

Blackfoot Water Supply Report

April 5, 2024



Montana Water Supply Report data as of April 1, 2024 (from NRCS):

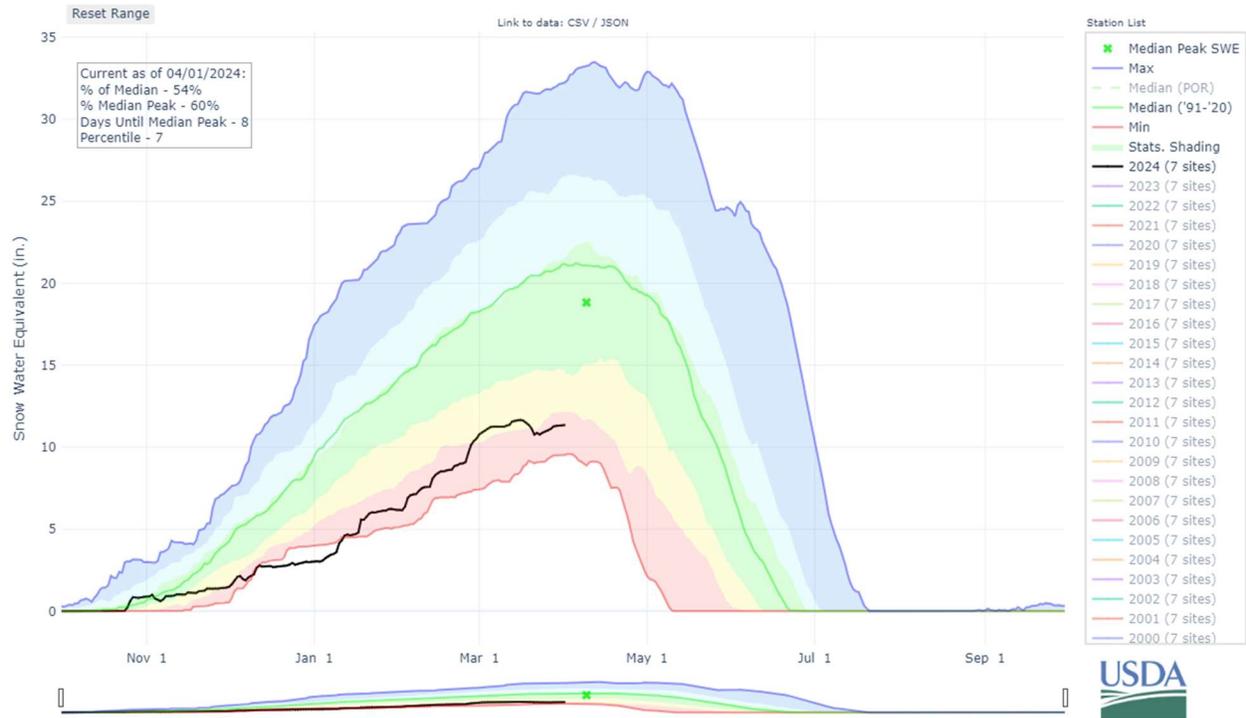
<https://www.nrcs.usda.gov/.../montana/montana-snow-survey/water-supply-outlook-reports-montana>

Overview

Hopes for continued well above average precipitation during the month of March did not come to pass. Most of western Montana, including the Blackfoot watershed, received only 75-85% of normal precipitation this past month. With below average precipitation and above average temperatures for the month, snowpack in the Blackfoot has fallen to 54% of average. Much of the low-elevation snow has already melted and higher elevation snowpack is showing signs of early runoff. You have to go back to 2005, and 1988 before that, to find snowpack conditions this low in the Blackfoot going into April. Most of the Blackfoot watershed is still considered in Extreme Drought.

