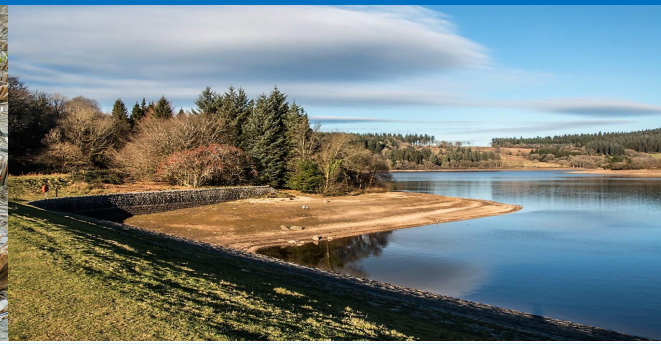
Drought Information Statement for Central, Southern Minnesota and Western Wisconsin

Valid December 21, 2023

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 https://drought.gov/drought-information-statements.
- Please visit https://www.weather.gov/MPX/DroughtInformationStatement for previous statements.



U.S. Drought Monitor - NWS Twin Cities Region

Link to the latest U.S. Drought Monitor

Key Messages

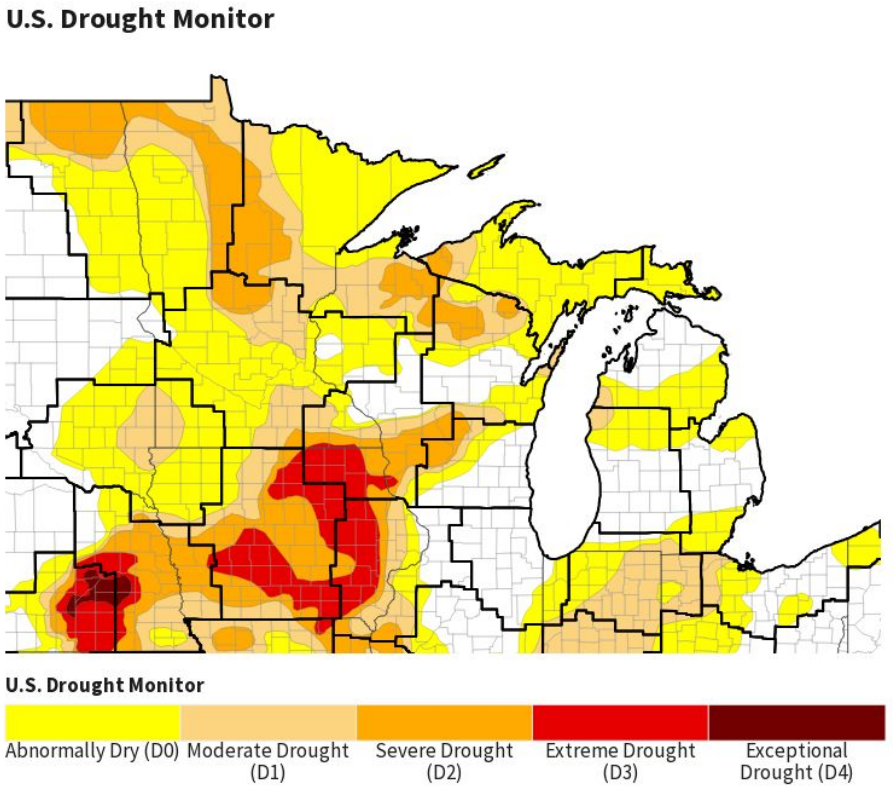
- Drought conditions continue to linger after this past summer's drought

Drought intensity and extent

- 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 portions of south-central and southeast Minnesota, 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, January 18th, 2024



