



JULY

Streamflow

USGS Stream Gage Site Number	Site Name	Collection Date	Discharge (cfs)	Gage height (ft)	Temperature (°F)
06052500	Gallatin River at Logan, MT	August 1, 2017	331	4.05	67
		August 1, 2016	250	---	67.1
06048650	E Gallatin R ab Water Reclamation Fa nr Bozeman, MT	August 1, 2017	46.3	3.14	---
		August 1, 2016	27.6	---	---
06043500	Gallatin River near Gallatin Gateway, MT	August 1, 2017	662	1.86	---
		August 1, 2016	495	---	---

Reservoir

DNRC Water Project Name	Collection Date	Reservoir Elevation (ft)	Reservoir Volume (acre-ft)	% Capacity (as of July 31)	% Avg (for July)
Middle Creek Dam (Hyalite)	August 1, 2017	6711.8	8048	79	100
				77 (2016)	90 (2016)
30-Yr Avg for July (acre-ft)		8027			

Understanding Streamgage Data

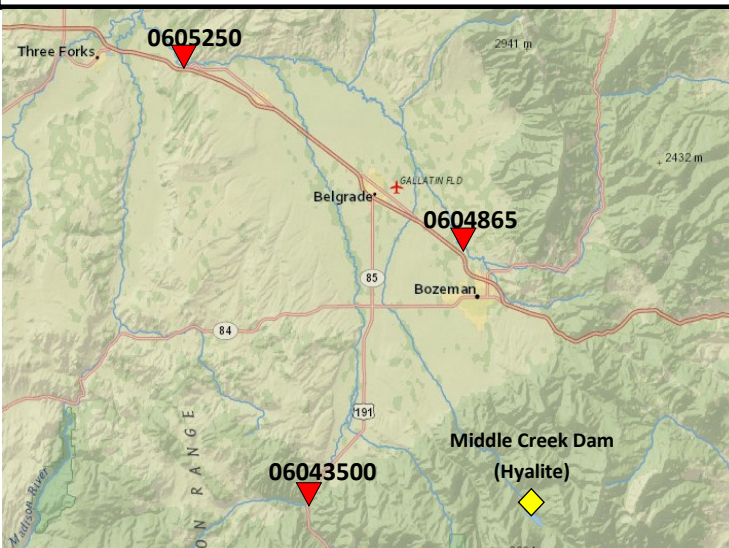
Discharge — the volume of water flowing past a given point in a stream in a given period of time ([USGS](#))

Gage Height — the height of the water in the stream above a reference point ([USGS](#))

Temperature — the temperature of a stream, in degrees Fahrenheit, recorded at a reference point

What is a streamgage?

A **USGS streamgage** is an active, continuously functioning measuring device located in the field that computes or estimates a mean daily streamflow or other set of unit values. USGS streamgages measure the elevation of water in a river or stream (the stage) which is then converted to a streamflow (discharge) using a curve that relates the elevation to a set of actual discharge measurements. The stage is typically measured every 15 minutes and data is transmitted to the USGS every 1 to 4 hours, after which stage and streamflow data is calculated and put on to the USGS website. For more information, [visit the USGS webpage on streamgages](#).



Map illustrating select USGS streamgage sites and Middle Creek Dam site for Gallatin County (Source: [USGS](#), [MT DNRC](#))

Middle Creek Dam (Hyalite)

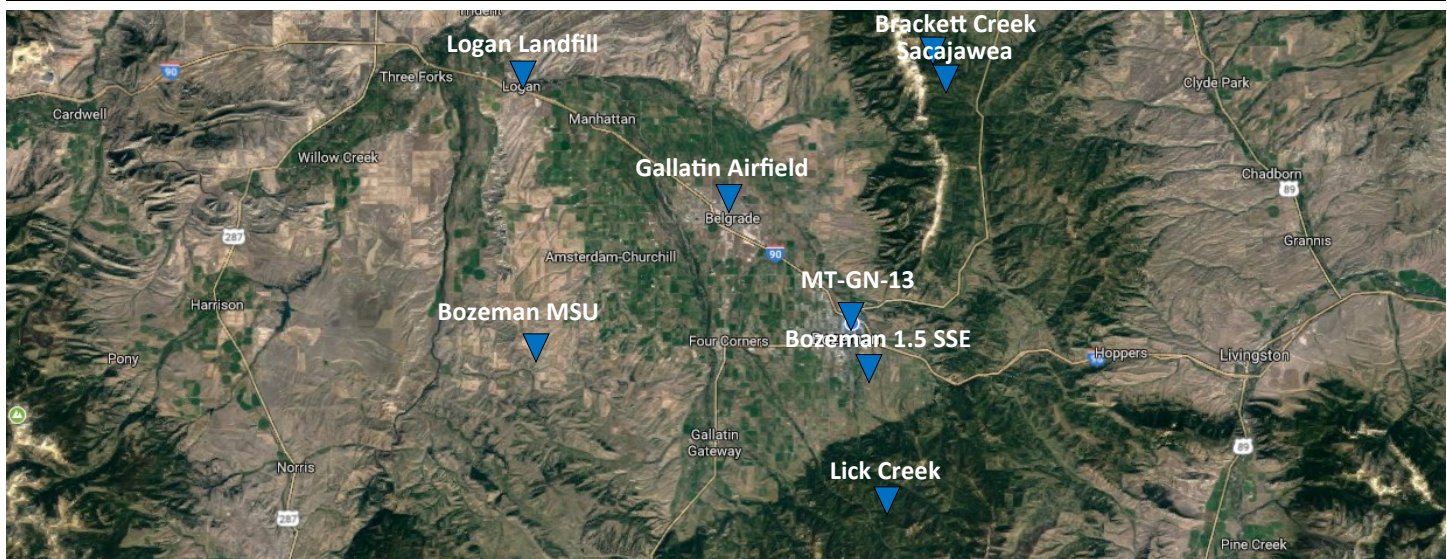
Middle Creek Dam (Hyalite), completed in 1951, is owned by the Montana DNRC and managed by the State Water Projects Bureau through a U.S. Forest Service Special Use Permit.

