

Blackfoot Water Supply Report

March 10, 2025



Montana Water Supply Report data as of March 1, 2025 (from NRCS*):

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

*NOTE: as of 3/10/25 the water supply report was not yet available from NRCS

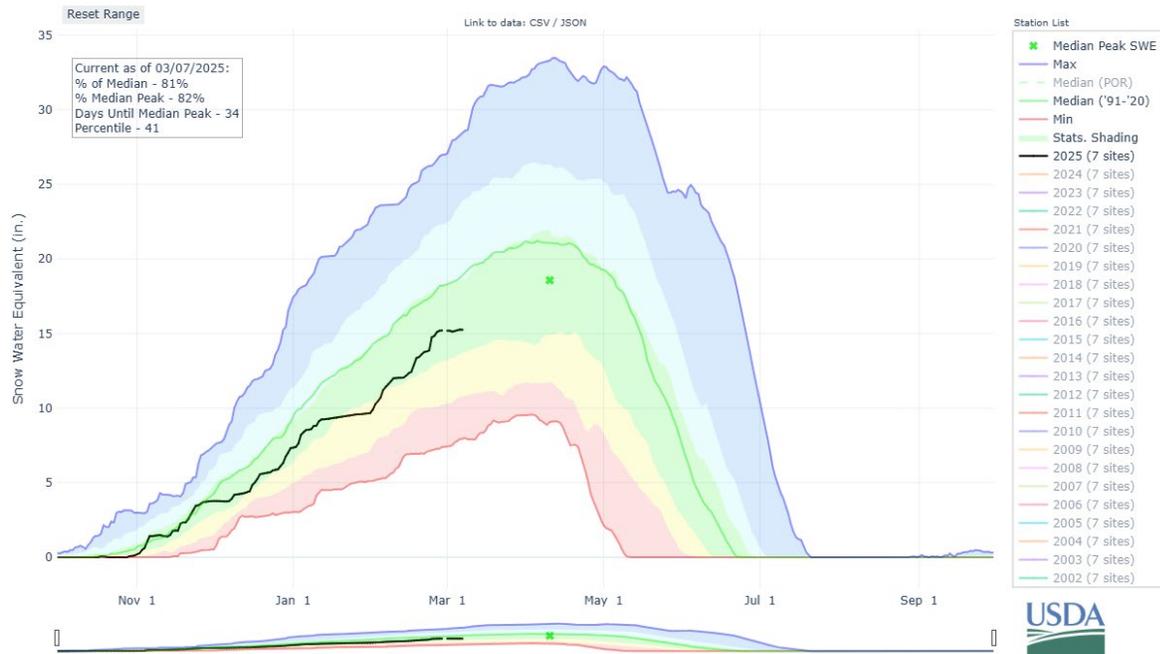
Overview

The month of February has brought above average precipitation to much of Montana including the Blackfoot watershed. While this precipitation has improved the watershed's snowpack condition to around 80% of normal, up from 66% last month, well above normal temperatures in the latter part of the month have stymied further snowpack improvement. The pictures above capture this temperature whiplash as ice and low-elevation snow melted off when high temperatures near 60°F followed single-digit high temperatures just a couple weeks prior. Despite unseasonably warm temperatures, snow water equivalent values at SNOTEL sites have mostly not declined as existing snowpack consolidates and snow density increases; however, soil moisture and streamflows have begun to tick up with continued low elevation snow melt and rain.

The first water supply forecasts for the coming summer are available beginning this month. Given the lagging snowpack, it's no surprise that forecasts for flow in the Blackfoot are also lagging with forecasted flow of that is about 89% of normal for April through September; however, it is still early for making predictions and we'll get a better idea of water supply in the next month or two when snowpack typically peaks in the Blackfoot.

The climate outlook for the next several months has us returning to more seasonal temperatures and is leaning towards above average precipitation. Let's hope that we still have some weeks of snowpack accumulation ahead.