The median peak snowpack date in the Blackfoot is April 9, but later peaks are also possible. It is increasingly unlikely that the watershed will recover from snowpack deficits in the remaining weeks before typical peak snowpack in late April or early May. Streamflow forecasts for the Blackfoot reflect the low snowpack and indicate flows of 61% of normal for April through September, given normal runoff and weather conditions. Even under favorable conditions, a return to cooler weather and above normal precipitation for the next several months, streamflow predictions are less than 80% of normal (see the 30% and 10% exceedance volumes in the streamflow forecast below). The three-month climate outlook is calling for a higher probability of above average temperatures and equal chances for above or below normal precipitation from April through June. The Climate Prediction Office is predicting that we will move out of El Niño conditions as early as April and may develop La Niña conditions by end of summer which could be positive for moisture this spring/summer and next winter.

Blackfoot River Basin Snow Water Equivalent



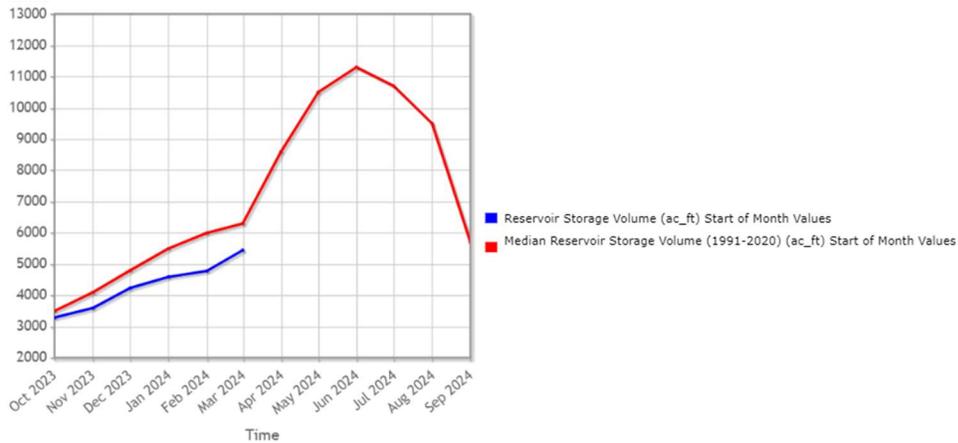
Black line: 2023/2024 Water Year

Green line: 30-year median

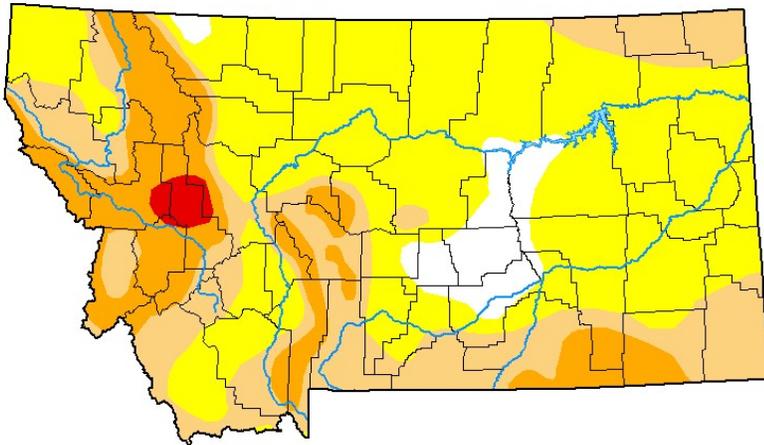
Reservoir Storage

At the end of March, Nevada Creek Reservoir was reported to be at 85% of medium storage volume, up 3% from the month before.

Nevada Creek Res (12336500) Montana RESERVOIR Site - 4616 ft Reporting Frequency: Monthly; Date Range: Oct 2023 t 2024



