

# Blackfoot Water Supply Report

## April 7, 2023

Montana Water Supply Report data as of April 1, 2023 (from NRCS):

<https://www.nrcs.usda.gov/wps/portal/wcc/home/quicklinks/states/montana/waterSupply/>

### Overview

Thanks to above average precipitation and below average temperatures for the month of March, the Blackfoot sub-basin and much of Montana is heading into April with average to above average snowpack. Overall, snowpack is 100% of normal for the Blackfoot sub-basin. Typically, snowpack peaks in the Blackfoot on April 10 at an average of 18.6 inches of snow water equivalent. This year we have already surpassed that year-to-year peak by more than 2 inches. Most basins in western Montana are also at or above normal, the outliers being in the far northwestern part of the State. Eastern Montana is also largely in good shape especially compared to this time last year.

The average to above average snowpack in the basin is leading to forecasts of slightly above average streamflow for the Blackfoot River. The timing of runoff will be an important factor to watch over the next couple of months. With mostly below average temperatures in March, snowpack even in low elevations has not melted as much as would be typical by early April. This is reflected in abnormally low streamflow in the Blackfoot River (38% of normal at the Bonner gage) and abnormally high snowpack at low elevations (564% of normal at the Lubrecht SNOTEL site). With above average temperatures forecasted over the next couple of weeks, we could start to see streamflow come up as lower elevation snow melts; but below average temperatures forecasted over the next month and average temperatures over the next three months could help to sustain a more gradual runoff flow.

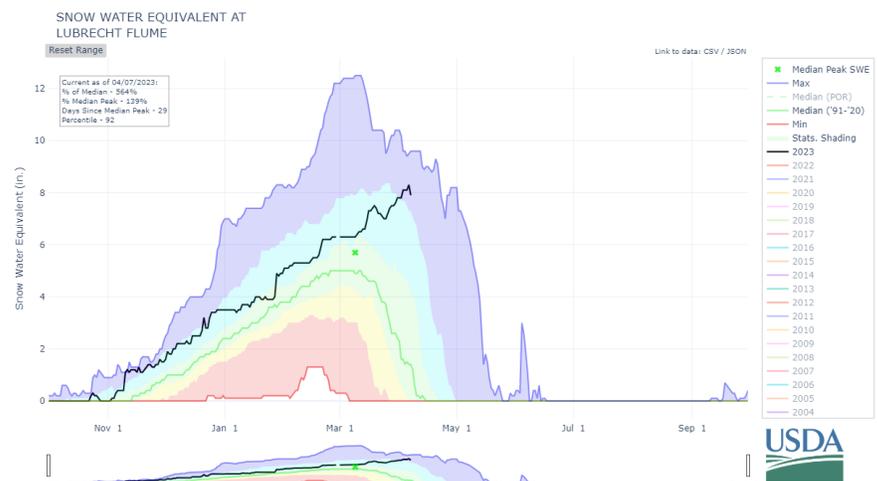
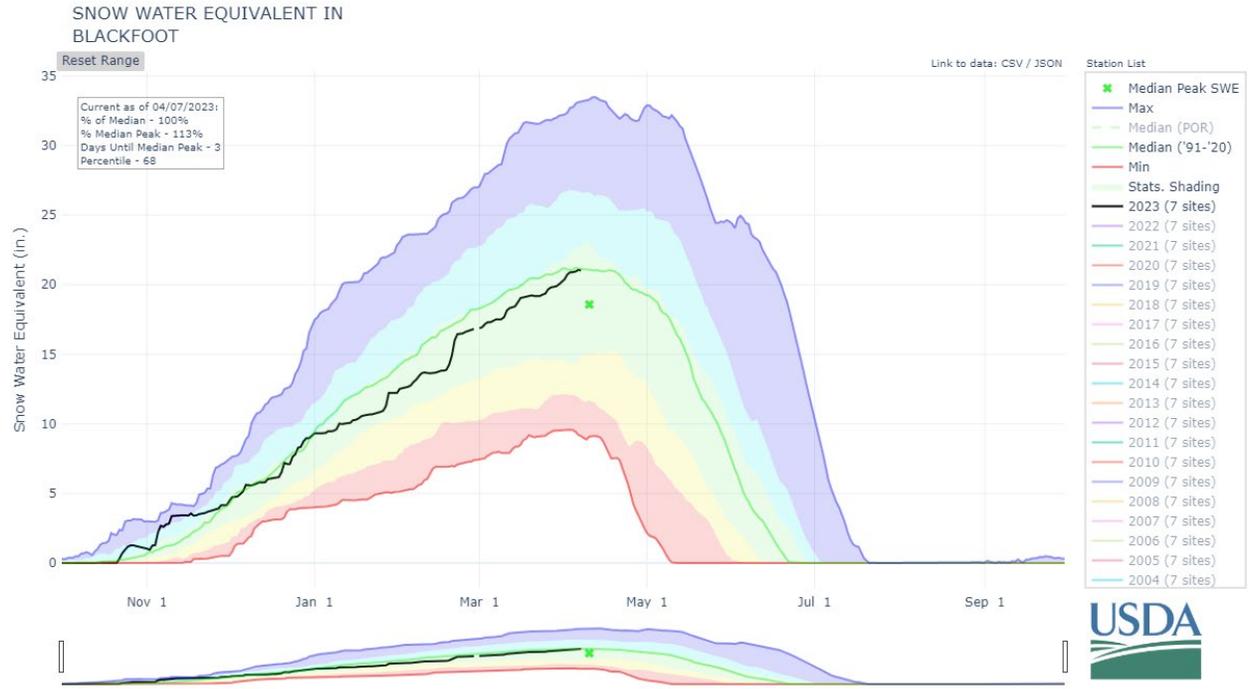


