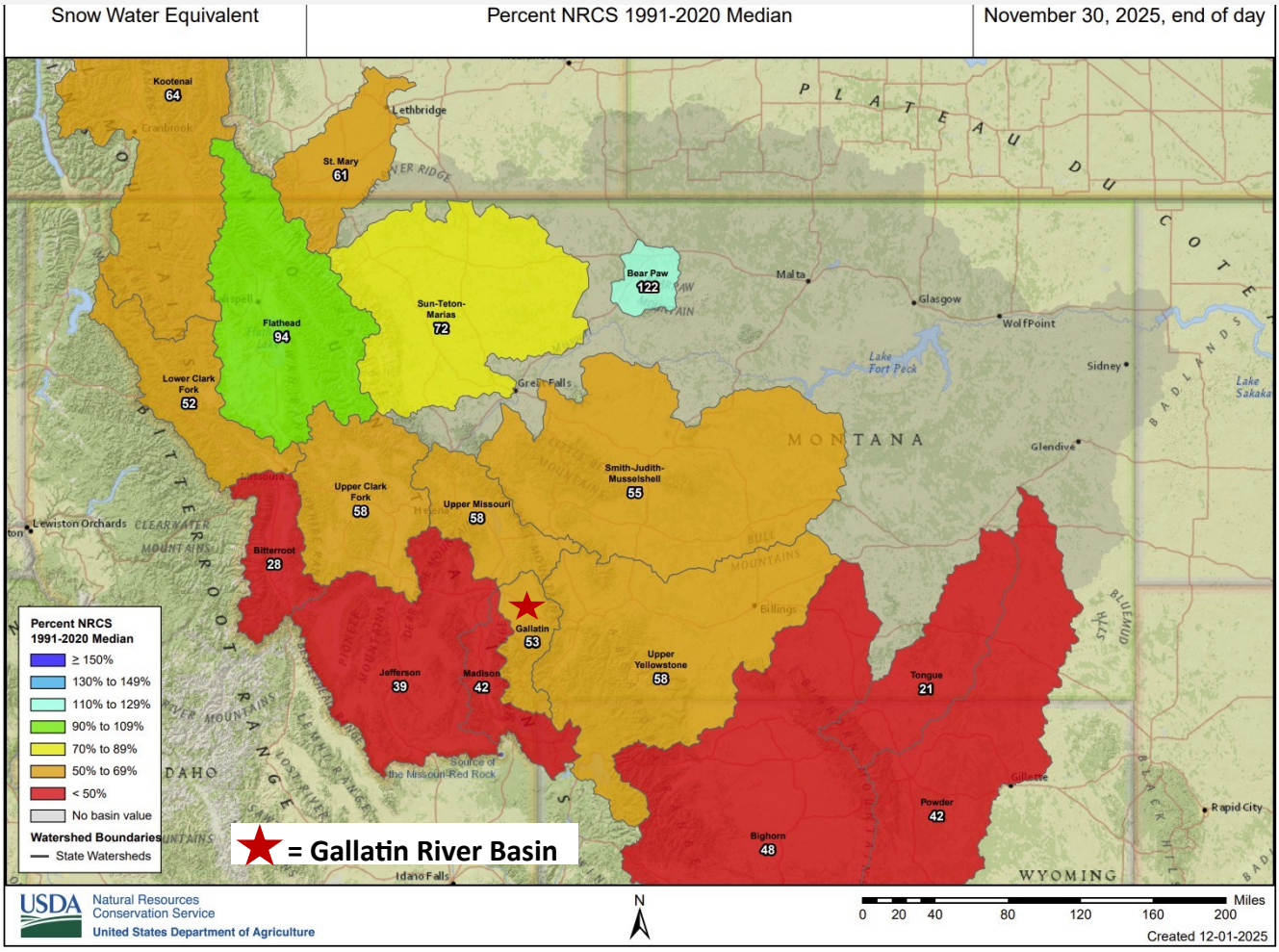
Gallatin Water Supply Outlook
November 2025



SNOW WATER EQUIVALENT IN GALLATIN

SNOWPACK SUMMARY (Water Year (WY) = October 1st—September 30)

*Data current as of 12/1/2025

We are currently in Water Year 2026 (black line). The Snow Water Equivalent (SWE) was below normal (median, green line) within the Gallatin River Basin on November 30th, 2025 at 2.4 inches (a 0.7 increase since last month). Last year on November 30th, 2024, the SWE was at 3.9 inches (central blue line). Detailed end-of-month SNOTEL site information follows.

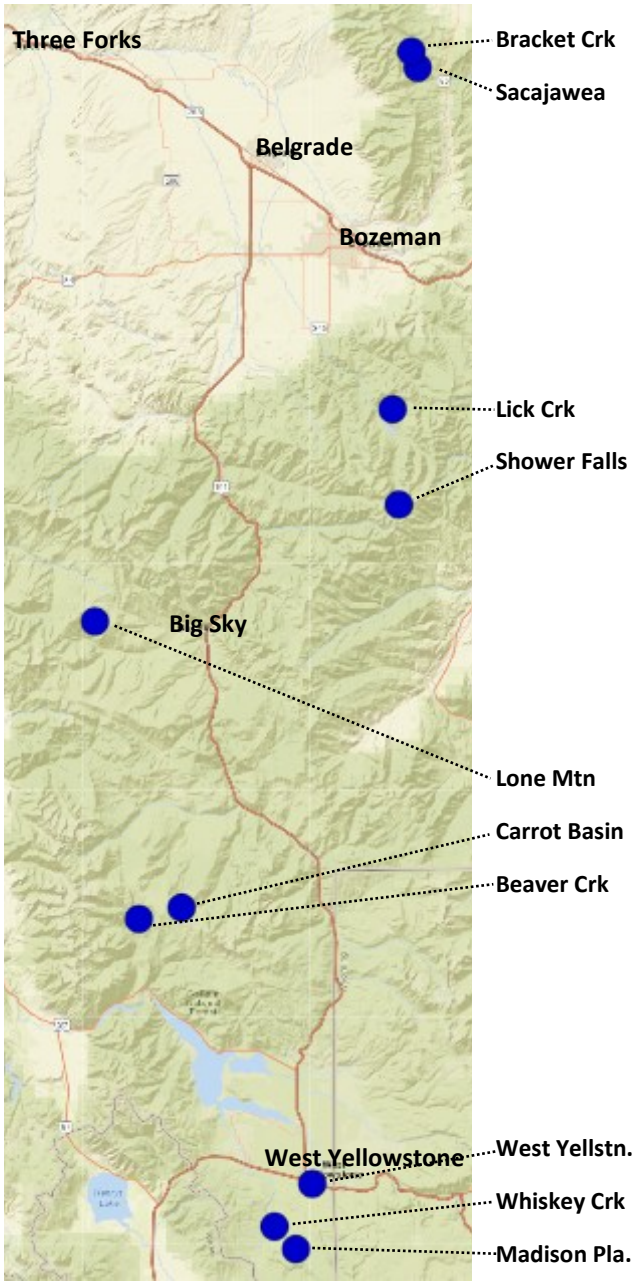
Snowpack Data
Gallatin River Basin—November 2025