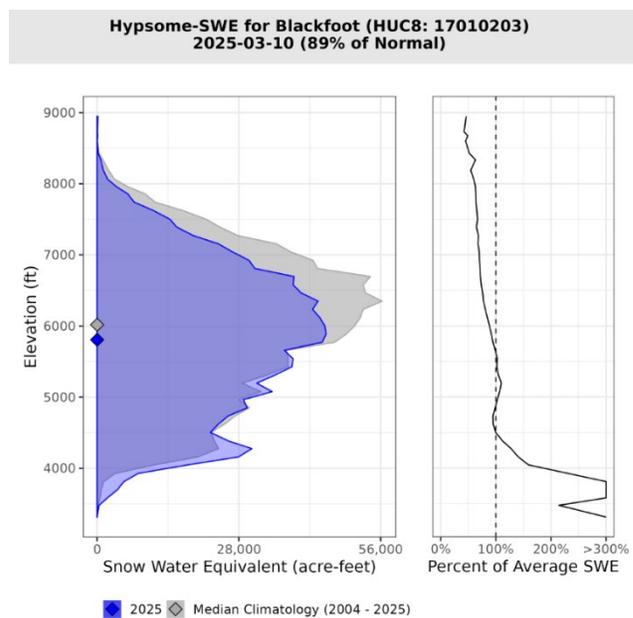
Blackfoot River Basin Snow Water Equivalent – SNOTEL observed data



Black line: 2025 Water Year Green line: 30-year median Orange line: 2024 Water Year

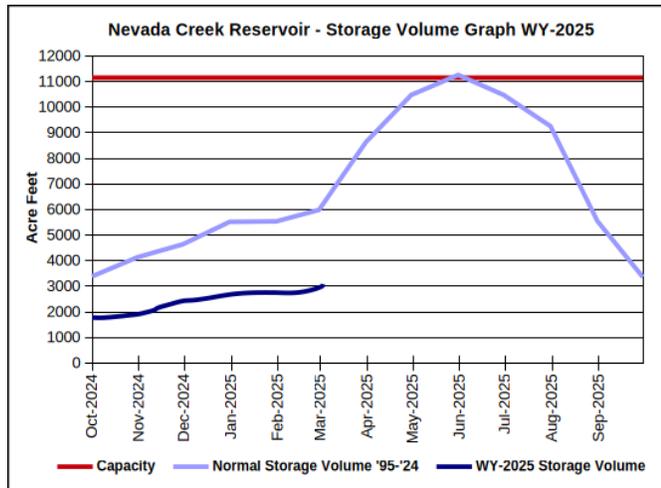
Blackfoot River Basin Snow Water Equivalent by Elevation – SNODAS

modeled data (note that this week's SNODAS model seems to be over-predicting snowpack at lower elevations)

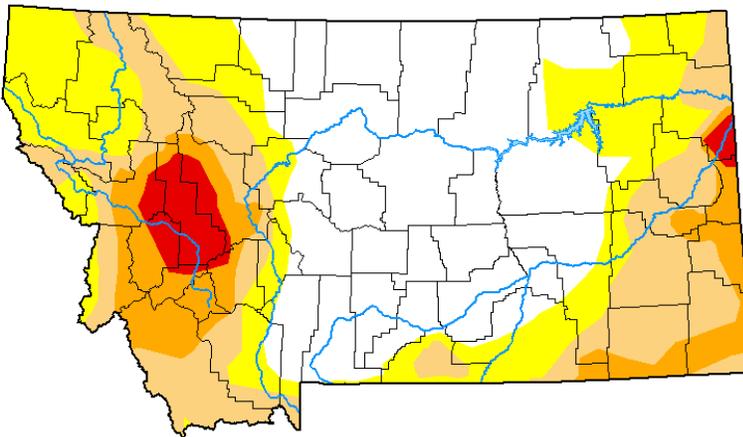


Reservoir Storage

On March 3rd, Nevada Creek Reservoir was storing 3,084 Acre Feet which is only 49% of normal and is 28% of its total capacity.



