

# Blackfoot Water Supply Report

## May 12, 2022

**Montana Water Supply Report data as of May 6, 2022 (from NRCS):**

<https://www.nrcs.usda.gov/wps/portal/nrcs/mt/snow/>

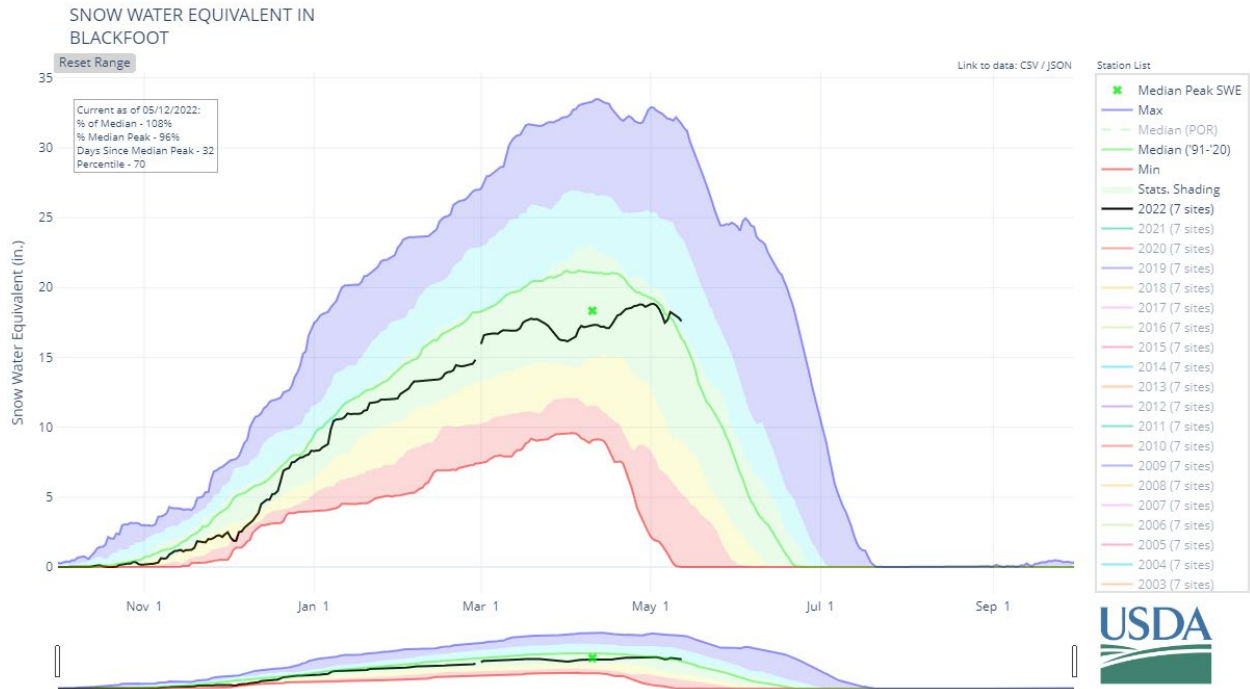
### Overview

After nearly three months of waiting for typical winter weather, cool temperatures and precipitation finally arrived during April in Montana. Prior to April, northwest Montana had been the largest recipient of precipitation this water year. “Weather patterns shifted last month, and April precipitation was slightly below normal in northwest Montana but well above normal in southcentral and southeast Montana,” said USDA Natural Resources Conservation Service (NRCS) Hydrologist Eric Larson. The Missouri headwaters and mainstem received near normal precipitation during April. The cool weather and precipitation resulted in snowpack percentage increases in all of Montana’s major river basins from April 1. The only exception is the Milk River basin which doesn’t have any snow remaining at the one SNOTEL site in the Bears Paw Mountains near Havre.

The delay in snowmelt due to cool April weather was reflected in the streamflows reported for April. Nearly all gages in the southwest, central, and southcentral portions of the state had below normal to well below normal streamflow this past month. “Current streamflow forecasts for the May through July time period reflect improved snowpack and precipitation conditions,” said Larson. In locations such as the Rocky Mountain Front and river basins west of the Continental Divide, the snowpack remains above normal, has yet to begin melting at the upper elevations, and consequently streamflows are forecasted to be near to above normal. Forecasts for southwest Montana, the mainstem of the Missouri, and the Yellowstone are looking much less grim than last month but remain below normal for May to July. There are still areas of concern such as the Shields and Musselshell rivers, which are forecast to be in the 40% to 55% of normal range for that period.