Gallatin Valley Region (Bozeman-Belgrade-Four Corners)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Brackett Creek	Nov. 2024	15	3.4	69	4.9
	Nov. 2025	11	1.8	37	
Sacajawea	Nov. 2024	9	2.2	116	1.9
	Nov. 2025	7	1.4	74	

Hyalite Region (Gallatin Gateway)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Lick Creek	Nov. 2024	7	2.3	74	3.1
	Nov. 2025	3	0.6	19	
Shower Falls	Nov. 2024	24	5.7	90	6.3
	Nov. 2025	17	3.7	59	

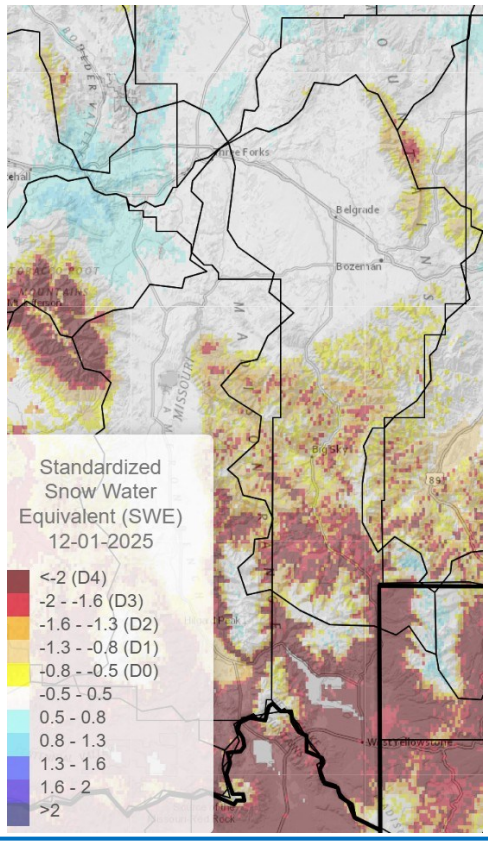
Lee Metcalf Wilderness Region (Big Sky)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Beaver Creek	Nov. 2024	11	2.9	66	4.4
	Nov. 2025	4	0.6	14	
Carrot Basin	Nov. 2024	28	6.4	82	7.8
	Nov. 2025	25	5.7	73	
Lone Mountain	Nov. 2024	19	4.3	93	4.6
	Nov. 2025	11	3.1	67	

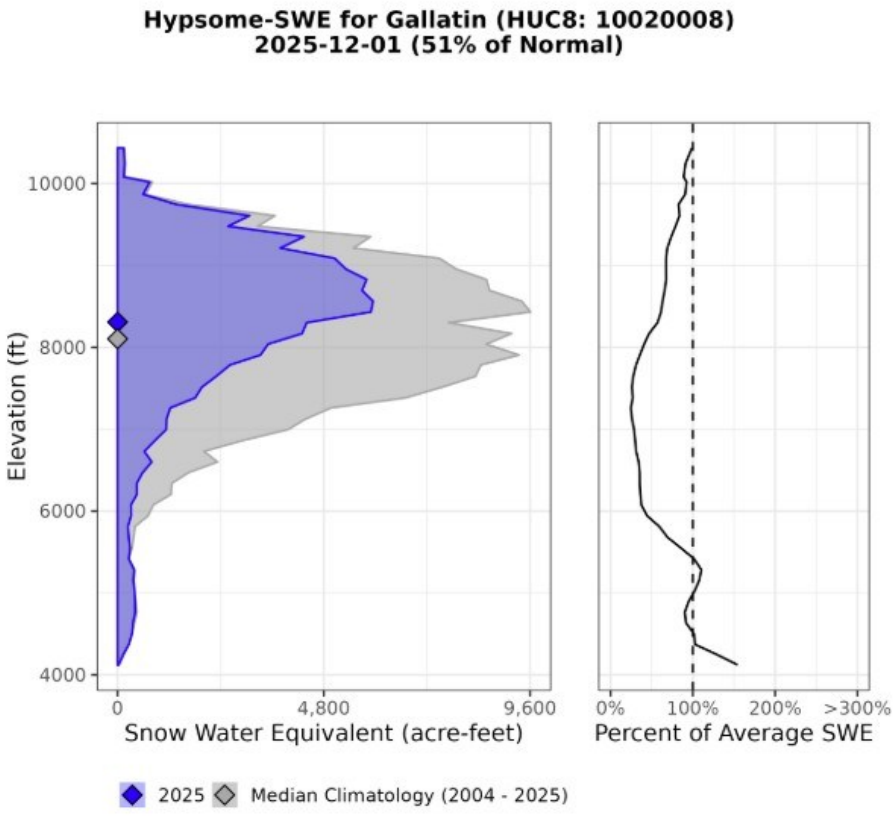
West Yellowstone Region					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Madison Plateau	Nov. 2024	18	4.1	67	6.1
	Nov. 2025	5	1.2	20	
West Yellowstone	Nov. 2024	11	2.2	81	2.7
	Nov. 2025	1	0.0	0	
Whiskey Creek	Nov. 2024	13	3.0	79	3.8
	Nov. 2025	2	0.4	11	



