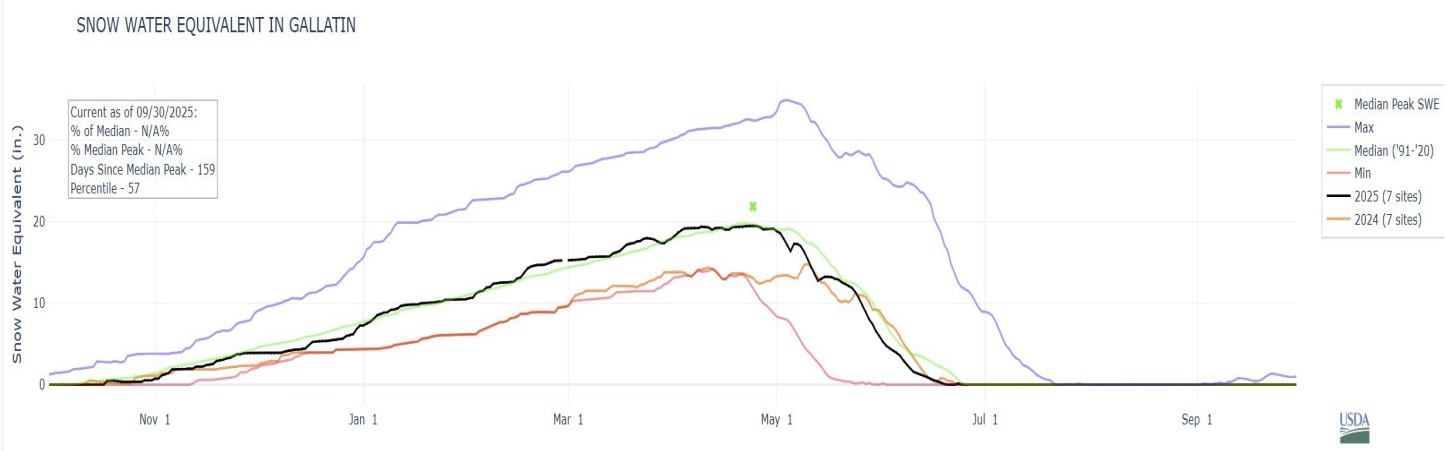
Gallatin Water Supply Outlook
September 2025



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

*Data current as of September 30th and October 2nd

September is the last month of Water Year 2025 (black line)! The Snow Water Equivalent (SWE) was at normal (median) within the Gallatin River Basin on September 30th, 2025 at 0.0 inches (no change since last month). Last year on September 30th, 2024, the SWE was at 0.0 inches (orange line). Detailed end-of-month SNOTEL site information follows.

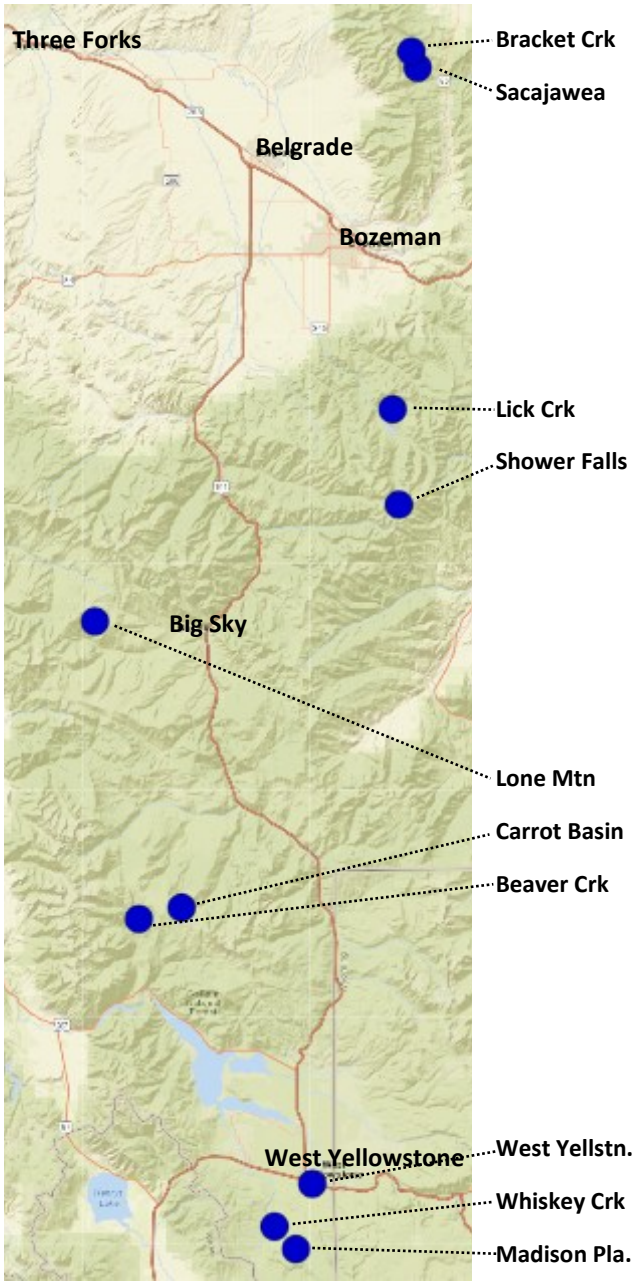
Snowpack Data
Gallatin River Basin—September 2025

Gallatin Valley Region (Bozeman-Belgrade-Four Corners)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Brackett Creek	Sept.2024	0	0.0	-	0.0
	Sept.2025	0	0.0	-	
Sacajawea	Sept.2024	0	0.0	-	0.0
	Sept.2025	0	0.1	-	

