

Drought Information Statement for Central, Southern Minnesota and Western Wisconsin Valid November 2, 2023

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

- This product will be updated next Thursday, 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

Link to the latest U.S. Drought Monitor

Key Messages

• Continued wet conditions through October have allowed for a continued easing of the drought

Drought intensity and extent

- D3 (Extreme Drought) or higher: No portions of central and southern Minnesota or western Wisconsin have a D3 or high drought designation any more.
- D2 (Severe drought): Small areas remain in central Minnesota and the southeast half of Freeborn county.
- D1 (Moderate drought): Remains in the much of central Minnesota from St. Cloud to the northern Twin Cities metro, across southeast Minnesota to the east and south of Mankato, and a small portion of north-central Rusk county in Wisconsin
- D0 (Abnormally dry): Covers most of central and southern Minnesota and western Wisconsin not in D1 or D2 drought

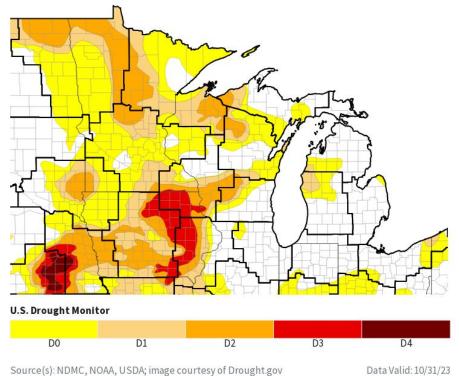
Next Scheduled Update

• Thursday, November 16th, 2023



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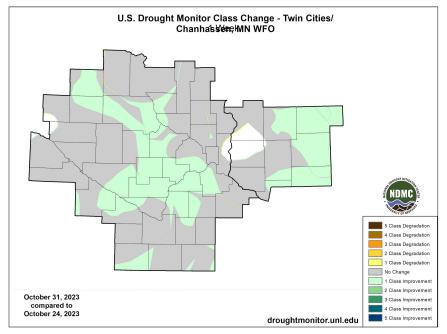
U.S. Drought Monitor

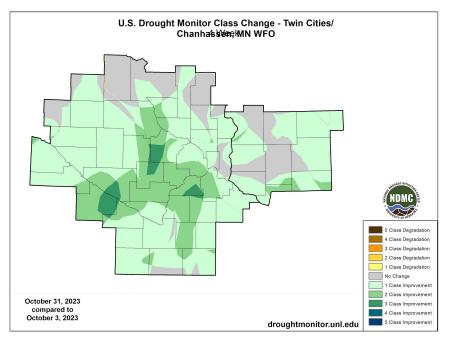


Recent Change in Drought Intensity

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

• The wetter than normal September and October have improved drought conditions over the entire area.



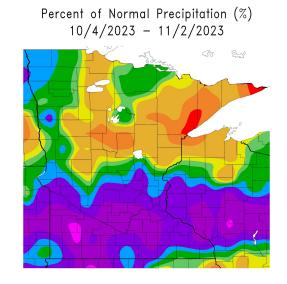


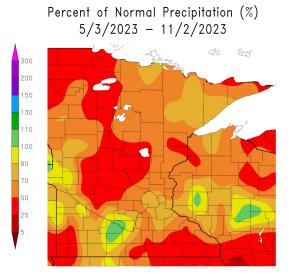


Precipitation Departures

1-month and 6-month percent of normal precipitation

- Much of the region has now seen well above normal precipitation over the past month.
- This has helped, but a long term deficit remains, going back to last spring.
 - For example, in the metro area, a deficit of around 5 inches since May remains (it had been over 10 inches for May through August).





Generated 11/3/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers at HPRCC using provisional data.

NOAA Regional Climate Centers

130

120

110



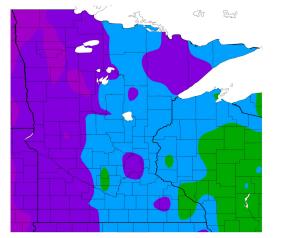
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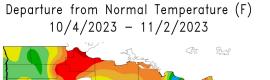
1-week and 1-month temperature departure

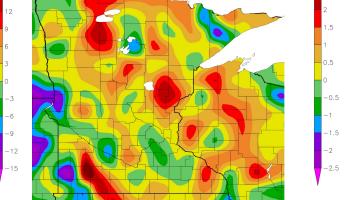
- The last week of October was very cold across the region, with average temperatures as much as 10 degrees below normal
- However, this cold in the last week of October was more than balanced by very warm temperatures for the first 3 weeks of the month.

