Blackfoot Water Supply Report

May 7, 2025

Montana Water Supply Report data as of May 1, 2025 (from NRCS):
https://www.nrcs.usda.gov/..../montana/montana-snow-survey/water-supply-outlook-reports-montana

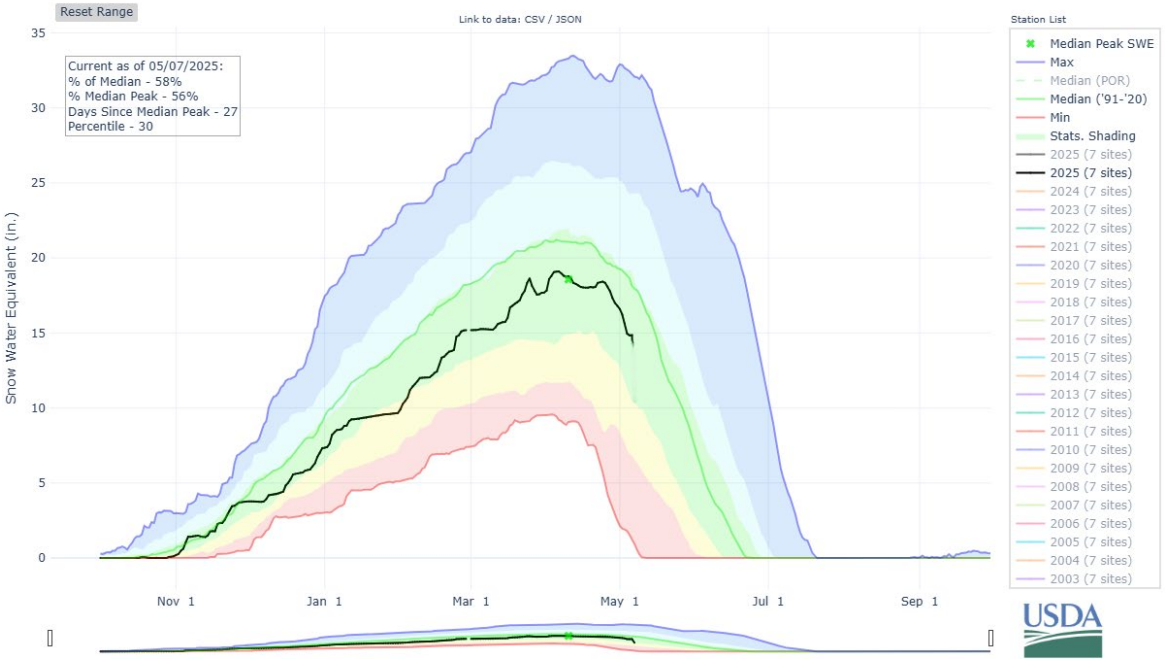
Overview

The month of April has brought spring conditions to the Blackfoot watershed as grass greens up and runoff begins in earnest. Overall, April was a mixed bag for the watershed in terms of precipitation. Some of the watershed received near normal precipitation while the eastern part of the watershed was well below normal. Snowpack in the watershed peaked on April 6 with 19.1 inches of snow water equivalent (SWE) which is right on par with the medium peak for the period of record but is down from the 30-year average of 21.1. This is a much better snowpack than last year's peak of 12.2 SWE. The May 1 SWE was 87%, up from 80% at the first of the month. Two SNOTEL sites in the basin have melted out. The Lubrecht flume site melted out on the date of its 30-year median on April 7th and the Copper Bottom site melted out 12 days earlier than its 30-year median on April 14th.

Snow melt extending into higher elevations is resulting in runoff on the river with flows above 3,000 cfs coming into the month. The water supply forecast has increased slightly from last month with a 50% exceedance forecasted flow of 94% of normal for May through September. If we see a particularly cool and wet spring we could see flows around 100-110% of normal, if we see a particularly warm and dry spring, flows could dip to 75-80% of normal.