Montana Drought Monitor – March 28, 2024

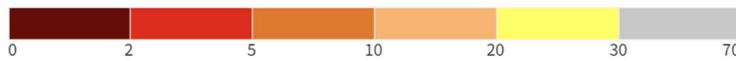
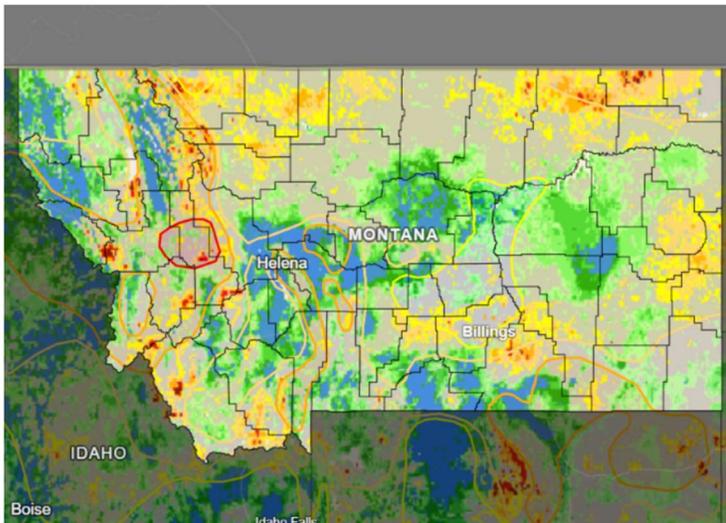


Drought Intensities

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

Soil Moisture – April 1, 2024

0–100 cm Soil Moisture Percentile



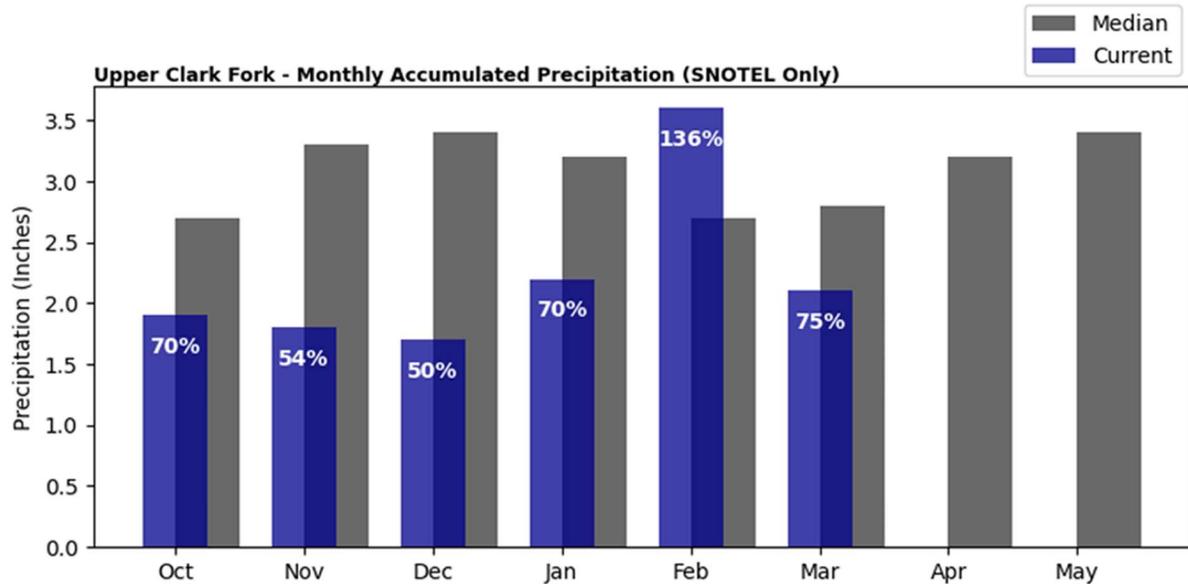
U.S. Drought Monitor



Source(s): NASA
Data Valid: 04/01/24

[Drought.gov](https://drought.gov)

Upper Clark Fork SNOTEL Precipitation: April 1, 2024



February 6, 2024 USGS Real Time Stream Flow Conditions

Nevada Creek above Reservoir

Discharge, cubic feet per second

Most recent instantaneous value: Ice affected

Blackfoot River above Nevada Creek

Discharge, cubic feet per second

Most recent instantaneous value: 134 cfs on 04/01/2024 at 10:45 MST - **73% of normal**

