



# Drought Information Statement for Central, Southern Minnesota and Western Wisconsin

Valid September, 28, 2023

Issued By: NWS Twin Cities / Chanhassen MN

Contact Information: [nws.twincities@noaa.gov](mailto: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 <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

- Last week's rainfall helped; areas of severe and extreme drought decreased about 20 percent.
- Most of our eastern Minnesota and western Wisconsin area saw a one- class improvement in drought category.
- Longer term, however, the drought it still very prevalent.
- A warm and potentially showery pattern will persist for the next 10 days or so

## IMPORTANT UPDATES

- Recent rain helped improve drought conditions over all but western Minnesota.

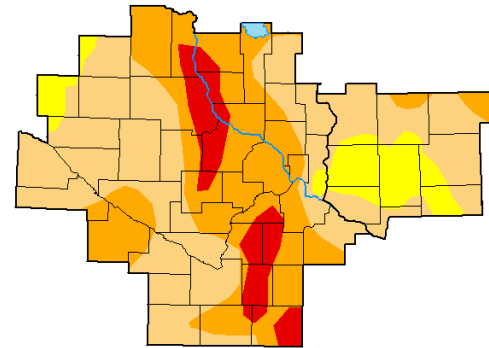
## Next Scheduled Update

- Thursday, October 5th, 2023



National Oceanic and Atmospheric Administration  
U.S. Department of Commerce

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



September 26, 2023  
(Released Thursday, Sep. 28, 2023)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	90.60	40.96	8.44	0.00
Last Week 09-19-2023	0.00	100.00	98.20	61.77	28.84	0.76
3 Months Ago 06-27-2023	11.27	88.73	64.69	8.90	0.00	0.00
Start of Calendar Year 01-01-2023	16.54	83.46	67.01	32.37	0.00	0.00
Start of Water Year 09-27-2022	20.14	79.86	33.95	11.27	0.00	0.00
One Year Ago 09-27-2022	20.14	79.86	33.95	11.27	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.aspx>

#### Author:

Richard Heim  
NCEI/NOAA



[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

Image Caption: U.S. Drought Monitor - NWS Twin Cities Region valid at 7am CDT  
September 24, 2023

National Weather Service  
Twin Cities/Chanhausen MN



# Recent Change in Drought Intensity

Link to the latest [1-week change map](#) and [4-week change map](#) for the NWS Twin Cities Region

- Recent improvement, but overall drought conditions worsened in the last month, especially west.

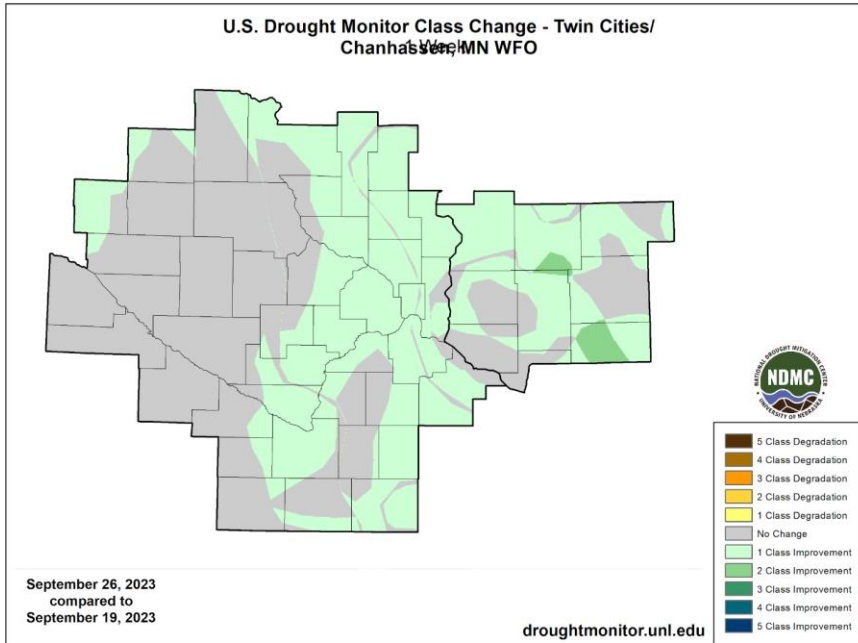


Image Caption: U.S. Drought Monitor 1-week change map valid 7am CDT September 24, 2023.