The climate outlook for the next several months is predicting above average temperatures and below average precipitation through July.

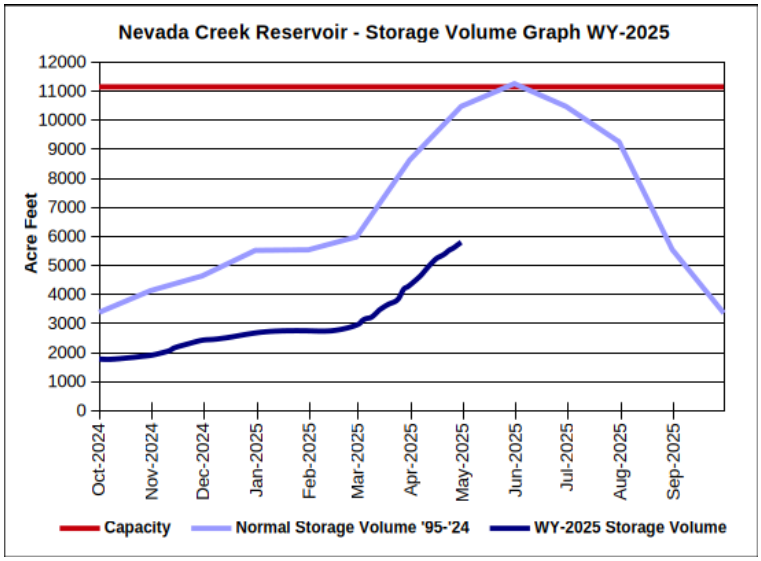
Blackfoot River Basin Snow Water Equivalent – SNOTEL observed data



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

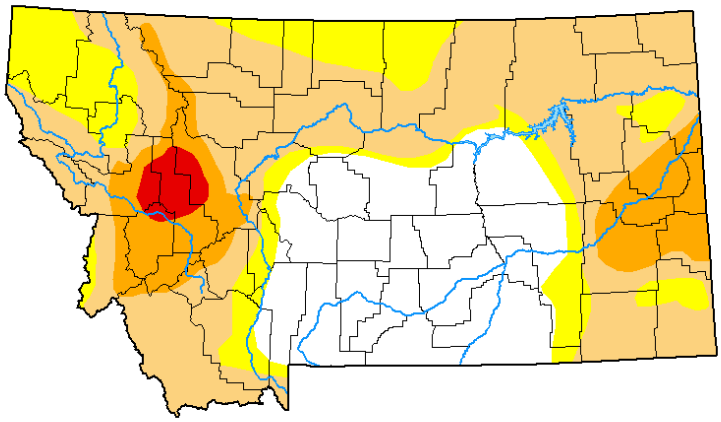
Reservoir Storage

On April 30th, Nevada Creek Reservoir was storing 5,801 Acre Feet which is only 55% of normal and is 52% of its total capacity.



