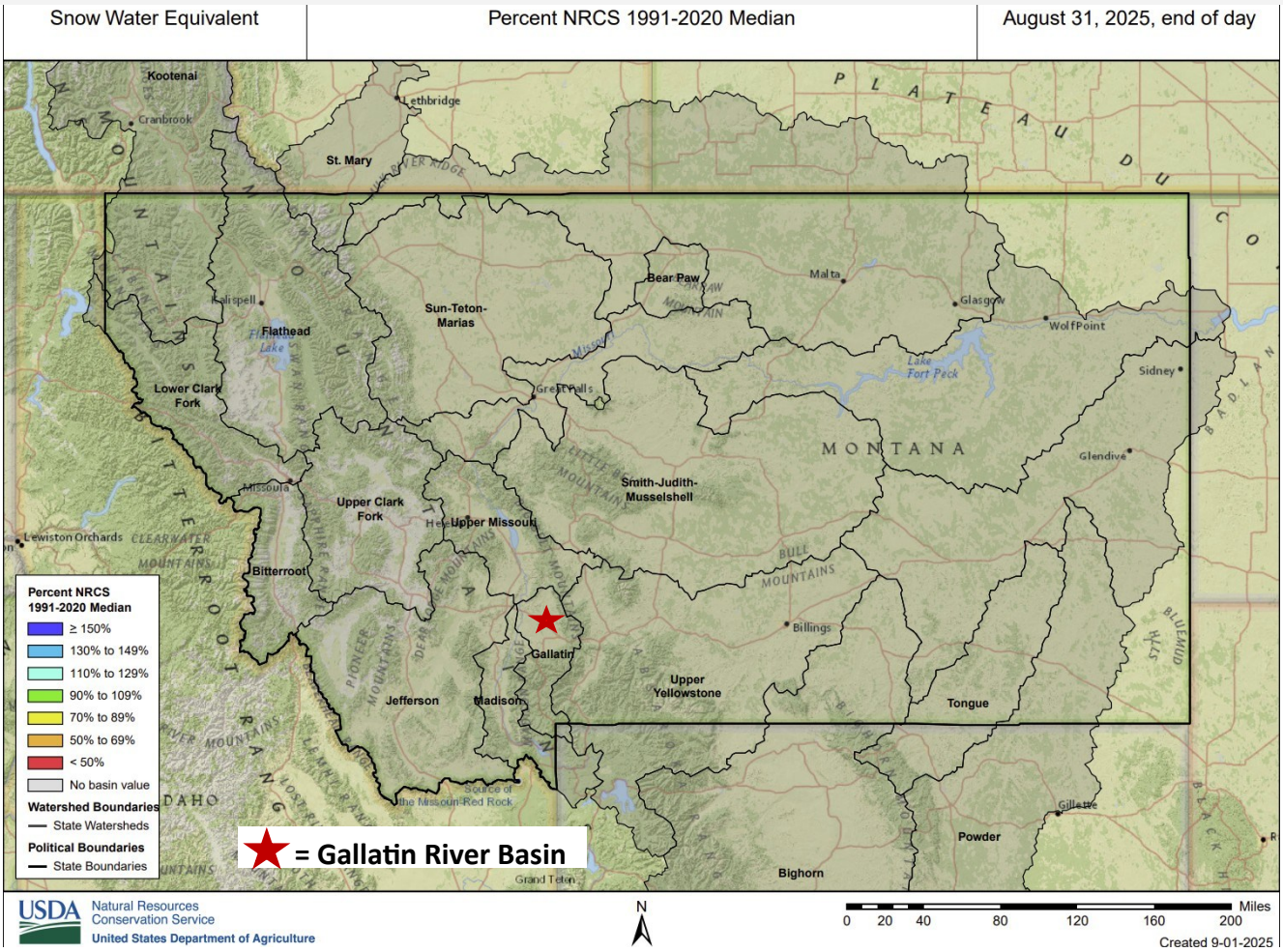
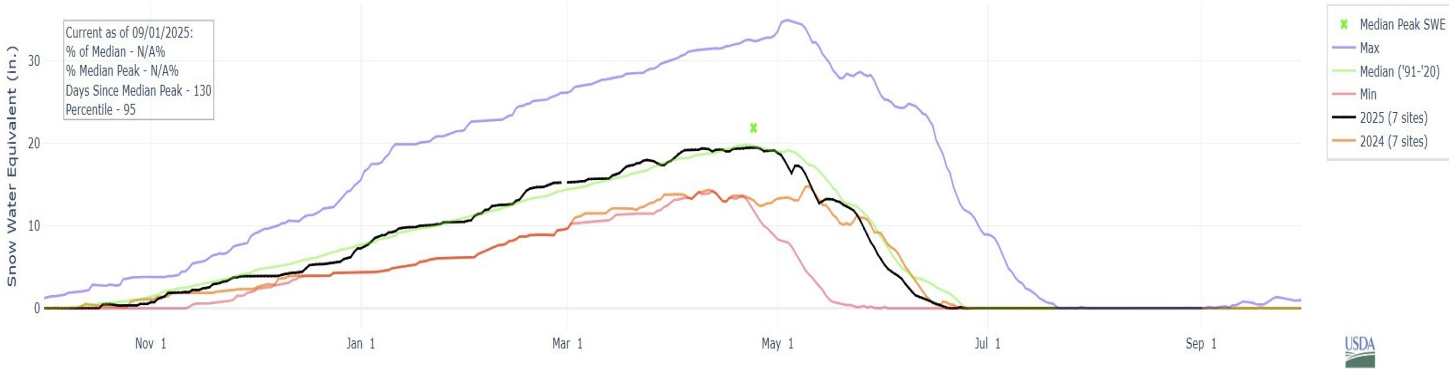
Gallatin Water Supply Outlook
August 2025



SNOW WATER EQUIVALENT IN GALLATIN



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

*Data current as of September 1st

We are currently in Water Year 2025 (black line). The Snow Water Equivalent (SWE) was at normal (median) within the Gallatin River Basin on August 31st, 2025 at 0.0 inches (no change since last month). Last year on August 31st, 2024, the SWE was at 0.0 inches (orange line). Detailed end-of-month SNOTEL site information follows.