Hyalite Region (Gallatin Gateway)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Lick Creek	Sept.2024	0	0.0	-	0.0
	Sept.2025	0	0.0	-	
Shower Falls	Sept.2024	0	0.0	0	0.4
	Sept.2025	0	0.0	0	

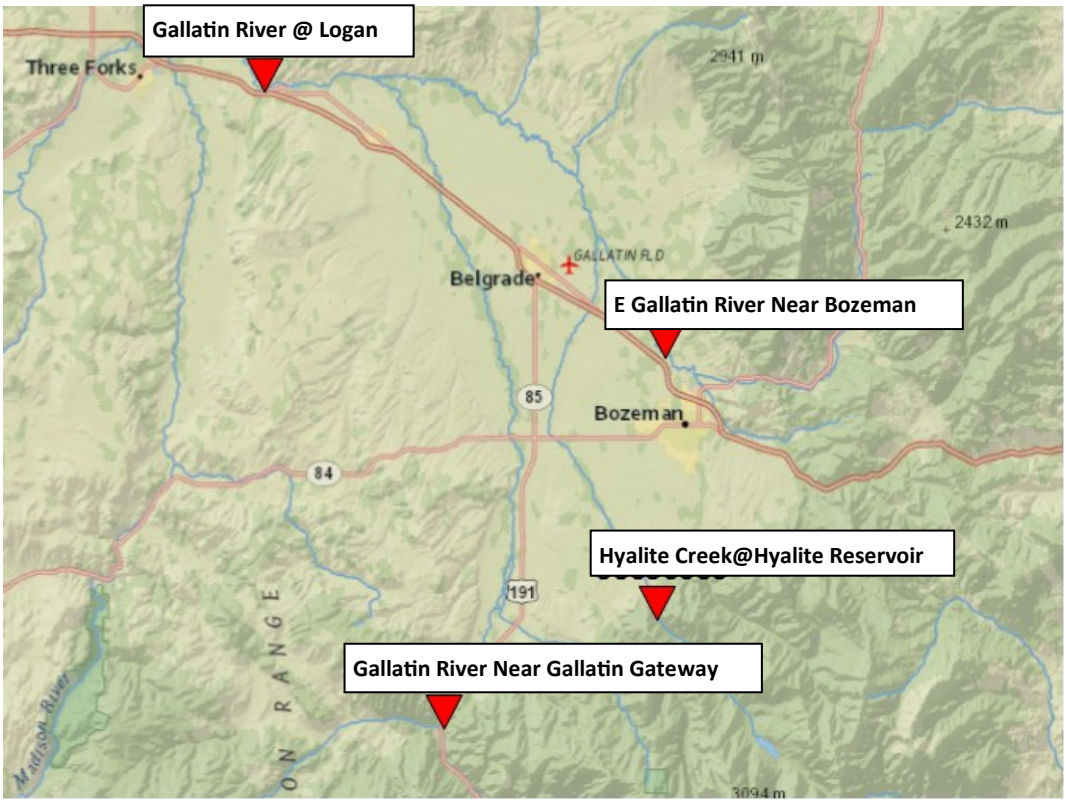
Lee Metcalf Wilderness Region (Big Sky)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Beaver Creek	Sept.2024	0	0.0	0	0.2
	Sept.2025	0	0.1	50	
Carrot Basin	Sept.2024	0	0.0	0	0.4
	Sept.2025	1	0.1	25	
Lone Mountain	Sept.2024	0	0.0	-	0.0
	Sept.2025	0	0.0	-	

West Yellowstone Region					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Madison Plateau	Sept.2024	0	0.0	0	0.2
	Sept.2025	0	0.0	0	
West Yellowstone	Sept.2024	0	0.0	-	0.0
	Sept.2025	0	0.1	-	
Whiskey Creek	Sept.2024	0	0.0	0	0.1
	Sept.2025	0	0.1	100	



Streamflow Data

Gallatin River Basin—September 2025



September 30th Gallatin Watershed Streamflow					
Station Name	2025 Discharge (cfs)	% Normal	Normal Discharge (cfs)	2024 Discharge (cfs)	Period Of Record (Yrs)
Gallatin at Logan	481	78	613	575	109
E Gallatin near Bozeman	53.8	101	53.5	54.4	10
Hyalite Creek at Hyalite Reservoir	32.5	83	39.1	59.9	79
Gallatin near Gallatin Gateway	376	86	439.5	413	94

