

Teton River Runoff Forecast April 1, 2019



Snowpack Conditions

– Snowpack conditions (Snow Water Equivalent or SWE) at the Natural Resource Conservation Service (NRCS) [Mt. Lockhart and Waldron SNOTEL](#) sites are **trending below normal at 85% of the median** (Figure 1) due to a drier March. The deficit right now would require significant April snow to bring conditions up to normal. As of April 1, the mountains should have accumulated almost (96%) of the winters total snowpack.

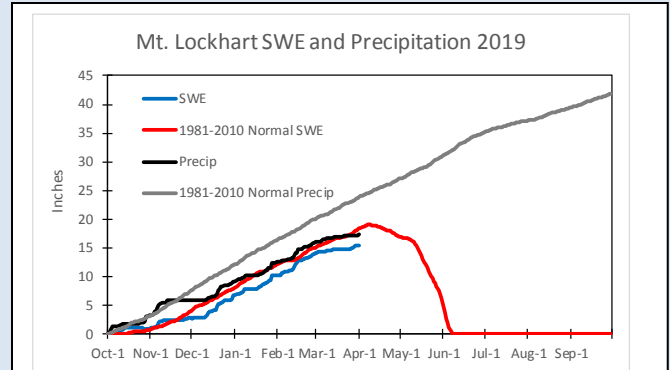


Figure 1: Mt. Lockhart SWE and precipitation.
Double-click to enlarge

Stream Flow Conditions

– The United States Geological Survey (USGS) gage [06102500](#) Teton River Below South Fork near Choteau (TRSF) is still in winter baseflow conditions. The low elevation (4,000 -5,000 ft) snowpack has yet to melt and raise water levels.

Runoff Forecast

– On a normal year 46,000 acre-feet of water flow by the TRSF gage from April 1-July 31. The DNRC April 1 runoff forecast, predicts a **below normal volume of 39,400 acre-feet** (Figure 2). Current information indicates that runoff this year is predicted to be similar to conditions observed in 2007. The **error associated with the April forecast is +/- 16,300 acre-feet**, meaning the prediction could vary from dry to above normal conditions (Figure 2).

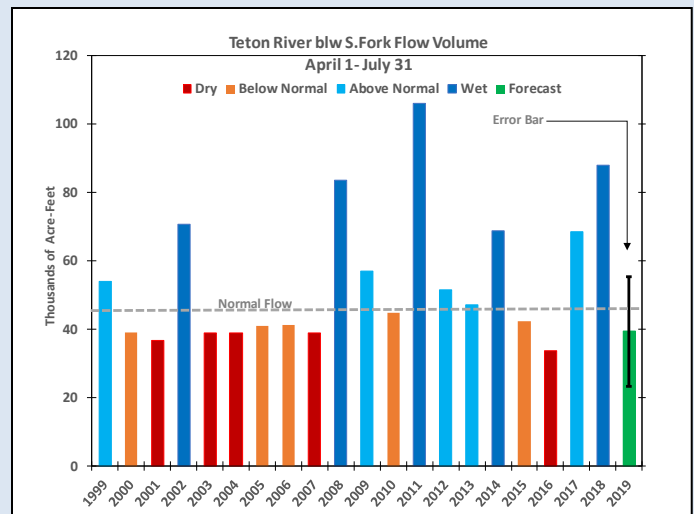


Figure 2: Historical flows and the 2019 prediction.
Double-click to enlarge

The error associated with the April forecast has improved some compared to the March error of 17,200 AF, largely due to the mountains being two weeks away from the “typical” peak snowpack

Weather Outlook

– The National Weather Service (NWS) **one-month outlook indicates normal precipitation and above normal temperatures** for Central Montana. The El Niño Southern Oscillation (ENSO) index, is a measure of whether equatorial Pacific Ocean conditions of El Niño (warm and dry for Montana) or La Niña (cold and wet) could develop and influence weather along the Rock Mountain Front. Currently, weak El Niño conditions are forecasted for the next few months, meaning **El Niño will not strongly influence weather in the near-term.**



Disclaimer: The DNRC generated 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.

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