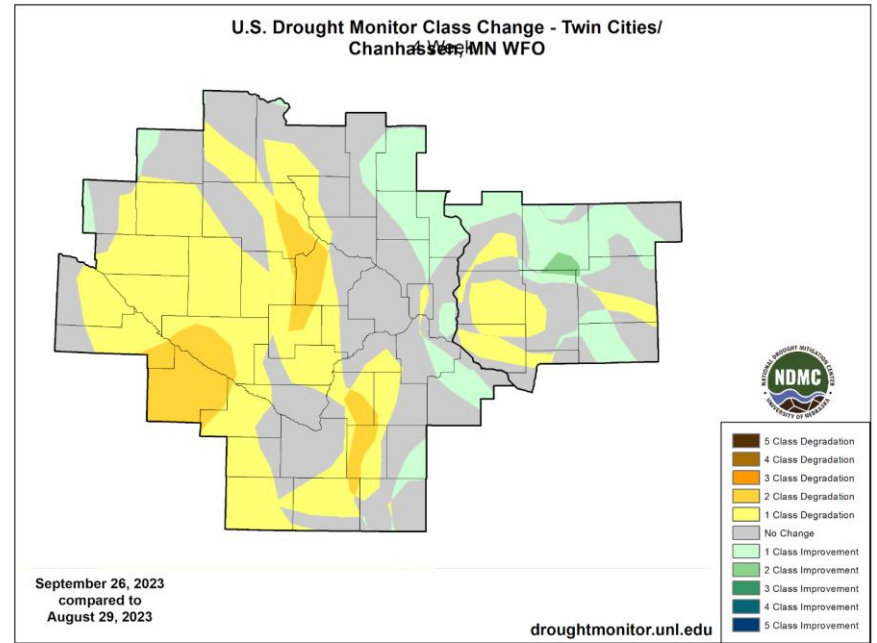


Image Caption: U.S. Drought Monitor 4-week change map valid 7am CDT September 24, 2023.



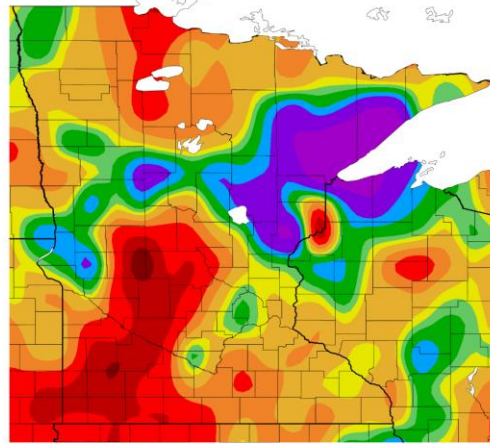


# Precipitation Departures

## 1-month and 3-month percent of normal precipitation

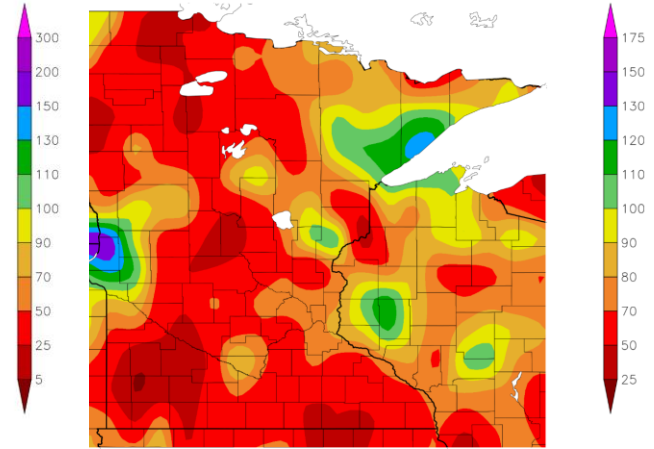
- Areas to the north and far west have been above normal in the last month, but overall we remain below normal.
- These dry conditions extend back through the summer and into mid-May.
- For example, much of the D3 drought area has a precipitation deficit of 8 to 12 inches since April.

