



# Red River and Devils Lake Basins - 2025 Spring Flood Outlook

NWS Grand Forks • North Central River Forecast Center • February 13, 2025

This outlook is for the US portion of the basin and based on conditions through Monday, February 10, 2025. Visit our website at [weather.gov/fgf/currentfloodoutlook](https://www.weather.gov/fgf/currentfloodoutlook) for associated exceedance graphics, probabilities, and related discussions. Additional spring flood outlooks will be issued on February 27th and March 13th.

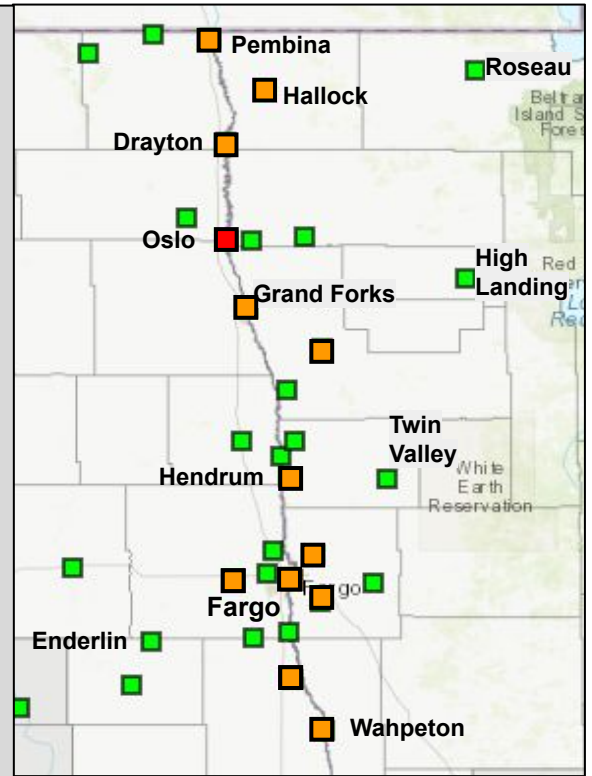
**Key Message: The risk for significant (moderate or higher) spring flooding is low with this outlook issuance, running below long-term historical averages across the the Red River Basin (US portion).**

### Key Points:

- Minor to isolated moderate spring flooding in this outlook (50% exceedance probability) for some locations.
- Well above normal precipitation last November led to saturated soils and slightly elevated river levels before freeze-up. However, snowfall and associated precipitation has been below normal this winter for the majority of the basin.
- Minimal snowpack early in the winter followed by below normal temperatures has led to a deep frost layer. Below normal temperatures are expected to continue into spring and may lead to a delayed snowmelt.
- Late winter and spring precipitation, along with the timing/thaw cycle of any snowpack will be the most important spring flood risk factors.

Flood Risk Indicated as > 50% of category:

- Major
- Moderate
- Minor
- < 50%



Valid February 17, 2025 - May 18, 2025

### Snowmelt Flood Components:

- 1. Fall + Early Winter Precipitation and Soil Moisture: Below normal to near normal.** Fall precipitation (Sep-Nov 2024) was below normal for much of the basin. However, the fall season did end with well above normal November precipitation, especially across northeastern North Dakota, which saturated soils before freezing up. Below normal precipitation has continued into the winter (exception being near the international border in North Dakota). This has allowed abnormally dry to moderate drought conditions to persist across the southern portion of the basin and into north central Minnesota.
- 2. Base Streamflow: Near to slightly above normal.** At the end of Dec., USGS analyses indicated the Red River and its tributaries were flowing near to slightly above normal (especially in the far south) due to above normal Nov. precipitation.
- 3. Frost Depth: Deeper than normal.** Minimal to no snowpack early in the winter, followed by stretches of below normal temperatures, has led to the formation of a deep frost layer. Frost depth values of 30-45 inches are common across much of the basin. Deeper frost may contribute to greater runoff of snowmelt and spring precipitation.
- 4. Snowpack and Associated Water Content: Below normal.** Snowfall (and associated water content) since Dec. 1<sup>st</sup> is running 50-75 percent of normal, lowest across the far southern basin up into northwestern Minnesota. The exception is far northeastern portions of the Devils Lake basin and into far northeastern North Dakota where a deeper snowpack is present.
- 5. Future Conditions:** Climate outlooks indicate continued below normal temperatures into spring which could lead to a delayed snowmelt runoff period. Additional precipitation late this winter and into spring, along with the timing/thaw cycle of any snowpack, will continue to be important spring flood risk factors.