Montana Drought Monitor – May 1, 2025

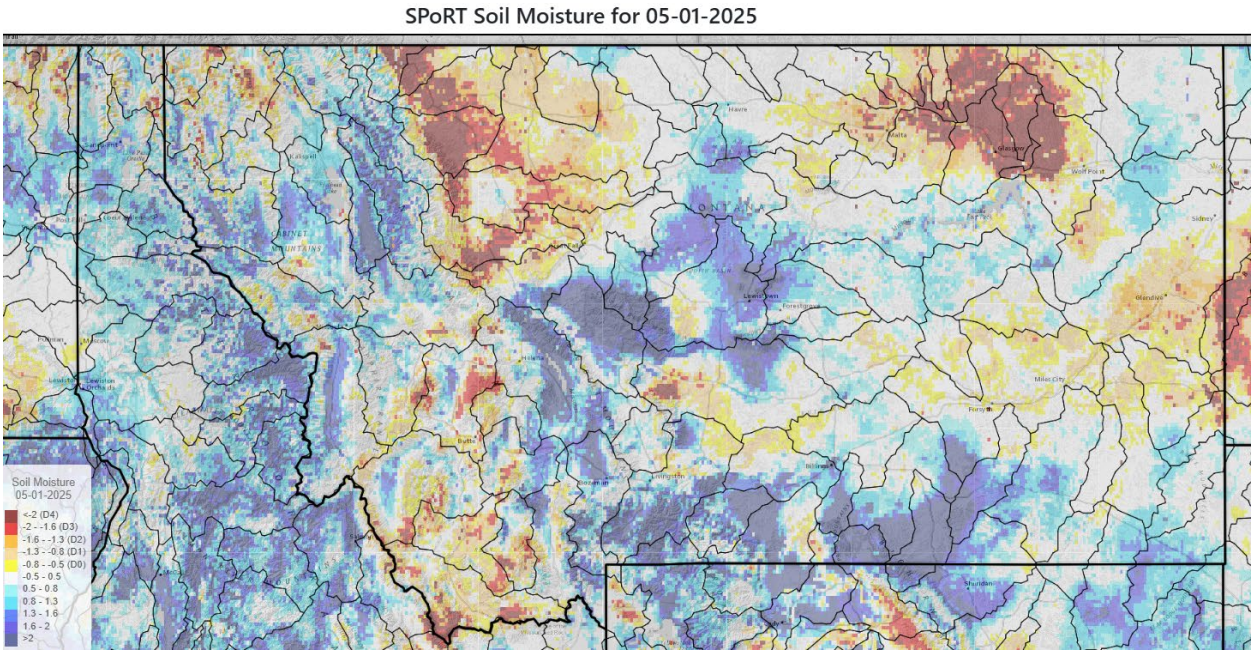
Drought Intensities



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

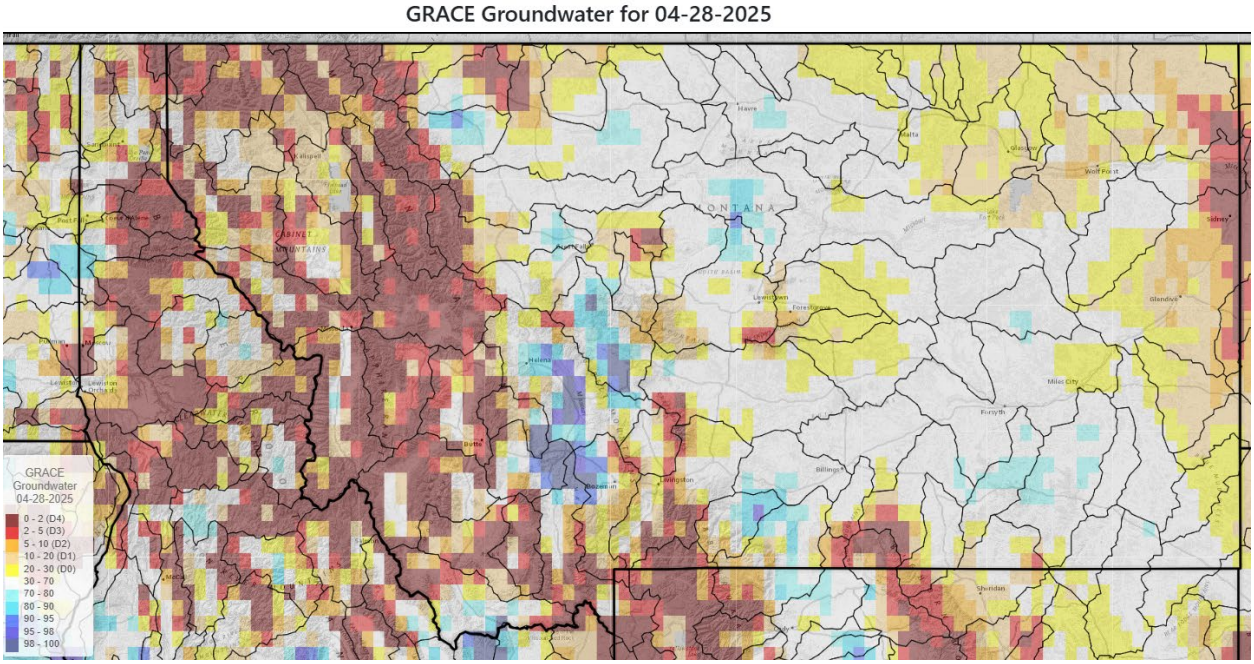
Soil Moisture – May 1, 2025

NASA SPoRT-LIS 0-100 cm Soil Moisture Anomaly

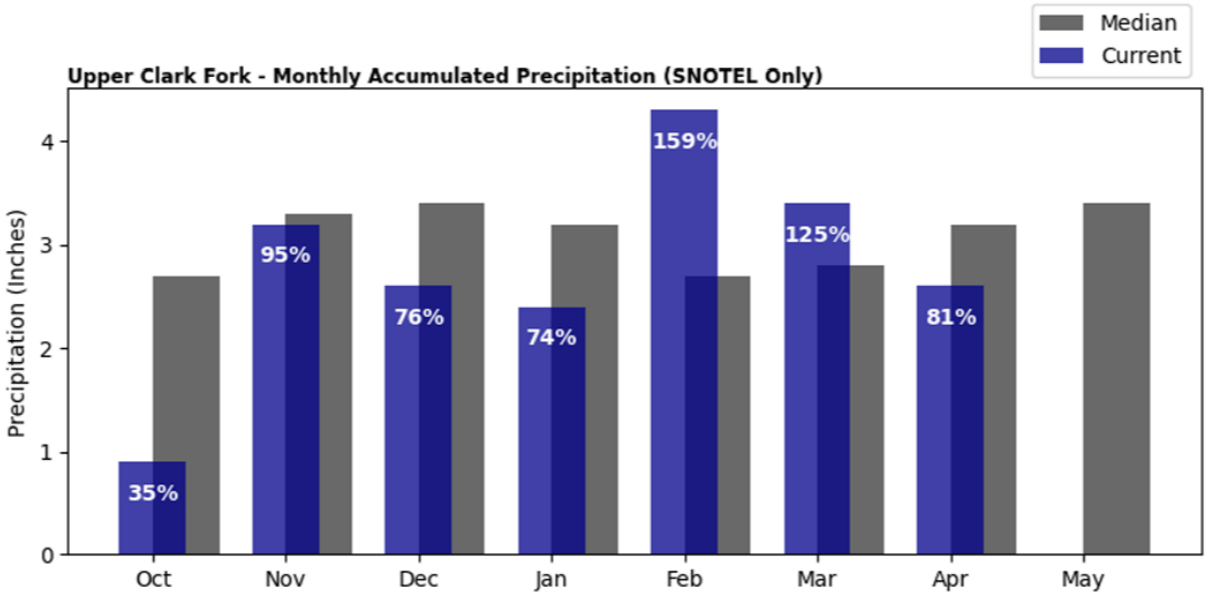


Modeled Groundwater – April 28, 2025