Percent of Normal Precipitation (%)  
8/29/2023 – 9/27/2023



Generated 9/28/2023 at HPRCC using provisional data.

Percent of Normal Precipitation (%)  
6/30/2023 – 9/27/2023



NOAA Regional Climate Centers at HPRCC using provisional data.

NOAA Regional Climate Centers

Image Captions:

- Left - [30-Day Percent of Normal Precipitation for MN and western WI](#)
- Right - [90-day Percent of Normal Precipitation for MN and western WI](#)

Data Courtesy High Plains Regional Climate Center.  
Data over the past 30 & 90 days ending on September, 20, 2023



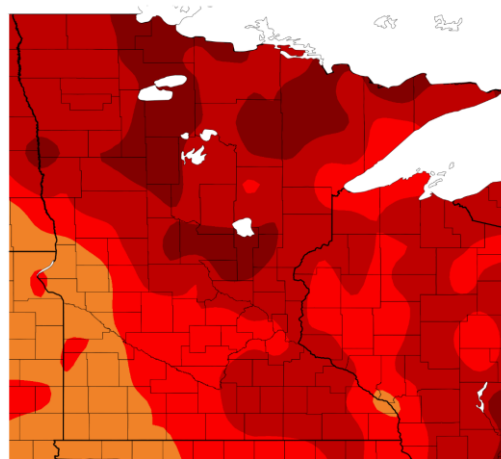


# Temperature Departure

## 1-week and 1-month temperature departure

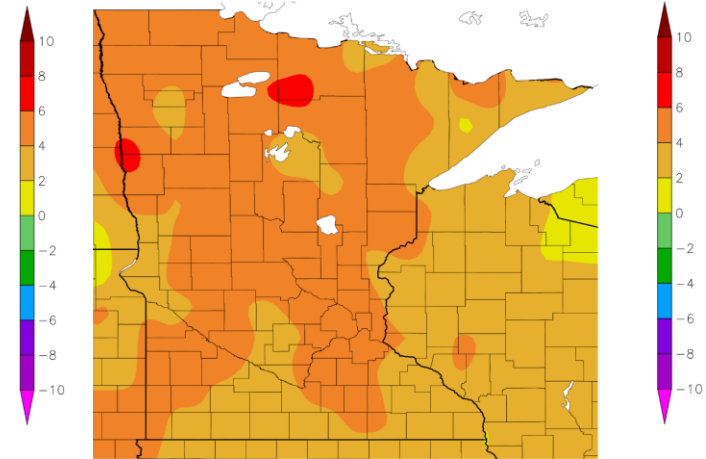
- The last week was well above normal for temperatures, mostly 6 to 10 degrees above.
- Multiple heat waves have kept temperatures above normal overall for the past month as well, though short periods of cooler weather have helped.

Departure from Normal Temperature (F)  
9/21/2023 – 9/27/2023



Generated 9/28/2023 at HPRCC using provisional data.

Departure from Normal Temperature (F)  
8/29/2023 – 9/27/2023



NOAA Regional Climate Centers 023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Image Captions:

- Left - [1 week average temperature departure for MN and western WI](#)
- Right - [1 month average temperature departure for MN and western WI](#)

Data Courtesy High Plains Regional Climate Center.

Data over the past 7 & 30 days ending September, 27, 2023







# Summary of Impacts

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

## Hydrologic Impacts

- The Mississippi River is considered to be in “low flow” for the entire Upper Mississippi region, from Grand Rapids through the Brooklyn Park gage; there has been slight improvement but not too much.
- Nearly all basins in the region are reporting near to below normal flow conditions.

## Agricultural Impacts

- Sector seeing the biggest impact from the dry conditions have been hay fields, which have seen fewer cuts than usual this growing season in many areas.

## Fire Hazard Impacts

- Wildfire activity has remained low the last few weeks
- However, fuels continue to dry out and all we are is a day with favorable weather conditions away from seeing significant wildland activity in grassy fuels

## Other Impacts

- State drought task forces have been started in both MN and WI.

## Mitigation Actions

- Many communities have implemented odd/even watering bans.