Standardized SWE from SNODAS & Hypsome-SWE

Gallatin River Watershed—November 2025





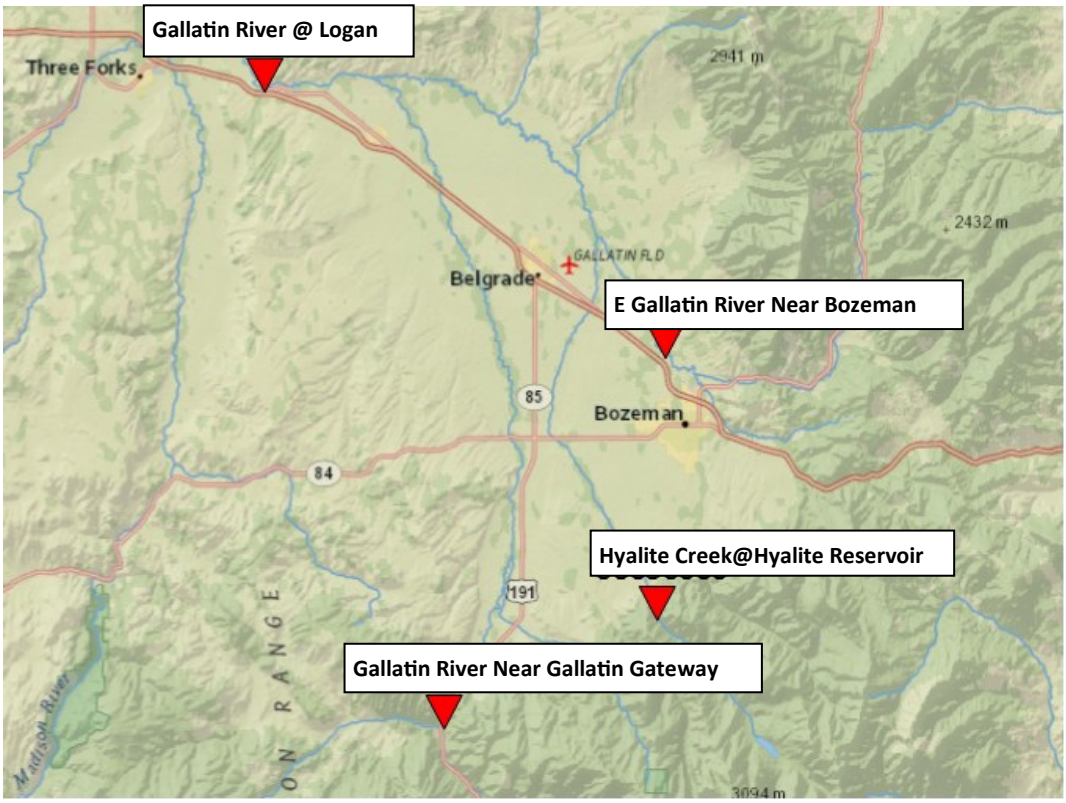
OVERVIEW *Data current as of 12/1/2025

Left Map: This data set contains estimates of standardized snow pack anomalies based on the snow water equivalent (SWE) depth from the NOAA National Weather Service's National Operational Hydrologic Remote Sensing Center SNOw Data Assimilation System (SNODAS). SNODAS is a modeling and data assimilation system created to provide the best possible estimates of snow cover and associated parameters to support hydrologic modeling and analysis. Negative (red) values represent lesser than average SWE while positive (blue) values represent greater than average SWE. Standardization is based on data from 2004-present and computed daily.

Right Graph: Hypsome-SWE represents a method to evaluate the distribution of SWE across watersheds. Hypsome-SWE is loosely based on hypsometry, the area-elevation relationship of a basin. Instead of evaluating the area-elevation relationship, here they evaluate the cumulative SWE and elevation relationship. More specifically, in this module, they compare the median hypsome-SWE curve for November using the SNODAS period of record (2004-present) to the November 2025 SWE distribution. This allows for a rapid assessment of the distribution of SWE within a basin with respect to elevation and allows for easy comparison to the expected distribution given the SNODAS period of record.

Streamflow Data

Gallatin River Basin—November 2025



November 31st 2025 Gallatin Watershed Streamflow					
Station Name	2025 Discharge (cfs)	% Normal	Normal Discharge (cfs)	2024 Discharge (cfs)	Period Of Record (Yrs)
Gallatin at Logan	Ice affected	-	790	710	110
E Gallatin near Bozeman	13.9	29	48.3	39.2	11
Hyalite Creek at Hyalite Reservoir	Ice affected	-	24	26.1	72
Gallatin near Gallatin Gateway	253	78	324	292	95

STREAMFLOW SUMMARY *Data current as of 12/1/2025

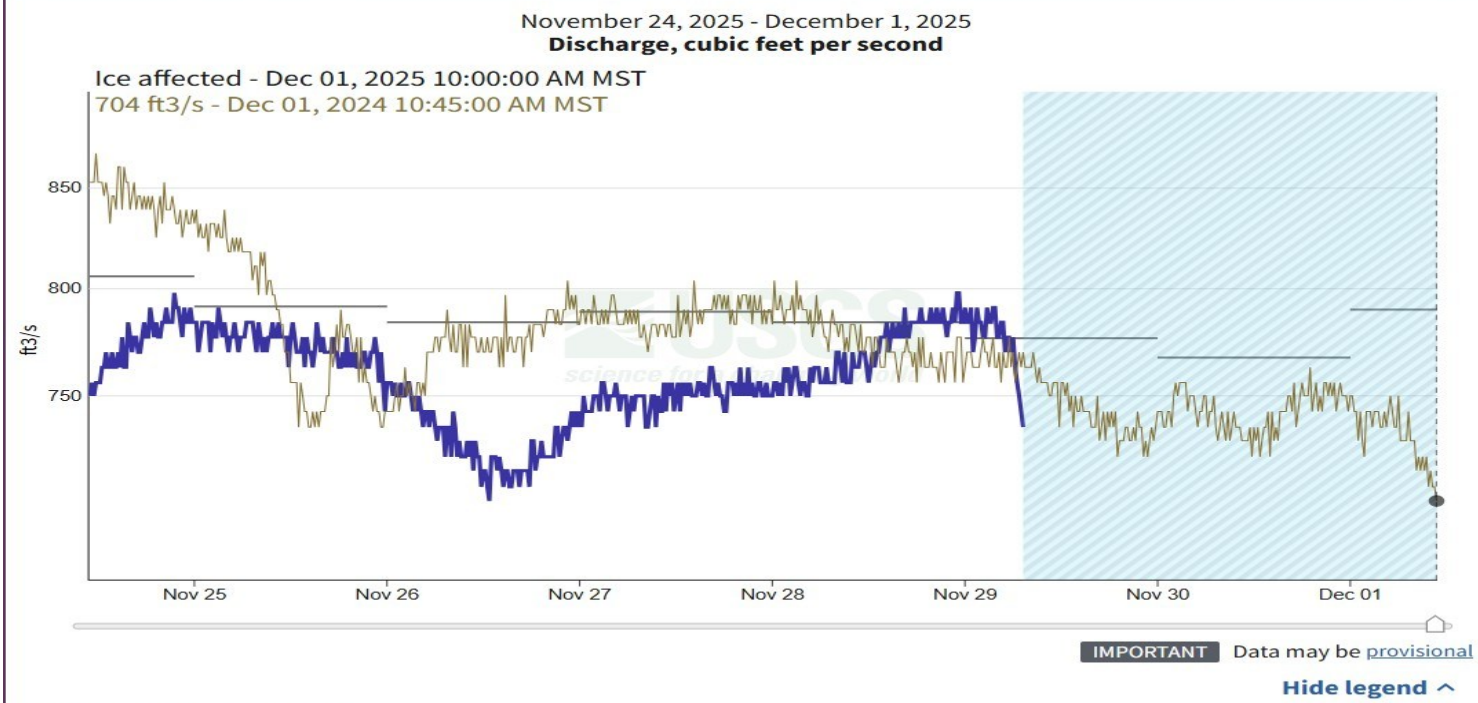
The Gallatin at Logan and Hyalite Creek sites are ice affected. The E Gallatin near Bozeman and Gallatin near Gallatin Gateway sites have below normal discharge values for this time of year.