North Fork Blackfoot

Discharge, cubic feet per second

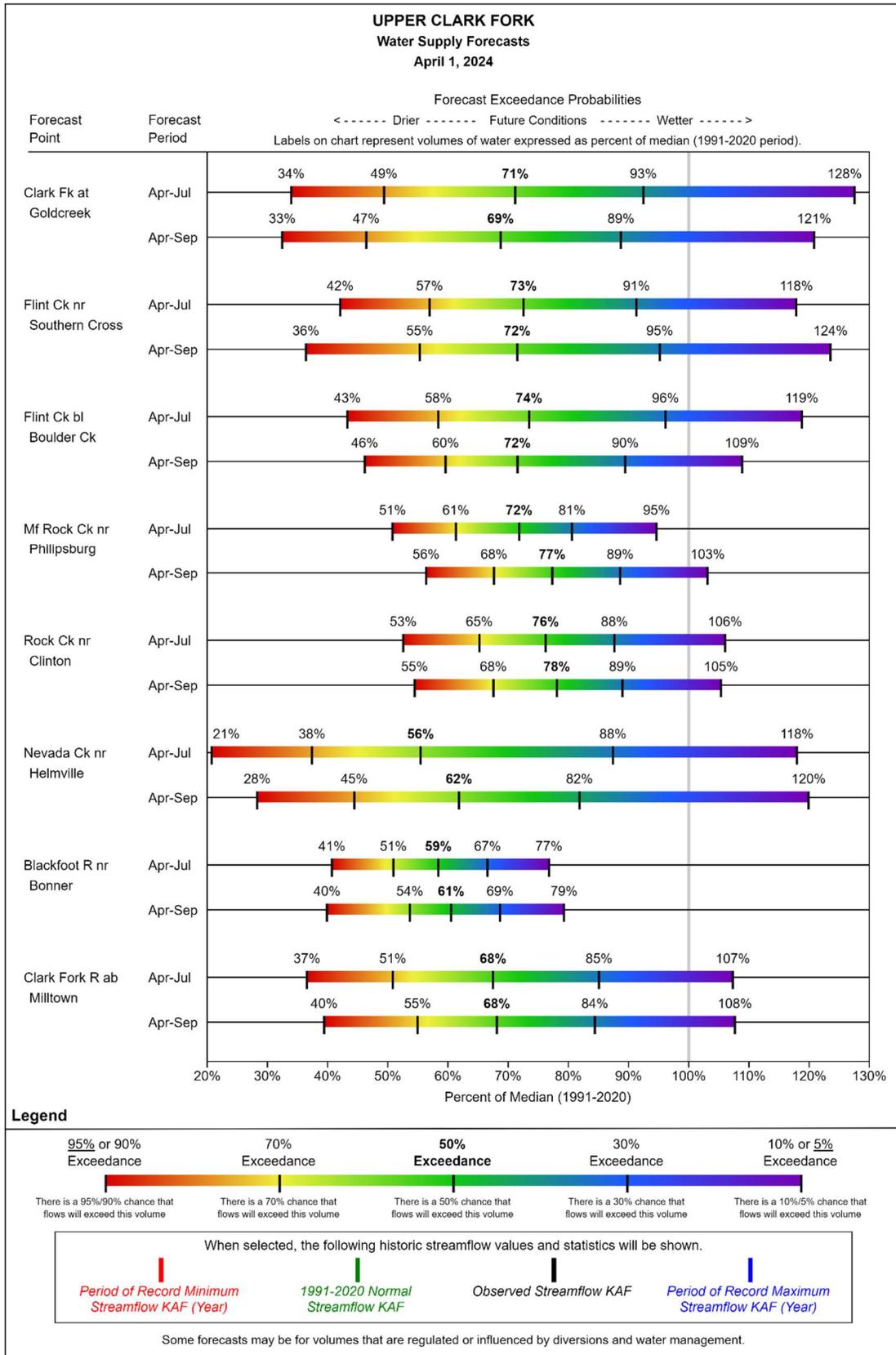
Most recent instantaneous value: 84.5 cfs on 04/01/2024 at 11:00 MST - **67% of normal**

Blackfoot River at Bonner

Discharge, cubic feet per second

Most recent instantaneous value: 749 cfs on 04/01/24 at 10:45 MST - **75% of normal**

Streamflow Forecast:



Three-Month Climate Outlook: April 2024

National Weather Service Climate Prediction Center

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

Above normal temperatures for April through June are likely.

There are equal chances for above or below normal precipitation predicted for April through June.