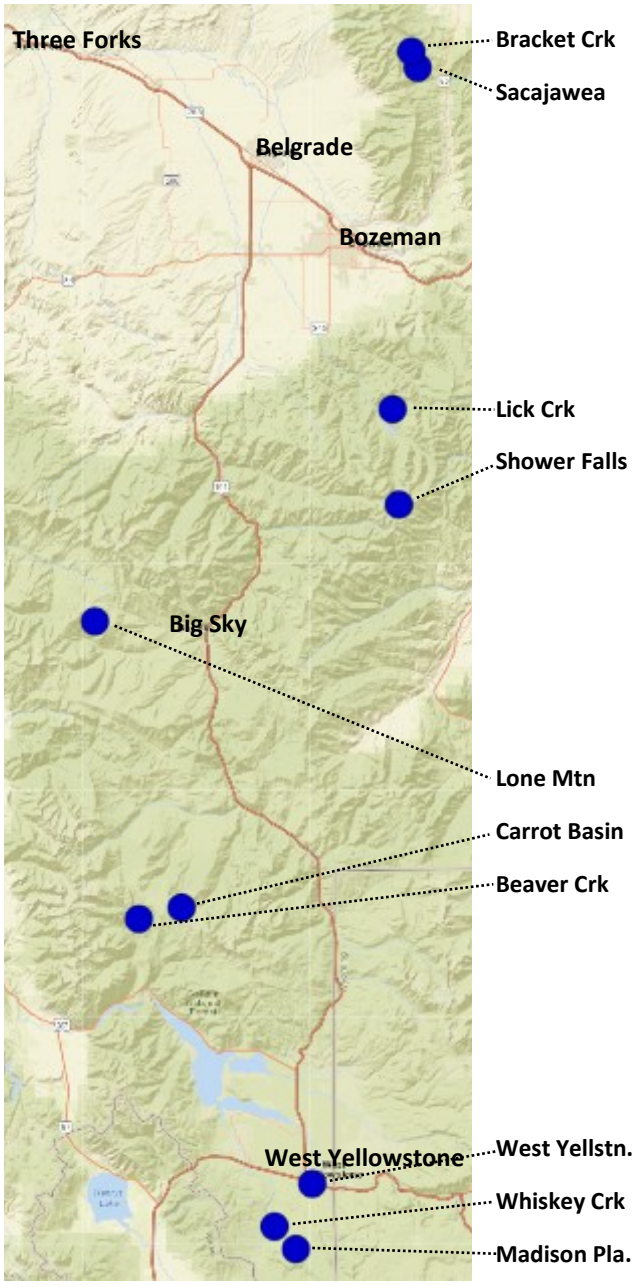
Snowpack Data
Gallatin River Basin—August 2025

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

Hyalite Region (Gallatin Gateway)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Lick Creek	August 2024	0	0.0	-	0.0
	August 2025	0	0.0	-	
Shower Falls	August 2024	0	0.0	-	0.0
	August 2025	0	0.1	-	

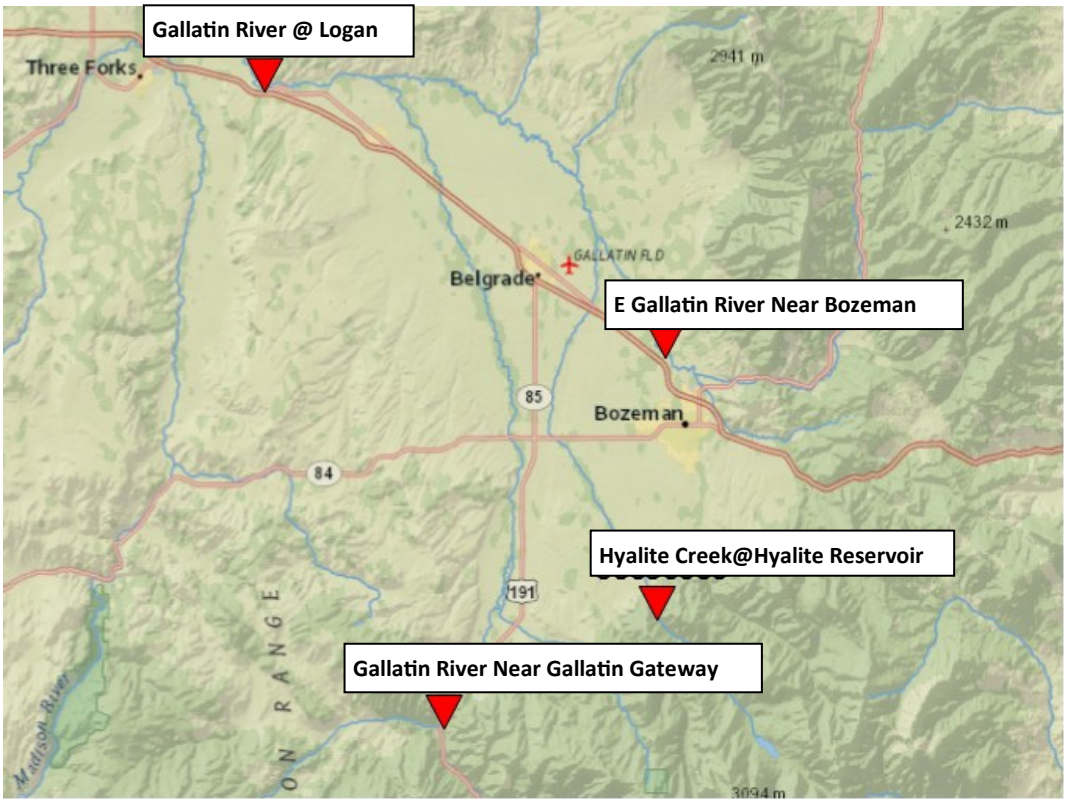
Lee Metcalf Wilderness Region (Big Sky)					
Station Name	*Date*	*Snow Depth (in)*	*SWE (in)*	*SWE % Normal*	*Normal SWE 1971-2000 (in)*
Beaver Creek	August 2024	0	0.0	-	0.0
	August 2025	0	0.0	-	
Carrot Basin	August 2024	0	-	-	0.0
	August 2025	1	0.0	-	
Lone Mountain	August 2024	0	0.0	-	0.0
	August 2025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