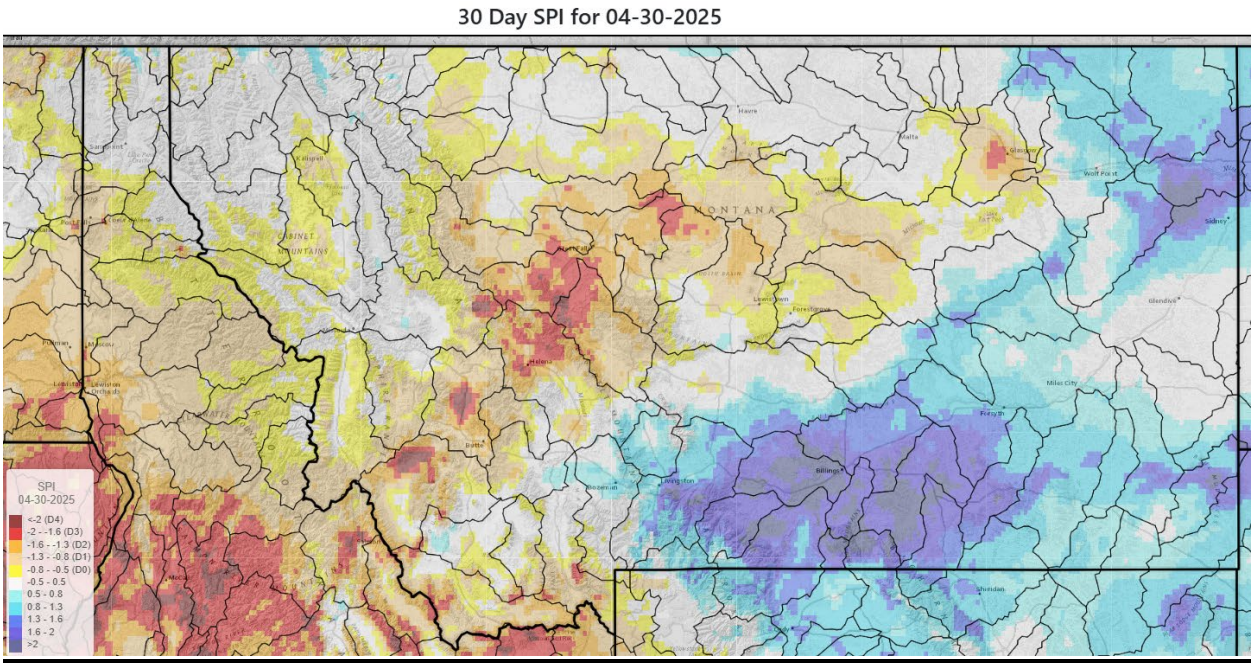
NASA GRACE Groundwater Percentile



Upper Clark Fork SNOTEL Precipitation: May 1, 2025



Montana 30-day Standardized Precipitation Index: April 30, 2025



May 7, 2025 USGS Real Time Stream Flow Conditions

Nevada Creek above Reservoir

Discharge, cubic feet per second

Most recent instantaneous value: 37.47 cfs on 05/07/2025 at 12:00 PM MST