Montana Drought Monitor – March 6, 2025



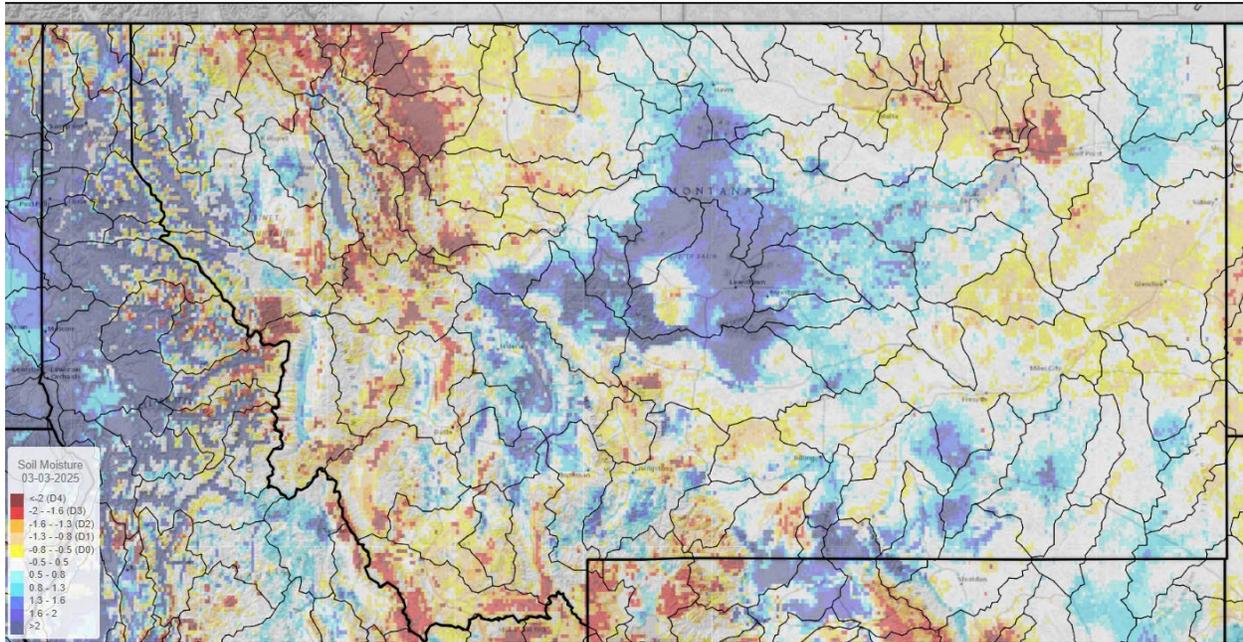
Drought Intensities

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

Soil Moisture – March 3, 2025

NASA SPoRT-LIS 0-100 cm Soil Moisture Anomaly

SPoRT Soil Moisture for 03-03-2025



Blackfoot SNOTEL Precipitation: March 1, 2025

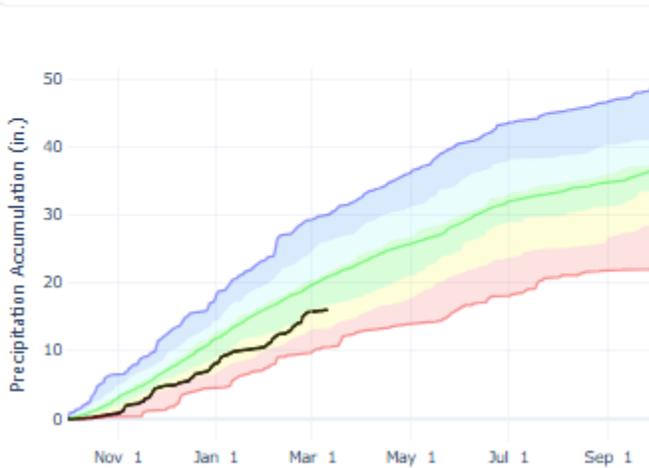
Blackfoot

1 month Precipitation

158% of NRCS 1991-2020 Median

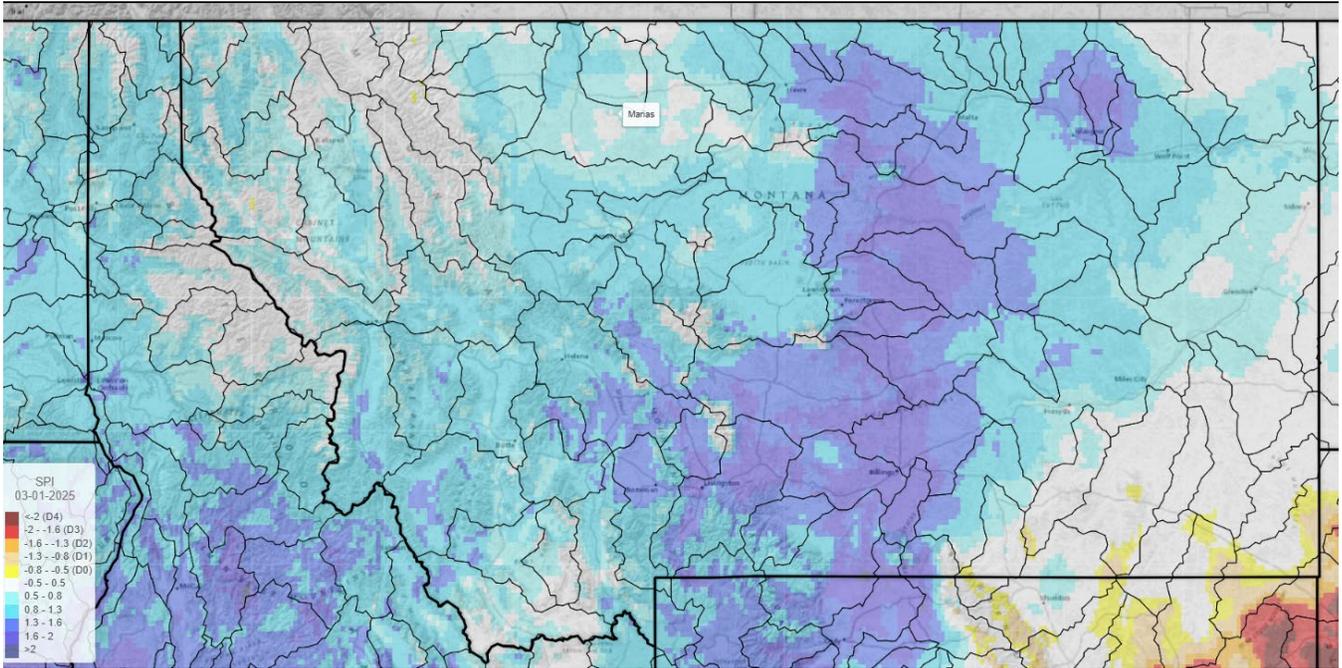
February 1, 2025 - February 28, 2025