“As appealing as warm, sunny summer weather sounds, the best-case scenario over the next couple months is continued cool weather and more precipitation in locations that did not reach their typical peak snowpack levels,” said Larson. Many low elevation SNOTEL sites are currently melted out and typical melt out dates reach as far out as late June at higher elevations. Continued cool, cloudy weather would assist in holding onto to the snow longer and ultimately provide water later into the typically drier summer months.

# Blackfoot River Basin Snow Water Equivalent



**Black line: 2021/2022 Water Year**

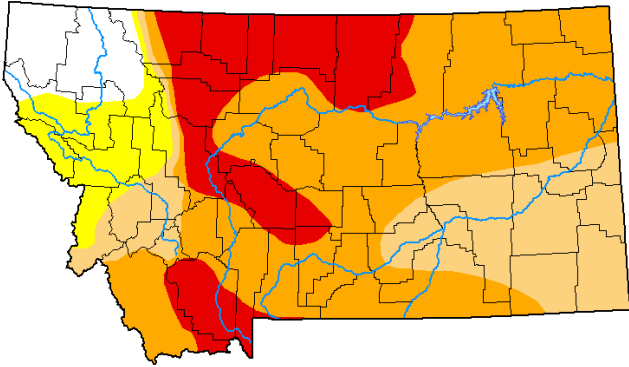
**Green line: 30-year median**

## Reservoir Storage

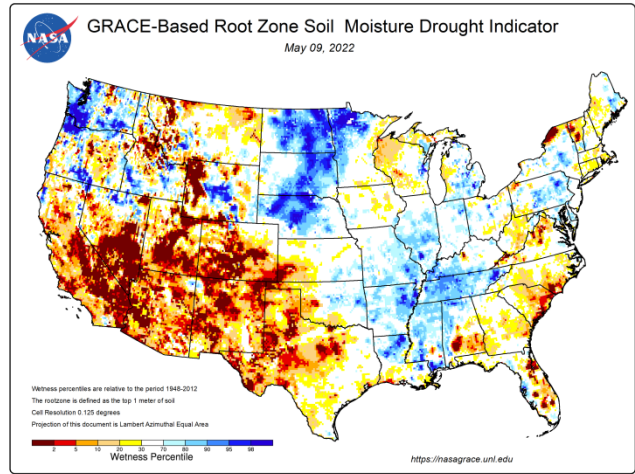
Reservoir storage is currently below average for this time of year in Western Montana reservoirs and below to the levels at this time last year.

Upper Clark Fork	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Lower Willow Creek Reservoir				4.9					
East Fork Rock Creek Res	9.4	10.1	10.0	16.0	59%	63%	62%	94%	101%
Nevada Creek Res	8.2	11.3	10.5	12.6	65%	90%	83%	78%	108%
Silver Lake				0.0					
Georgetown Lake	28.8	27.5	28.6	31.0	93%	89%	92%	101%	96%
<b>Basin Index</b>					<b>78%</b>	<b>82%</b>	<b>82%</b>	<b>94%</b>	<b>100%</b>
# of reservoirs					3	3	3	3	3







## Montana Drought Monitor – May 10, 2022



## National Root Zone Soil Moisture – May 9, 2022



### Drought Intensities

-  None: No Drought
-  D0: Abnormally Dry
-  D1: Moderate Drought
-  D2: Severe Drought
-  D3: Extreme Drought
-  D4: Exceptional Drought