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



Streamflow Data

Gallatin River Basin—August 2025



September 1st Gallatin Watershed Streamflow					
Station Name	2025 Discharge (cfs)	% Normal	Normal Dis-charge (cfs)	2024 Discharge (cfs)	Period Of Record (Yrs)
Gallatin at Logan	446.0	90	495.0	378.0	109
E Gallatin near Bozeman	41.1	101	40.8	25.0	10
Hyalite Creek at Hyalite Reservoir	58.1	116	50.0	66.7	79
Gallatin near Gallatin Gateway	430.0	87	494.0	436.0	96

STREAMFLOW SUMMARY *Data current as of September 1st

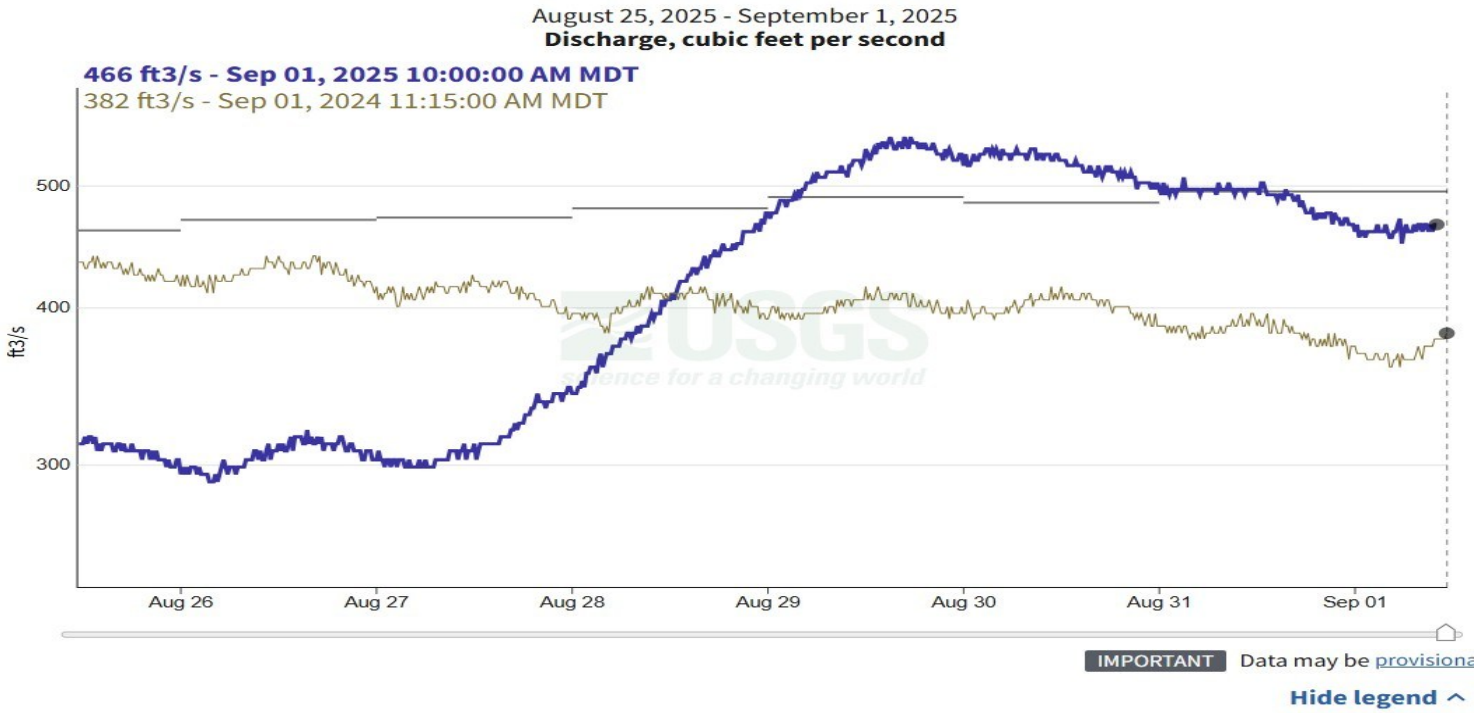
The Gallatin at Logan and Gallatin near Gallatin Gateway sites have below normal discharge values for this time of year, while the Gallatin near Bozeman and Hyalite Creek have above normal discharge.

The Hyalite Creek and Gallatin near Gallatin Gateway sites have discharge values below what they were this time last year, while values are above what they were last year at the Gallatin at Logan and the Gallatin near Bozeman sites.

