JUNE

Streamflow

USGS Stream Gage Site Number	Site Name	Collection Date	Discharge (ft^3/s)	Gage Height (ft)	Temperature (^oF)
06052500	Gallatin River at Logan, MT	**June 1, 2017**	**3340**	**7.07**	**54**
		June 1, 2016	3030	- - -	53.06
06048650	E Gallatin R ab Water Recla-mation Fa nr Bozeman, MT	**June 1, 2017**	**274**	**4.71**	**- - -**
		June 1, 2016	271	- - -	- - -
06043500	Gallatin River near Gallatin Gateway, MT	**June 1, 2017**	**3580**	**4.24**	**- - -**
		June 1, 2016	2930	- - -	- - -

Reservoir

DNRC Water Project Name	Collection Date	Reservoir Elevation (ft)	Reservoir Volume (acre-ft)	% Capacity (as of May 31)	% Avg (for May)
Middle Creek Dam (Hyalite)	**June 1, 2017**	6721.4	**10300**	**101**	**114**
				100 (*2015*)*	109 (*2015*)*
30-Yr Avg for May (acre-ft)		**9026**			

* = 2016 data not available for May

Understanding Streamgage Data

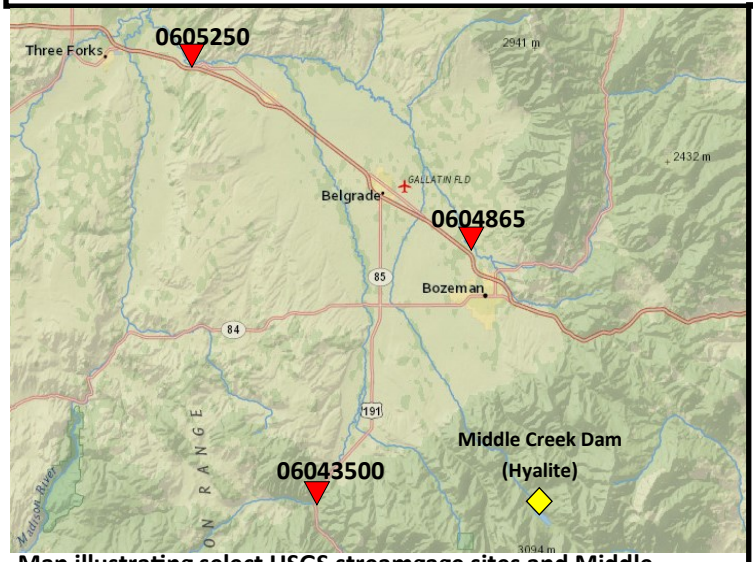
Discharge — the volume of water flowing past a given point in a stream in a given period of time (USGS)

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.

Snowpack

Many SNOTEL sites at higher elevations are still reporting snow as of June 1, 2017. The Black Bear, Carrot Basin, Lone Mountain, and Shower Falls SNOTEL sites all have average or above average snowpack. SNOTEL sites below 7000 feet in elevation (Sacajawea, Lick Creek, and Whiskey Creek) have no snowpack data for June 1, 2017. Visit the NRCS' Interactive SNOTEL Map or Snow Survey & Water Supply webpage for more information on SNOTEL, snowpack, and water supply in Gallatin County.

Precipitation

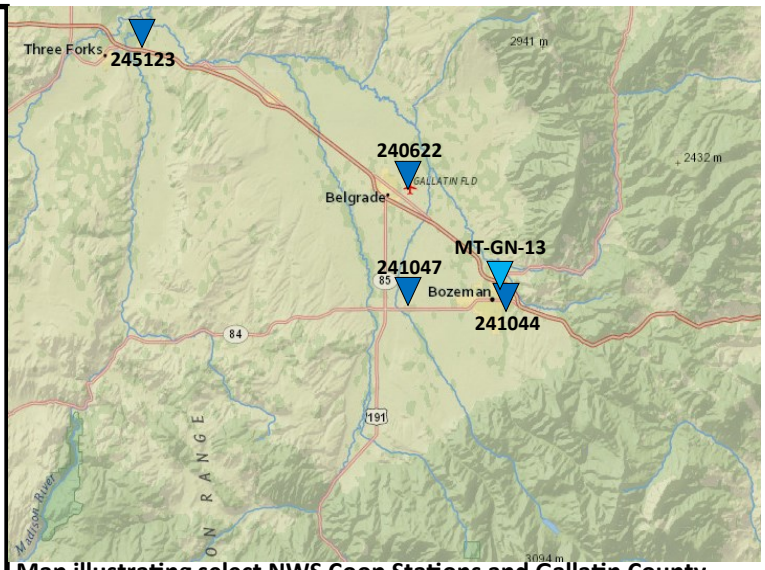
Source	Monthly Precipitation for May (in)
MSU-Extension CoCoRaHS Gauge (MT-GN-13)	**1.68**
NWS Coop Station 245123	**0.39***
Historical Average (2008-2016)	2.21
NWS Coop Station 240622	**1.72**
Historical Average (1941-2016)	2.23
NWS Coop Station 241047	**0.66***
Historical Average (1966-2016)	2.69
NWS Coop Station 241044	**0.35***
Historical Average (1892-2016)	2.89