STREAMFLOW SUMMARY *Data current as of September 30th

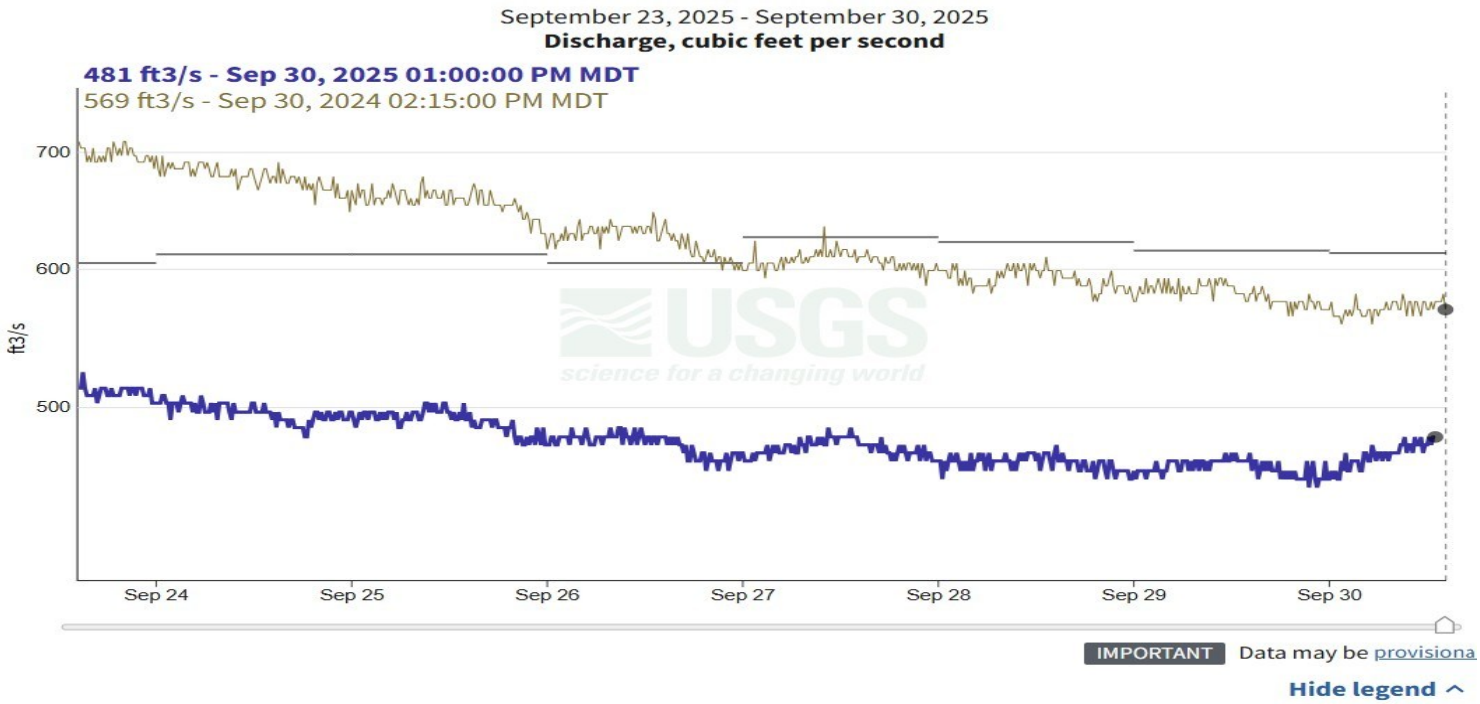
The Gallatin at Logan, Hyalite Creek, and Gallatin near Gallatin Gateway sites have below normal discharge values for this time of year, while the E Gallatin near Bozeman has a slightly above normal discharge.

All sites have discharge values below what they were this time last year.

Streamflow Data

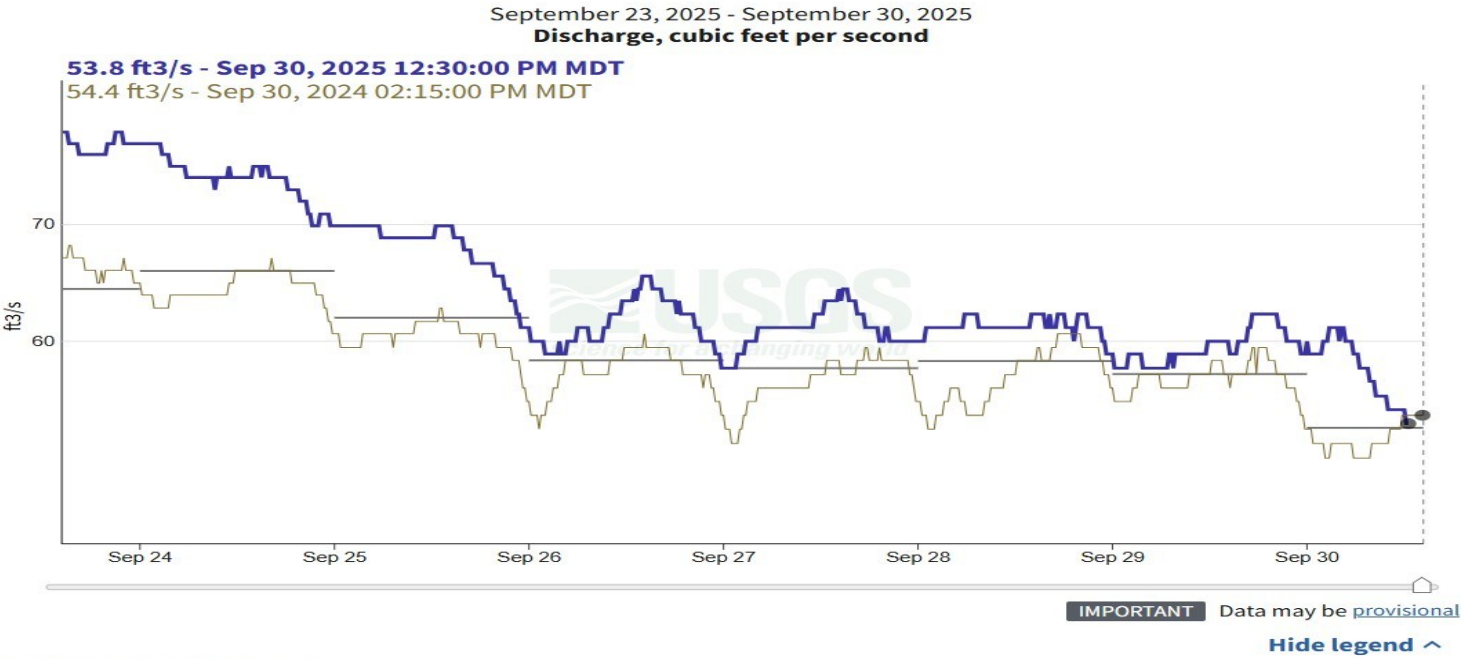
Gallatin River Basin—September 2025

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



Discharge data is below normal.