Blackfoot River above Nevada Creek

Discharge, cubic feet per second

Most recent instantaneous value: 169 cfs on 05/07/2025 at 12:45 PM MST

North Fork Blackfoot

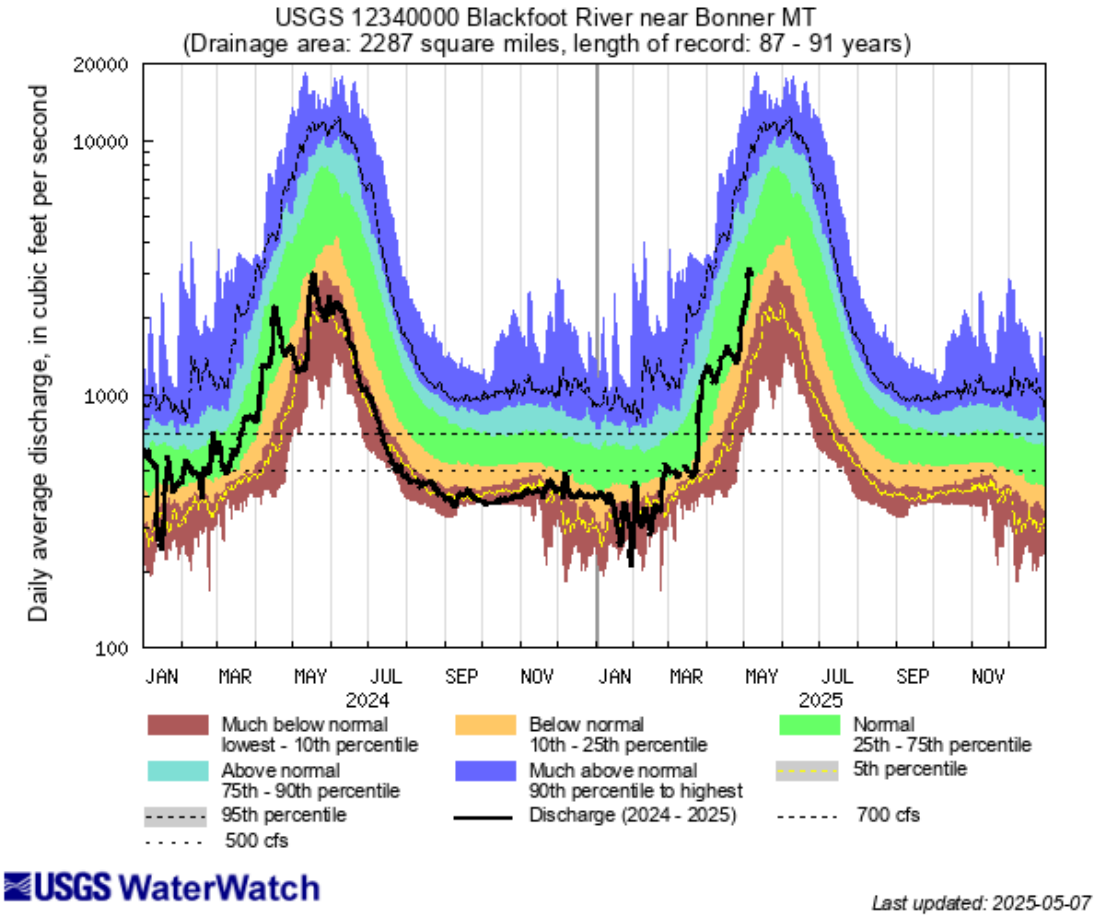
Discharge, cubic feet per second

Most recent instantaneous value: 715 cfs on 05/07/2025 at 1:00 PM MST

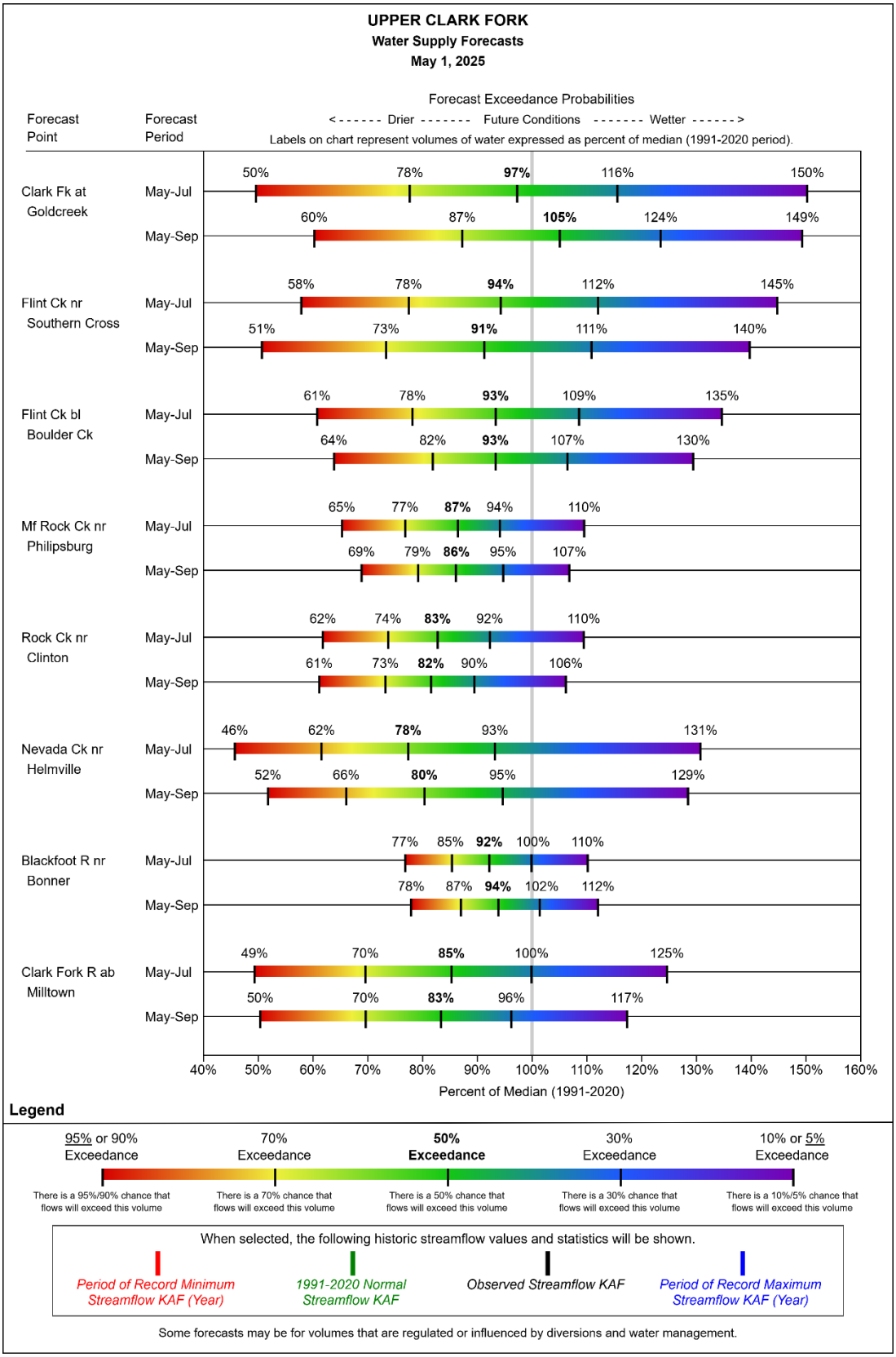