## Montana SNOTEL Snow Water Equivalent: May 12, 2022

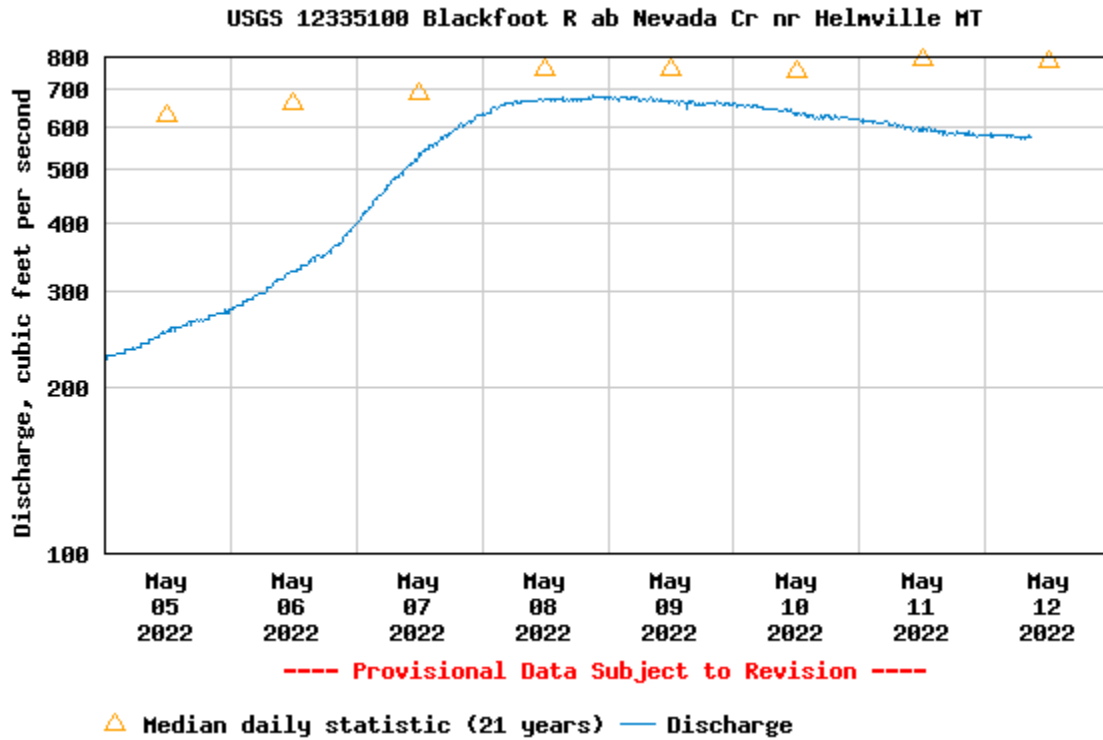
<b>Montana SNOTEL Snow/Precipitation Update Report</b>							
Based on Mountain Data from NRCS SNOTEL Sites							
**Provisional data, subject to revision**							
Data based on the first reading of the day (typically 00:00) for Thursday, May 12, 2022							
Basin Site Name	Elev (ft)	Snow Water Equivalent		Water Year-to-Date Precipitation			
		Current (in)	Median (in)	Pct of Median	Current (in)	Average (in)	Pct of Average
<b>UPPER CLARK FORK RIVER BASIN</b>							
Barker Lakes	8250	16.4	15.2	108	17.7	20.6	86
Basin Creek	7180	9.1	7.2	126	13.3	13.2	101
Black Pine	7210	7.1	6.6	108	14.2	16.4	87
Combination	5600	0.0	0.0	*	9.8	11.4	86
Copper Bottom	5200	0.0	0.0	*	19.2	17.3	111
Copper Camp	6950	26.3	27.8 <sub>(17)</sub>	95	34.0	30.5 <sub>(17)</sub>	111
Lubrecht Flume	4680	0.0	0.0	*	13.2	12.5	106
Nevada Ridge	7020	11.3	11.2 <sub>(26)</sub>	101	16.7	18.4 <sub>(26)</sub>	91
N Fk Elk Creek	6250	6.3	3.6	175	16.7	17.5	95
North Fork Jocko	6330	47.4	38.8	122	38.7	54.0	72
Peterson Meadows	7200	9.2	9.2	100	12.5	16.3 <sub>(22)</sub>	77
Skalkaho Summit	7250	19.9	18.6	107	25.4	25.9	98
Stuart Mountain	7400	31.7	33.0 <sub>(26)</sub>	96	33.0	35.4 <sub>(26)</sub>	93
Warm Springs	7800	24.1	22.8	106	26.5	27.2	97
<b>Basin Index (%)</b>		<b>108</b>			<b>92</b>		

