

Post Creek Water Supply Forecast

April 1, 2025

Snowpack Conditions

Click figures to link to plots

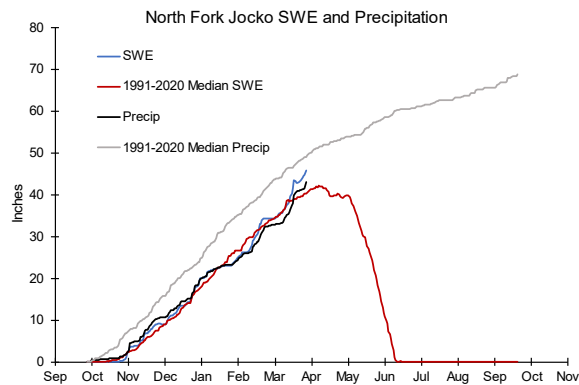


Figure 1: North Fork Jocko (Elev. at 6330 ft) SWE and precipitation.

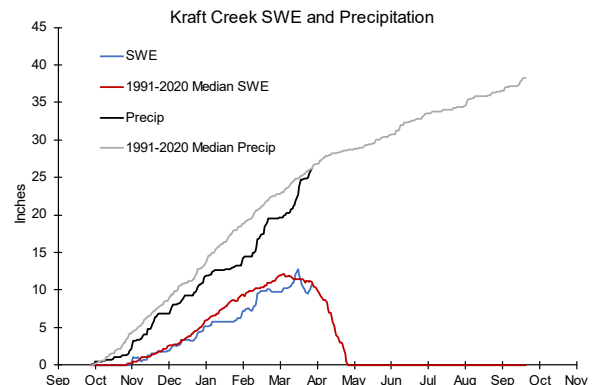


Figure 2: Kraft Creek (Elev. at 4750 ft) SWE and precipitation.

– Snowpack conditions (Snow Water Equivalent or SWE) at the Natural Resource Conservation Service (NRCS) [North Fork Jocko and Kraft Creek SNOTEL](#) sites are **trending about normal** as of April 1. **North Fork Jocko is 111% of the median** (Figure 1) and **Kraft Creek is at 85% of the median** (Figure 2). SWE has continued tracking the median trend but a mid-March storm has pushed current level above normal. The cumulative precipitation over the water year remains below normal at the higher elevation NF Jocko site but has increased significantly at the lower elevation Kraft Creek site. As of April 1, SWE has already peaked at some elevations and likely to peak very soon at NF Jocko.

Streamflow and Reservoir Conditions

– The Confederated Salish and Kootenai (CSKT) Water Resources Program operates a real-time stream gage on Post Creek, [4860](#) Post Creek abv McDonald Reservoir. The last reading from the gage on April 4 was 26 cfs.

– **Active Storage in McDonald Lake is currently 1337 / 8258 acre-ft (16%)**

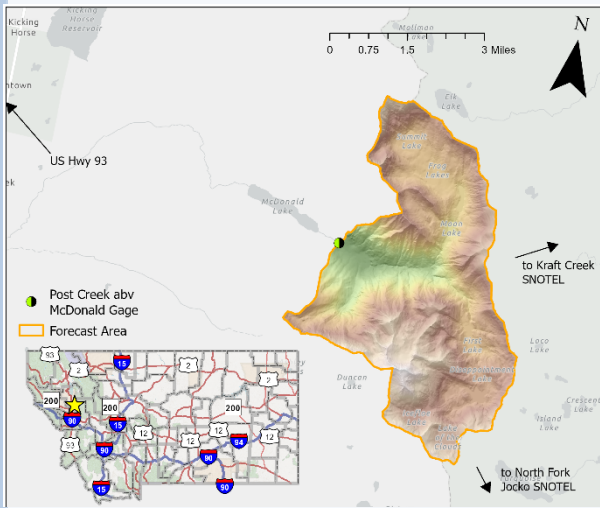
Weather Outlook

– The National Weather Service (NWS) **one-month outlook indicates approximately normal precipitation and normal temperatures** for most of Montana. The El Niño Southern Oscillation (ENSO) index, is a measure of whether equatorial Pacific Ocean conditions known as El Niño (warm and dry for Montana) or La Niña (cold and wet) could develop and influence weather along the Rocky Mountain Front. Currently, La Niña conditions exist with cooler sea surface temperatures in the Central Pacific. ENSO is projected (~62% chance) to transition to ENSO-neutral in the month and remain there for the summer, meaning **normal conditions could be expected through the summer months**.



Disclaimer: The DNRC snowmelt runoff forecast follows NRCS methodology using statistical best practices and professional judgment. Like any forecast it contains uncertainty. Please consider the stated error and documentation associated with each model when using the predicted flow in your decision-making process.

Forecast Area



Forecast Period is April 1 – July 31

All predicted and displayed values are calculated for this period.