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

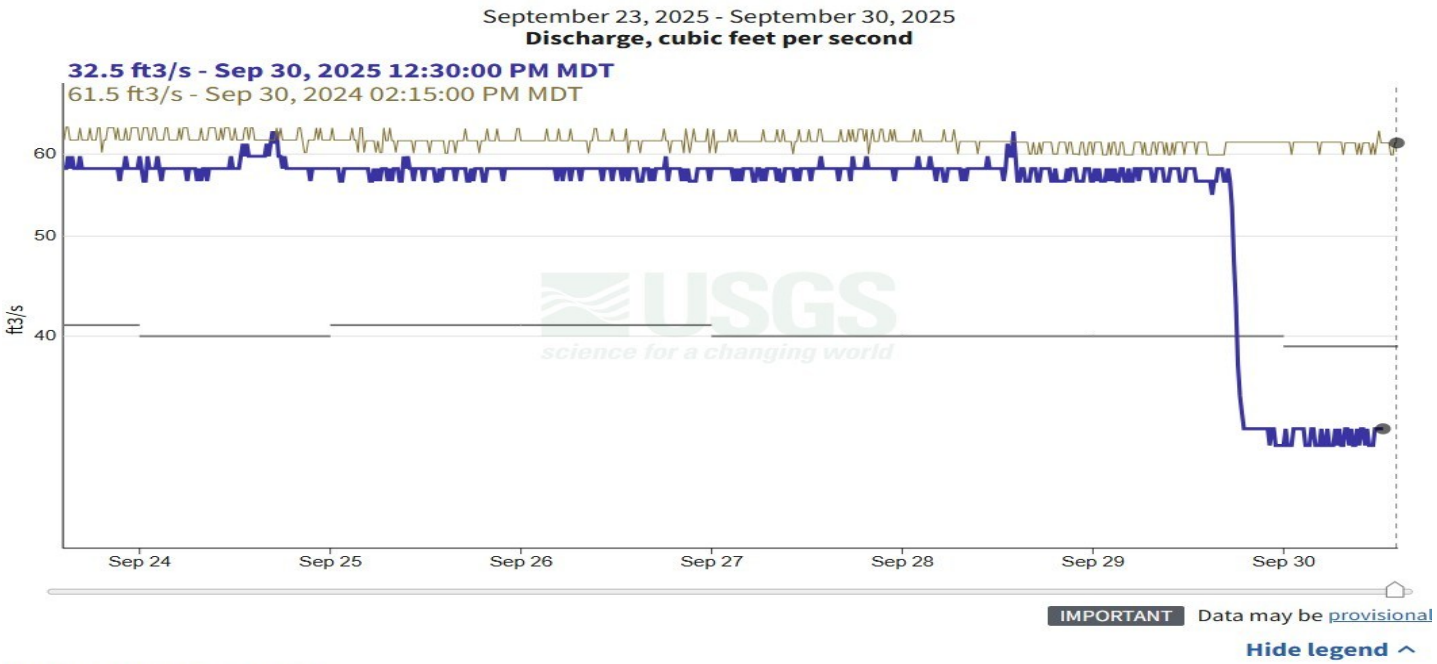


Discharge data is just above normal.