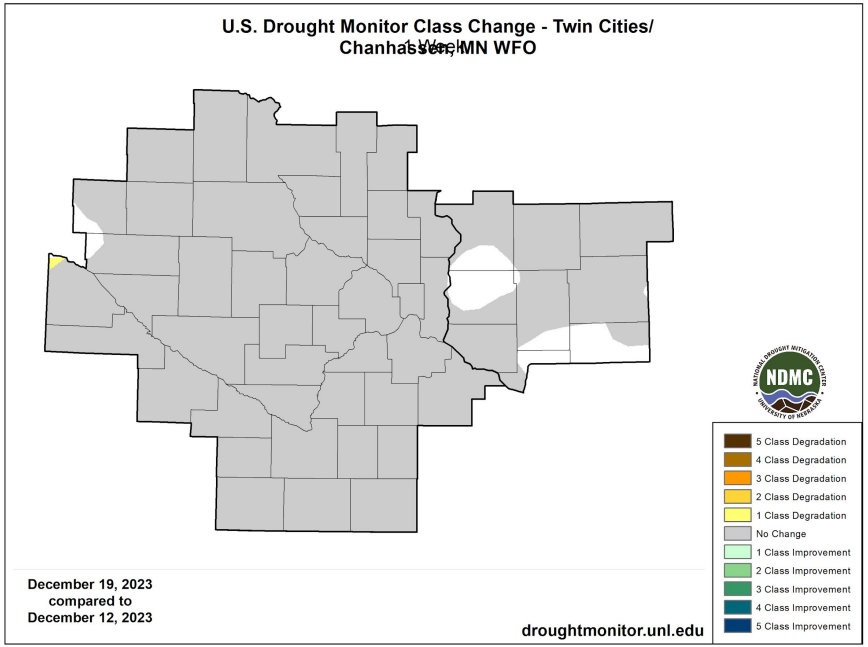
Source: Drought.gov

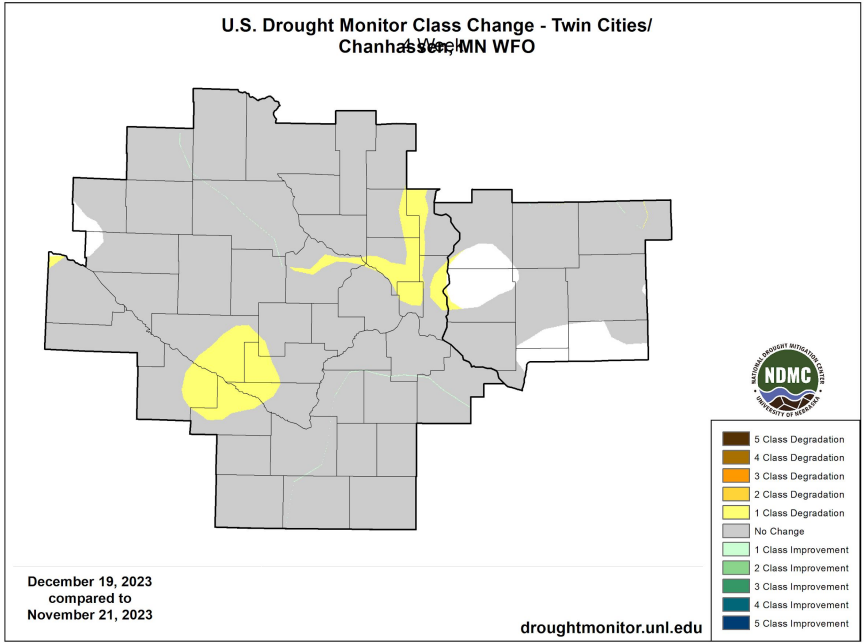
Valid 11/14/2023

Recent Change in Drought Intensity

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

- A record dry November allowed for some minor expansion of drought conditions in southern Minnesota

