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

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

This outlook is for the US portion of the basin and based on conditions through Monday, March 10, 2025. Visit our website at weather.gov/fgf/currentfloodoutlook for associated exceedance graphics, probabilities, and related discussions.
This will be the last spring flood outlook for 2025.

**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:

**- Isolated minor spring flooding in this outlook (50% exceedance probability) for some locations.**

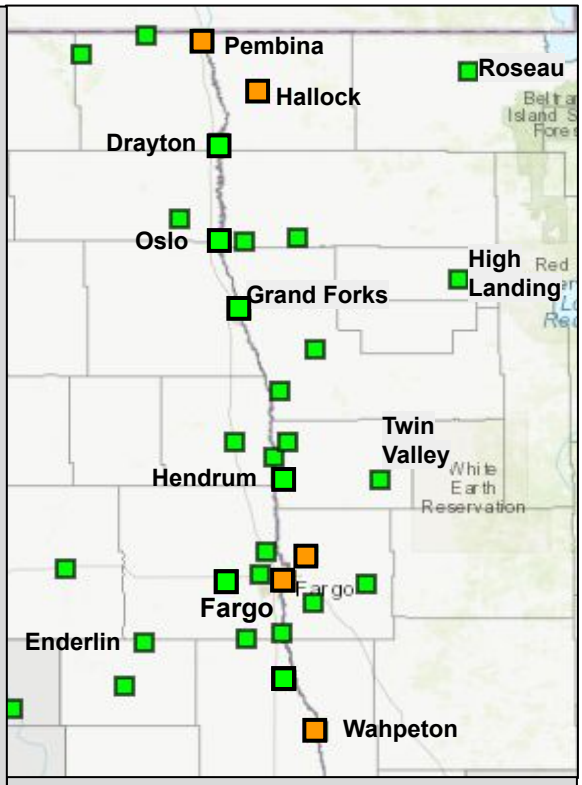
**- Well above normal precipitation last November led to saturated soils and slightly elevated river levels before freeze-up. However, snowfall and associated precipitation has been well below normal this winter for the majority of the basin.**

**- Minimal snowpack early in the winter followed by below normal temperatures has led to a deep frost layer. Above normal temperatures are expected through March which has allowed much (if not all) of the snowpack to erode, and will continue to thaw frozen soils.**

**- Spring precipitation, especially any rainfall on frozen ground, will be the most important flood risk factor in the coming months.**

**Flood Risk Indicated as > 50% of category:**

- Major
- Moderate
- Minor
- < 50%




Valid March 17, 2025 - June 15, 2025

### Snowmelt Flood Components:

**1. Fall + Winter Precipitation and Soil Moisture: Below normal.** Fall precipitation (Sep. - Nov. 2024) was below normal for much of the basin. However, the fall season did end with well above normal Nov. precipitation, especially across northeastern North Dakota, which saturated soils before freezing up. Below normal precipitation continued through winter, allowing abnormally dry to severe drought conditions to persist across the southern 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, led to the formation of a deep frost layer. Currently, frost depth values range from 35-50 inches across the basin although some thawing of the top layer of soil has occurred due to recent above normal temperatures.

**4. Snowpack and Associated Water Content: Below normal.** Snowfall (and associated water content) since Dec. 1st is running 25-75 percent of normal, lowest across the southern and central basin and up into northwestern Minnesota. Recent above normal temperatures have allowed melting of the snowpack across the basin. Current snow depths remain in the far northern end of the basin, along the international border, ranging from zero to up to 10 inches in isolated areas.

**5. Future Conditions:** Climate outlooks now indicate above normal temperatures into April which will continue to melt any remaining snowpack across the north and slowly thaw frozen soils. While near to below normal precipitation is currently predicted, any rainfall on frozen ground (or any lingering snowpack) will continue to be the most important flood risk factor.

## DEVILS LAKE AND STUMP LAKE

**Valid March 10, 2025 - September 30, 2025**

| DEVILS LAKE | 95% | 90% | 75% | 50% | 25% | 10% | 5% |
|---|---|---|---|---|---|---|---|
| Creel Bay | 1450.4 | 1450.5 | 1450.6 | 1450.9 | 1451.3 | 1451.9 | 1452.5 |
| Eastern Stump Lake | 1450.4 | 1450.5 | 1450.6 | 1450.9 | 1451.3 | 1451.9 | 1452.5 |