# Hydrologic Conditions and Impacts

Average streamflow for the past 7 days

- The entire Upper Mississippi River is in low flow status from Grand Rapids through the Minneapolis area.
- Conditions are slightly better in Wisconsin than Minnesota, though deteriorating.

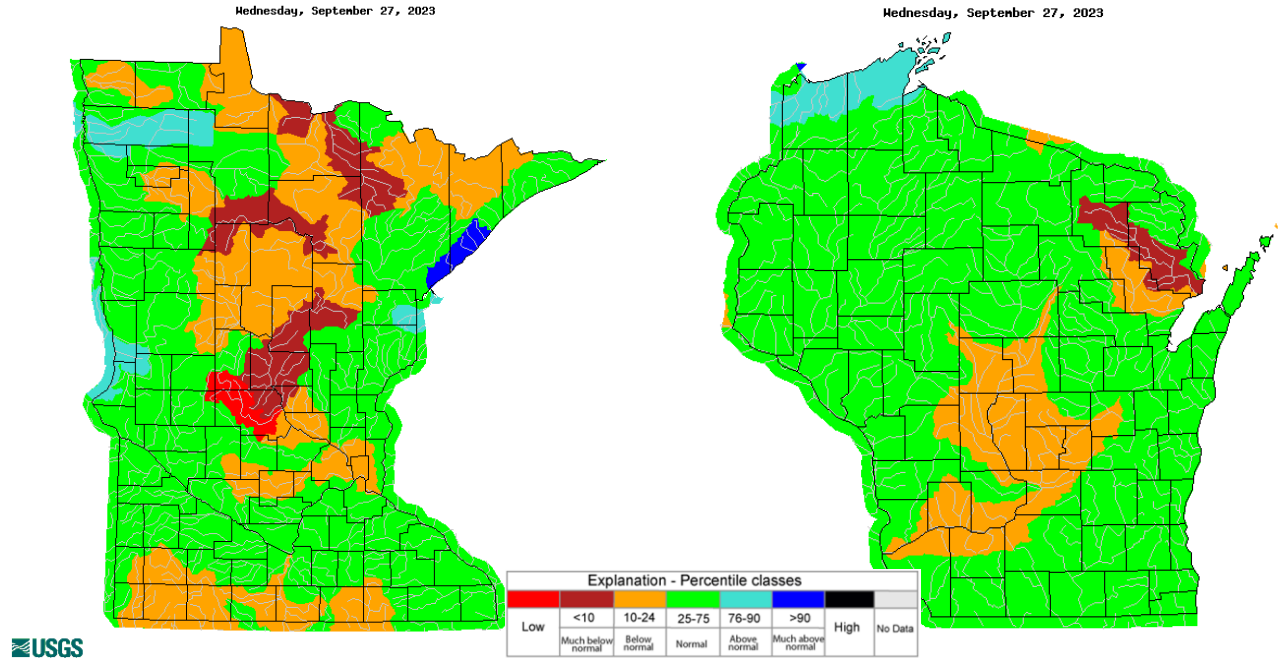


Image Caption: [USGS 7-day Streamflow departure from normal for MN](#). Valid September 27, 2023

Image Caption: [USGS 7-day Streamflow departure from normal for WI](#). Valid September 27, 2023





# Agricultural Impacts

Soil moisture and crop conditions for [MN](#) and [WI](#)

<b>Minnesota (Entire State)</b>	As of Sep 24	Very Short Moisture	Short Moisture	Adequate Moisture	Moisture Surplus
<b>Topsoil</b>		<b>25%</b>	<b>45%</b>	<b>29%</b>	<b>1%</b>
<b>Subsoil</b>		<b>27%</b>	<b>53%</b>	<b>20%</b>	<b>0%</b>

<b>Wisconsin (Entire State)</b>	As of Sep 24	Very Short Moisture	Short Moisture	Adequate Moisture	Moisture Surplus
<b>Topsoil</b>		<b>22%</b>	<b>38%</b>	<b>40%</b>	<b>0%</b>
<b>Subsoil</b>		<b>27%</b>	<b>40%</b>	<b>33%</b>	<b>0%</b>