The reservoir stores 10,184 acre-feet of water and provides irrigation water for 73 farms and ranches and drinking water for 2,000 households. The reservoir is also used for recreational purposes. For more information, [visit the Montana DNRC State Water Projects Bureau webpage](#).

Precipitation

Station Name	Station ID	Monthly Precipitation for July (in)
Logan Landfill	USC00245123	0.22
Historical Average (2008-2017)	---	1.08
Bozeman Montana State University	USC00241044	0.27
Historical Average (1892-2017)	---	1.35
Bozeman Gallatin Field Airport	USW00024132	0.13
Historical Average (1940-2017)	---	1.11

Station Name	Station ID	Monthly Precipitation for July (in)
Bozeman 1.5 SSE	US1MTGN0011	0.27
Historical Average (2013-2017)	---	1.63
Brackett Creek	USS0010D35S	0.00
Historical Average (1994-2017)	---	1.88
Sacajawea	USS0010D10S	0.30
Historical Average (1999-2017)	---	1.83
Lick Creek	USS0010D13S	1.00
Historical Average (1978-2017)	---	1.50

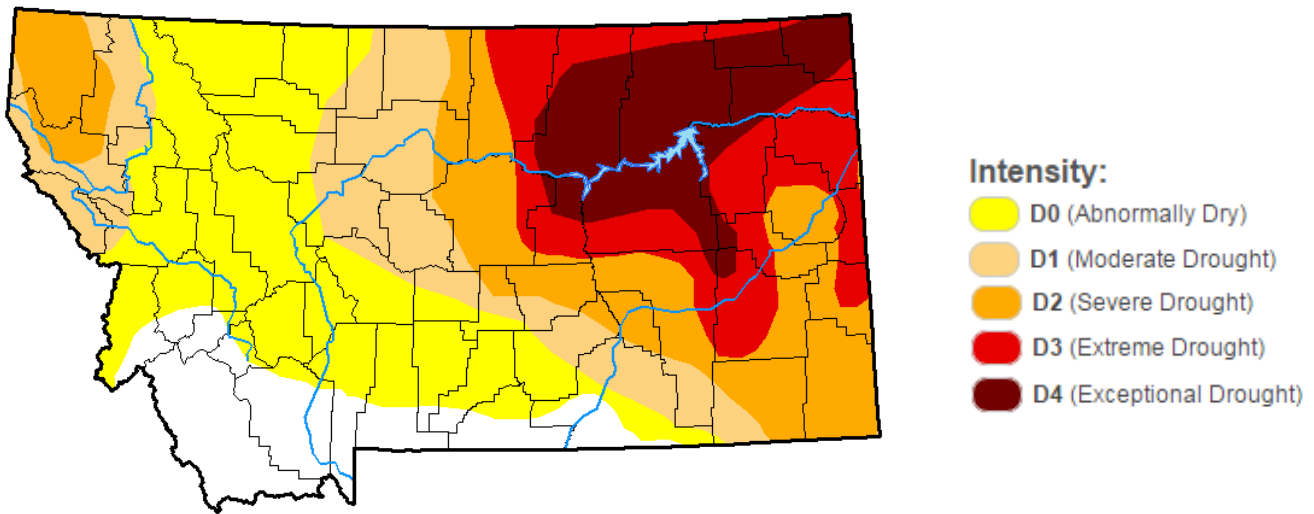


Map illustrating select climate data stations across Gallatin County (Source: [NOAA](#))