Streamflow Data

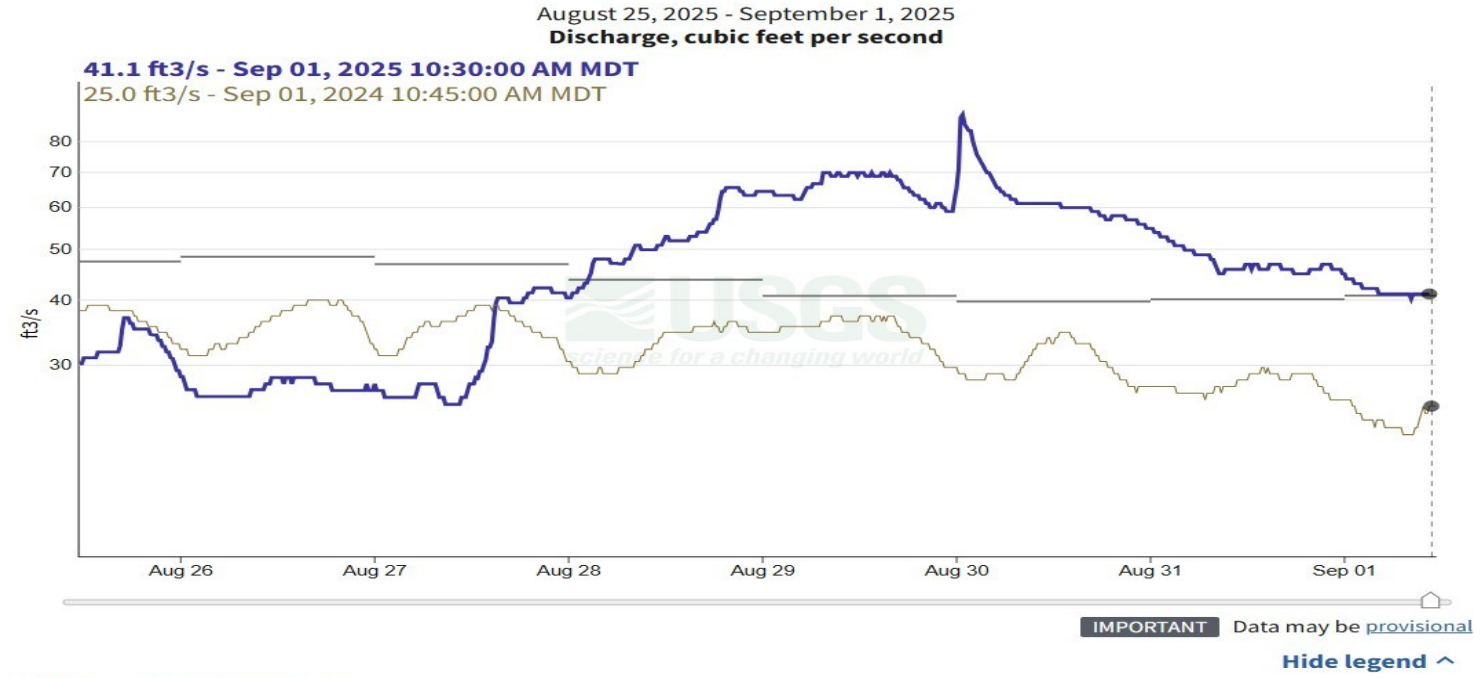
Gallatin River Basin—August 2025

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

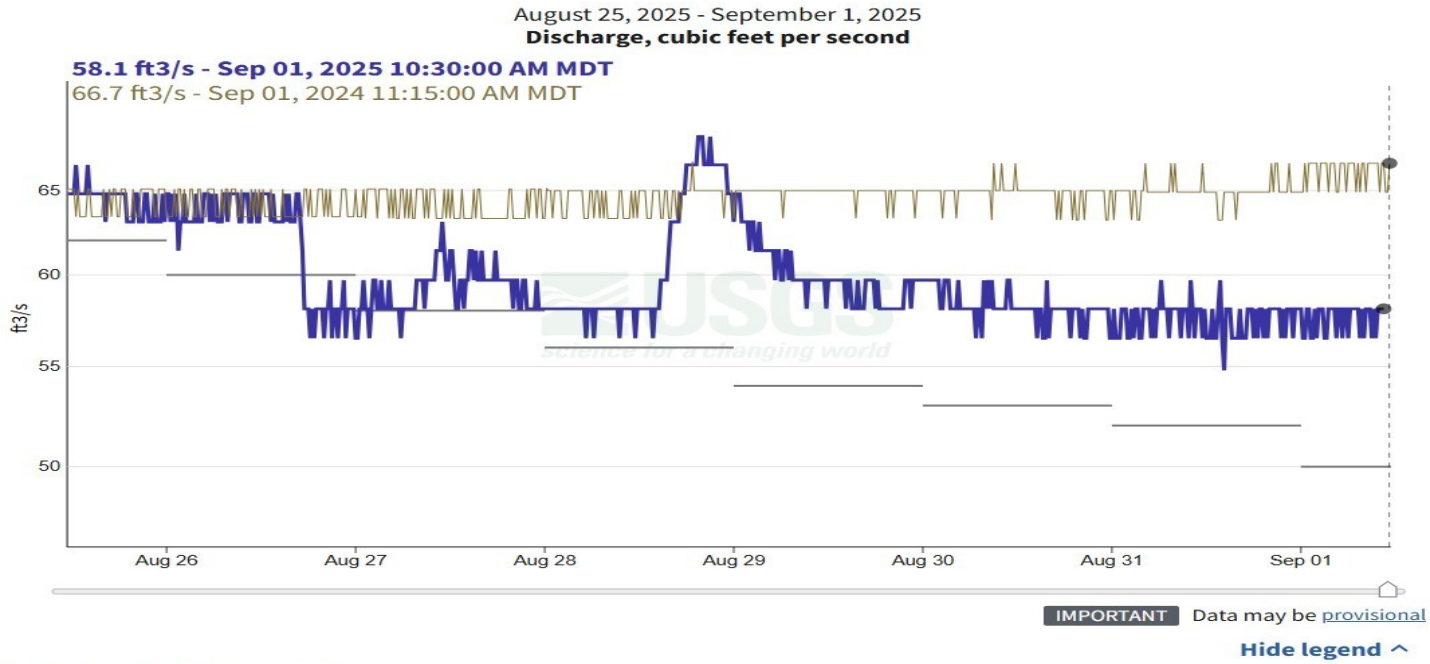


Discharge data is above normal.