## Crop Condition as of September 24, 2023 **MN**

Item	Very Poor	Poor	Fair	Good	Excellent
	(percent)	(percent)	(percent)	(percent)	(percent)
Corn .....	7	17	36	32	8
Pasture and range ...	29	39	26	6	0
Potatoes .....	0	0	0	0	0
Soybeans .....	5	13	38	37	7
Sugarbeets .....	0	2	6	25	67
Sunflowers .....	0	4	43	52	1

## Crop Condition as of September 24, 2023 **WI**

Item	Very Poor	Poor	Fair	Good	Excellent
	(percent)	(percent)	(percent)	(percent)	(percent)
Corn .....	5	15	31	38	11
Pasture and range .	16	25	37	20	2
Soybeans .....	5	14	32	38	11

## Highlights

Drought has not affected row crops as badly as pasture and range; corn and beans are actually ahead of last year's harvest pace. Even with recent rain, subsoil moisture continued to decrease last week.





# Fire Hazard Impacts

Fire Danger ratings valid for the date listed ONLY

- Wildfire activity has remained low due to a lack of favorable fire weather conditions (hot, dry, and windy).
- Recent rainfall has helped fine fuels recover somewhat, but we're still just a hot, dry, windy spell from seeing dangerous fire conditions next month.

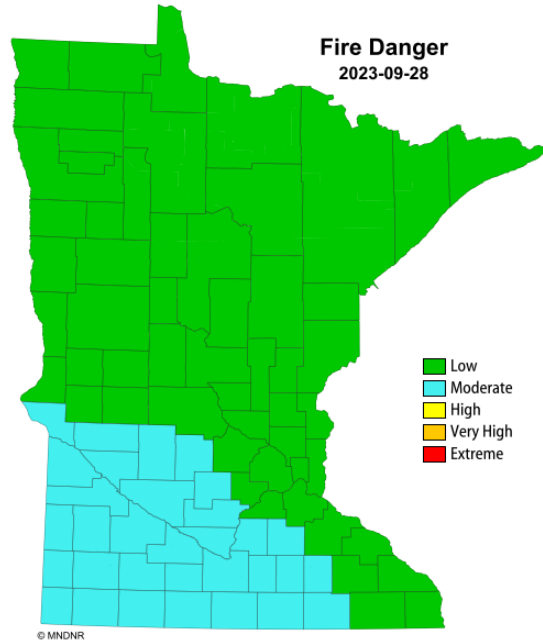


Image Caption: [Wildfire Danger for MN](#). Valid September 28, 2023

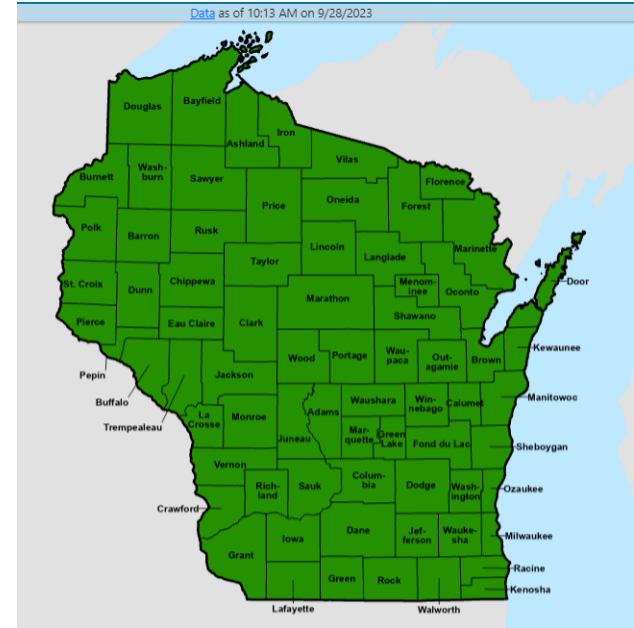


Image Caption: [Wildfire Danger for WI](#). Valid September 28, 2023





# Seven Day Precipitation Forecast

- A couple of weather systems will move through the area over the next week.
- There is potential for another 1 to 3 inches of rain, particularly to the west and north of the Twin Cities.



