

Blackfoot Water Supply Report

January 4, 2024



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

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

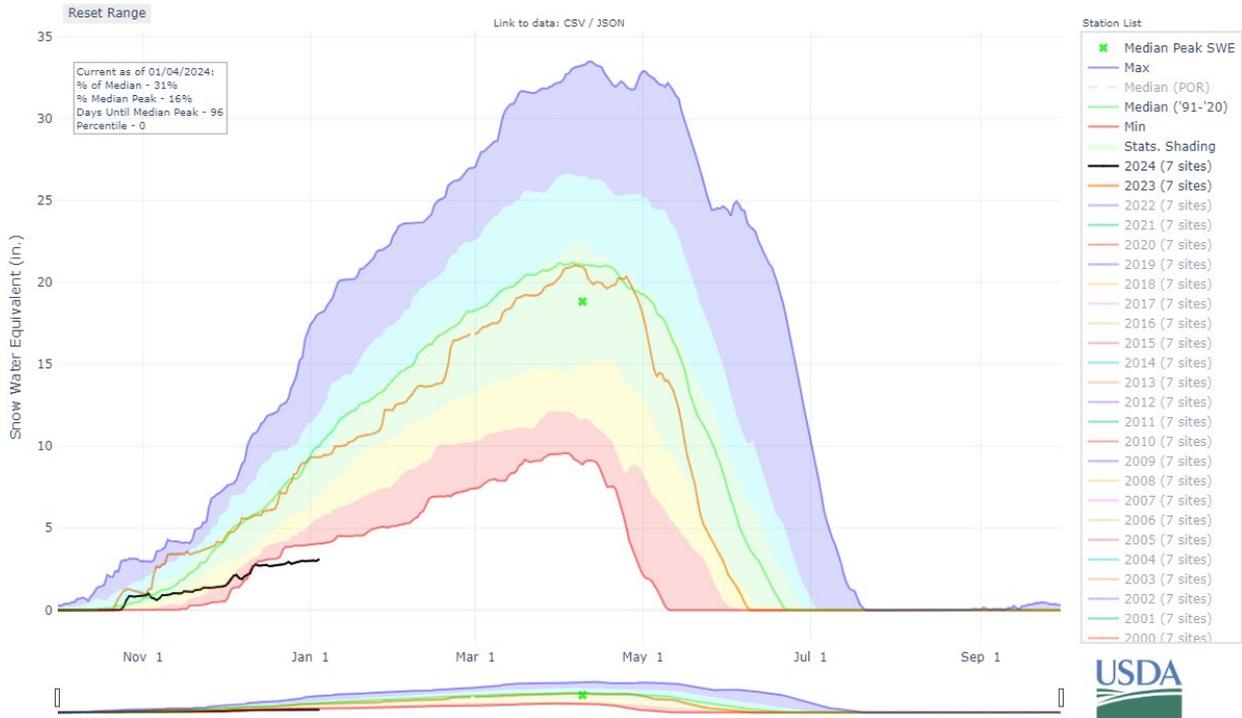
Overview

The 2024 Water Year began on October 1, 2023. Since then, warm temperatures and well below normal precipitation in November and December have led to a dismal start to snowpack accumulation across most of Montana including the in Blackfoot watershed. Snowpack in the Blackfoot is currently at 31% of normal coming into the new year, compared to 95% at this time last year. Six of the seven SNOTEL sites used to calculate snowpack in the Blackfoot are reporting record low snowpack for the time period that they have been in operation which varies from 30 to 57 years. The seventh SNOTEL site is reporting its second lowest snowpack in 54 years of observation. Precipitation for the water year is just over half of normal for the Blackfoot. All of the watershed is now classified as experiencing moderate drought, having been downgraded from abnormally dry over the past month.

Despite this slow start, there is still time to recover if we receive above average precipitation in the coming months. Previous years that began with relatively low snowpack have rebounded with active spring precipitation. Currently, the Upper Clark Fork basin is 5 inches of Snow Water Equivalent behind normal. Multiple large precipitation events could help make up this difference.

Short-term climate predictions out to one month forecast wetter and colder conditions for the month of January. The three-month outlook, however, still calls for below average precipitation and above average temperatures from January through March. Water supply forecasts won't be available until March.