Figure 1. Snow water equivalency for the SNOTEL site at Lubrecht, showing low elevation snow much more prevalent than typical for this time of year.

# Blackfoot River Basin Snow Water Equivalent



**Black line: 2022/2023 Water Year**

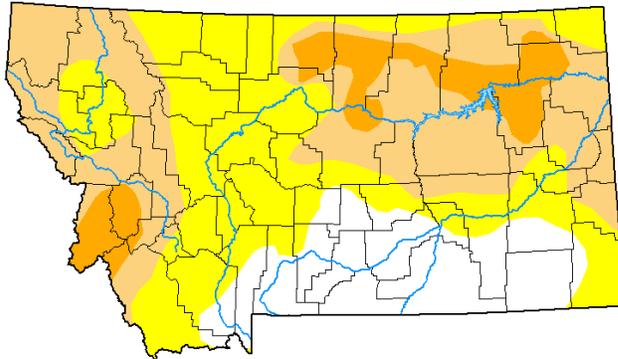
**Green line: 30-year median**

## Reservoir Storage

Many reservoir storage stations are currently not reporting. At the beginning of last month, Nevada Creek Reservoir was at 38% capacity, 4% below the level it was at that 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
Georgetown Lake	27.9	27.8	28.3	31.0	90%	90%	91%	99%	98%
Nevada Creek Res		7.2	8.6	12.6		57%	68%		84%
Lower Willow Creek Reservoir				4.9					
Silver Lake									
East Fork Rock Creek Res		9.0	9.2	16.0		56%	57%		97%
<b>Basin Index</b>					<b>90%</b>	<b>74%</b>	<b>77%</b>	<b>99%</b>	<b>95%</b>
# of reservoirs					1	3	3	1	3

