conus-sevenday/d1_0.png)

AirNow Smoke Map: <https://gispub.epa.gov/airnow/>

## Montana Drought Management Plan

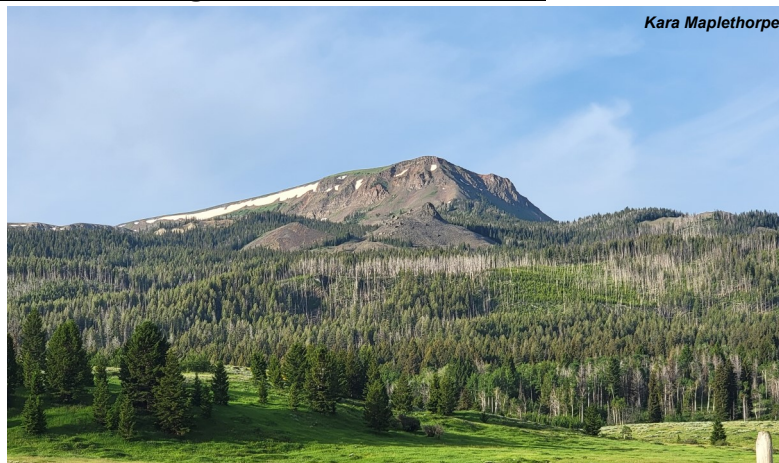
Montana DNRC and seven stakeholder groups from across the state make up an interagency Drought Task Force and are working to update Montana's Drought Management Plan in 2023. The Task Force is requesting input from across Montana to understand how drought affects individuals and communities. It is a chance for you to help identify the right resources (i.e. funding, monitoring technology, policy change, etc.) for the right places, at the right times. You can take the survey via the link below.

Montana Drought Survey: <https://survey.alchemer.com/s3/6900763/Drought-Vulnerability-Assessment-Survey>

## Odell Creek Restoration Project-Monitoring Success Since 2005

South of Ennis, Montana, rancher Jeff Laszlo realized hidden potential in a degraded section on his fifth generation ranch. He shared his restoration vision with federal and state agencies, nonprofit groups, and private industries and got to work. Now, the restoration efforts have created more than 15-miles of meandering streams and nearly one thousand acres of wetlands. The restoration effort has proven to benefit people, wildlife, and birds alike!

Article: [https://mtaudubon.org/2022/07/odell-creek-restoration-project-monitoring-restoration-success-since-2005/?mc\\_cid=9b6e813d4e&mc\\_eid=2139e6efd8](https://mtaudubon.org/2022/07/odell-creek-restoration-project-monitoring-restoration-success-since-2005/?mc_cid=9b6e813d4e&mc_eid=2139e6efd8)



Kara Maplethorpe

If you have any questions, comments, or trouble interpreting the data, please contact [drought@centennialvalleyassociation.org](mailto: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](#)