

Milk River Watershed Alliance

# MILK RIVER MONTHLY STATUS REPORT

July, 2018



*Life Line of the Hi-Line*

The Milk River Watershed Alliance is a locally led organization, working together to preserve, protect, and enhance the natural resources within the Milk River watershed while maintaining the quality of life.

Find out more! [www.milkriverwatershedalliance.com](http://www.milkriverwatershedalliance.com)

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## Streamflow: July

USGS Stream Gage Site Number	Site Name	Collection Date	Discharge (cfs)	Gage height (ft)	Long term (99 yrs) median flow (cfs)
06133500	North Fork Milk above St. Mary Canal, near Browning	7/5/2018	13.5	1.61	16
		7/5/2017	8.97	-	^
06135000	Milk at Eastern Crossing of International Boundary	7/5/2018	578	4.05	637
		7/5/2017	554	-	^
06140500	Milk at Havre	7/5/2018	902	3.80	784
		7/5/2017	1,040	-	^
06154100	Milk near Harlem	7/5/2018	393	6.56	585
		7/5/2017	587	-	^
06155030	Milk near Dodson	7/5/2018	21	3.43	49
		7/5/2017	8.67	-	^
06155500	Milk at Malta	7/5/2018	99.5	1.58	330
		7/5/2017	38.9	-	^
06135000	Milk at Juneberg Bridge near Saco	7/5/2018	283	3.44	281
		7/5/2017	257	-	^
06172310	Milk at Tampico	7/5/2018	238	3.36	262
		7/5/2017	82.6	-	^
06174500	Milk at Nashua	7/5/2018	314	2.36	417
		7/5/2017	140	-	^