Blackfoot River Basin Snow Water Equivalent



Black line: 2023/2024 Water Year

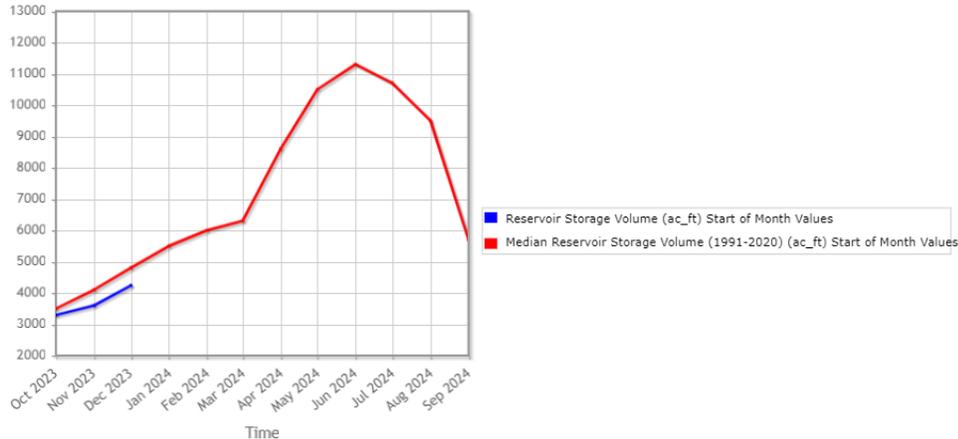
Green line: 30-year median

Orange line: 2022/2023 Water Year

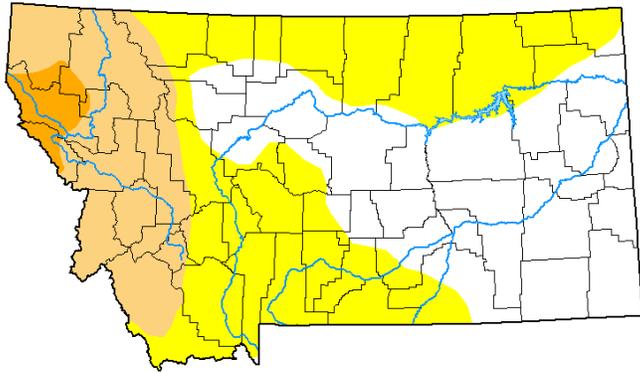
Reservoir Storage

Storage values for Nevada Creek reservoir are currently not available; however, in December, the reservoir was reported to be at 88% of medium storage volume.

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



Montana Drought Monitor – January 2, 2024

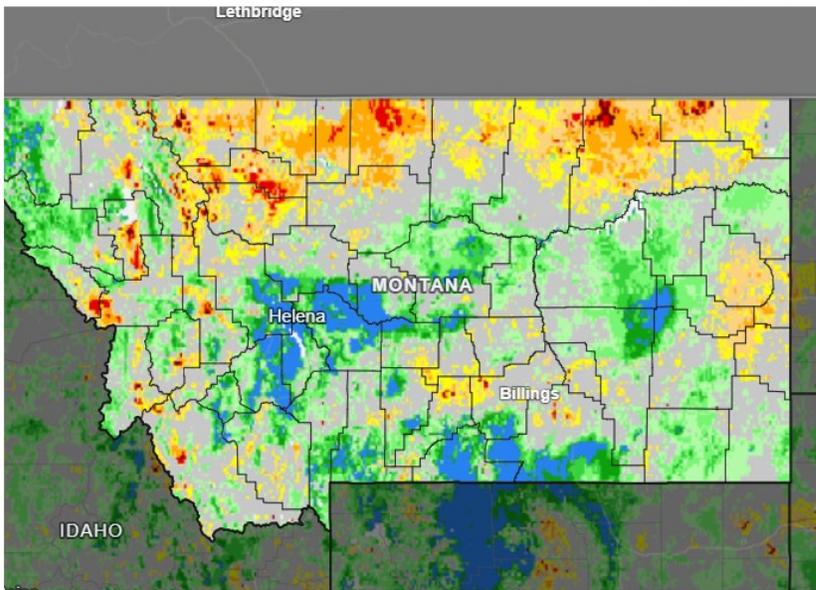


Drought Intensities

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

Soil Moisture – January 4, 2024

0–100 cm Soil Moisture Percentile



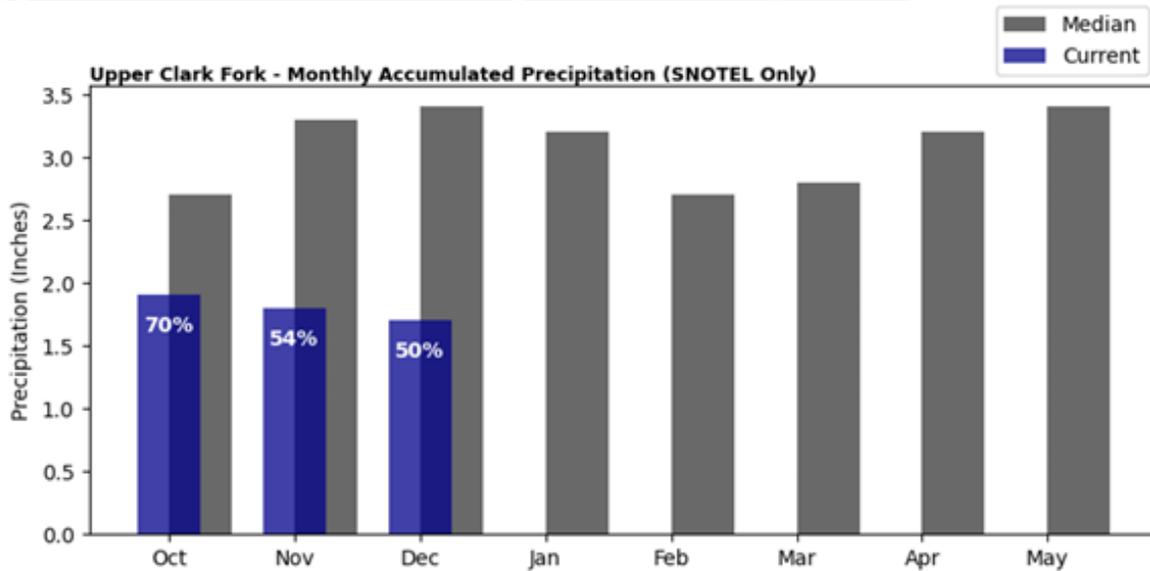
0–100 cm Soil Moisture Percentile



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

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

Upper Clark Fork SNOTEL Precipitation: January 4, 2024



January 4, 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: Ice affected

North Fork Blackfoot

Discharge, cubic feet per second

Most recent instantaneous value: 92.3 cfs on 01/04/2024 at 13:00 MST

Blackfoot River at Bonner

Discharge, cubic feet per second

Most recent instantaneous value: Ice affected

Streamflow Forecast:

Insufficient data exists to forecast streamflow currently. Forecasts will become available beginning in March.

Three-Month Climate Outlook: January 2024

National Weather Service Climate Prediction Center

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

Above normal temperatures for January through March are predicted.

Below normal precipitation is predicted for January through March.

