

# Drought Information Statement for Central, Southern Minnesota and Western Wisconsin Valid February 29, 2024

### Issued By: NWS Twin Cities / Chanhassen MN Contact Information: nws.twincities@noaa.gov

- This product will be updated on the third Thursday of the month, or sooner if drought conditions change significantly.
- Please see all currently available products at <u>https://drought.gov/drought-information-statements</u>.
- Please visit <u>https://www.weather.gov/MPX/DroughtInformationStatement</u> for previous statements.





## U.S. Drought Monitor - NWS Twin Cities Region

<sup>7</sup> Link to the <u>latest U.S. Drought Monitor</u>

### Key Messages

• The winter snow drought is now beginning to be reflected in the drought Moni

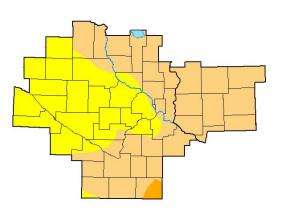
### Drought intensity and extent

- D2 (Severe drought): The southeast half of Freeborn county remain in a D2 Drought.
- D1 (Moderate drought): Cover all of western Wisconsin, south-central Minnesota, the eastern and northern Twin Cities metro, and central Minnesota.
- D0 (Abnormally dry): Covers the rest of southern Minnesota

### Next Scheduled Update

• Thursday, March 7th, 2024

#### U.S. Drought Monitor Twin Cities/ Chanhassen, MN WFO



#### February 27, 2024 (Released Thursday, Feb. 29, 2024) Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	59.97	1.09	0.00	0.00
Last Week 02-20-2024	26.29	73.71	26.02	1.09	0.00	0.00
3 Month s Ago 11-28-2023	9.31	90.69	28.19	7.94	0.00	0.00
Start of Calendar Year 01-02-2024	30.64	69.36	25.91	1.09	0.00	0.00
Start of Water Year 09-26-2023	0.00	100.00	90.60	40.96	8.44	0.00
One Year Ago 02-28-2023	47.92	52.08	21.84	0.00	0.00	0.00

#### Intensity:

 None
 D2 Severe Drought

 D0 Abnormally Dry
 D3 Extreme Drought

 D1 Moderate Drought
 D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.asp

<u>Author:</u> Richard Heim NCEI/NOAA



droughtmonitor.unl.edu

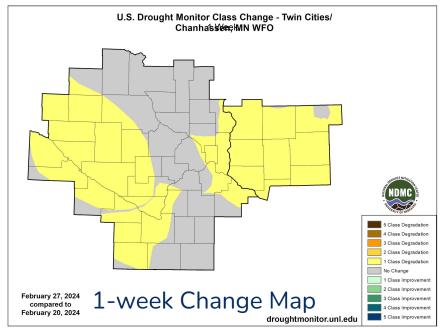


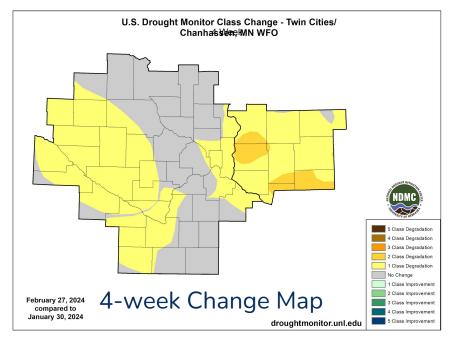
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## Recent Change in Drought Intensity

Link to the latest 1-week change map and 4-week change map for the NWS Twin Cities Region

• The lack of snow and well above normal temperatures in February have allowed the drought to start expanding once again.





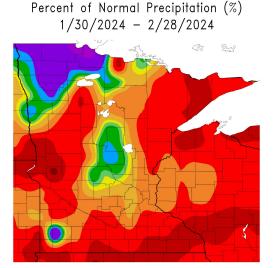


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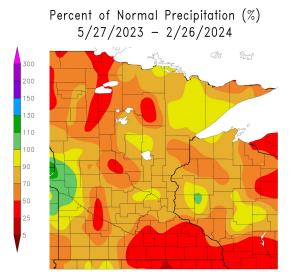
**Precipitation Departures** 

1-month and 9-month percent of normal precipitation

- Since heavy rains around Christmas, we have slipped back into a generally dry pattern.
- Long term deficits going back to the spring and summer of 2023 remain.
- Though we are in a pronounced snow drought this winter, heavy winter rains have led to near to above normal observed precipitation so far this winter outside of southeast Minnesota.