Streamflow Data

Gallatin River Basin—August 2025

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



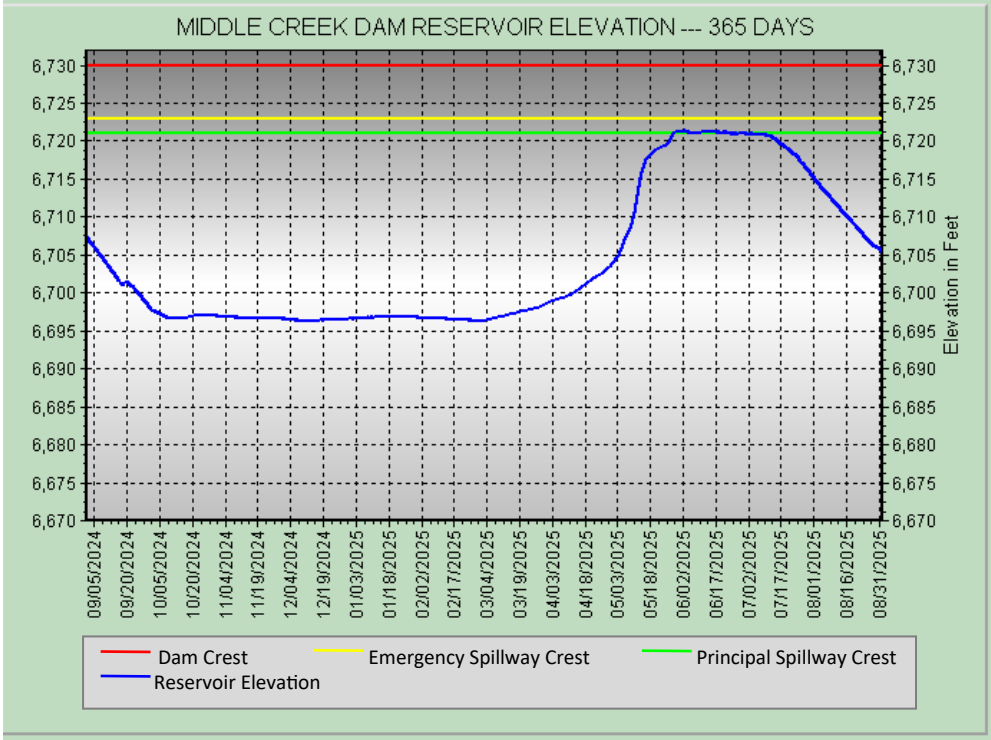
Discharge data is above normal.

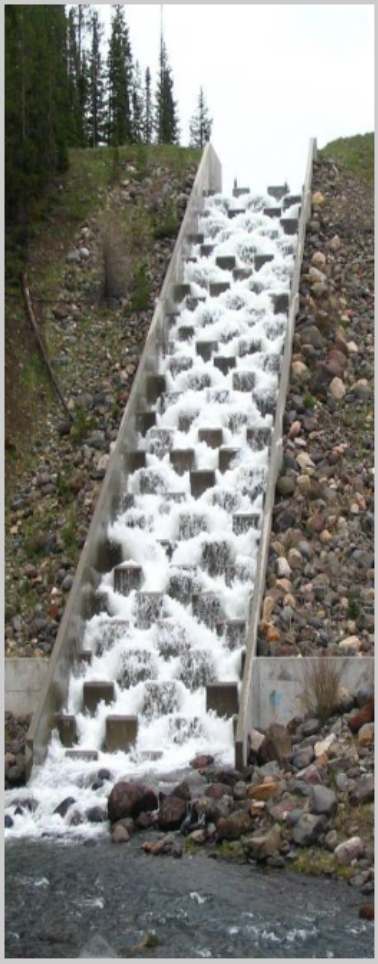
Gallatin River near Gallatin Gateway, MT - USGS-06043500 Subscribe to WaterAlert

Discharge data is below normal.

Water Storage Data

Middle Creek Dam, Hyalite Reservoir—August 2025





TIME OF LAST READING	9/1/2025 10:00 AM
RESERVOIR ELEVATION	6,705.4 FT
RESERVOIR VOLUME	6,817 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

