Quarterly Climate Impacts and Outlook

Midwest Region

March 2025

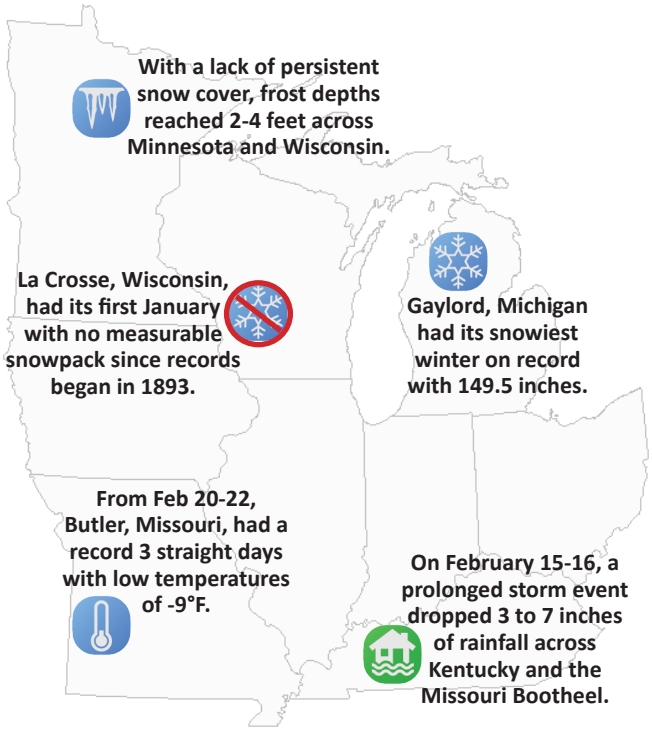
Midwest Significant Events – *December 2024 - February 2025*

A freezing rain event on December 14 brought 0.1-0.7 inches of ice to the east-central Midwest. Then, a late-month warm-up brought record and near-record warm overnight temperatures across the Midwest Dec. 25-31.

A major winter storm traversed the lower Midwest January 5-7, dropping 7-12 inches of snow from Kansas City, Missouri, eastward through southern Ohio and 0.25-0.75 inches of freezing rain to the south-central Midwest. While the south had multiple rounds of winter storms in January, the north largely missed out. Numerous long-running weather stations across northern Iowa, southern Minnesota, and Wisconsin had their driest January on record, with record to near-record low snowfall.

An active February weather pattern brought wide temperature swings across the region, along with storms in the south, especially the Ohio River Valley. A significant stretch of cold temperatures in mid-February resulted in a cooler-than-normal month region wide.

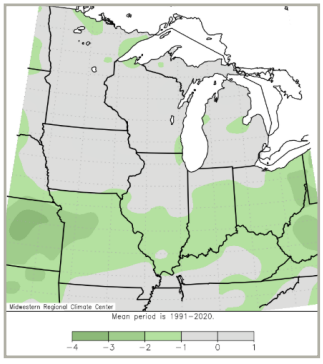
Across the north, excluding far northern Michigan, drought persisted and expanded over winter.



Regional Climate Overview – *December 2024 - February 2025*

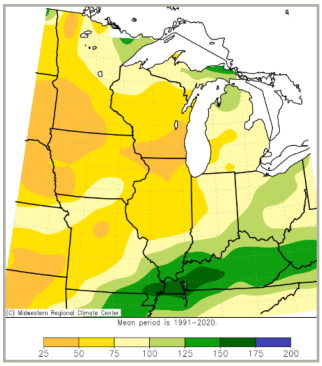
Winter Temperature

Departure from Normal (°F)



Winter Precipitation

% of Normal



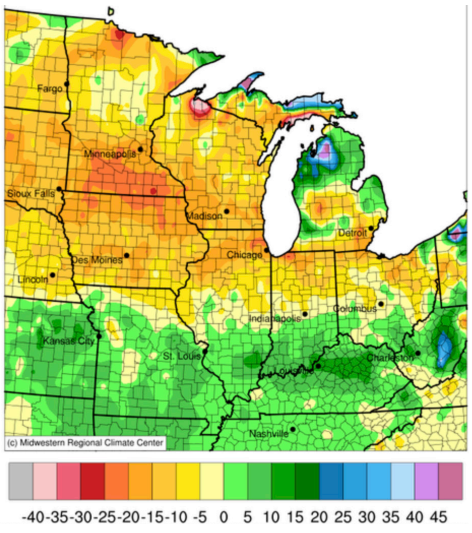
Winter season precipitation was above normal across the Ohio River Valley and the far upper Midwest and below normal elsewhere. This seasonal pattern of wetness and dryness was largely similar in December, January, and February across the region.

Winter snowfall totals were above normal in the southern half of the region, below normal across the northern half, and near normal in Michigan's lake-effected areas. Sault Ste. Marie, Michigan, had its 2nd highest winter snowfall since 1888 with 138.9 inches. Conversely, a wide swath across southern Minnesota reported totals that were 20 to 30 inches below normal.