Generated 2/29/2024 at HPRCC using provisional data.



NOAA Regional Climate Centers at HPRCC using provisional data.

NOAA Regional Climate Centers

130

120

110



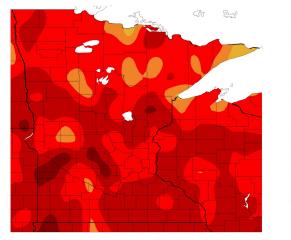
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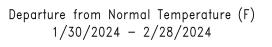


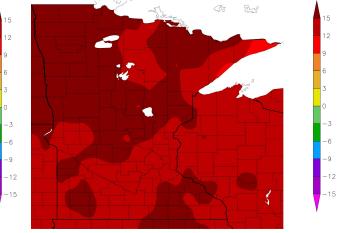
1-week and 1-month temperature departure

- Other than a week in mid-January, temperatures have continued to run well above normal this winter.
- The winter of 2023-2024 finished as the warmest on record Minnesota and Wisconsin.

Departure from Normal Temperature (F) 2/22/2024 - 2/28/2024







Generated 2/29/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers 324 at HPRCC using provisional data.

NOAA Regional Climate Centers



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Links: See/submit Condition Monitoring Observer Reports (CMOR) and view the Drought Impacts Reporter

#### Hydrologic Impacts

• The lack of snow cover this winter is helping lead to a low risk of flooding this spring at this time.

#### Agricultural Impacts

• Outside of the growing season. Winter rain events have helped replenish some of the soil moisture deficits going back to the supper of 2023, but the lack of snow cover will leave us susceptible to seeing increased soil moisture losses from exposure to the wind.

#### Fire Hazard Impacts

• The lack of snow across central and southern Minnesota and western Wisconsin has resulted in an increased risk of seeing above normal wildfire activity this Spring

#### **Other Impacts**

• No other remaining significant impacts

#### Mitigation activities

• None currently in place



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## Hydrologic Conditions and Impacts

#### Average streamflow for the past 7 days

- Stream flows across MN and WI are near normal, though we are at the time of year where we typically see our lowest flows right before the spring snow melt.
- Given the lack of snow to melt, we will likely see stream flows deteriorate quickly with respect to normal during March and April.

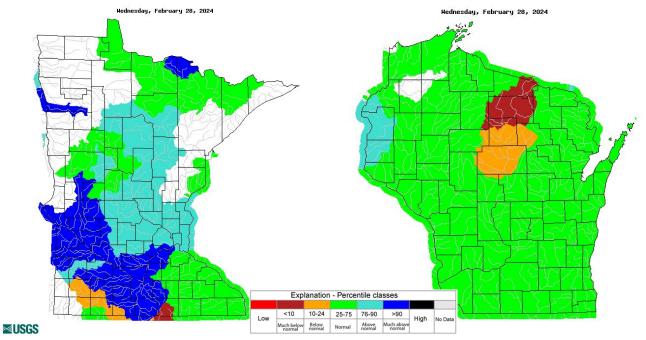


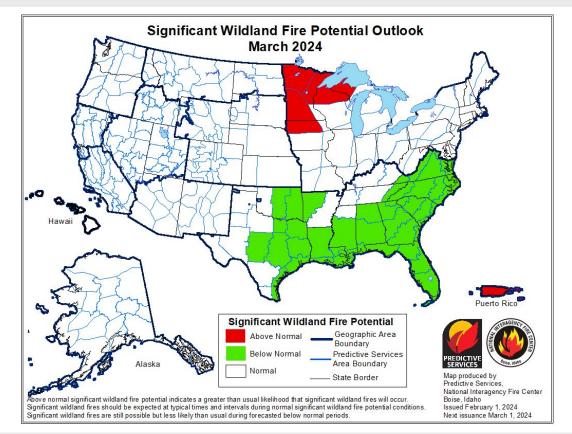
Image Caption: USGS 7-day Streamflow departure from normal for MN. Valid January 31, 2024

Image Caption: USGS 7-day Streamflow departure from normal for WI. Valid January 31, 2024





- The lack of snow cover across the area means a wildfire threat already exists as we head into March
- The lack of snow in general this winter has resulted in Minnesota and Wisconsin being in line to see above normal wildfire activity this Spring fire season (March through May)