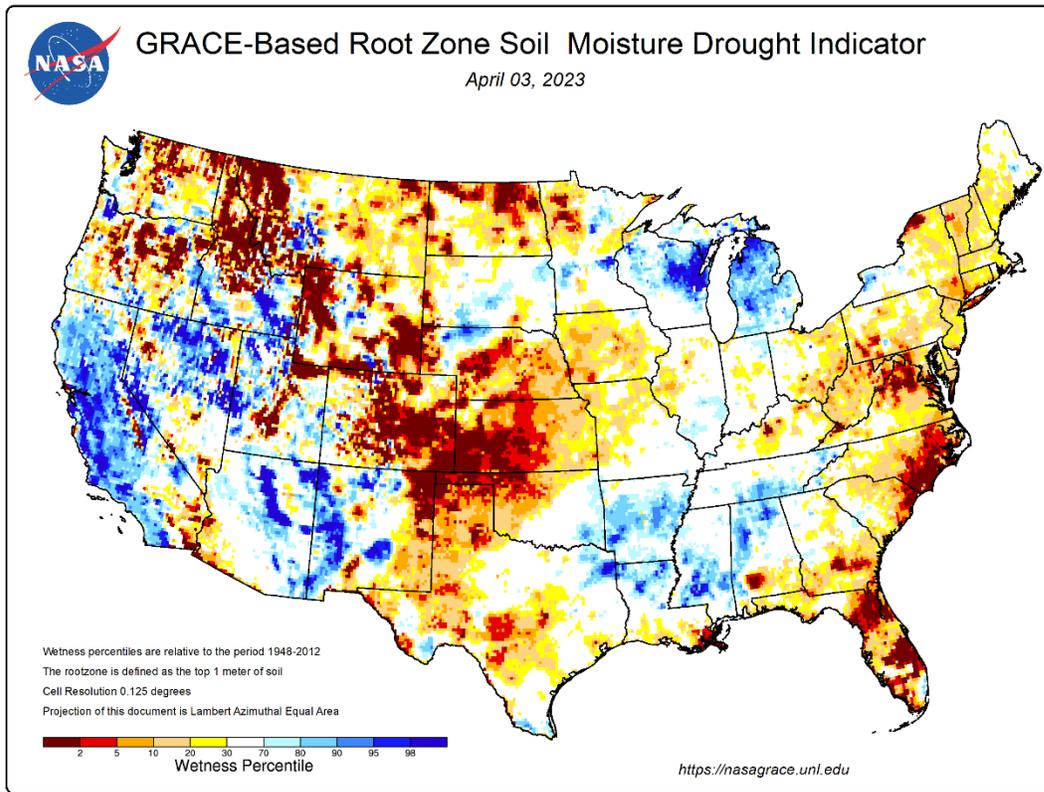
## Montana Drought Monitor – April 4, 2023



### Drought Intensities

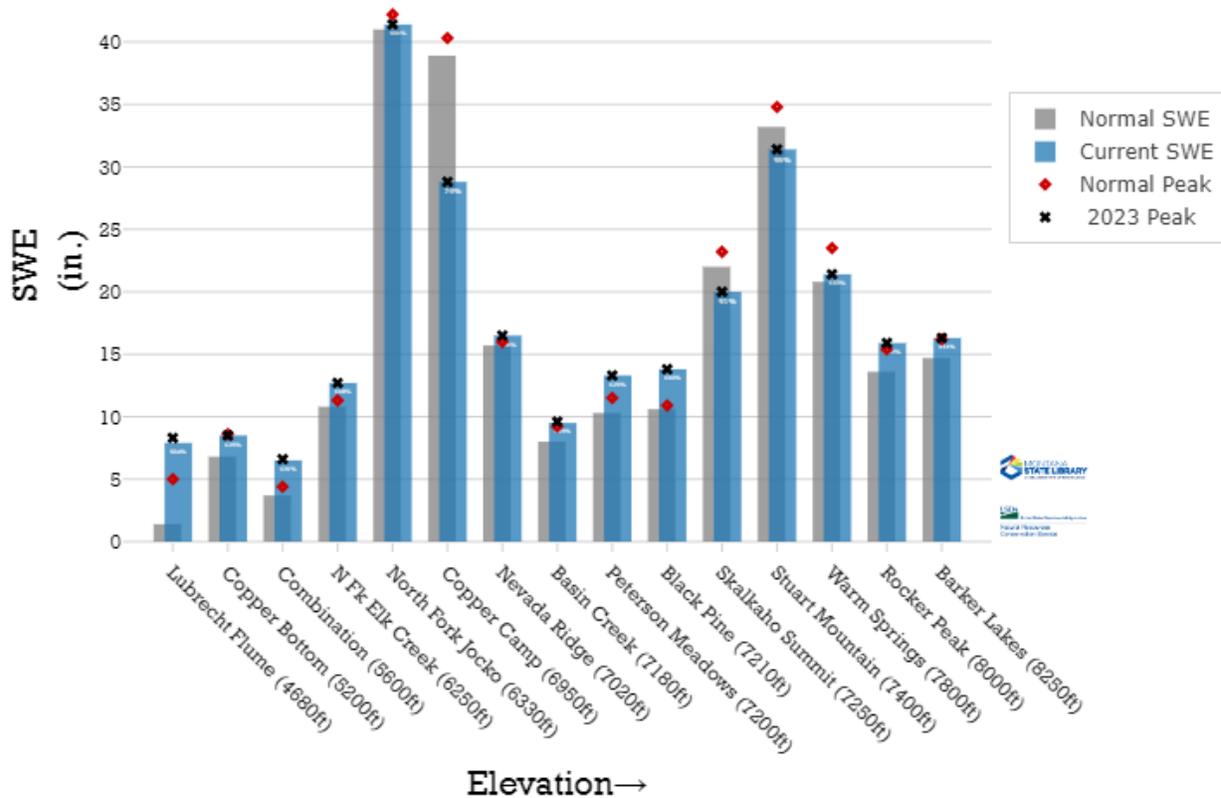
-  None: No Drought
-  D0: Abnormally Dry
-  D1: Moderate Drought
-  D2: Severe Drought
-  D3: Extreme Drought
-  D4: Exceptional Drought