The E Gallatin near Bozeman and Gallatin near Gallatin Gateway sites also have discharge values below what they were at this time last year.

Streamflow Data

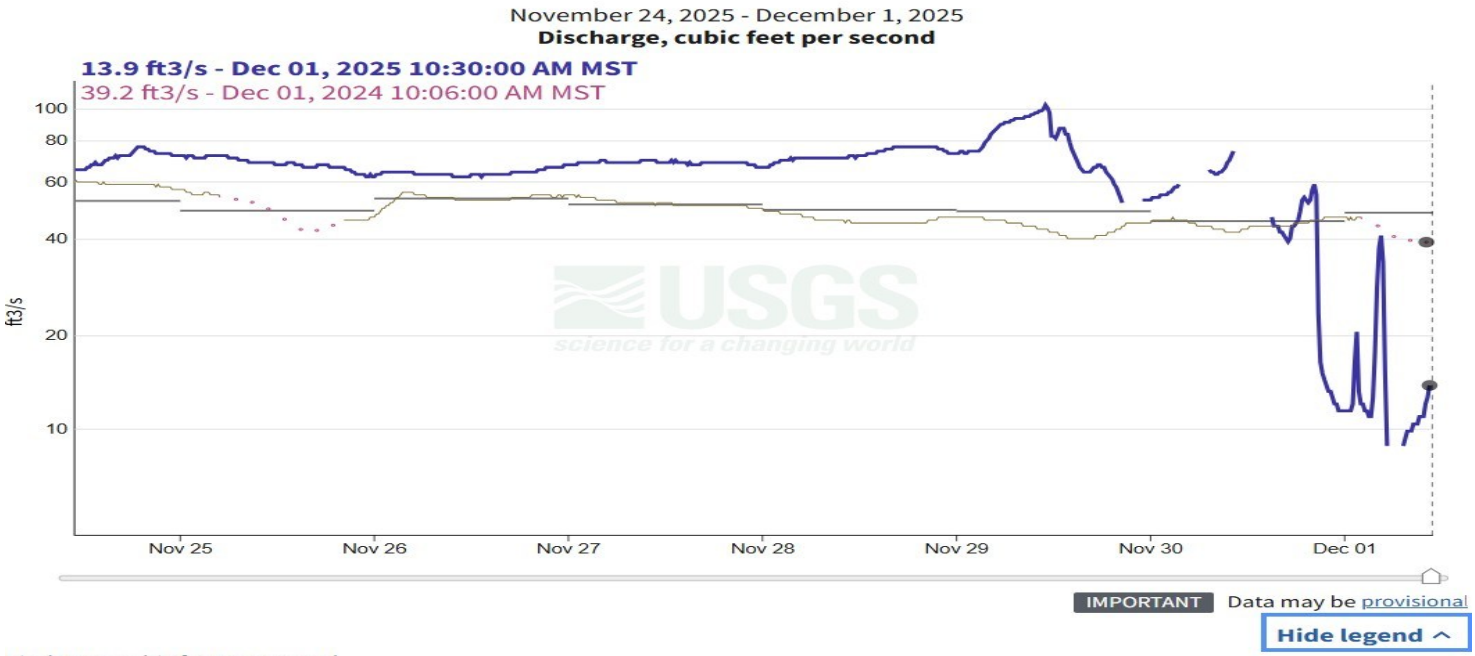
Gallatin River Basin—November 2025

Gallatin River at Logan MT - USGS-06052500 Subscribe to WaterAlert



Discharge data is ice affected.

E Gallatin R ab Water Reclamation Fa nr Bozeman MT - USGS-06048650 Subscribe to WaterAlert

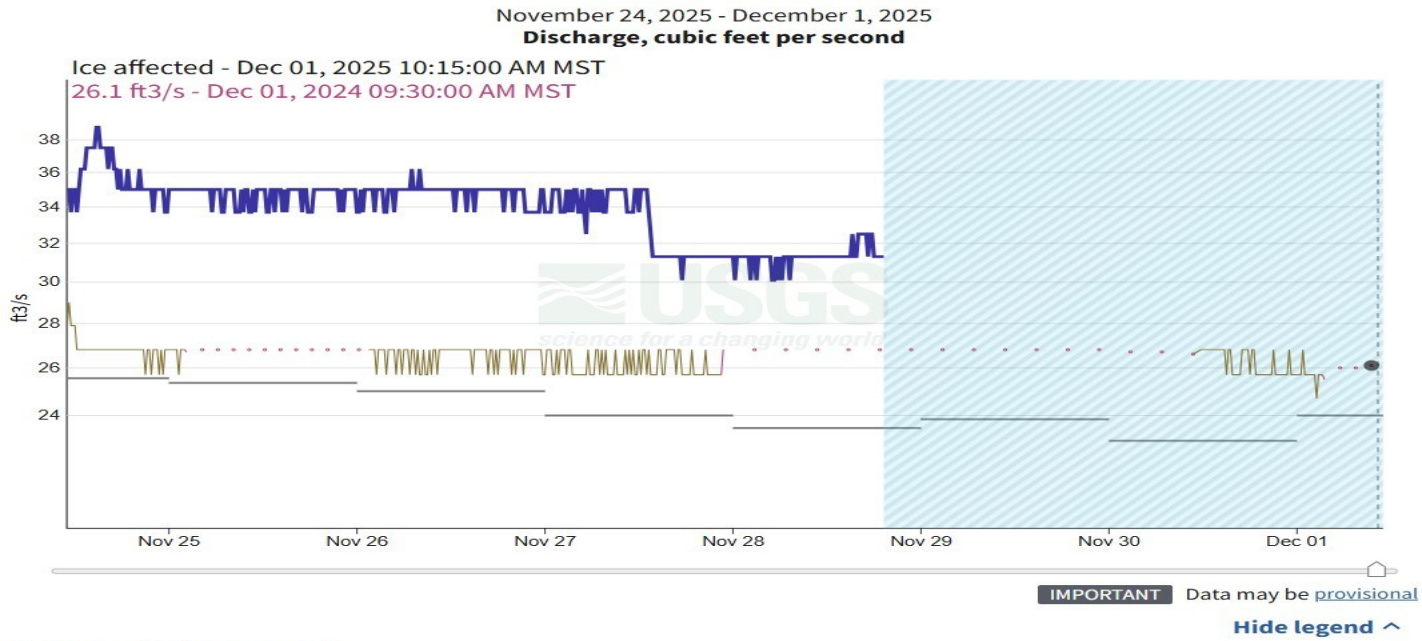


Discharge data is below normal.