**DEVILS LAKE AND STUMP LAKE**

Valid February 10, 2025 - September 30, 2025

DEVILS LAKE	95%	90%	75%	50%	25%	10%	5%
Creel Bay	1450.4	1450.5	1450.8	1451.0	1451.4	1452.1	1452.6
Eastern Stump Lake	1450.4	1450.5	1450.8	1451.0	1451.4	1452.1	1452.6

Devils Lake and Stump Lake are currently at ~1449.4 ft (zero datum 1400.00 NGVD29).

**RED RIVER AND TRIBUTARIES**

Valid February 17, 2025 - May 18, 2025

RED RIVER MAINSTEM	95%	90%	75%	50%	25%	10%	5%
Wahpeton	9.7	10.1	10.9	11.7	13.1	14.6	15.2
Hickson	18.6	19.6	21.9	24.7	29.4	32.5	34.4
Fargo	18.5	20.2	22.0	24.5	30.5	33.4	35.9
Halstad	14.9	17.2	19.5	23.8	28.7	34.3	37.0
Grand Forks	23.9	25.0	28.0	34.4	39.9	42.5	45.5
Oslo	22.6	24.1	27.9	33.4	34.7	35.6	36.9
Drayton	23.2	24.2	28.6	34.0	39.2	40.2	41.5
Pembina	33.0	34.0	38.1	43.8	47.8	49.5	50.9

**Note:**  
 Probabilities for all river points do not take into account effects due to ice, jamming, etc. Higher stages than depicted may occur.

MINNESOTA TRIBUTARIES	95%	90%	75%	50%	25%	10%	5%
South Fork Buffalo River							
Sabin	12.7	13.0	13.5	14.2	14.7	15.6	16.6
Buffalo River							
Hawley	5.5	5.8	6.3	7.1	8.7	9.2	9.7
Dilworth	12.9	13.8	15.0	17.9	19.4	21.5	22.7
Wild Rice River							
Twin Valley	4.6	4.8	5.4	6.7	7.5	9.4	10.4
Hendrum	13.5	15.5	17.6	21.4	25.6	28.6	29.4
Marsh River							
Shelly	7.3	8.0	9.1	9.7	11.9	13.8	15.9
Sand Hill River							
Climax	9.4	10.8	11.3	12.6	16.3	20.3	24.1
Red Lake River							
High Landing	3.7	4.1	4.8	6.4	7.8	9.6	10.8
Crookston	10.2	10.5	12.2	15.2	17.8	20.4	23.5
Snake River							
Above Warren	62.8	62.9	63.2	64.1	65.2	66.3	67.8
Alvarado	100.0	100.4	101.0	103.3	106.0	107.9	109.3
Two Rivers River							
Hallock	799.5	799.8	801.0	803.4	805.5	807.8	808.7
Roseau River							
Roseau	8.5	8.8	9.4	10.7	13.0	15.8	16.0

**Legend:**  
 Below Flood Stage  
 Minor  
 Moderate  
 Major  
 \*Flood of Record\*

NORTH DAKOTA TRIBUTARIES	95%	90%	75%	50%	25%	10%	5%
Wild Rice River							
Abercrombie*	14.6	15.6	18.4	21.7	26.1	28.7	31.3
Sheyenne River							
Valley City	6.6	7.0	7.9	9.4	11.5	12.5	13.0
Lisbon	6.3	6.7	7.7	9.2	11.8	13.3	17.0
Kindred	8.0	8.3	9.4	11.6	14.8	18.7	20.5
West Fargo Diversion	10.8	10.9	11.1	13.0	15.1	18.5	21.3
Harwood	75.5	76.4	77.7	80.1	85.9	89.8	91.4
Maple River							
Enderlin	6.4	7.2	8.1	9.3	10.9	12.0	13.3
Mapleton	13.2	14.2	16.4	18.9	20.8	22.0	22.7
Goose River							
Hillsboro	4.2	4.5	5.4	6.9	9.3	13.1	13.9
Forest River							
Minto	3.5	3.6	4.0	4.6	5.5	7.2	8.0
Pembina River							
Walhalla	5.9	6.2	6.9	8.3	10.1	13.1	14.0
Neche	10.8	11.5	12.6	16.2	19.6	21.1	21.2

\* Flood stages increased by 10.0 ft October 2023