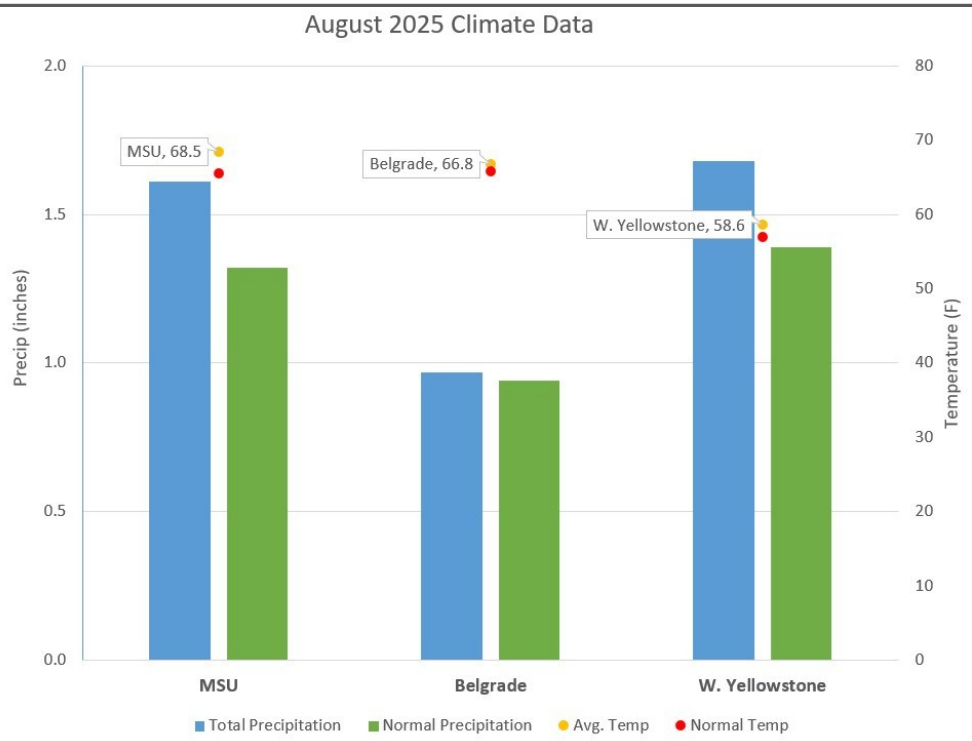
*** PROVISIONAL DATA SUBJECT TO REVISION ***

RESERVOIR SUMMARY *Data current as of September 1st

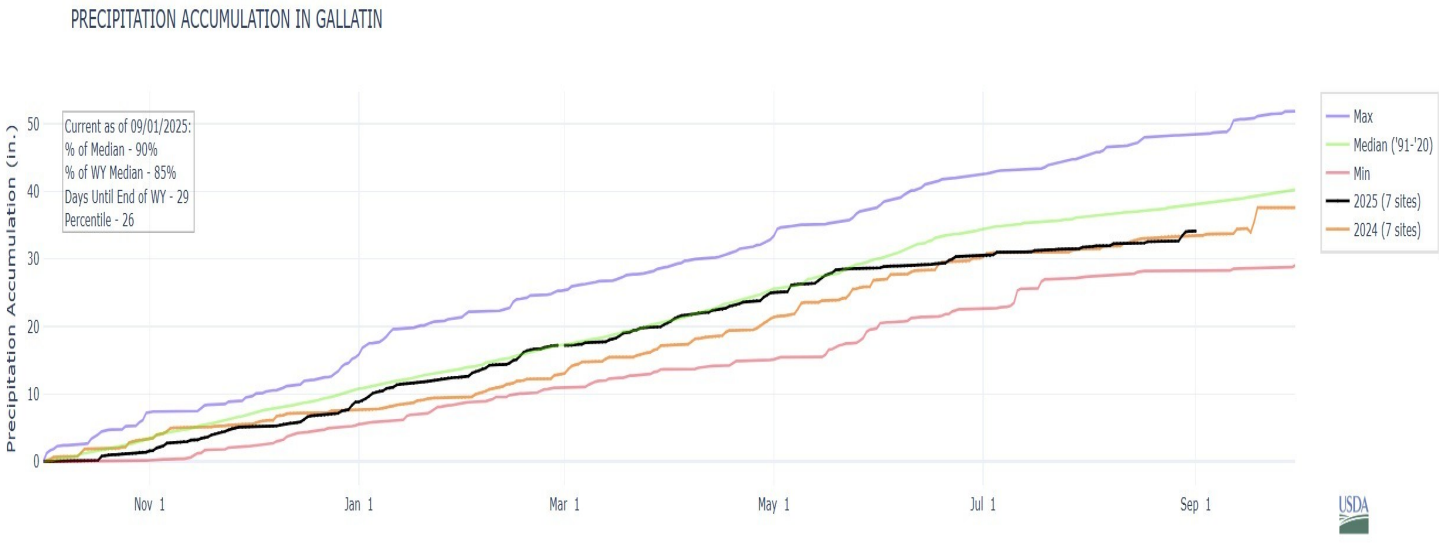
Middle Creek Dam Reservoir elevation is 6,705.4 ft, which is 15.6 ft below the principal spillway crest (6,721 ft). The reservoir elevation has decreased by 9.9 ft since August 1st, 2025 (date of last relevant WSO report). Reservoir volume is 6,817 acre-ft; which is 1,999 acre-ft less than August 1st, 2025.

Climate Data

Gallatin County—August 2025



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



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

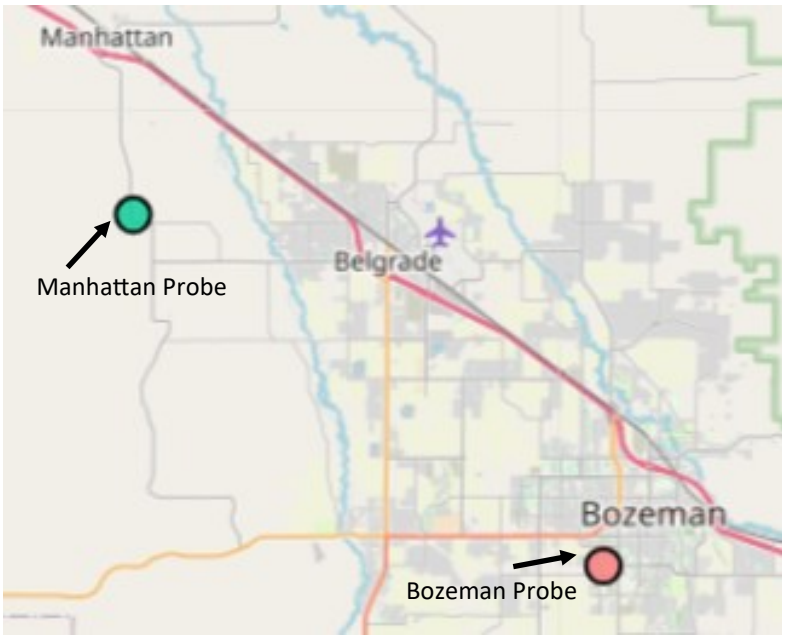
*Data is current as of September 1st

Average temperatures have decreased at the MSU, Belgrade, and West Yellowstone sites since July 2025. All sites also had an average that was above the normal temperature for this time of year (ACIS graph). The MSU, Belgrade, and West Yellowstone sites also experienced above 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 August 31st, 2025 is below average (median) at 34.1 inches (USDA graph). The total accrued precipitation for WY 2024 on August 31st, 2024 was 33.4 inches (orange line).