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

## RED RIVER AND TRIBUTARIES

**Valid March 17, 2025 - June 15, 2025**

| RED RIVER MAINSTEM | 95% | 90% | 75% | 50% | 25% | 10% | 5% |
|---|---|---|---|---|---|---|---|
| Wahpeton | 9.5 | 9.6 | 9.7 | 11.3 | 12.9 | 14.1 | 15.0 |
| Hickson | 17.7 | 17.8 | 18.4 | 21.8 | 27.5 | 31.3 | 34.5 |
| Fargo | 17.9 | 17.9 | 19.2 | 21.5 | 26.9 | 32.8 | 34.5 |
| Halstad | 13.7 | 13.9 | 14.2 | 17.5 | 24.0 | 30.8 | 35.2 |
| Grand Forks | 20.1 | 20.8 | 22.4 | 26.3 | 32.1 | 41.6 | 44.3 |
| Oslo | 16.9 | 18.1 | 20.6 | 25.6 | 32.4 | 35.3 | 36.4 |
| Drayton | 19.7 | 20.2 | 22.1 | 26.5 | 32.3 | 39.6 | 40.9 |
| Pembina | 29.4 | 31.4 | 34.5 | 39.1 | 43.2 | 48.5 | 50.2 |
| **MINNESOTA TRIBUTARIES** | **95%** | **90%** | **75%** | **50%** | **25%** | **10%** | **5%** |
| South Fork Buffalo River | | | | | | | |
| Sabin | 9.8 | 10.2 | 11.3 | 12.5 | 13.9 | 14.7 | 15.1 |
| Buffalo River | | | | | | | |
| Hawley | 4.5 | 4.8 | 5.4 | 6.3 | 7.7 | 8.6 | 9.1 |
| Dilworth | 7.9 | 8.8 | 10.3 | 13.3 | 17.7 | 19.9 | 20.7 |
| Wild Rice River | | | | | | | |
| Twin Valley | 3.5 | 3.5 | 3.8 | 4.6 | 6.3 | 7.8 | 9.0 |
| Hendrum | 12.7 | 12.8 | 13.8 | 18.1 | 23.9 | 28.3 | 29.5 |
| Marsh River | | | | | | | |
| Shelly | 6.1 | 6.1 | 6.8 | 8.8 | 10.6 | 13.5 | 14.9 |
| Sand Hill River | | | | | | | |
| Climax | 7.8 | 7.8 | 8.0 | 10.9 | 13.2 | 19.8 | 24.2 |
| Red Lake River | | | | | | | |
| High Landing | 2.9 | 3.0 | 3.8 | 5.2 | 7.0 | 8.7 | 10.0 |
| Crookston | 8.7 | 8.8 | 10.4 | 12.7 | 15.4 | 21.2 | 22.3 |
| Snake River | | | | | | | |
| Above Warren | 63.0 | 63.2 | 63.6 | 64.2 | 65.2 | 66.8 | 67.8 |
| Alvarado | 100.2 | 100.8 | 102.4 | 103.7 | 107.0 | 108.6 | 109.3 |
| Two Rivers River | | | | | | | |
| Hallock | 800.0 | 800.8 | 802.1 | 803.8 | 805.9 | 808.5 | 809.1 |
| Roseau River | | | | | | | |
| Roseau | 9.2 | 9.6 | 10.2 | 11.3 | 13.7 | 16.2 | 17.7 |
| **NORTH DAKOTA TRIBUTARIES** | **95%** | **90%** | **75%** | **50%** | **25%** | **10%** | **5%** |
| Wild Rice River | | | | | | | |
| Abercrombie* | 13.0 | 13.1 | 15.6 | 19.6 | 24.5 | 27.6 | 29.8 |
| Sheyenne River | | | | | | | |
| Valley City | 5.2 | 5.3 | 5.9 | 7.3 | 10.2 | 12.3 | 14.4 |
| Lisbon | 4.0 | 4.5 | 5.2 | 7.4 | 10.0 | 12.9 | 14.6 |
| Kindred | 5.3 | 5.7 | 6.6 | 9.3 | 11.8 | 17.2 | 18.8 |
| West Fargo Diversion | 8.7 | 8.7 | 9.7 | 10.8 | 13.0 | 17.0 | 18.6 |
| Harwood | 72.3 | 72.5 | 74.0 | 77.0 | 79.5 | 86.9 | 90.7 |
| Maple River | | | | | | | |
| Enderlin | 4.5 | 4.9 | 5.7 | 7.4 | 9.2 | 10.8 | 12.1 |
| Mapleton | 11.0 | 11.2 | 12.1 | 14.8 | 18.5 | 21.0 | 22.2 |
| Goose River | | | | | | | |
| Hillsboro | 3.1 | 3.3 | 3.7 | 4.5 | 6.6 | 8.8 | 12.8 |
| Forest River | | | | | | | |
| Minto | 2.9 | 3.0 | 3.3 | 3.8 | 4.8 | 5.9 | 6.5 |
| Pembina River | | | | | | | |
| Walhalla | 6.3 | 6.7 | 7.3 | 8.4 | 9.9 | 12.0 | 13.3 |
| Neche | 11.6 | 12.6 | 13.6 | 16.3 | 18.8 | 20.9 | 21.1 |

* Flood stages increased by 10.0 ft October 2023

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

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