Winter season temperatures were near normal in the north and slightly below normal across the south. In December, temperatures were above normal region wide. Conditions shifted in the new year, with below-normal temperatures for the Midwest in January and February. While Arctic air repeatedly traversed the basin throughout winter, the lack of persistent snow cover in Wisconsin helped buffer temperatures. Wisconsin's lowest winter temperature occurred January 20 when the Ashland area hit -32°F, which was warmer than 89% of years since 1885 in terms of annual minimum temperatures.

Winter Snowfall

Departure from Average (inches)



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Regional Impacts – *December 2024 - February 2025*

Kentucky Flooding

After 3 to 7 inches of rain fell across Kentucky on February 15-16, rapidly rising rivers caused widespread flooding and at least 24 fatalities in the region. Over 300 roadways were closed, and over 1,000 water rescues occurred. More than 40,000 customers were without power, and another 9,000 were without water. Mudslides happened in the mountainous areas of eastern Kentucky. Cold air and several inches of snow covered the state in the days following the rainstorms, complicating recovery efforts.

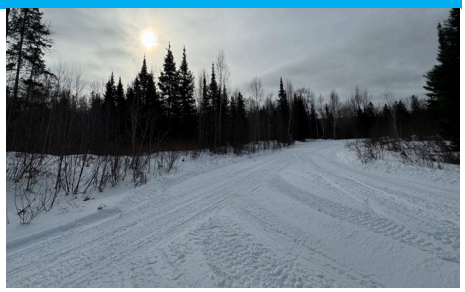
Drone image of flooding in Kentucky (Credit: KY SEOC)

Snow Drought

A lack of snow cover across Minnesota and Wisconsin resulted in unusually deep soil frost. There were scattered reports of water main breaks in southwest Wisconsin. There were reports of frost heave damage from buildings with shallow foundations and decks near rivers and lakeshores in Minnesota. Dry, windy conditions spurred unusually high wildfire activity across Wisconsin in January. Deep soil frost depths were also reported across Iowa as the state experienced its 4th least snowy winter in 138 years of record keeping. The Missouri River at St. Louis reached record daily low flows several times in late February.

Recreation and Tourism

Conditions were generally favorable for outdoor recreation, even in snow drought-affected areas since temperatures supported artificial snow making as needed. Cold temperatures also enabled snow that did fall to remain on the ground, benefiting skiers and snowmobilers. Lake ice was plentiful, especially in the north, so ice fishing and ice skating were supported. While some dogsled races were postponed due to weather, there were no known cancellations of ice or snow related festivals, competitions, or celebrations. Skiing conditions were favorable in Ohio.



Snowmobile trail in northern Wisconsin (Credit: Bridgette Mason)

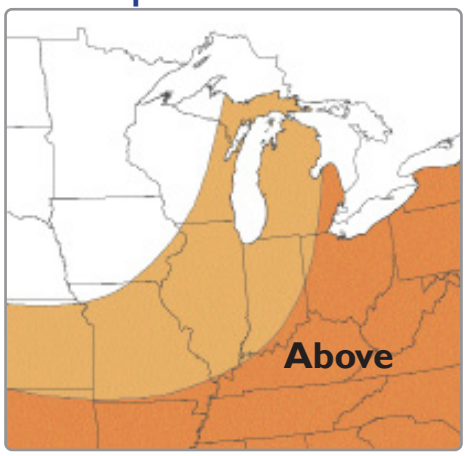
Regional Outlook – *April - June 2025*

NOAA forecasters are predicting increased chances of above-normal temperatures in the southeast portion of the Midwest, transitioning to equal chances of above-, below-, or near-normal temperatures in northwest section of the region. The outlook slightly favors a chance of above-normal precipitation in the eastern Midwest while there are equal chances of above-, below-, and near-normal precipitation in the western half of the region.

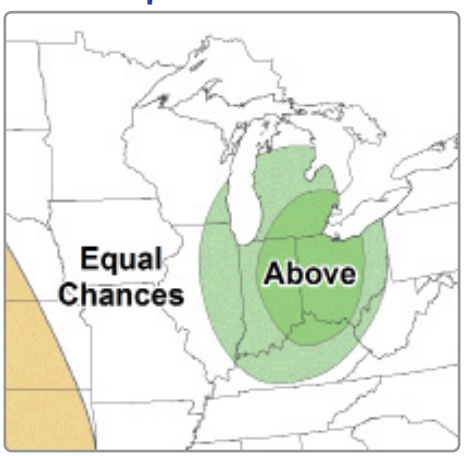
Spring flooding risk is normal to slightly above normal for the Ohio River Basin and normal to below normal for the Greater Mississippi River Basin. Flood risk due to snowmelt across the upper portions of the Greater Mississippi River Basin is below normal.

Drought is expected to persist across Minnesota, Iowa, northern Wisconsin, and western Missouri. Below-normal winter precipitation, low streamflows, and a lack of subsoil moisture in these areas are raising concerns about adequate moisture moving into spring and the upcoming growing season.

Temperature Outlook



Precipitation Outlook



Midwest Partners

- Midwestern Regional Climate Center
- American Association of State Climatologists
- National Integrated Drought Information System
- USDA Midwest Climate Hub
- National Drought Mitigation Center
- NWS Climate Prediction Center
- NWS Central Region Headquarters
- North Central River Forecast Center
- Ohio River Forecast Center
- National Centers for Enviro. Info

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