Departure from Normal Temperature (F) 10/27/2023 - 11/2/2023



NOAA Regional Climate Centers 323 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 only lingering hydrologic impacts reside with some lakes that continue to have below normal levels and ground water levels which have yet to recover from the dry summer

Agricultural Impacts

• The wet weather in September and October has helped replenish soil moisture across the region, with soil moisture mostly back to near normal for the start of November.

Fire Hazard Impacts

• Wildfire activity has remained low the last few weeks.

Other Impacts

• No other remaining significant impacts

Mitigation activities

• All water conservation plans have been rescinded as hydrologic conditions continue to improve



Hydrologic Conditions and Impacts

Average streamflow for the past 7 days

- Streamflows are actually quite normal now over the area, with some basins in Wisconsin now above normal for October.
- This is due to a combination of a few bouts of rainfall, combined with climatologically low normal streamflows this time of year.

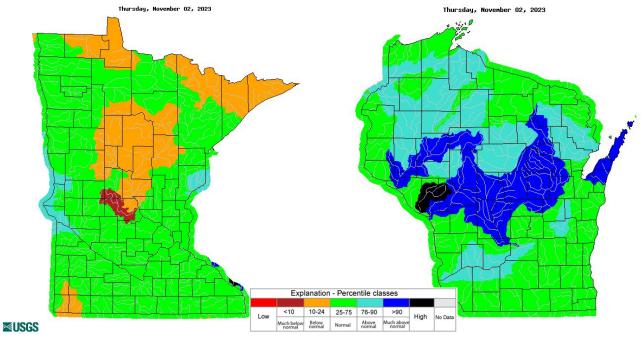


Image Caption: USGS 7-day Streamflow departure from normal for MN. Valid November 2, 2023

Image Caption: USGS 7-day Streamflow departure from normal for WI. Valid November 2, 2023



Seven Day Precipitation Forecast

WPC 7-day precipitation forecast

• Over the next week, drier conditions are expected, with the primary storm track expected to remain north of central Minnesota and western Wisconsin





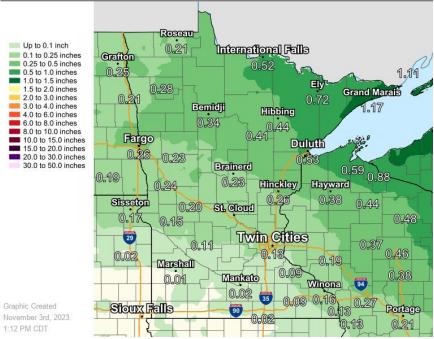


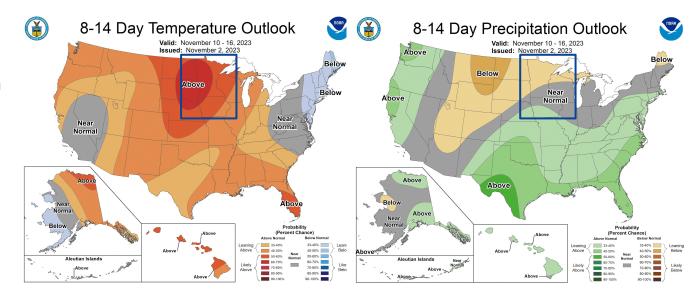
Image Caption: Weather Prediction Center 7-day precipitation forecast valid Thursday October 26 to Thursday November 2, 2023.

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8-14 Day Outlooks

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

- Temperatures look to warm up back above normal as we head into mid-November.
- The precipitation pattern has only a small tilt toward below normal probabilities.





Drought Outlook

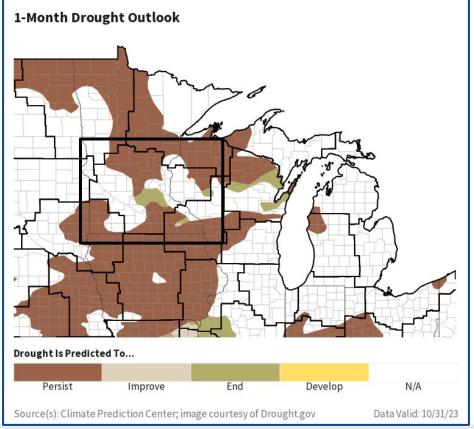
The latest monthly and seasonal outlooks can be found on the CPC homepage

- What is left of the drought is expected to either persist or slightly improve through the winter
- It is normal for little change in drought conditions to occur in the winter months across the upper Mississippi River Valley due to the lack of precipitation we receive when compared to the warm season.
 - For example, we average about 3 inches of liquid equivalent precipitation for December through February combined, for June through August, this same number is about 13 inches.

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



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Drought Definitions and State Resources

What do those categories mean?

Drought Category Definitions:

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

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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