Streamflow Data

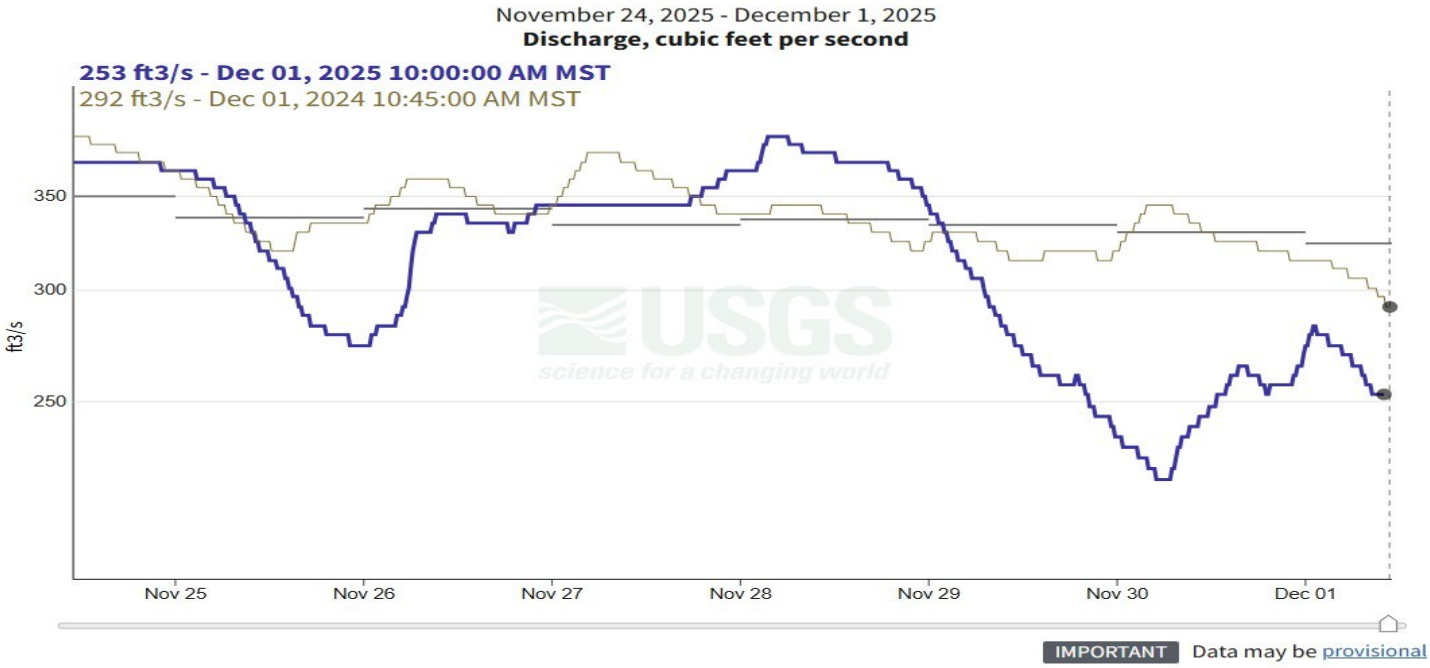
Gallatin River Basin—November 2025

Hyalite C at Hyalite R S nr Bozeman MT - USGS-06050000 Subscribe to WaterAlert



Discharge data is ice affected.

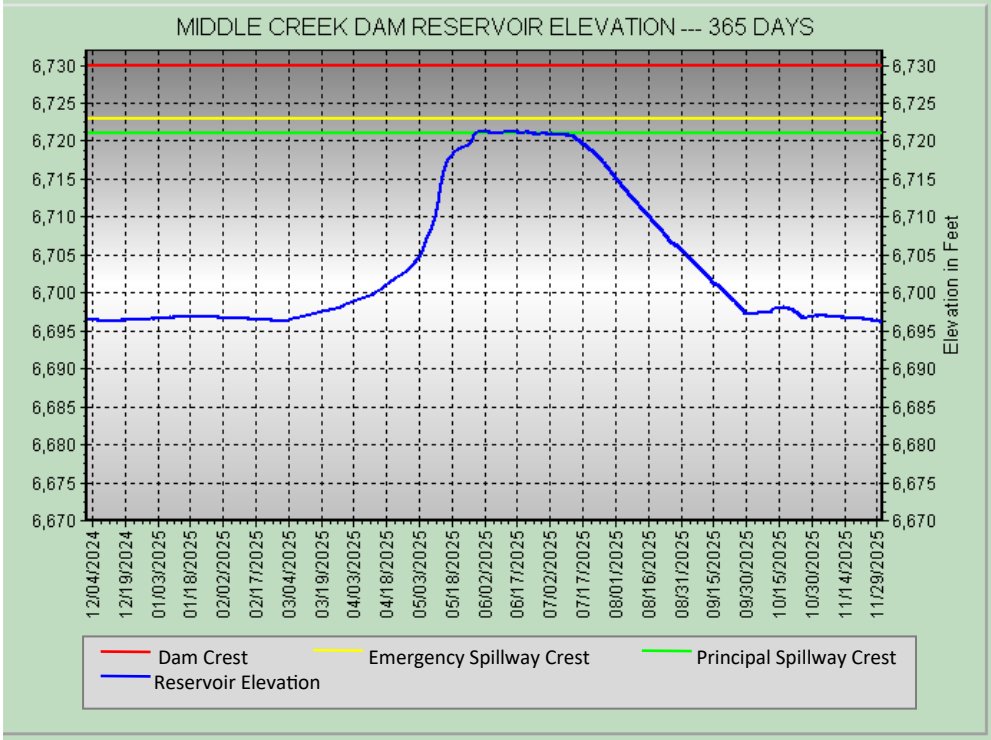
Gallatin River near Gallatin Gateway, MT - USGS-06043500 Subscribe to WaterAlert



Discharge data is below normal.

Water Storage Data

Middle Creek Dam, Hyalite Reservoir—November 2025



TIME OF LAST READING	12/1/2025 9:00 AM
RESERVOIR ELEVATION	6,696.2 FT
RESERVOIR VOLUME	5,336 AF

REFERENCE INFORMATION	FT (MSL)	AC-FT
DAM CREST	6730	12,790
EMERGENCY SPILLWAY CREST	6723	10,707
PRINCIPAL SPILLWAY CREST	6721	10,184
LOWEST USEABLE ELEVATION	6637	0