Streamflow Data

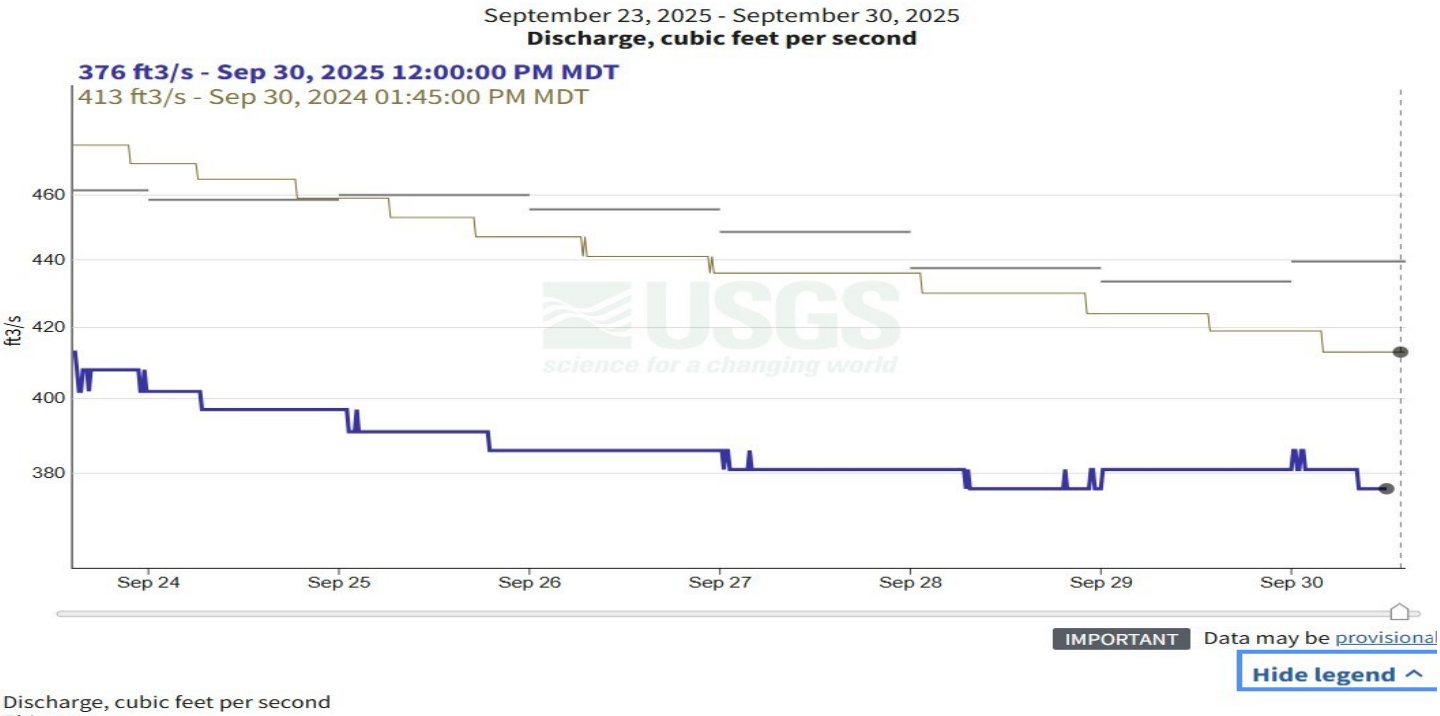
Gallatin River Basin—September 2025

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



Discharge data is above normal.

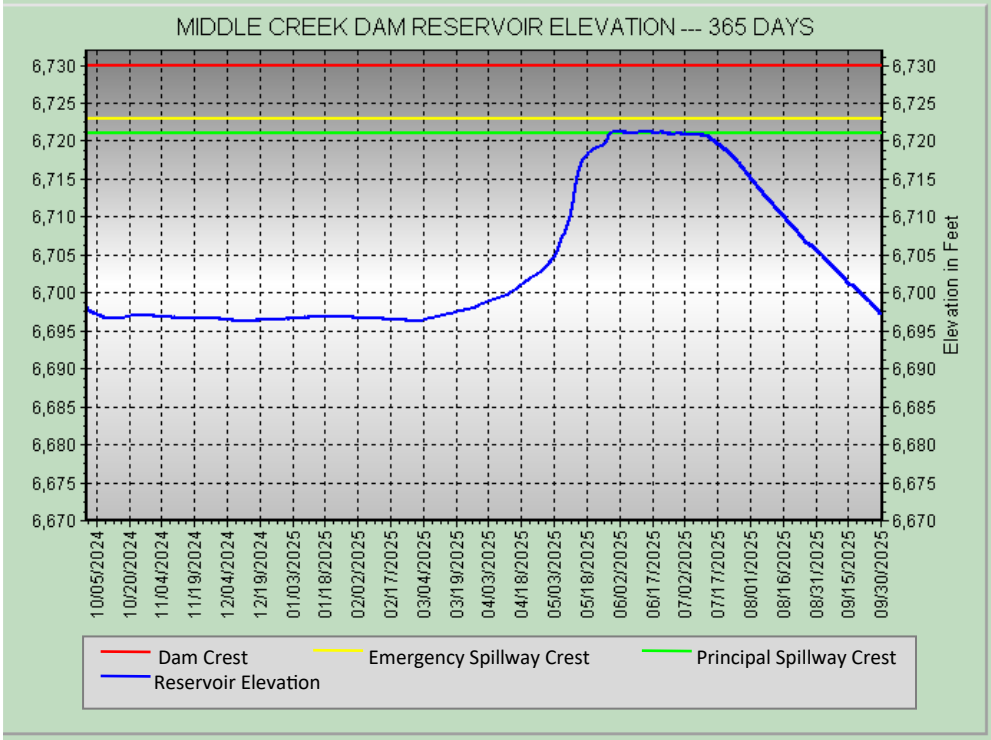
Gallatin River near Gallatin Gateway, MT - USGS-06043500 Subscribe to WaterAlert



Discharge data is below normal.

Water Storage Data

Middle Creek Dam, Hyalite Reservoir—September 2025



TIME OF LAST READING	9/30/2025 1:00 PM
RESERVOIR ELEVATION	6,697.3 FT
RESERVOIR VOLUME	5,507 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