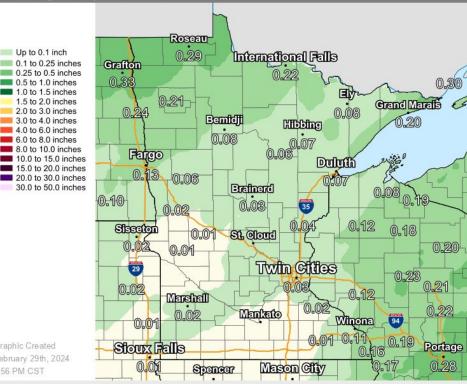
## Seven Day Precipitation Forecast

WPC 7-day precipitation forecast

Mainly dry conditions are expected until the through the first week of March



Valid Ending Thursday March 7th, 2024 at 6 PM CST



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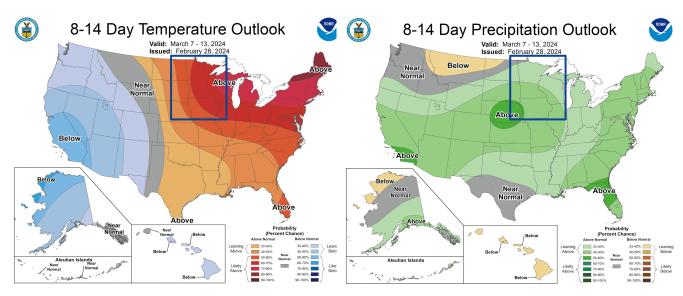
Graphic Created February 29th, 2024 5:56 PM CST



8-14 Day Outlooks

The latest weekly to seasonal outlooks can be found on the CPC homepage

- Temperatures will likely continue to run above normal as we head into March
- There are some signs of a more active weather pattern for the second week of March

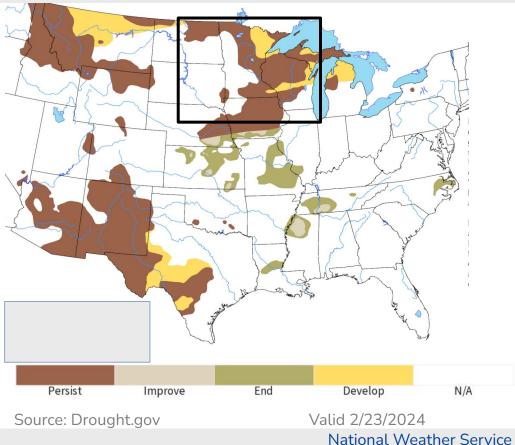




### Drought Outlook

The latest monthly and seasonal outlooks can be found on the CPC homepage

- The current drought is expected to persist through March, with minimal improvements expected
- There are indications that through the spring, drought conditions may expand across northern Minnesota and northern Wisconsin



Twin Cities/Chanhassen MN

Links to the latest: <u>Climate Prediction Center Monthly Drought Outlook</u> <u>Climate Prediction Center Seasonal Drought Outlook</u>



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What do those categories mean?

#### **Drought Category Definitions:**

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DO	Abnormally Dry	<ul> <li>Going into drought:</li> <li>Short-term dryness slowing planting, growth of crops or pastures</li> </ul>	<ul> <li>Coming out of drought:</li> <li>Some lingering water deficits</li> <li>Pastures or crops not fully recovered</li> </ul>			
D1	Moderate Drought	<ul> <li>Some damage to crops, pastures</li> <li>Streams, reservoirs, or wells low, some water shortages developing or imminent</li> <li>Voluntary water-use restrictions requested</li> </ul>				
D2	Severe Drought	<ul> <li>Crop or pasture losses likely</li> <li>Water shortages common</li> <li>Water restrictions imposed</li> </ul>				
D3	Extreme Drought	<ul> <li>Major crop/pasture losses</li> <li>Widespread water shortages or restrictions</li> </ul>				
D4	Exceptional Drought	<ul> <li>Exceptional and widespread crop/pasture losses</li> <li>Shortages of water in reservoirs, streams, and wells creating water emergencies</li> </ul>				

Comprehensive Drought Information for Minnesota: <u>http://www.drought.gov/state/minnesota</u> Comprehensive Drought Information for Wisconsin: <u>http://www.drought.gov/state/wisconsin</u> These sites contain links to resources from each state, to help you dive into drought information in more detail.



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