

Missouri River Basin Reduced Flows



Low flow on the Platte River due to drought conditions near Duncan, Nebraska, during May 18, 2025. The Platte River is a tributary of the Missouri River.

Photo Credit: United States Geological Survey

Location: High Plains

Missouri River Basin runoff for [May](#) above Sioux City was 3.4 million acre-feet (MAF), approximately 4.2 billion cubic meters (BCM), or 100% of average thanks to heavy rainfall that fell in parts of western and central North Dakota and South Dakota. Runoff across the Basin for [April](#) above Sioux City was 1.4 MAF (1.7 BCM), or 48% of average. The 2025 calendar year runoff forecast for the Missouri River Basin is 19.7 MAF (24.3 BCM), 77% of average. Despite the recent precipitation, this forecast is slightly lower than the previous month's outlook as persistent drought conditions have been prevalent. Several variables have played a large role in the below normal flow forecasts, the persistence of drought, and impacts across the Missouri River Basin.

Mountain snowpack peaked early and was below normal, while the plains snowpack remained much lower than normal for the winter season. Additionally, melt out has occurred more rapidly than normal in higher elevation snowpacks. The reduced snowpack lowered runoff volume into the river, and [the melt rate](#) further limited the ability to store that water, affecting the water availability later into the summer. Deep soil moisture deficits have persisted across the basin. While recent precipitation improved soil moisture, the dry conditions prevented runoff into the rivers. Spring precipitation has also been below normal across large parts of the river basin. Subsequent low flows driven by these variables could cause irrigation and river navigation issues, reduce hydroelectric generation, and increase wildfire potential.

Record Heat, Early Wildfires and Smoke



Smoke from the Lac du Bonnet Wildfire in Manitoba, May 14, 2025.

Photo Credit: Province of Manitoba

Location: Saskatchewan, Manitoba, North Dakota, and Minnesota

An extremely dry spring has led to explosive wildfire growth across the Canadian Prairies and northeastern U.S. Plains in May, particularly in Saskatchewan and Manitoba where many areas received less than 45% of their normal seasonal precipitation. This lack of spring precipitation and above average May temperatures contributed to the significant fire danger. In Canada, both [Manitoba](#) and [Saskatchewan](#) declared states of emergency due to wildfires and [evacuated tens of thousands](#) of residents as the wildfire quickly spread. Numerous structures have also been lost across all three provinces. Similar conditions occurred in parts of the U.S., particularly in North Dakota and [Minnesota](#), which also experienced an early start to their wildfire season. In early May, the [Turtle Mountain wildfire](#) burned large areas in North Dakota, which prompted several evacuations and caused property damage, however, coordinated firefighting efforts helped avoid substantial loss.

While wildfires are burning on both sides of the border, the intensity of the Canadian wildfires has already produced impacts on both sides of the border this season. [Smoke from the Canadian wildfires](#) drifted south into the northeastern U.S. Plains, worsening air quality and prompting public health warnings and concerns. Meanwhile in Canada, closer to the fires there are [significant air quality and health concerns](#). Looking forward, the [wildfire outlook](#) for both the United States and Canada indicates a stronger signal for an above average wildfire season.