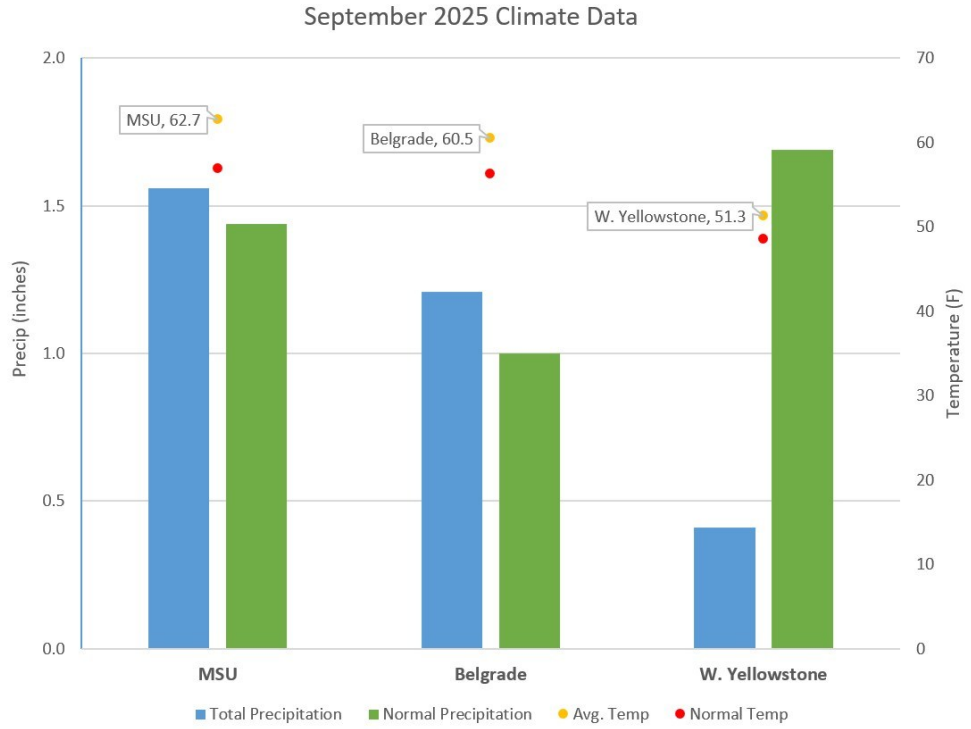
*** PROVISIONAL DATA SUBJECT TO REVISION ***

RESERVOIR SUMMARY *Data current as of September 30th

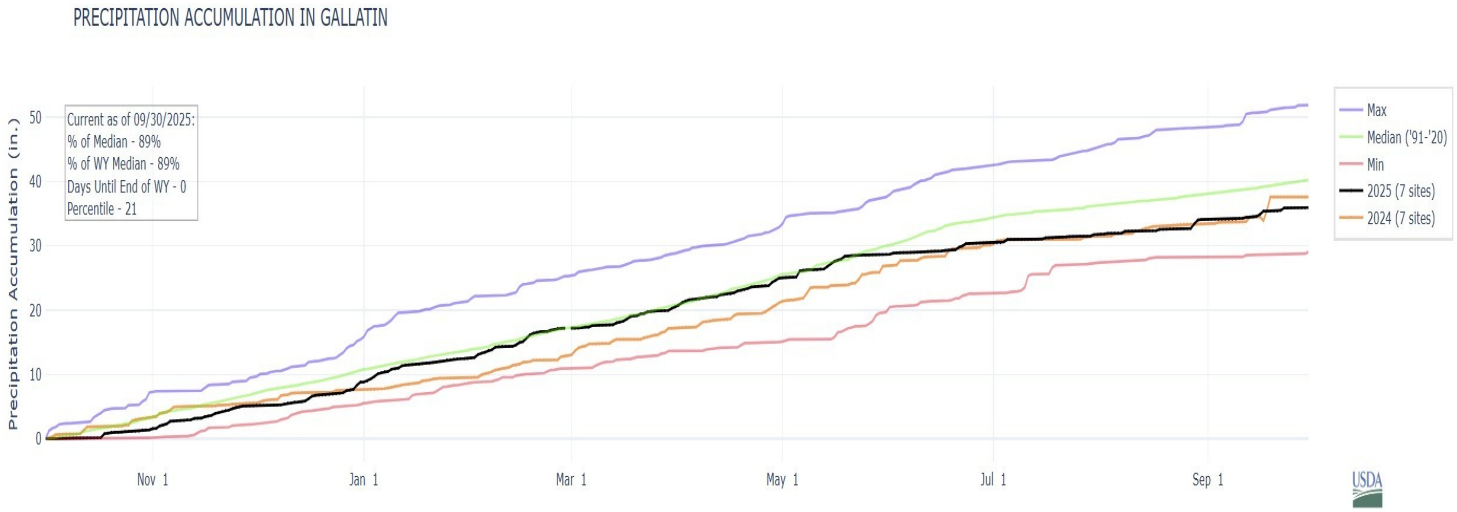
Middle Creek Dam Reservoir elevation is 6,697.3 ft, which is 24 ft below the principal spillway crest (6,721 ft). The reservoir elevation has decreased by 8.1 ft since September 1st, 2025 (date of last relevant WSO report). Reservoir volume is 5,507 acre-ft, which is 1,310 acre-ft less than September 1st, 2025.

Climate Data

Gallatin County—September 2025



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



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

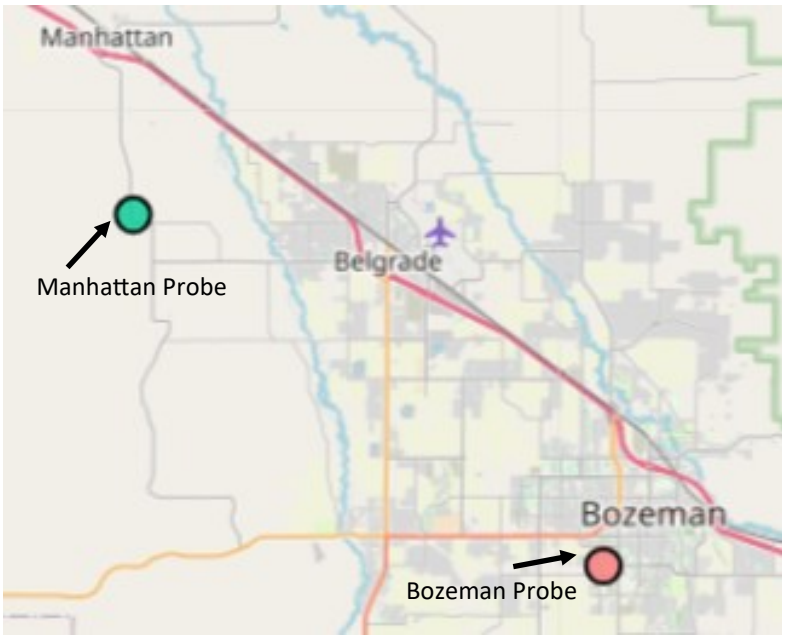
*Data is current as of September 30th and October 2nd