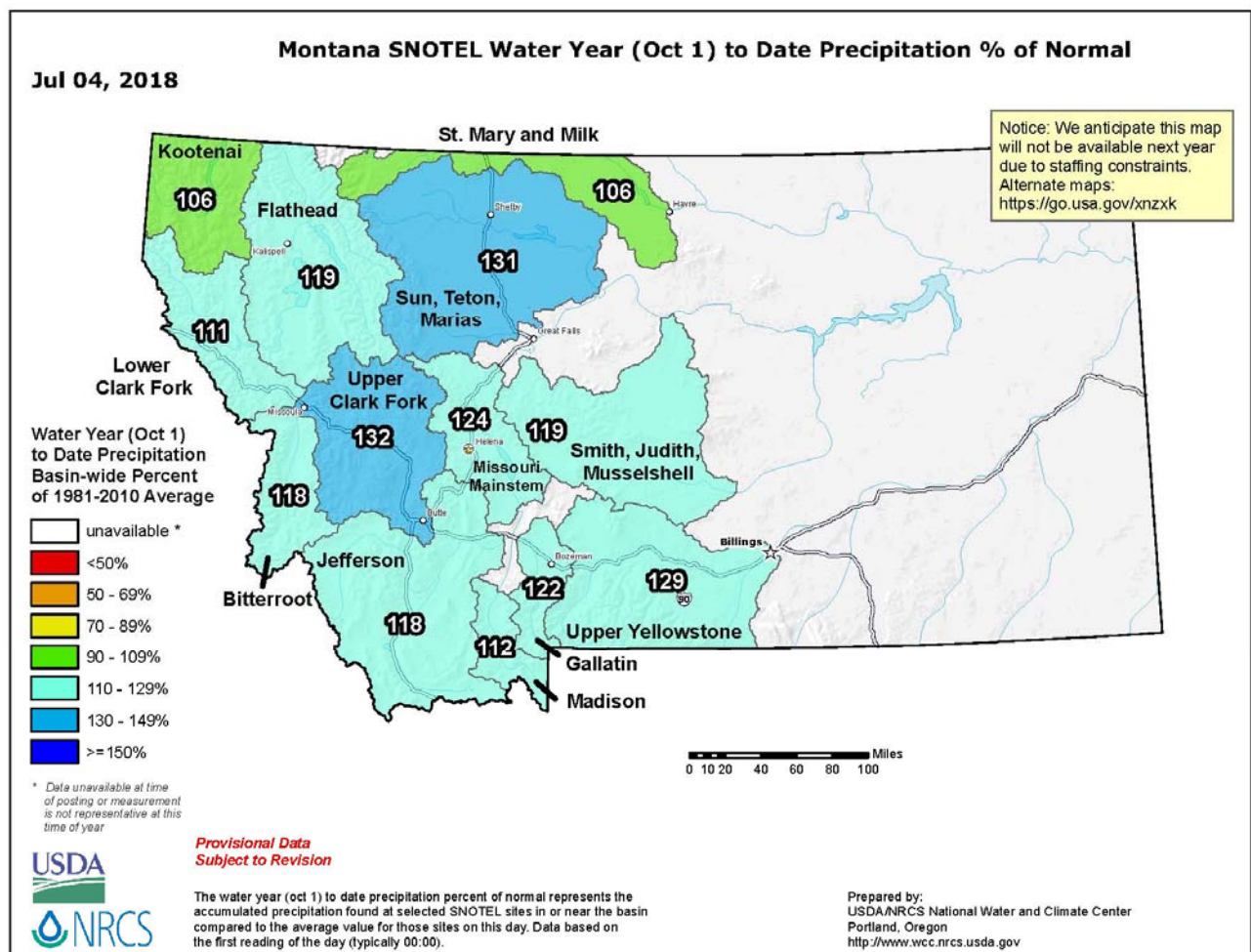
# Tributary Streamflow: July

USGS Stream Gage Site Number	Site Name	Collection Date	Discharge (cfs)	Gage height (ft)	Long term (99 yrs) median flow (cfs)
06151500	Battle Creek near Chinook	7/5/2018	7.78	1.27	14.0
		7/5/2017	7.57	-	^
06166000	Beaver Creek by Guston Coulee near Saco	7/5/2018	0	0	0.8
		7/5/2017	0	-	^

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

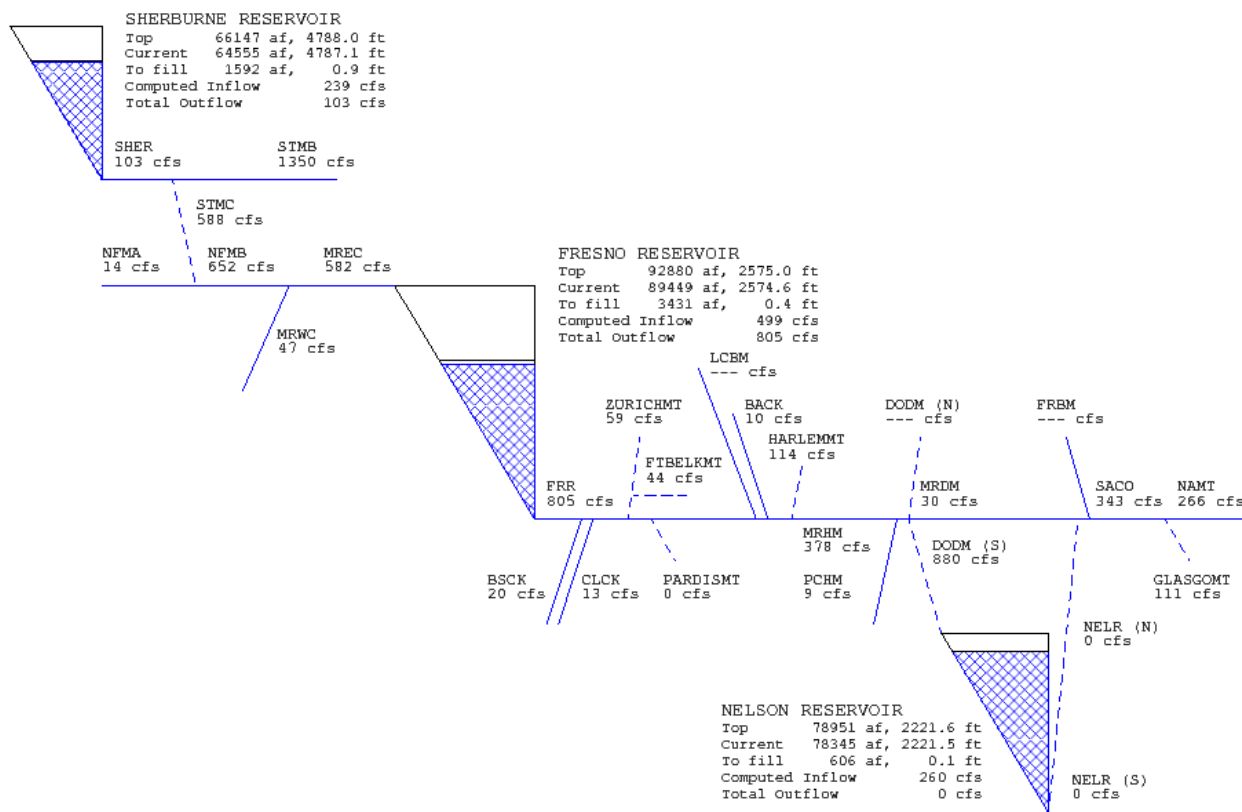
**Gage Height** — the height of the water in the stream above a reference point ([USGS](#))