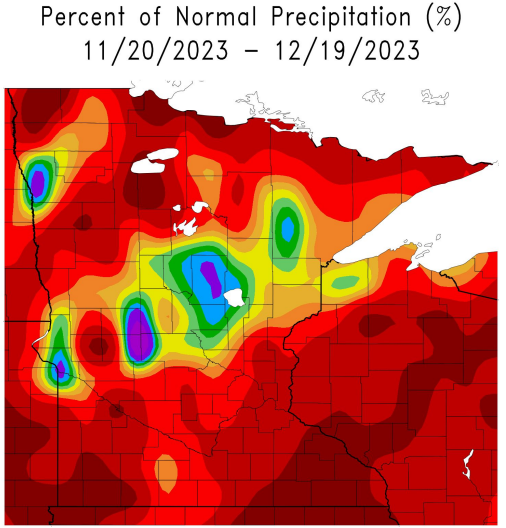




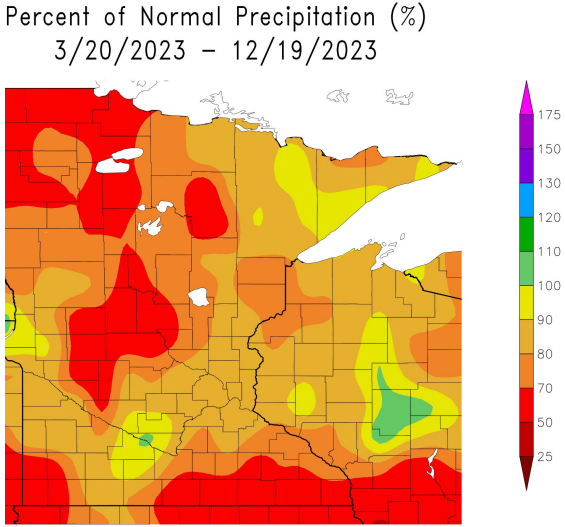
Precipitation Departures

1-month and 9-month percent of normal precipitation

- Much of the precipitation (mostly in the form of rain) in the last month occurred on December 4th into the 5th.
- Long term deficits going back to this past spring remain.



Generated 12/20/2023 at HPRCC using provisional data.



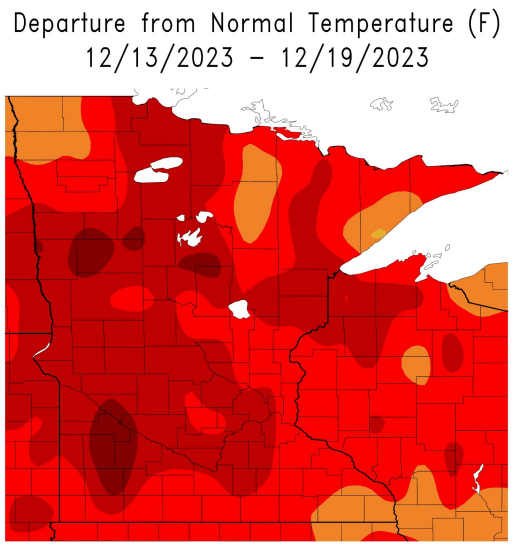
NOAA Regional Climate Centers at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature Departure

1-week and 1-month temperature departure

- Through the first 20 days of the month, December 2023 is the 2nd warmest December on Record and December of 2023 is on track to be the warmest December on record for the state of MN.



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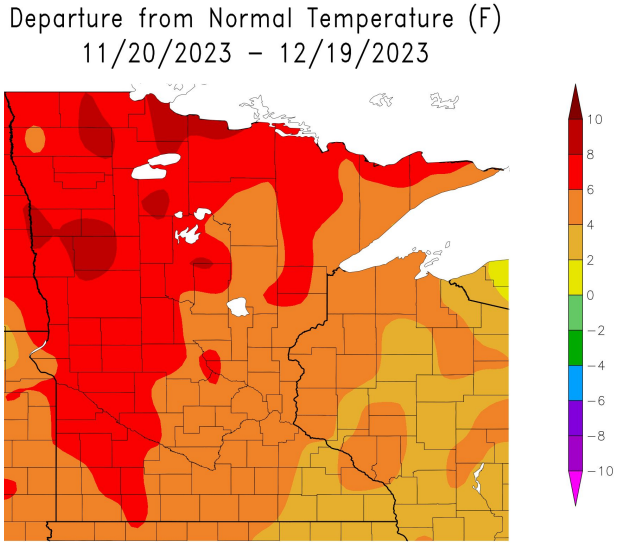