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

We are currently in Water Year 2025 (black line). The total accrued precipitation for the Gallatin River Basin as of September 30th, 2025 is below average (median) at 34.1 inches (USDA graph). The total accrued precipitation for WY 2024 on September 30th, 2024 was 35.9 inches (orange line).

Soil Moisture Data

Mesonet Stations—September 2025



Manhattan Soil Probe Depth (in)	Soil Temp (°F)	Soil Water Content (%)
8" - Surface	55.40	22.6%
20" - Shallow rooting	55.76	8.30%
36" - Deep Rooting	55.58	19.3%

Bozeman Soil Probe Depth (in)	Soil Temp (°F)	Soil Water Content (%)
4" - Surface	58.28	13.95%
8" - Shallow rooting	57.56	12.95%
20" - Deep Rooting	57.47	17.75%

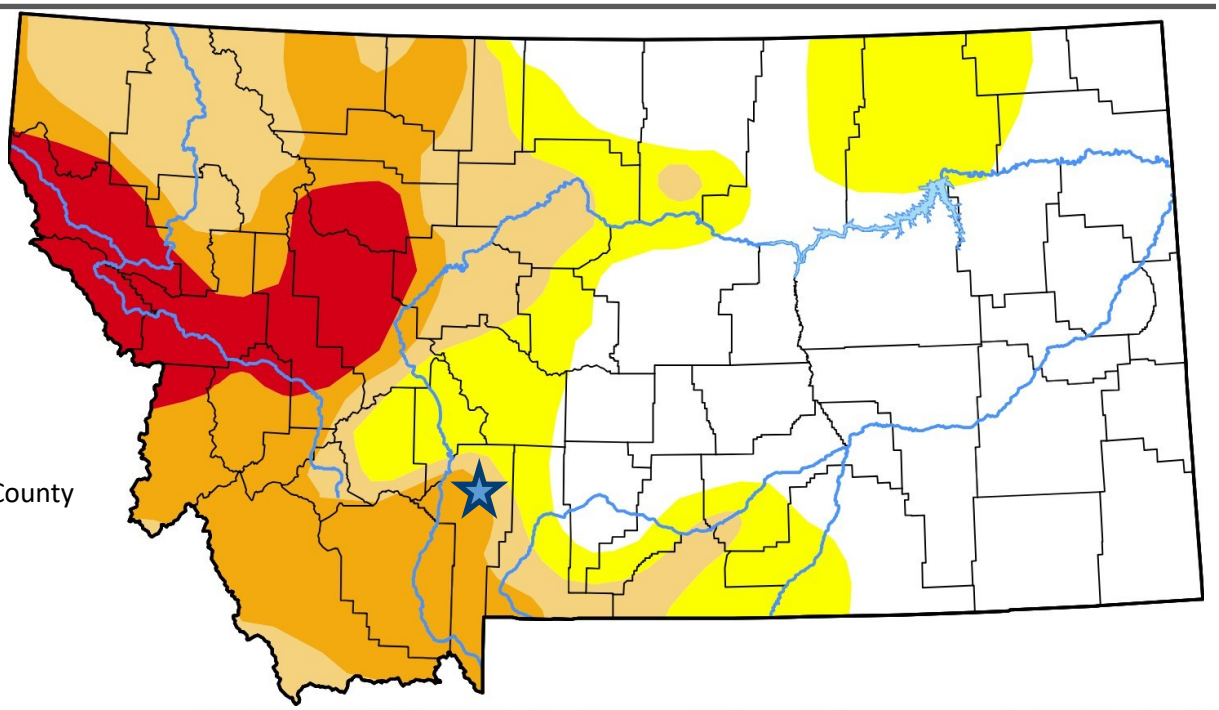
SOIL MOISTURE SUMMARY *Data current as of September 30th

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

Since August 2025, the soil water content has increased at both of the surface probe depths while decreasing at shallow rooting and deep rooting probe depths.