Soil Moisture Data

Mesonet Stations—August 2025



Manhattan Soil Probe Depth (in)	Soil Temp (°F)	Soil Water Content (%)
8" - Surface	60.98	18.9%
20" - Shallow rooting	61.70	8.60%
36" - Deep Rooting	58.82	21.1%

Bozeman Soil Probe Depth (in)	Soil Temp (°F)	Soil Water Content (%)
4" - Surface	65.48	13.00%
8" - Shallow rooting	63.32	13.40%
20" - Deep Rooting	63.41	18.35%

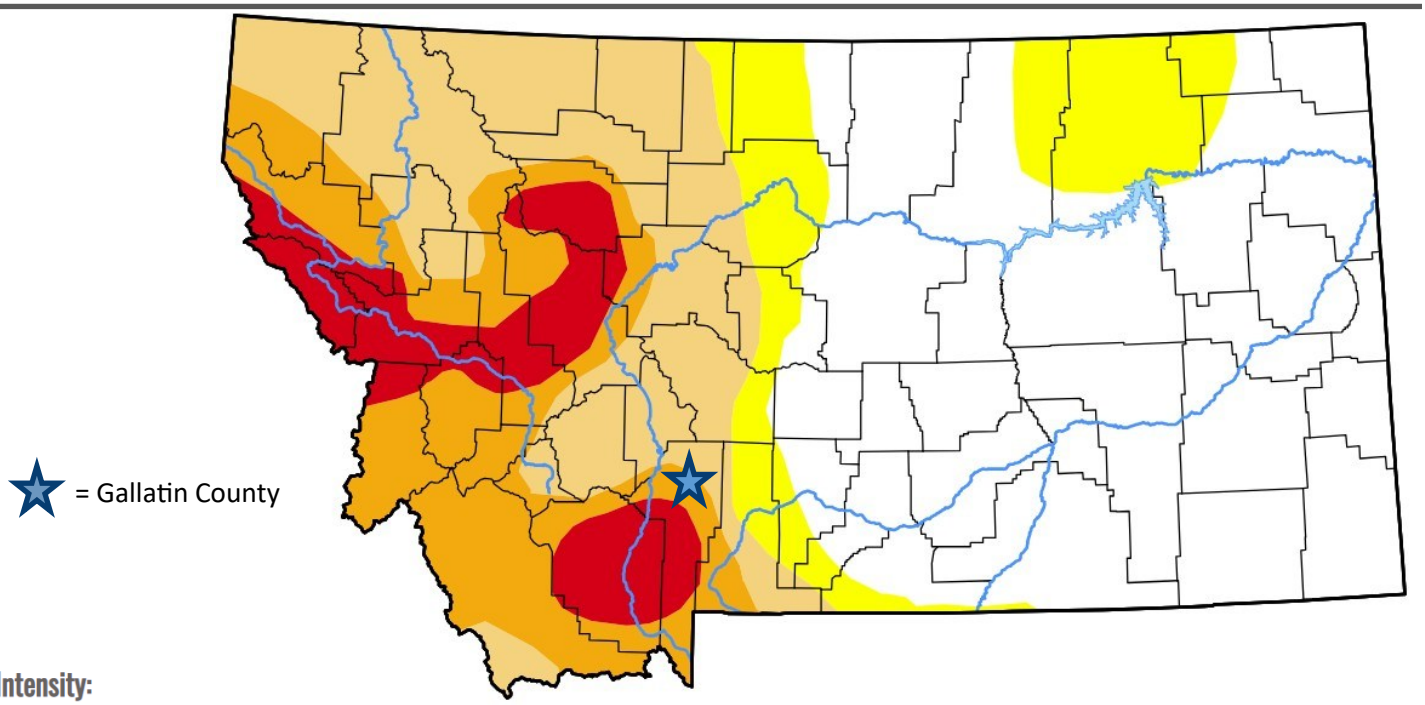
SOIL MOISTURE SUMMARY *Data current as of August 31st

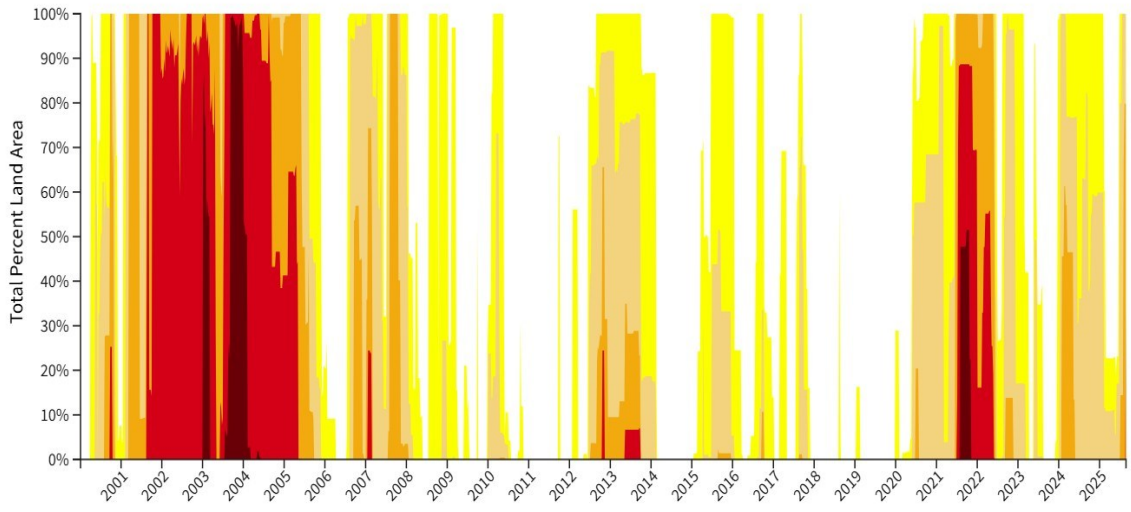
At the Manhattan and Bozeman stations, the soil temperature has decreased at both stations at all depths, except the Manhattan 36” probe, since July 2025.