NOAA Regional Climate Centers 2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Summary of Impacts

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

Hydrologic Impacts

- The only lingering hydrologic impacts reside with many lakes, ponds and wetlands that continue to have below normal levels, and ground water levels which have yet to recover from the dry summer

Agricultural Impacts

- Outside of the growing season. December rain events will help replenish some of the soil moisture lost in November, but if we remain snow free, we will be susceptible to seeing increased soil moisture losses from exposure to the wind

Fire Hazard Impacts

- As long there is no snow pack, a low wildfire threat will continue this winter

Other Impacts

- No other remaining significant impacts

Mitigation activities

- None currently in place

Hydrologic Conditions and Impacts

Average streamflow for the past 7 days

- Streamflows are near normal for much of the Minnesota and Wisconsin.
- Some lower flow linger in the upper Mississippi River valley.

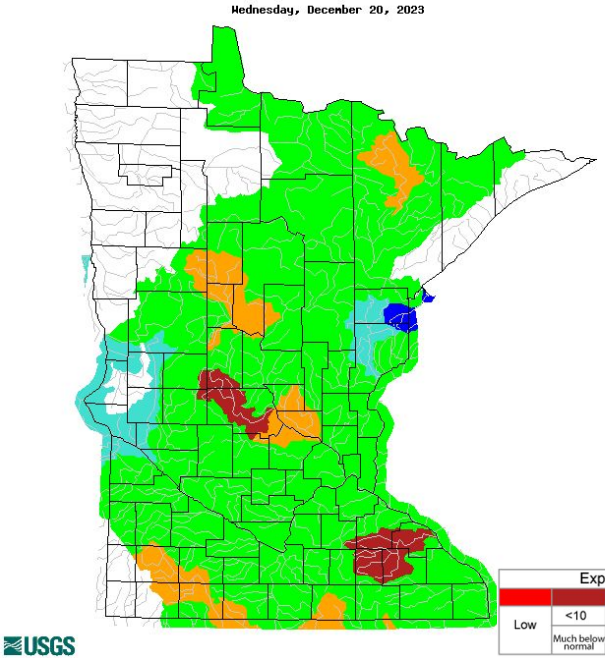


Image Caption: USGS 7-day Streamflow departure from normal for MN. Valid November 2, 2023

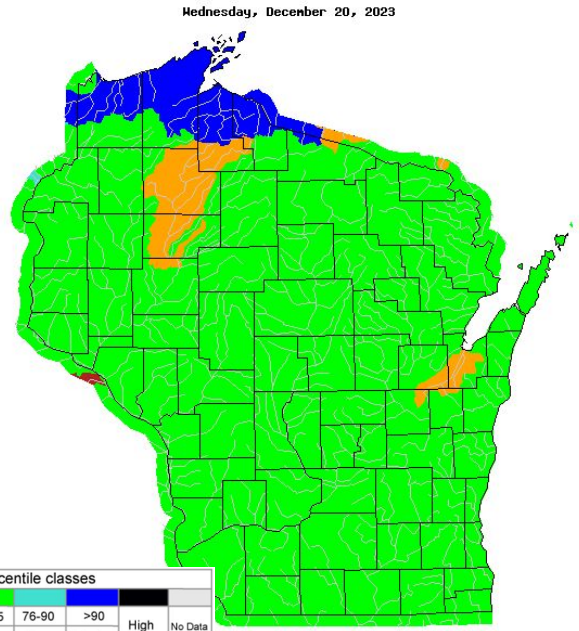


Image Caption: USGS 7-day Streamflow departure from normal for WI. Valid November 2, 2023

Seven Day Precipitation Forecast

WPC 7-day precipitation forecast

- Another prolonged rain event is expected from the 24th through the 27th. Rainfall amounts during this period may exceed normal melted precipitation totals for the entire month of December.