**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. ([USGS](#))



# Reservoir Storage

US BOR Water Project Name	Collection Date	Reservoir Elevation (ft)	Reservoir Storage (acre-ft)	Storage % of Capacity <u>2018</u> 2017	Storage % of Avg <u>2018</u> 2017
Sherburne Reservoir	7/4/2018	4,787.1	64,555.0	98%	113%
				99%	115%
Fresno Reservoir	7/4/2018	2,574.6	89,449.0	97%	131%
				61%	81%
Nelson Reservoir	7/4/2018	2,221.5	78,345.0	99%	127%
				76%	97%



Data as of 07/04/2018

Caution - Data may be ice affected!

## US Bureau of Reclamation Hydromet Teacup Diagram of Milk River Project

**Top**-The amount of water that classifies the reservoir as full, and the pool elevation at that level

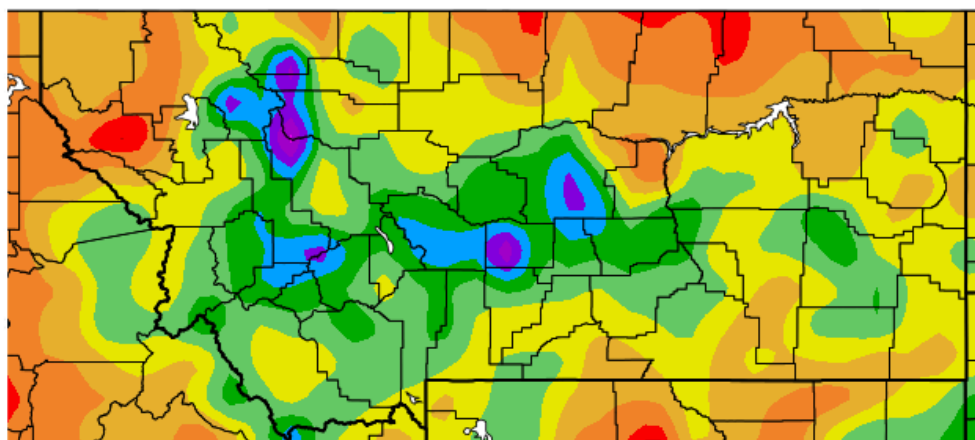
**Current**- The *current* amount of water stored in the reservoir, and the *current* pool elevation