On a normal year, 33,292 acre-feet of water flows by the Post Cr abv McDonald gage from April 1 – July 31 (based on the median of the total annual flow from 1991 to 2021). **Approximately 23,199 acre-feet (or 70%) of this flow is from snowmelt** built up at high elevations during the winter and spring. The remainder of flow is from rain events between April 1 and July 31. The normal rainfall in the forecast area during this period is 12.8 inches but can vary considerably. **The median rainfall (12.8 in) produces about 8,226 acre-feet of runoff based on DNRC rainfall runoff model estimates.**

Runoff Forecast

The April 1 water supply forecast predicts a **below normal volume of 20,390 acre-feet** (Figure 3) of water from snowmelt, or 88% of normal. *****This is the estimated flow only from snowmelt*****. Current information indicates that the 2025 flow from accumulated snowpack is predicted to be like conditions observed in 2021. Uncertainty is still relatively high for this site for the April forecast. Based on the uncertainty of the prediction, there is a **90% chance snowmelt runoff will exceed 16,226 acre-feet (70% of normal)** and a **10% chance snowmelt runoff will exceed 27,340 acre-feet (118% of normal)**.

If there is a normal amount (12.8 inches) of rain from April 1 – July 31, the total runoff is predicted to be 28,616 acre-feet. This is **4,676 acre-feet less than normal**. Any excess rain (more than 12.8 inches) could increase the volume substantially (Figure 4). If it rains 17.8 or more inches during the forecast period, 2024 could be more like 2006. The **effects of excess rain are visualized in Figure 4** as inches above normal.

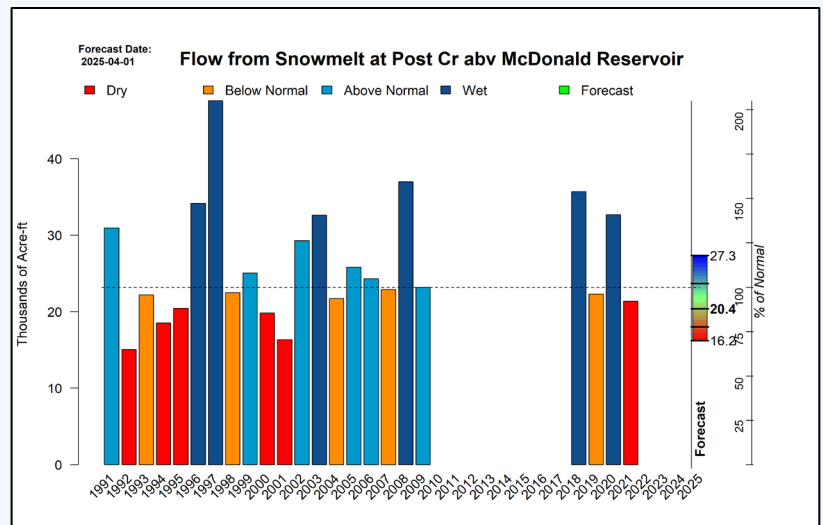


Figure 3: Historical snowmelt runoff and 2025 prediction.

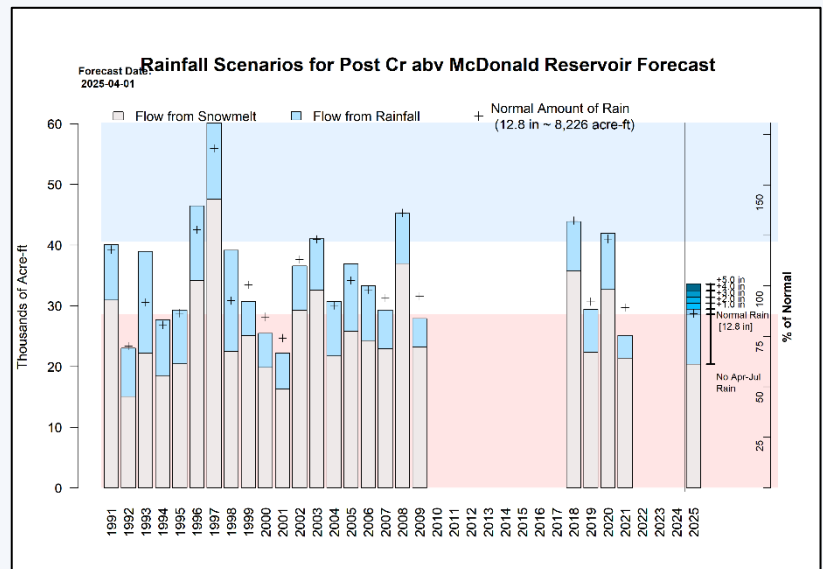


Figure 4: Proportion of flow from snowmelt vs. rain and the effects of April 1 – July 31 rain on predicted flow.



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