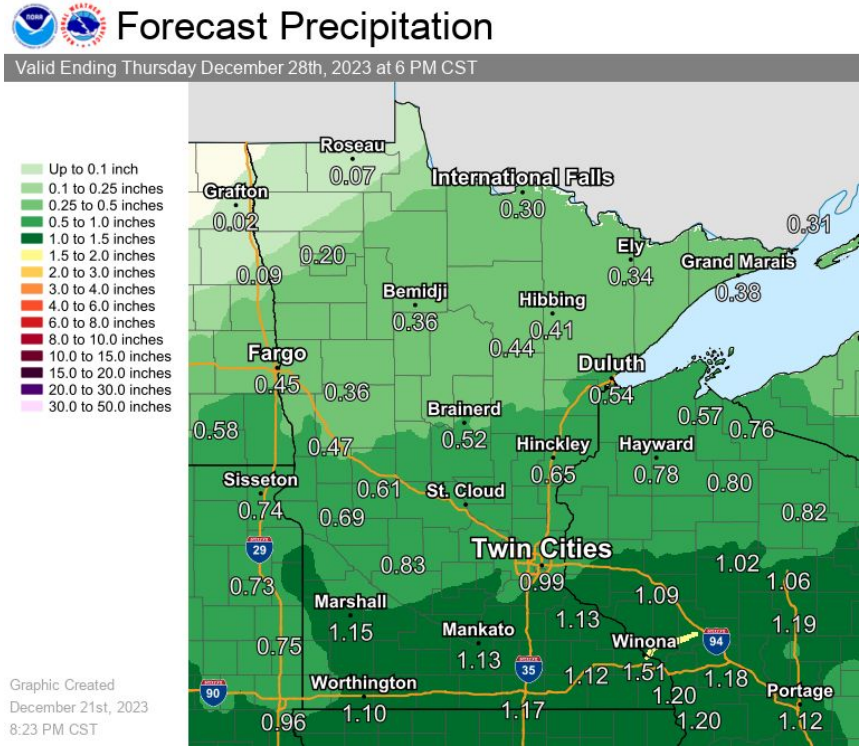
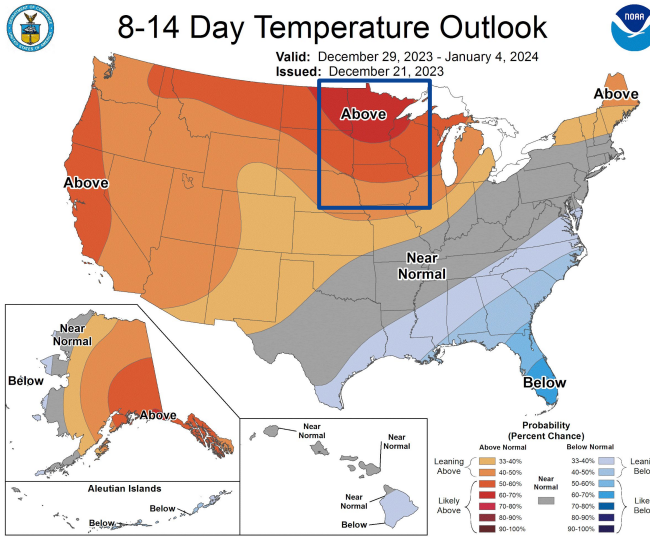


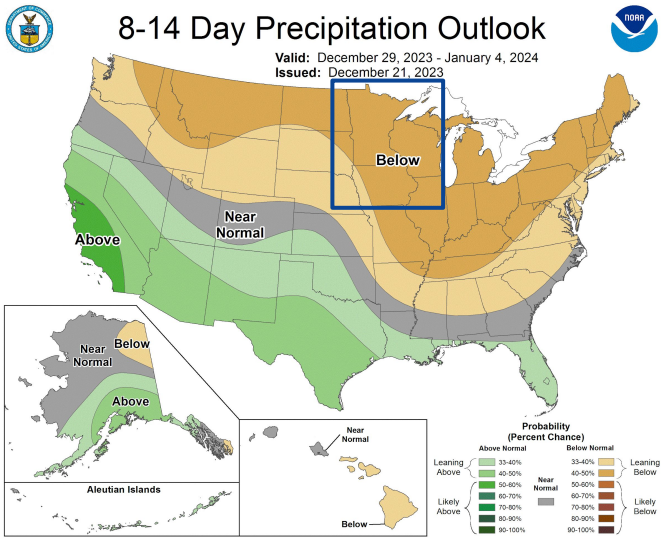
Image Caption: Weather Prediction Center 7-day precipitation forecast valid Thursday December 16 to Thursday December 28, 2023.