* = daily precipitation data missing

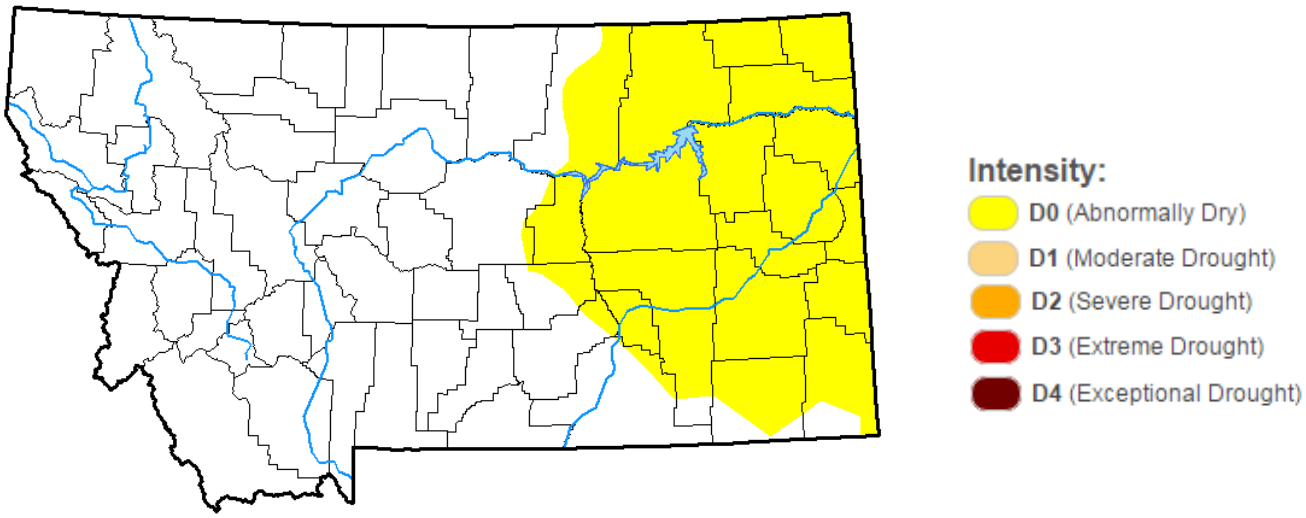
About the Sources

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.

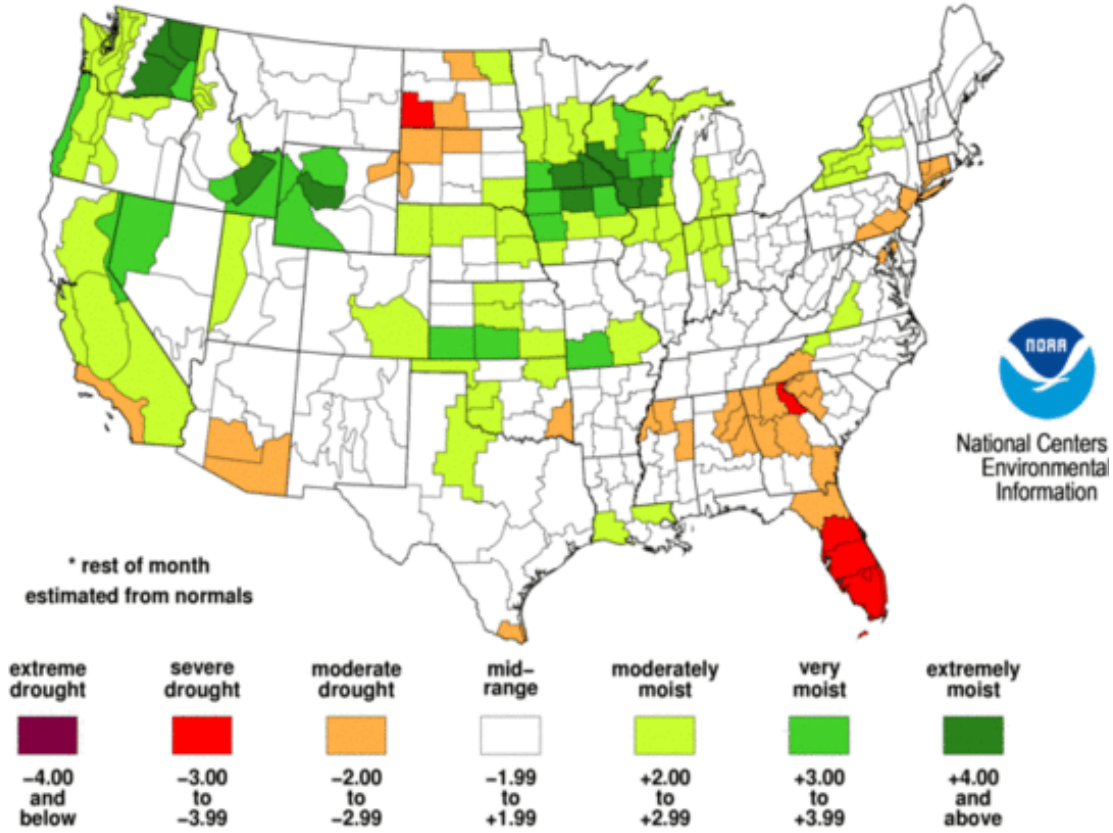
NWS Coop Stations—The National Weather Service's (NWS) Cooperative Observer Program (Coop) is a national, volunteer– driven climate and weather observation network. This program provides climatological data including daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, among other factors. For more information on these stations, visit the Western Regional Climate Center's Interactive Coop Station map.



Map illustrating select NWS Coop Stations and Gallatin County Extension's CoCoRaHS gauge



U.S. Drought Monitor—Montana - displays areas experiencing drought conditions (current as of May 30). The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements. **Author(s)**: Chris Fenimore, NOAA/NESDIS/NCEI. **Source**: U.S. Drought Monitor



Palmer Drought Severity Index (PDSI) - current as of June 3, 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

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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.

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