## National Root Zone Soil Moisture – April 3, 2023



**Montana SNOTEL Snow Water Equivalent (SWE): April 7, 2023**

UpperClark  
Snow Water Equivalent  
2023-04-07



**April 7, 2023 USGS Real Time Stream Flow Conditions**

**Nevada Creek above Reservoir**

Discharge, cubic feet per second

Most recent instantaneous value: 27.3 on 4/7/23 at 10:45 MST

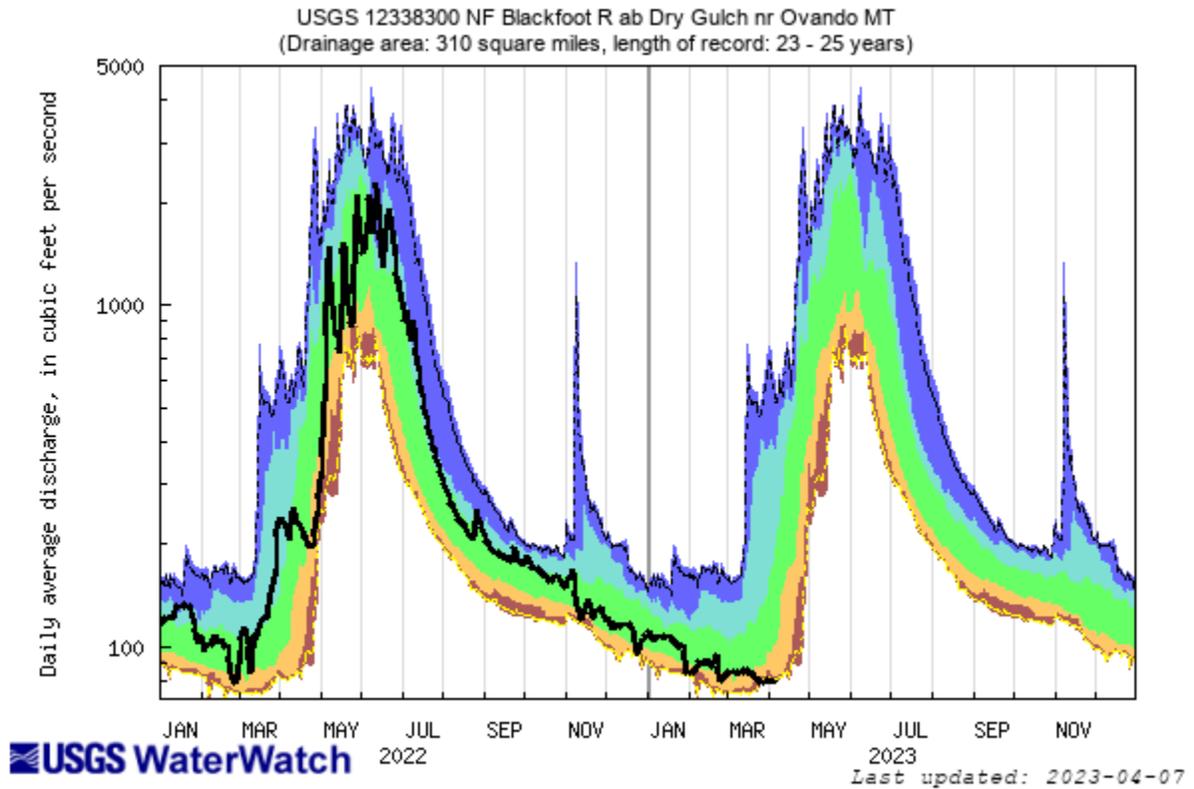
**Blackfoot River above Nevada Creek**

Discharge, cubic feet per second

Most recent instantaneous value: 119 on 4/7/2023 at 10:45 MST

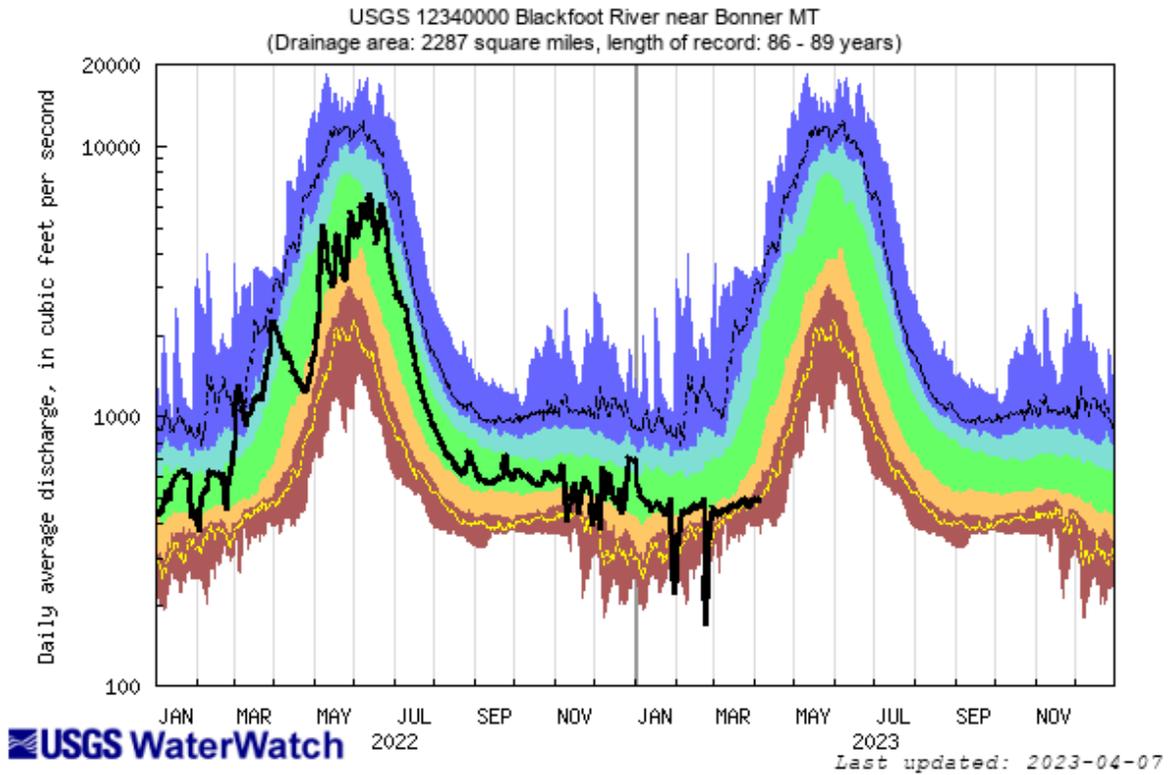
## North Fork Blackfoot Discharge, cubic feet per second