## Forecast Precipitation

Valid Ending Thursday October 5th, 2023 at 7 AM CDT

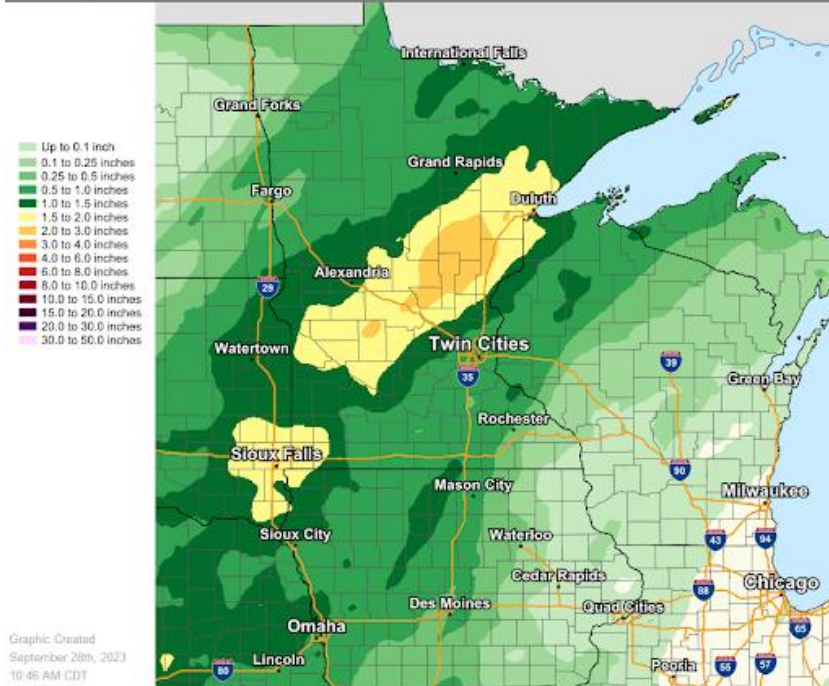


Image Caption: Weather Prediction Center [7-day precipitation forecast](#) valid Thursday September 28 to Thursday October 5, 2023.





# 8-14 Day Outlooks

The latest weekly to seasonal outlooks can be found on the [CPC homepage](#)

- Above normal temperatures continue to be favored going into October.
- Also probabilities lean toward wetter than normal conditions for early October.

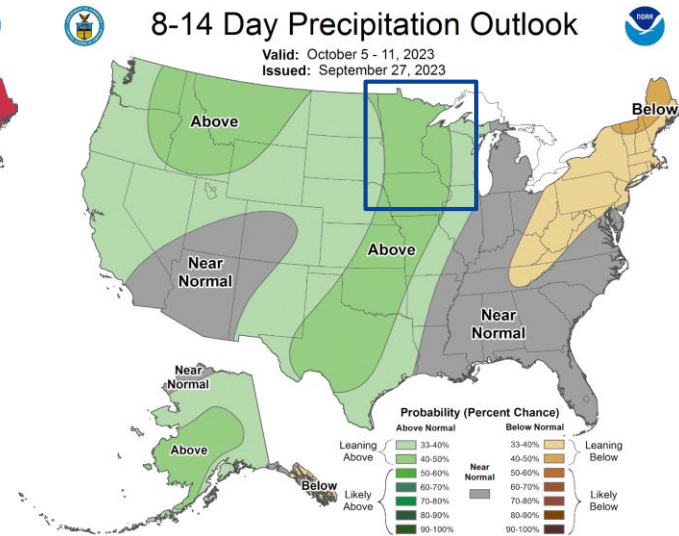
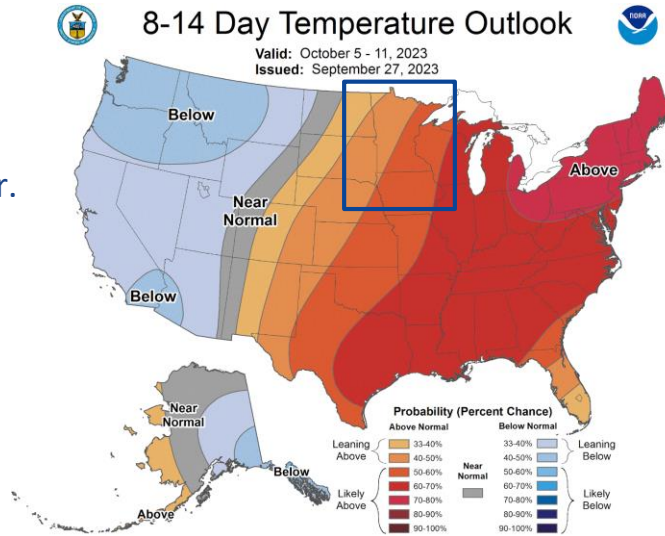