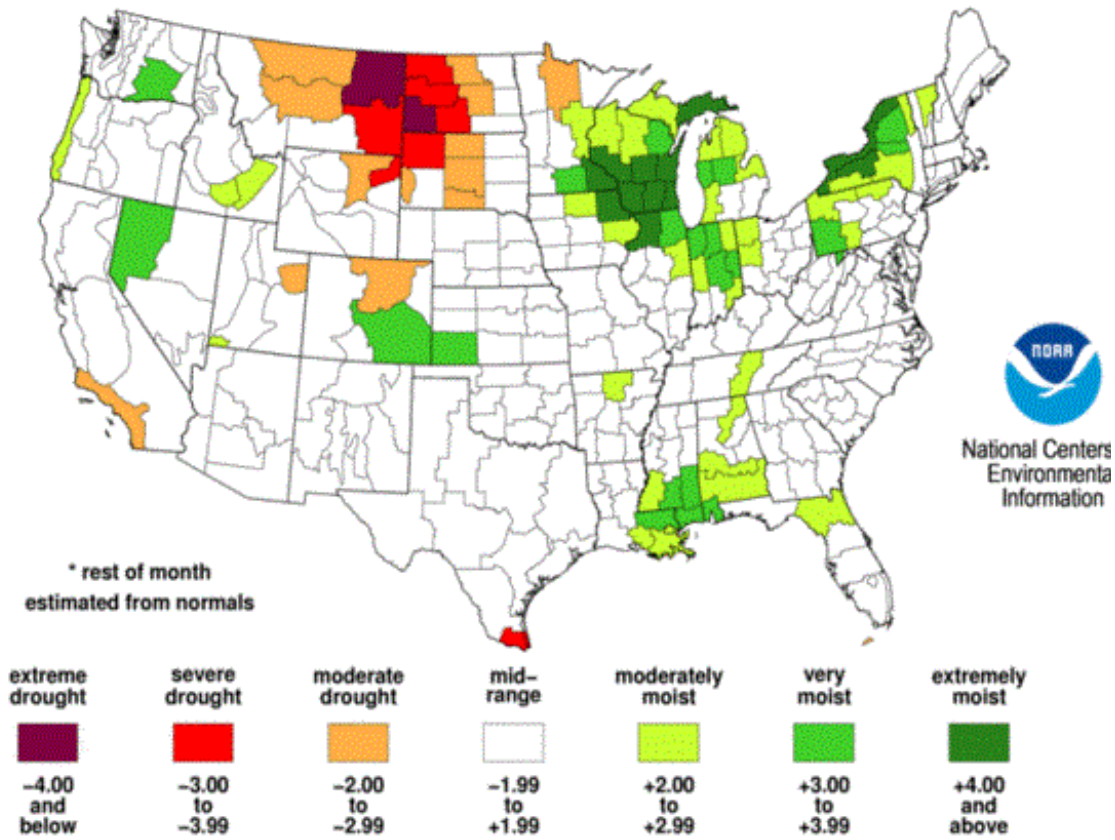
About the Sources

MSU-Extension Rain Gauge—The [MSU-Extension CoCoRaHS gauge](#) is located at the Gallatin County Extension offices in Bozeman. It is registered as a part of the Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS), a citizen science volunteer program for community members to report daily precipitation and other climatological conditions. For more information on CoCoRaHS, visit the [official CoCoRaHS webpage](#).

NOAA Global Summary of the Month — The National Oceanic and Atmospheric Administration’s [National Centers for Environmental Information](#) hosts and provides public access to a wide array of environmental and climatic data. Precipitation data, provided through the Center for Weather and Climate, is housed on its [Monthly Observational Data Map](#) through select climate stations. Data is presented as a monthly summary, organized by year, and includes general temperature and precipitation data.



U.S. Drought Monitor—Montana - displays areas experiencing drought conditions (current as of August 8). The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying [text summary](#) for forecast statements. **Author(s):** Deborah Bathke, National Drought Mitigation Center. **Source:** [U.S. Drought Monitor](#)



Palmer Drought Severity Index (PDSI) - current as of August 5, 2017. The PDSI uses temperature and precipitation data to estimate relative dryness through a standardized index ranging from -4 (dry) to +4 (wet). **Source:** [Climate Data Guide](#)



If you are interested in receiving any more information on snowpack, stream flow, and drought resiliency contact Madison Boone, *Big Sky Watershed Corps Member*, at MSU Extension in Gallatin County and One Montana. madison.boone@montana.edu OR (406) 582-3281
 The Gallatin County Drought Resiliency Index can be found online at <http://www.msuextension.org/gallatin/NaturalResourcesDroughtIndex.html>.
 All map and graph data can also be accessed by clicking on the image.