8-14 Day Outlooks

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

- Temperatures are expected to run above normal into the first week of 2024
- There are no signs of any significant pushes of cold air through the first 2 weeks of January
- After very wet conditions from the 24th through the 27th of December, we are again expected to slip back into a dry pattern to end 2023 and start 2024

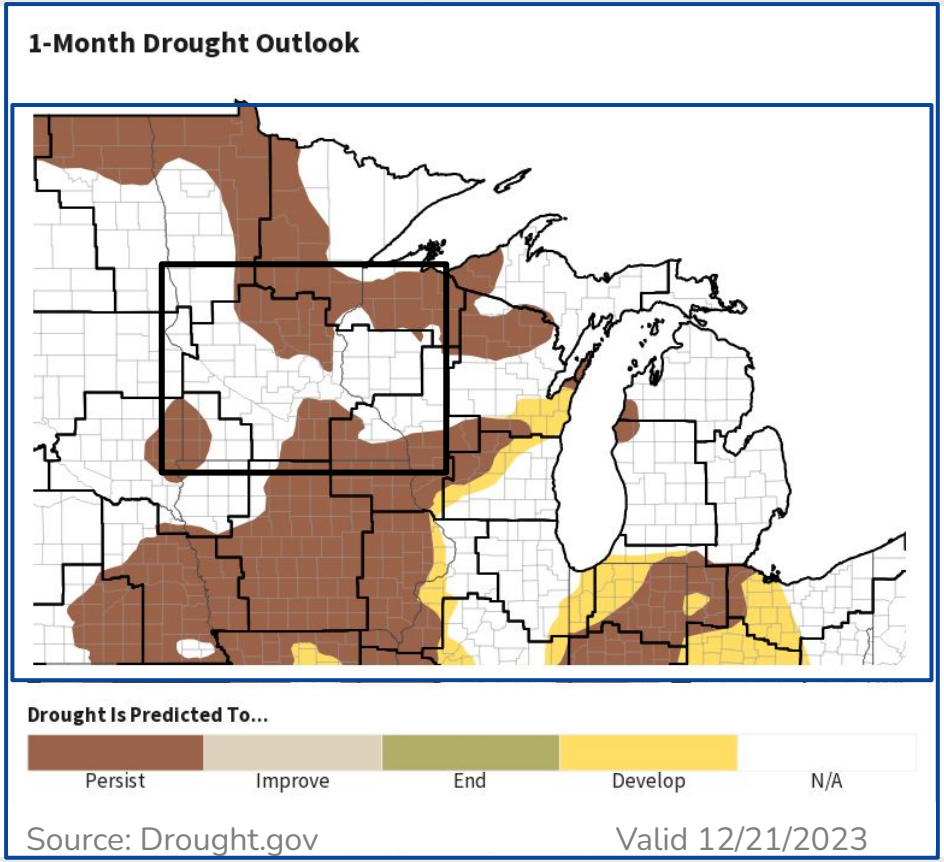




Drought Outlook

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

- What is left of the drought is expected to mostly persist over the next month
- 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:
Climate Prediction Center Monthly Drought Outlook
Climate Prediction Center Seasonal Drought Outlook

Drought Definitions and State Resources

What do those categories mean?

Drought Category Definitions:

D0	**Abnormally Dry**	**Going into drought:** • Short-term dryness slowing planting, growth of crops or pastures	**Coming out of drought:** • 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: http://www.drought.gov/state/minnesota
Comprehensive Drought Information for Wisconsin: http://www.drought.gov/state/wisconsin
These sites contain links to resources from each state, to help you dive into drought information in more detail.