Most recent instantaneous value: 78.6 on 4/7/2023 at 10:00 MST

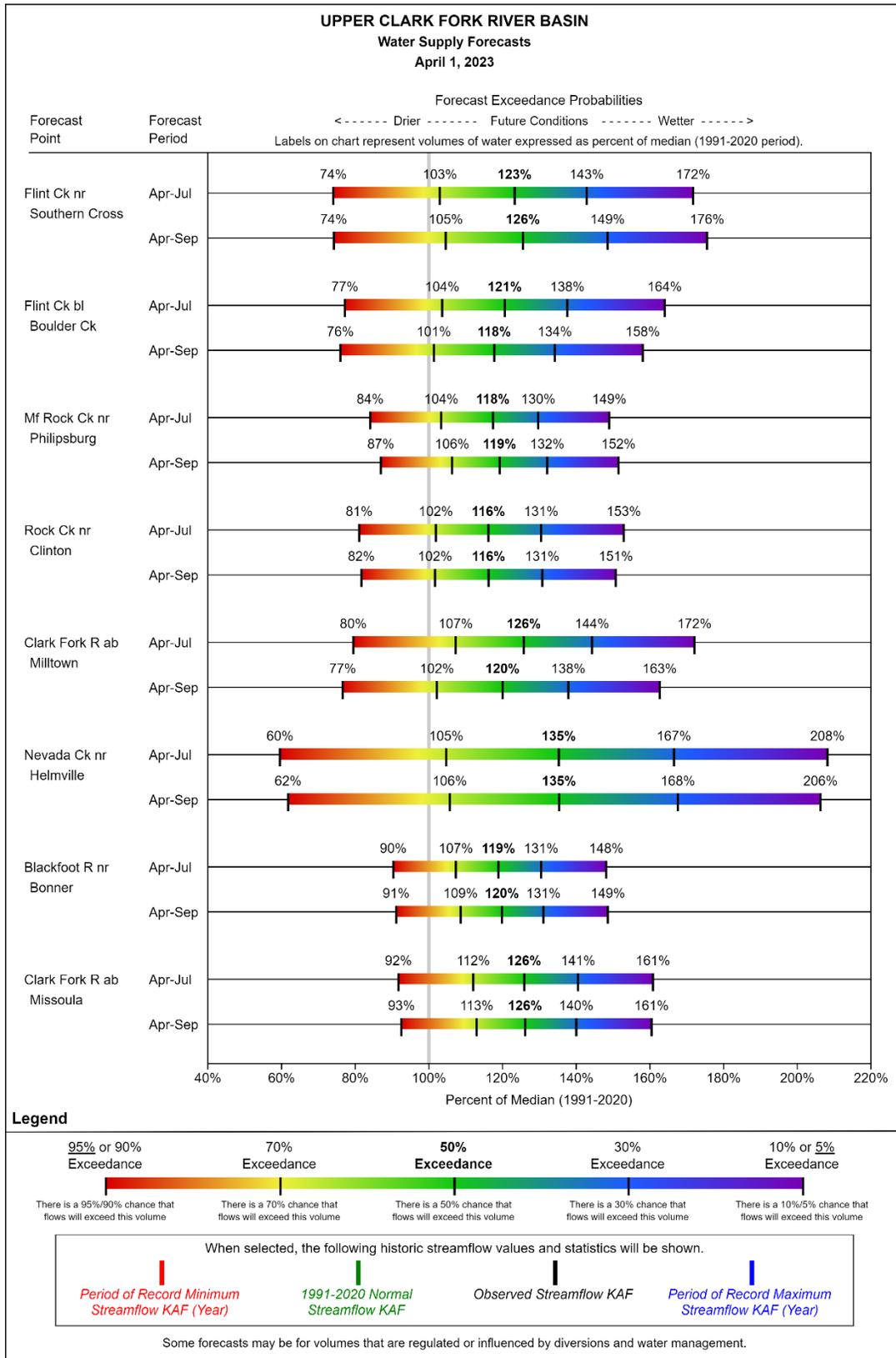


## Blackfoot River at Bonner Discharge, cubic feet per second

Most recent instantaneous value: 501 on 4/7/2023 at 10:45 MST



# Streamflow Forecast: April 2023



# Three-Month Outlook: April 2023

From  
National Weather Service Climate Prediction Center

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

Normal temperatures for April through June are predicted.

Average precipitation likely for April through June.