Blackfoot River at Bonner

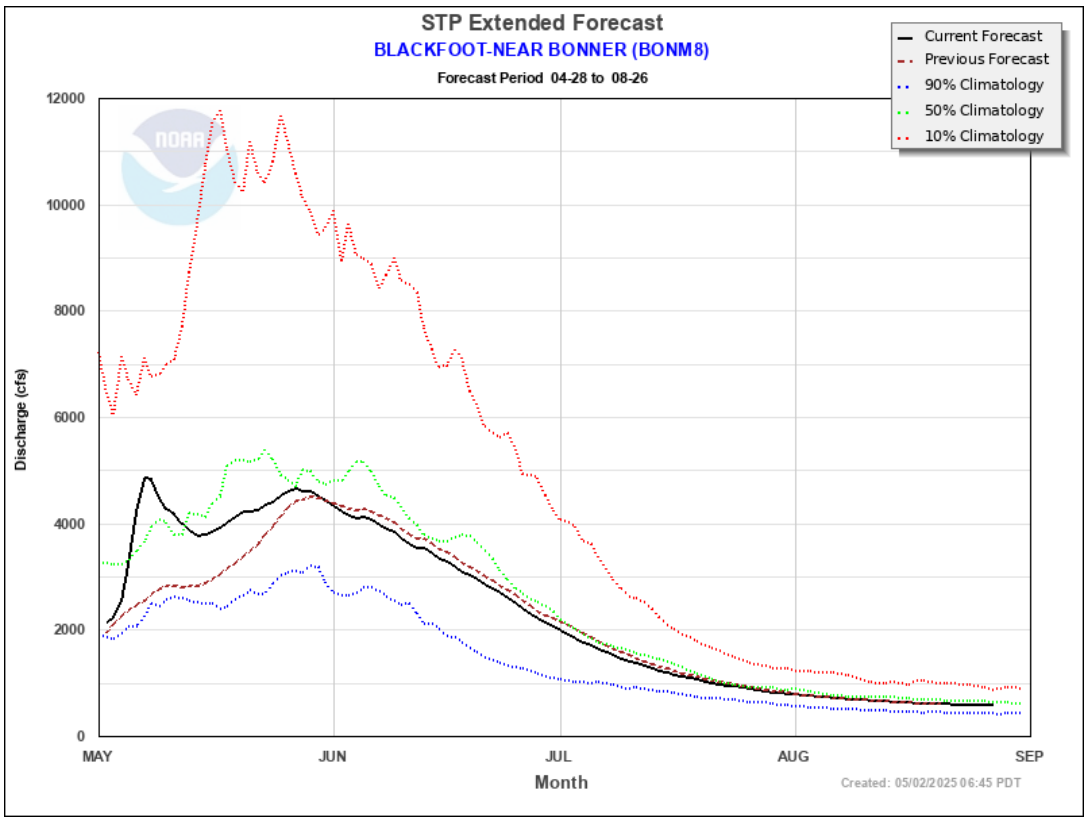
Discharge, cubic feet per second

Most recent instantaneous value: 2,700 cfs on 05/07/2025 at 12:45 PM MST


USGS 12340000 Blackfoot River near Bonner MT
(Drainage area: 2287 square miles, length of record: 87 - 91 years)
Daily average discharge, in cubic feet per second