Current Water Year



Montana 30-day Standardized Precipitation Index: March 1, 2025

30 Day SPI for 03-01-2025



March 10, 2025 USGS Real Time Stream Flow Conditions

Nevada Creek above Reservoir

Discharge, cubic feet per second

Most recent instantaneous value: Not Available

Blackfoot River above Nevada Creek

Discharge, cubic feet per second

Most recent instantaneous value: 108 cfs on 03/10/2025 at 9:45 AM MST

North Fork Blackfoot

Discharge, cubic feet per second

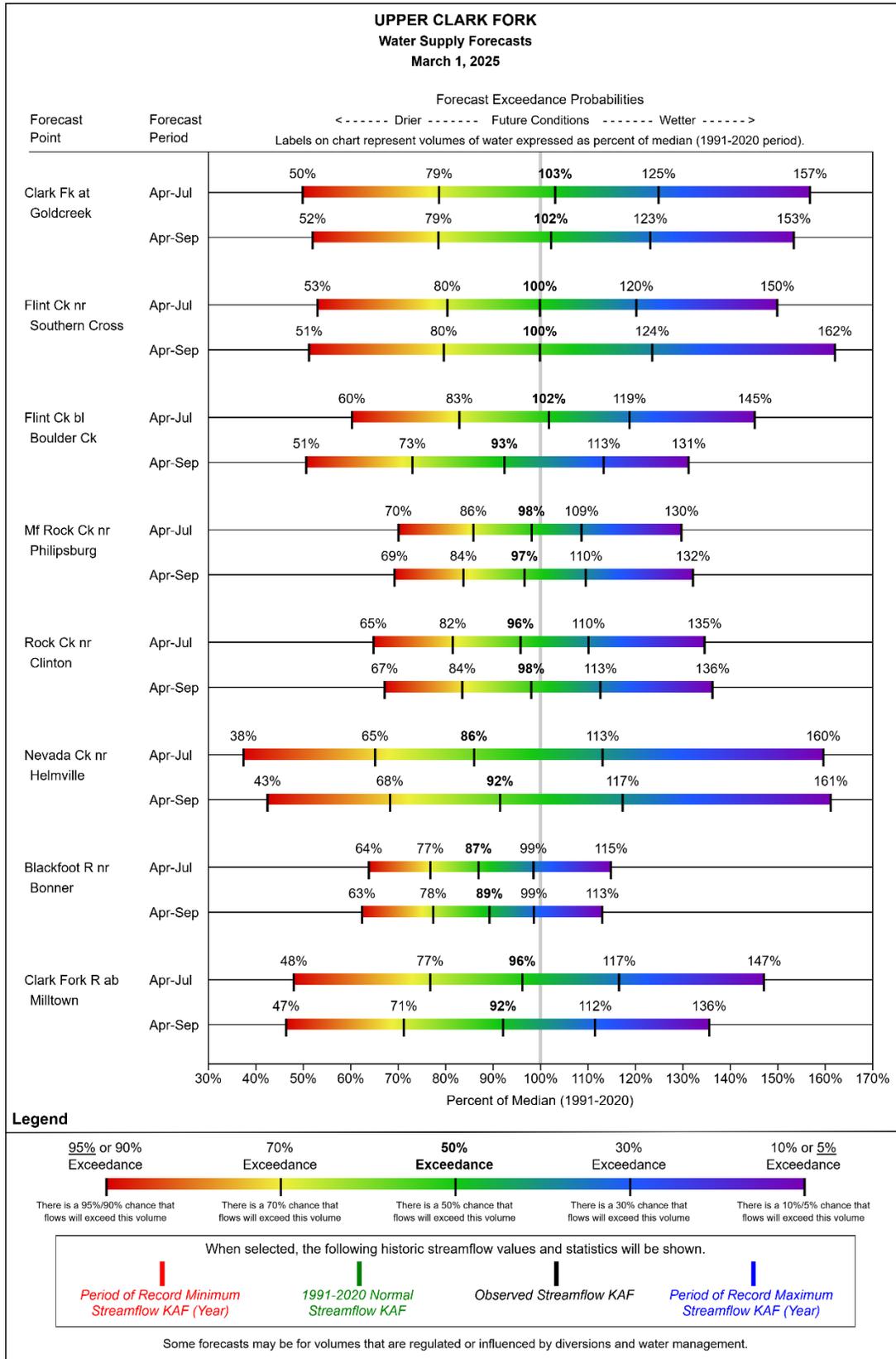
Most recent instantaneous value: 63.3 cfs on 03/10/2025 at 9:00 AM MST

Blackfoot River at Bonner

Discharge, cubic feet per second

Most recent instantaneous value: 493 cfs on 03/10/2025 at 9:45 AM MST

Streamflow Forecast:



Three-Month Climate Outlook: March 2025
National Weather Service Climate Prediction Center
<http://www.cpc.ncep.noaa.gov/>

Below normal temperatures for March through May are favored.

Above and below normal precipitation are equally favored for March through May.