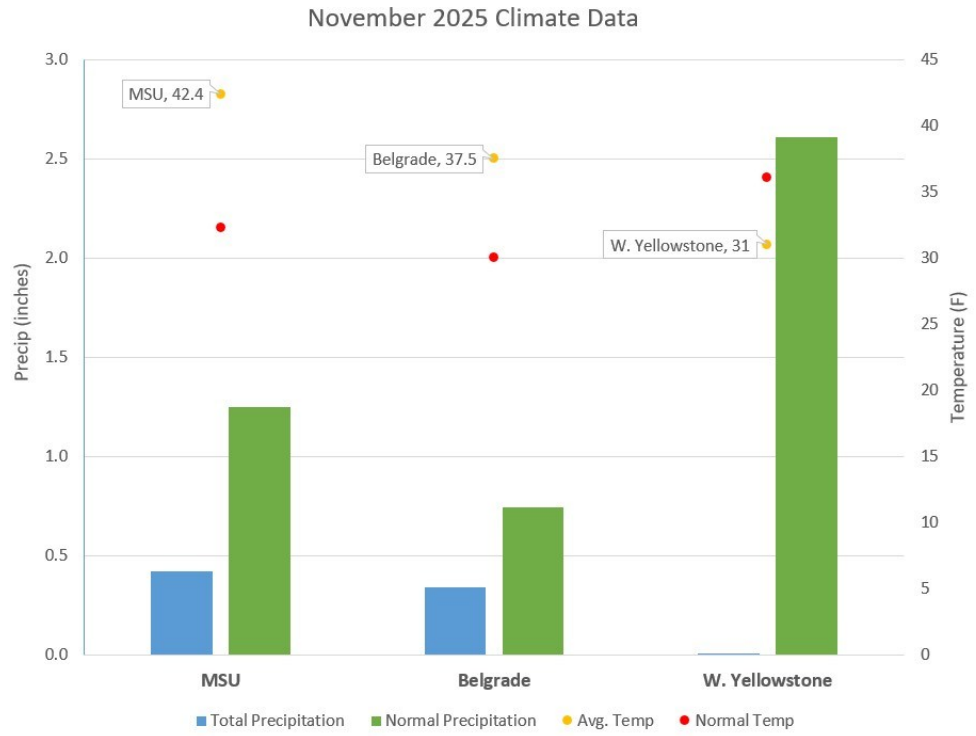
*** PROVISIONAL DATA SUBJECT TO REVISION ***

RESERVOIR SUMMARY *Data current as of 12/1/2025

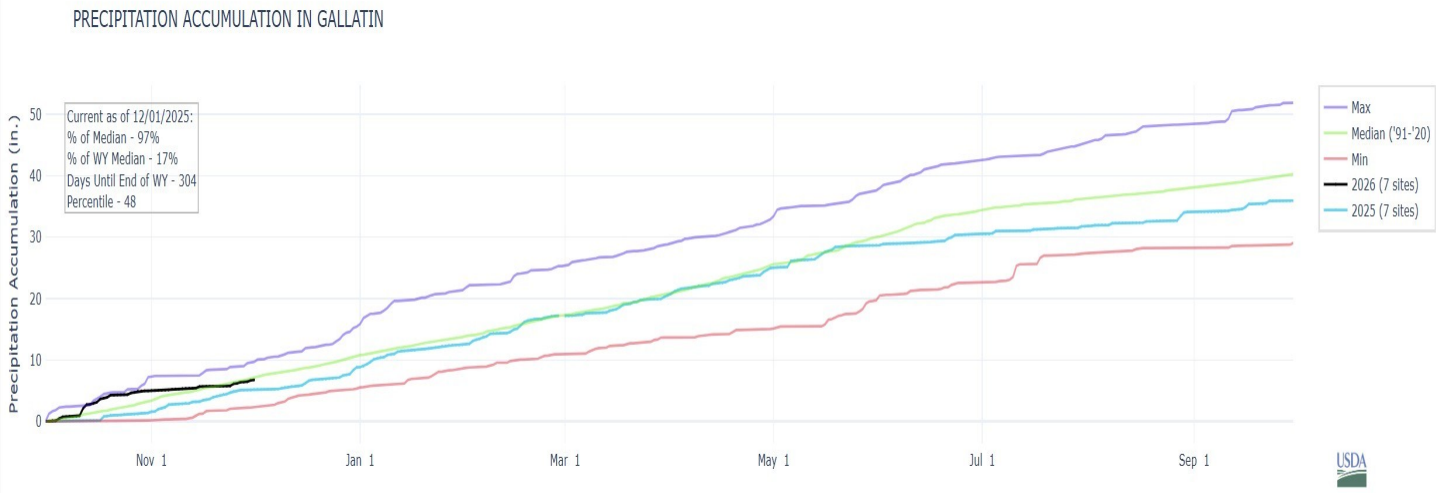
Middle Creek Dam Reservoir elevation is 6,696.2 ft, which is 24.8 ft below the principal spillway crest (6,721 ft). The reservoir elevation has decreased by 0.8 ft since October 31st, 2025 (date of last relevant WSO report). Reservoir volume is 5,336 acre-ft, which is 122 acre-ft less than October 31st, 2025.

Climate Data

Gallatin County—November 2025



Above graph depicting ACIS climate data representing the entire month of November 2025.



TEMP & PRECIP SUMMARY **(Water Year (WY) = October 1st—September 30)**

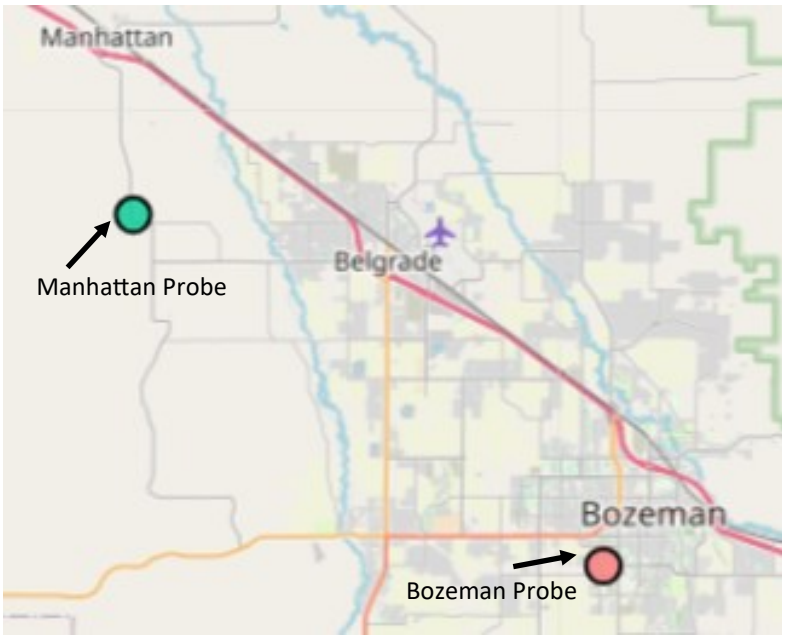
*Data is current as of 12/1/2025

Average temperatures have decreased at the MSU, Belgrade, and West Yellowstone sites since October 2025. MSU and Belgrade sites had an average that was above the normal temperature for this time of year while West Yellowstone had an average temperature below normal. (ACIS graph). All sites experienced above below precipitation in November 2025.