Since July 2025, the soil water content has decreased at both stations at all depths.

Drought Index Data

Gallatin County— August 2025





Historical Conditions for Gallatin County, 2000-Present

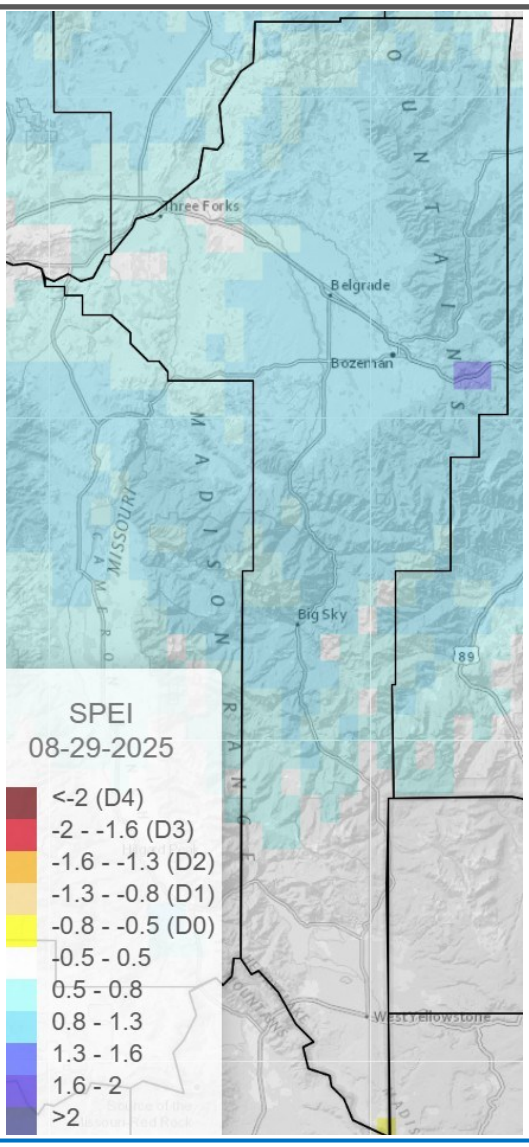
DROUGHT INDEX SUMMARY *Data is current as of August 28th

20.18% 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.

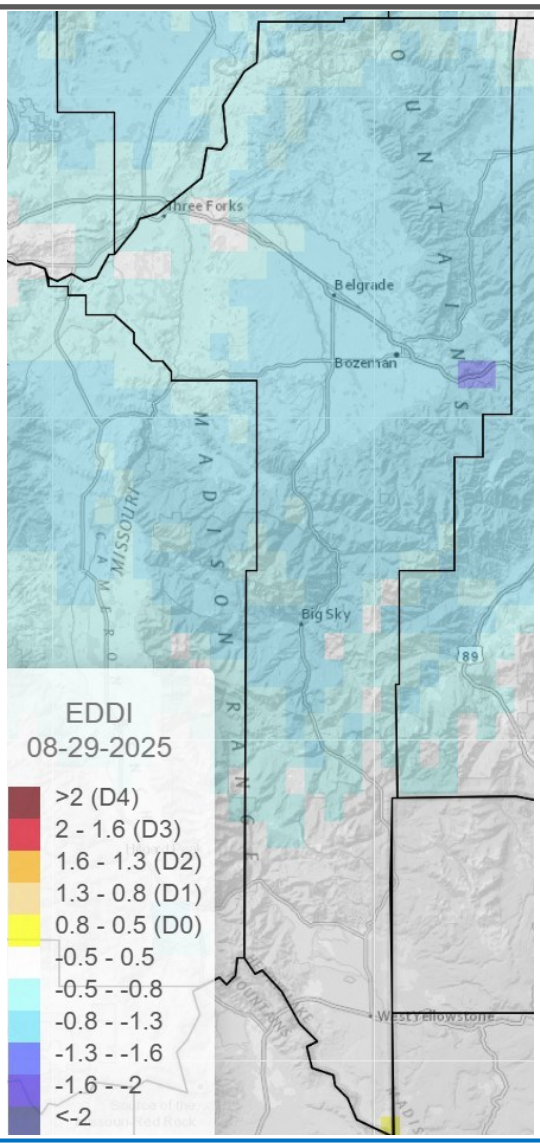
45.27% of Gallatin County is experiencing Severe Drought conditions at this time. Impacts include lower hay and crop yields, lower hay quality, non-existent subsoil moisture, high danger and fire count, poor air quality, low to dry livestock ponds and stressed water wells.

34.55% of Gallatin County is experiencing Extreme Drought conditions. Impacts include crops being unharvestable, cracked soil, bare fields, winter pastures are opened for grazing, little water available for livestock, producers may have to haul water, buy supplemental feed, cull or sell cattle early, increased fire restrictions.

Standardized Precipitation Evapotranspiration Index



Evaporative Demand Drought Index



SPEI & EDDI Overview *Data is current as of August 29th

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