Drought Index Data

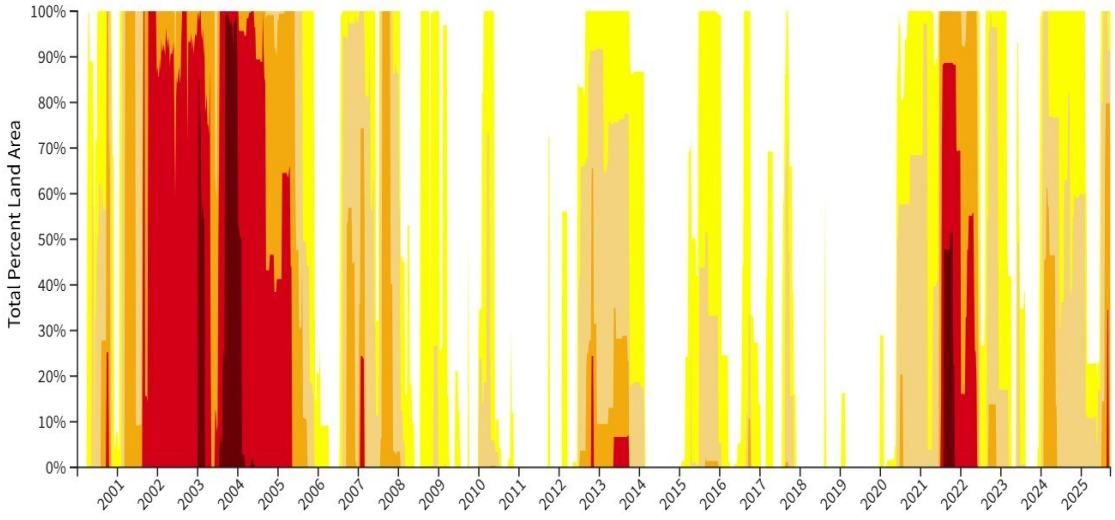
Gallatin County— September 2025



= Gallatin County

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 September 23rd

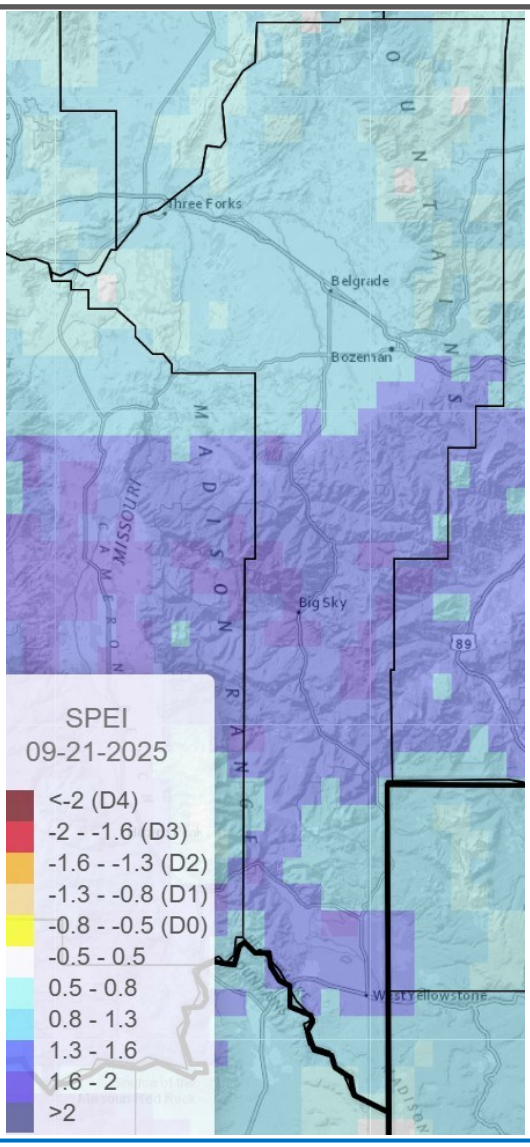
8.83% of Gallatin County is experiencing abnormally dry drought conditions. Impacts include low soil moisture contributing to poor crop germination and dry pastures, increased fire danger, and low streamflow with impacts to recreational fishing.

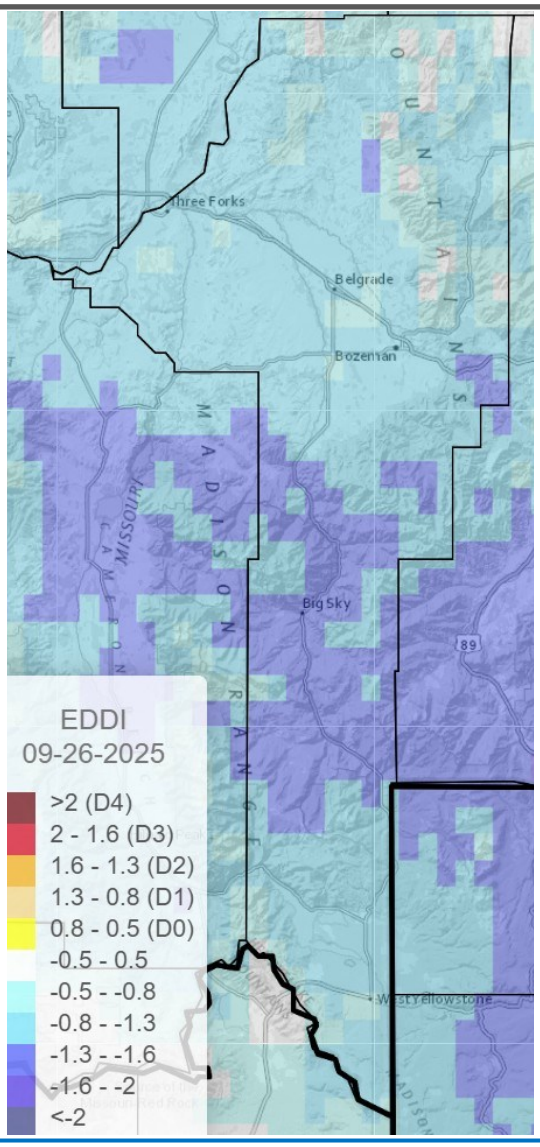
22.19% of Gallatin County is experiencing moderate drought conditions. Impacts include feeding livestock supplemental hay, crops are stressed, and growth is poor. Fire restrictions may be implemented.

68.98% 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 September 21st and 26th

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