We are currently in Water Year 2026 (black line). The total accrued precipitation for the Gallatin River Basin as of November 30th, 2025 is below normal (median, green line) at 6.7 inches (USDA graph). The total accrued precipitation for WY 2024 on November 30th, 2024 was 5.1 inches (central blue line).

Soil Moisture Data

Mesonet Stations—November 2025



Manhattan Soil Probe Depth (in)	Soil Temp (°F)	Soil Water Content (%)
8" - Surface	35.06	23.50
20" - Shallow rooting	40.28	8.00
36" - Deep Rooting	44.42	19.10

Bozeman Soil Probe Depth (in)	Soil Temp (°F)	Soil Water Content (%)
4" - Surface	34.16	19.70
8" - Shallow rooting	35.60	21.15
20" - Deep Rooting	38.93	17.00

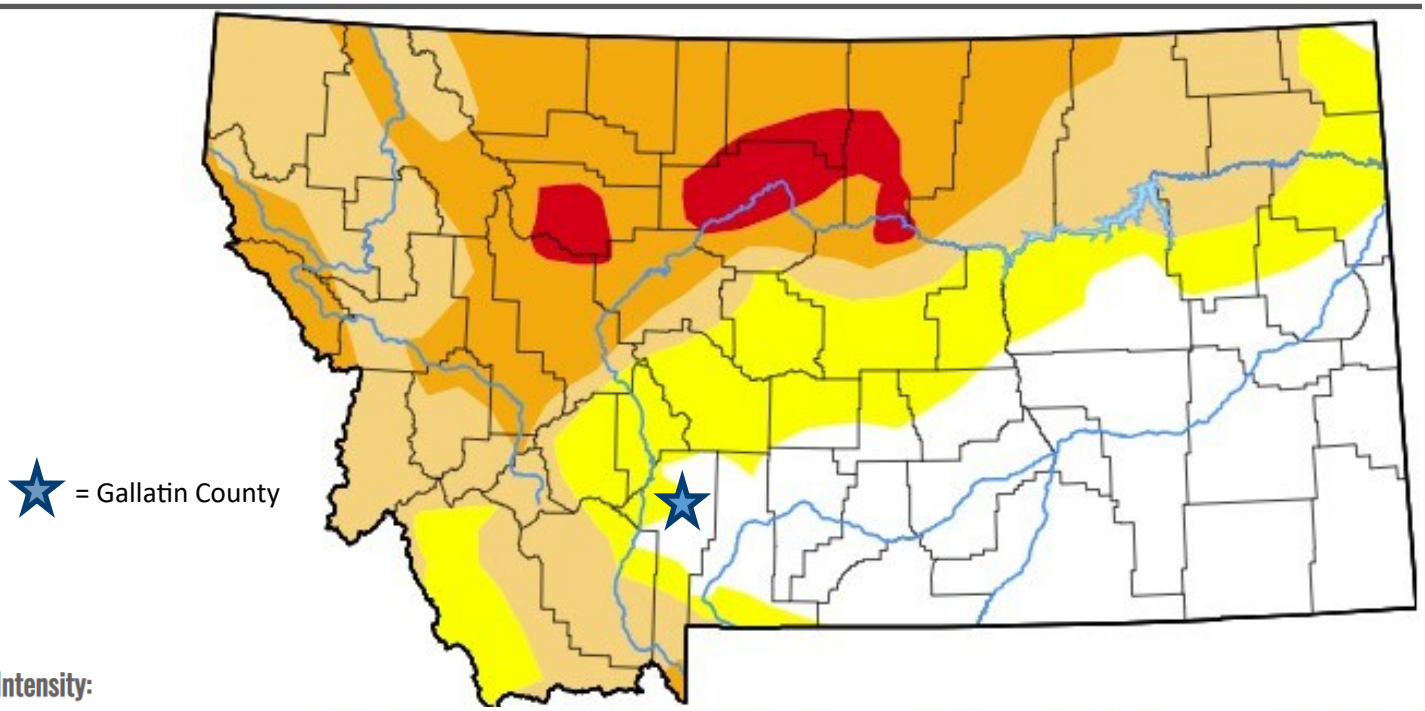
SOIL MOISTURE SUMMARY *Data current as of 12/1/2025

At the Manhattan and Bozeman stations, the soil temperature has decreased at both stations at all depths since October 2025.

Since October 2025, the soil water content at the Manhattan station has been very similar to last month but has increased at 8” while decreasing slightly at the 20” and 36” depths. At the Bozeman station, soil water content increased both 4” and 8” while decreasing at the 20”

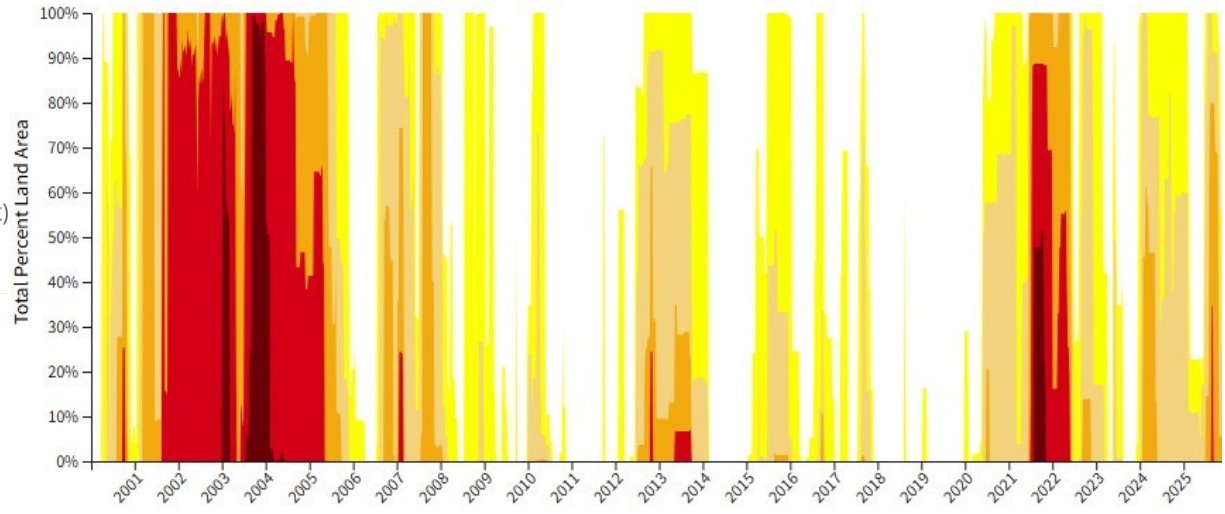
Drought Index Data

Gallatin County— November 2025



Intensity:

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data



Historical Conditions for Gallatin County, 2000-Present

DROUGHT INDEX SUMMARY *Data is current as of 11/26/2025

43.61% of Gallatin County is not experiencing drought.