# May 12, 2022 USGS Real Time Flow Conditions

## Nevada Creek above Reservoir

### Discharge, cubic feet per second

Most recent instantaneous value: 575 05-12-2022 08:45 MDT



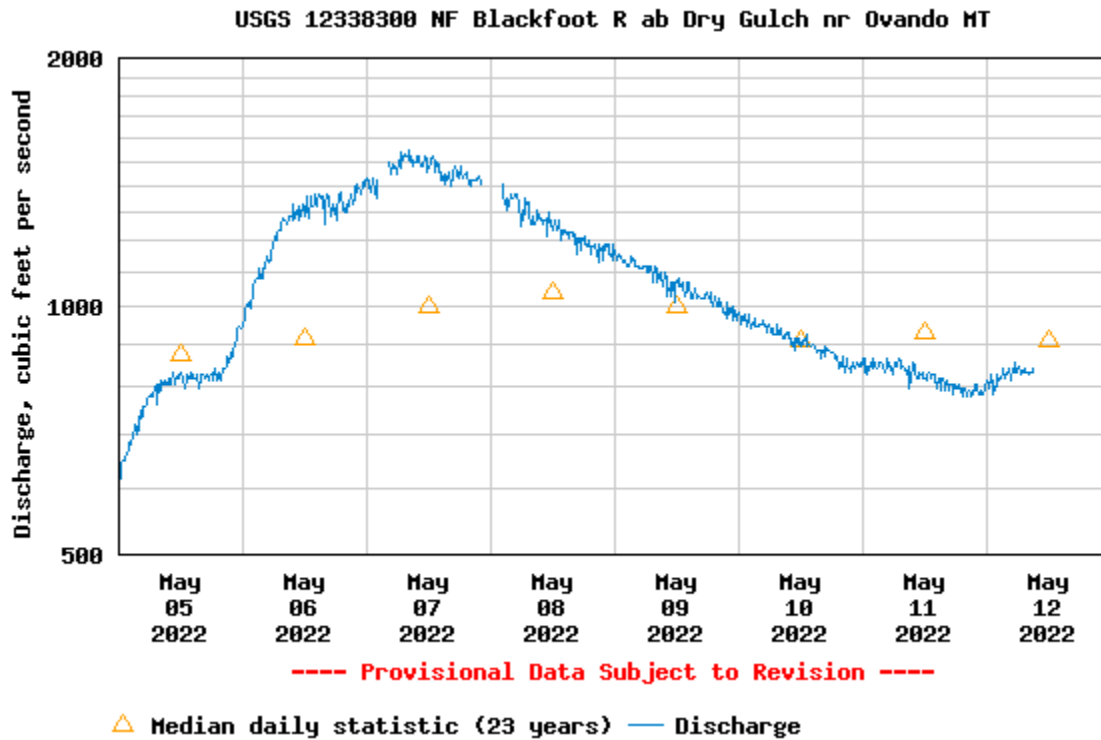
Daily discharge, cubic feet per second -- statistics for May 12 based on 21 water years of record [more](#)

Min (2002)	25th percentile	Most Recent Instantaneous Value May 12	Median	Mean	75th percentile	Max (2005)
189	560	575	788	854	1070	1800

## North Fork Blackfoot

### Discharge, cubic feet per second

Most recent instantaneous value: 840 05-12-2022 09:00 MDT



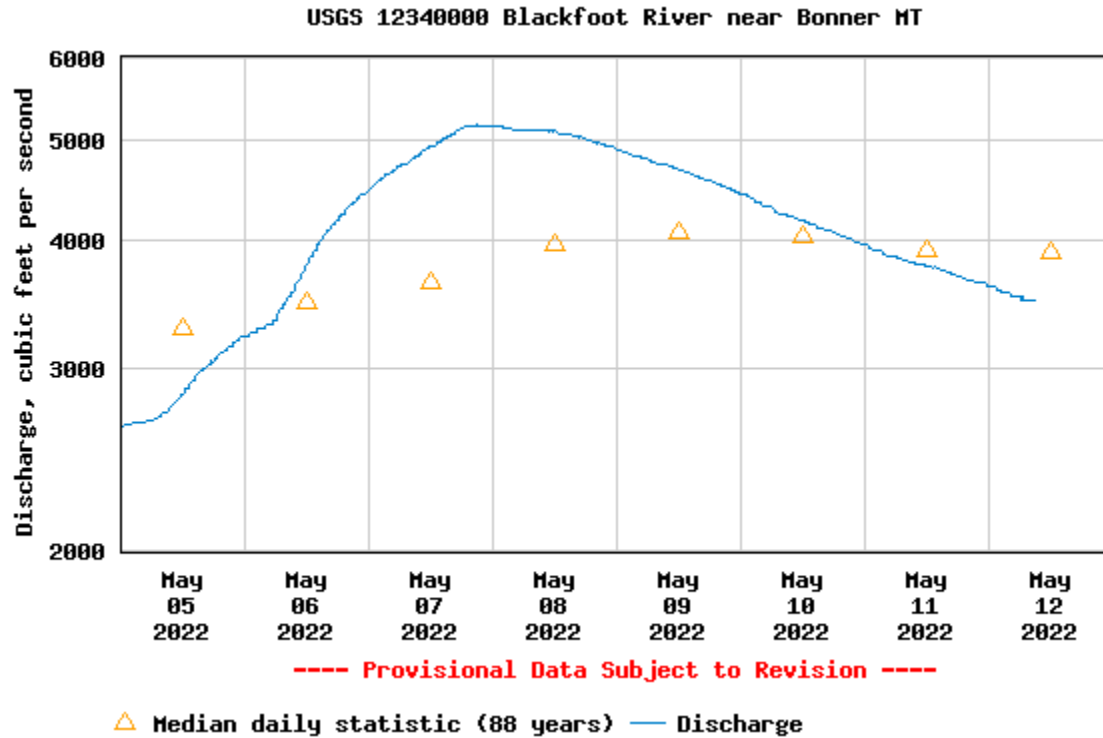
#### Daily discharge, cubic feet per second -- statistics for May 12 based on 23 water years of record [more](#)