Reservoir is considered "full" when pool elevation is at top of active conservation pool. Percentage is based on total reservoir volume below that level. - [US BOR](#)

# Precipitation

Station Name	Station ID	Monthly Precipitation for June 2018(in)	Monthly Precipitation for June 2017(in)
NOAA Glasgow Weather Forecast Office	USC00243555	1.62	0.14
NOAA Malta	USC00245334	1.75	0.89
NOAA Chinook	USC00241722	2.82	0.95
NOAA Havre Airport	USW00094012	1.32	0.68
NOAA Many Glacier (near Sherburne)	USS0013A27S	4.90	3.00

Precipitation (in)  
6/1/2018 – 6/30/2018



Generated 7/2/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

## About the Sources

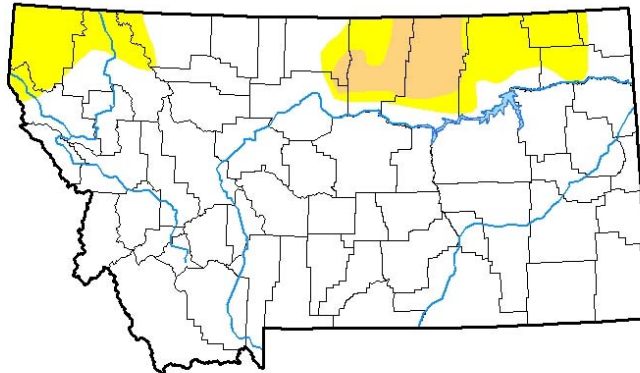
**Glasgow Weather Service Rain Gauge**—The [National Weather Service in Glasgow](#) is a Coop weather observer. The Coop provides observational meteorological data by local volunteers who submit data which helps contribute to NWS programs and local near real-time forecasts. Coop weather observers help to contribute to the data found within the Milk River watershed.

**NOAA Climate Datasets** — The National Oceanic and Atmospheric Administration's has a plethora of climate datasets for various locations, and measurements on precipitation, wind, temperature, and many more. Data is submitted to NOAA from CoCoRaHS, COOP, NWS, and other registered recorders. You can visit the [NOAA Dataset Catalogue](#) to tailor your search.

# Drought Monitor

## U.S. Drought Monitor Montana

July 3, 2018  
(Released Thursday, Jul. 5, 2018)  
Valid 8 a.m. EDT



**Intensity:**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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CPC/NOAA/NWS/NCEP



<http://droughtmonitor.unl.edu/>

**U.S. Drought Monitor—Montana** - displays areas experiencing drought conditions (current as of **DATE**). The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. **Source:** [U.S. Drought Monitor](http://droughtmonitor.unl.edu/)

## Soil Moisture: N. Havre Station

**MT Mesonet-** “The Montana Mesonet is a high density climate and soil moisture monitoring network. Mesonet data supports management of agricultural lands, rangelands, and natural ecosystems to build resilient and sustainable systems and to support MT drought response”

[Mesonet](#)

**Volumetric Water Content-** raw water volume, expressed as a percent. The percent of water in a volume of soil. VWC ratio= Volume water/ Volume Soil

Mesonet Probe Depth (in)	Soil Temperature (°F)	Soil Volumetric Water Content VWC (%)
4"– surface	79°	20%
8"– shallow rooting	64°	28%
20"– deep rooting	61°	32%
36"–groundwater recharge	58°	37%

Data based on daily reading from July 5, 2018.

If you are interested in receiving any more information on snowpack, stream flow, and drought resiliency contact Casey Gallagher, *Big Sky Watershed Corps Member*, for Milk River Watershed Alliance at the Phillips Conservation District Office.

**Gallagher.mrwa@gmail.com OR (406) 654-1334 ext. 120**

The Milk River monthly status report can be found online at [www.milkriverwatershedalliance.com](http://www.milkriverwatershedalliance.com)