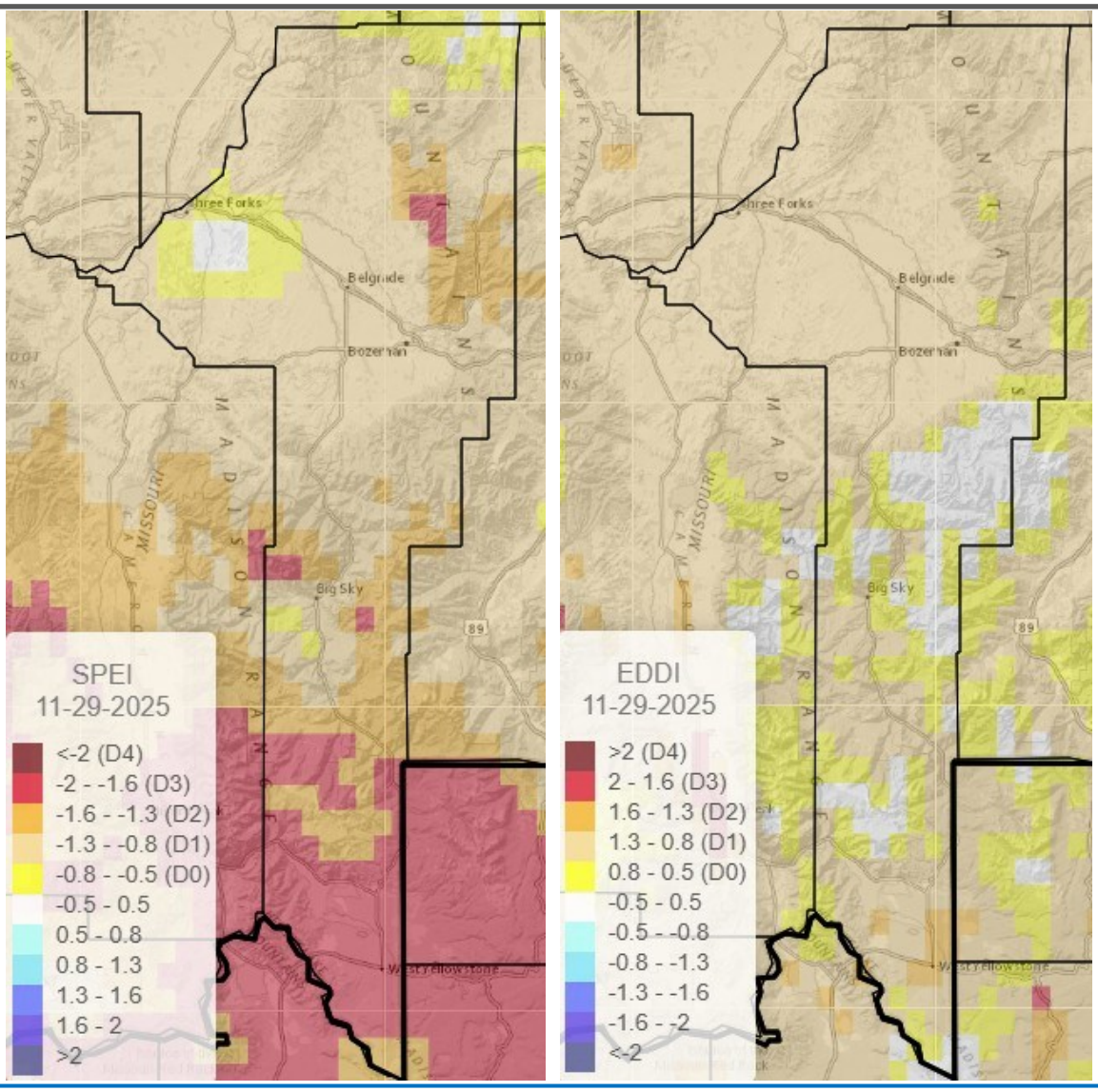
31.37% of Gallatin County is experiencing abnormally dry drought conditions. Impacts include low soil moisture contributing to poor crop germination and dry pastures, increased fire danger, and low streamflow with impacts to recreational fishing.

19.52% of Gallatin County is experiencing moderate drought conditions. Impacts include feeding livestock supplemental hay, crops are stressed, and growth is poor. Fire restrictions may be implemented.

5.50% of Gallatin County is experiencing Severe Drought conditions at this time. Impacts include lower hay and crop yields, lower hay quality, non-existent subsoil moisture, high danger and fire count, poor air quality, low to dry livestock ponds, and stressed water wells.

Standardized Precipitation Evapotranspiration Index

Evaporative Demand Drought Index



SPEI & EDDI Overview *Data is current as of 11/29/2025

The maps above show the current Standardized Precipitation Evapotranspiration Index (SPEI, Left) and Evaporative Demand Drought Index (EDDI, Right) for November 2025.

SPEI takes into account both precipitation and potential evapotranspiration to describe the wetness (positive blue values) or dryness (negative red values) of a time period. SPEI has been calculated for November 2025 to represent drought impacts on hydrological conditions for the past 30 days. SPEI incorporates the important effect of atmospheric demand on drought.

EDDI has examined how deviated from normal the atmospheric evaporative demand is for Gallatin County in November 2025. EDDI is an experimental drought monitoring and early warning guidance tool. EDDI can offer early warning of agricultural drought, hydrologic drought, and fire-weather risk. Positive (red) values represent dryness categories, while negative (blue) values represent wetness categories.

Gallatin County Water Supply Outlook

Source Information & Helpful Links

Gallatin Conservation District:

- Archive of Water Supply Outlook Reports
- Living by the Water
- 310 Permit Forms & Info

Snowpack:

- USDA / NRCS Interactive Map
- Montana Snow Survey Homepage
- NRCS / NWCC National Water & Climate Center
- Standardized Snow Water Equivalent (SWE from SNODAS & Hypsome –SWE

Streamflow:

- USGS Real Time Streamflow
- State of Montana Gaging Stations
- DNRC Water Right Query System

Water Storage:

- DNRC Water Projects—Middle Creek Real Time Data
- Middle Creek Early Warning System
- BOR—Montana Lakes and Reservoirs

Climate:

- ACIS Database
- NRCS Montana Current Conditions
- Montana Snow Survey Homepage
- US Climate Data

Soil Moisture:

- Montana Mesonet
- DNRC Drought Status by County

Drought:

- US Drought Portal
- US Drought Monitor

SPEI & EDDI:

Standardized Precipitation Evapotranspiration Index

Evaporative Demand Drought Index

Helpful Partner Websites:

- Department of Natural Resources & Conservation
- Gallatin County MSU Extension Office
- Gallatin Local Water Quality District
- Gallatin River Task Force
- Gallatin Watershed Council
- Montana Fish, Wildlife, & Parks
- Montana Natural Resource Conservation Services
- Association of Gallatin Agricultural Irrigators