Min (2010)	25th percentile	Most Recent Instantaneous Value May 12	Median	Mean	75th percentile	Max (2017)
277	752	840	908	1040	1270	2550

## Blackfoot River at Bonner

### Discharge, cubic feet per second

Most recent instantaneous value: 3500 05-12-2022 08:45 MDT



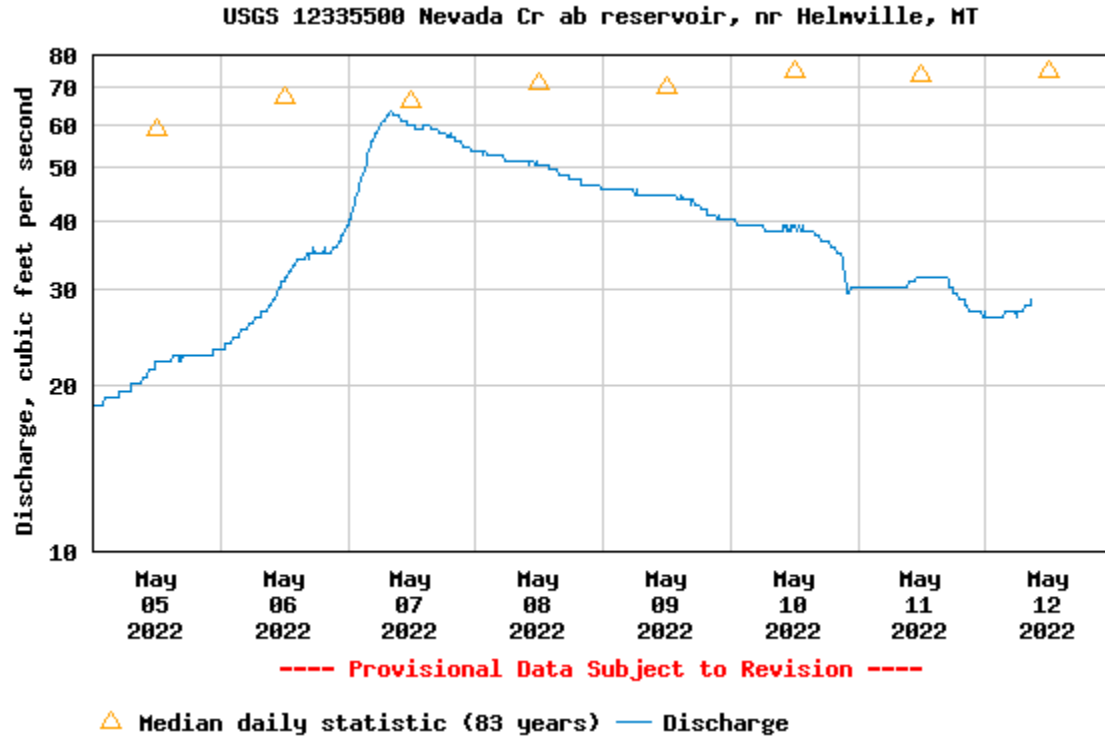
Daily discharge, cubic feet per second -- statistics for May 12 based on 88 water years of record [more](#)

Min (1941)	25th percentile	Most Recent Instantaneous Value May 12	Median	Mean	75th percentile	Max (2018)
925	3010	3500	3890	4680	5490	17400

## Blackfoot River above Nevada Creek

### Discharge, cubic feet per second

Most recent instantaneous value: 28.7 05-12-2022 08:45 MDT



**Daily discharge, cubic feet per second -- statistics for May 12 based on 83 water years of record [more](#)**

Min (1973)	Most Recent Instantaneous Value May 12	25th percentile	Median	Mean	75th percentile	Max (1976)
12.0	28.7	47	75	101	127	517



# Three-Month Outlook: May 2022

From  
National Weather Service Climate Prediction Center

<http://www.cpc.ncep.noaa.gov/>

Higher chance for below average precipitation  
for May through July.

Higher chance for above normal temperatures from  
May through July.