20000
10000
1000
100
JAN
MAR
MAY
JUL
SEP
NOV
JAN
MAR
MAY
JUL
SEP
NOV
2024
2025
Much below normal
lowest - 10th percentile
Below normal
10th - 25th percentile
Normal
25th - 75th percentile
Above normal
75th - 90th percentile
Much above normal
90th percentile to highest
5th percentile
95th percentile
Discharge (2024 - 2025)
700 cfs
500 cfs
USGS WaterWatch
Last updated: 2025-05-07

Streamflow Forecast:



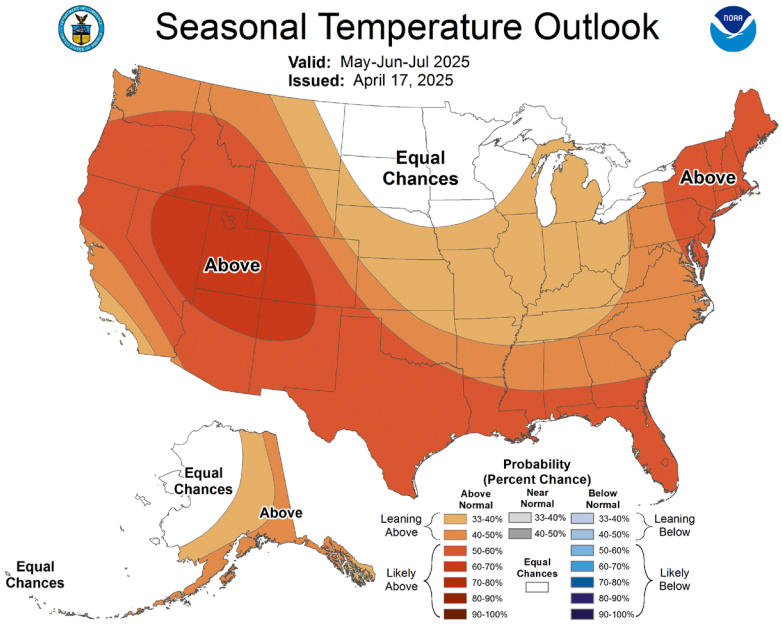


Three-Month Climate Outlook: May 2025

National Weather Service Climate Prediction Center

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

Above normal temperatures are favored for May through July.



Below normal precipitation is favored for May through July.