Image Captions:

Left - [Climate Prediction Center 8-14 Day Temperature Outlook.](#)

Right - [Climate Prediction Center 8-14 Day Precipitation Outlook.](#)

Issued September 27, 2023





# Drought Outlook

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- The recent and forecast wetter pattern could have some positive effects on overall drought conditions through the autumn season.
- It remains to be seen how long this pattern will persist, and the actual effect is far from certain in the long run.

## U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for September 21 - December 31, 2023  
Released September 21, 2023

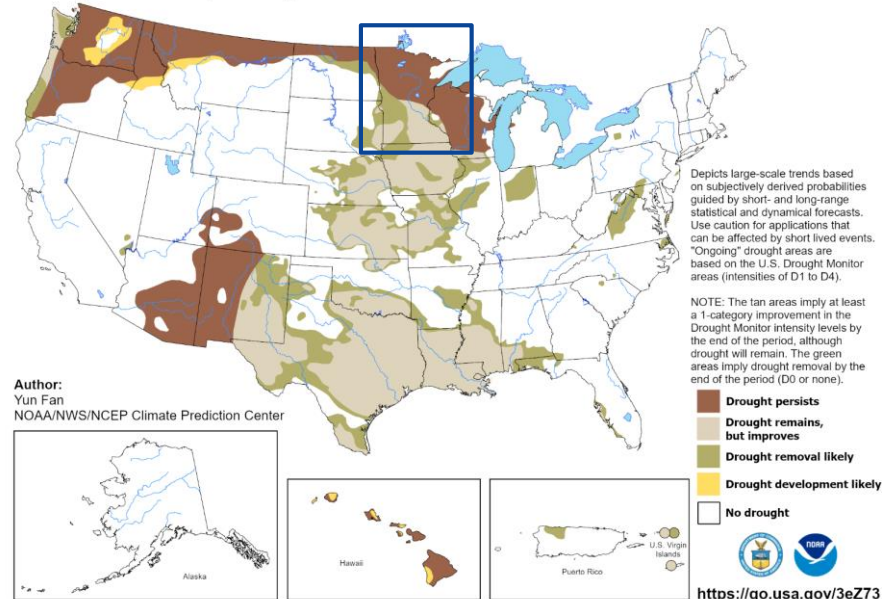


Image Caption: Climate Prediction Center Seasonal Drought Outlook  
Released September 21, 2023 valid for Oct./Nov./Dec. 2023

Links to the latest:

[Climate Prediction Center Monthly Drought Outlook](#)

[Climate Prediction Center Seasonal Drought Outlook](#)



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Twin Cities/Chanhasen MN



# Drought Definitions and State Resources

What do those categories mean?

## Drought Category Definitions:

<b>D0</b>	<b>Abnormally Dry</b>	<b>Going into drought:</b> <ul style="list-style-type: none"> <li>• Short-term dryness slowing planting, growth of crops or pastures</li> </ul>	<b>Coming out of drought:</b> <ul style="list-style-type: none"> <li>• Some lingering water deficits</li> <li>• Pastures or crops not fully recovered</li> </ul>
<b>D1</b>	<b>Moderate Drought</b>	<ul style="list-style-type: none"> <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>	
<b>D2</b>	<b>Severe Drought</b>	<ul style="list-style-type: none"> <li>• Crop or pasture losses likely</li> <li>• Water shortages common</li> <li>• Water restrictions imposed</li> </ul>	
<b>D3</b>	<b>Extreme Drought</b>	<ul style="list-style-type: none"> <li>• Major crop/pasture losses</li> <li>• Widespread water shortages or restrictions</li> </ul>	
<b>D4</b>	<b>Exceptional Drought</b>	<ul style="list-style-type: none"> <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: <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.

