



Drought Information Statement for Central, Southern Minnesota and Western Wisconsin

Valid October 19, 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 <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 rain brought about a one category improvement in drought conditions across most of the area.
- While conditions are generally improving, long term drought remains
- Upper portions of the soil are doing much better, but groundwater conditions are still very low.
- A wetter pattern may return late next week.

IMPORTANT UPDATES

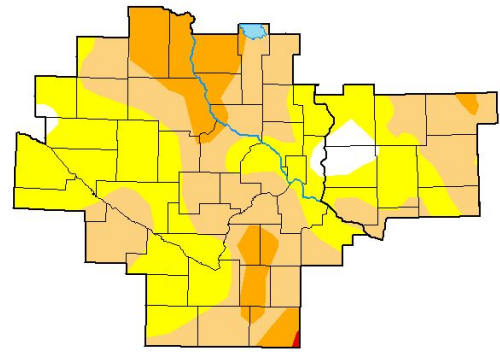
- Drought conditions improving, but a long way from over.

Next Scheduled Update

- Thursday, October 26th, 2023



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



October 17, 2023
(Released Thursday, Oct. 19, 2023)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	3.00	97.00	55.49	13.35	0.11	0.00
Last Week 10-10-2023	0.00	100.00	86.62	36.77	5.40	0.00
3 Months Ago 07-18-2023	0.00	100.00	68.14	26.68	1.74	0.00
Start of Calendar Year 01-03-2023	16.54	83.46	67.01	32.37	0.00	0.00
Start of Water Year 09-26-2022	0.00	100.00	90.60	40.96	8.44	0.00
One Year Ago 10-18-2022	11.28	88.72	68.17	31.52	8.12	0.00

Intensity:

None	D0 Abnormally Dry	D1 Moderate Drought	D2 Severe Drought	D3 Extreme Drought	D4 Exceptional Drought
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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>

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NCEI/NOAA



droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor - NWS Twin Cities Region valid at 7am CDT October 17th, 2023

National Weather Service
Twin Cities/Chanhassen 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

- The wetter than normal September and October have improved drought conditions over the entire area. Parts of the metro area and north have improved as much as three categories.

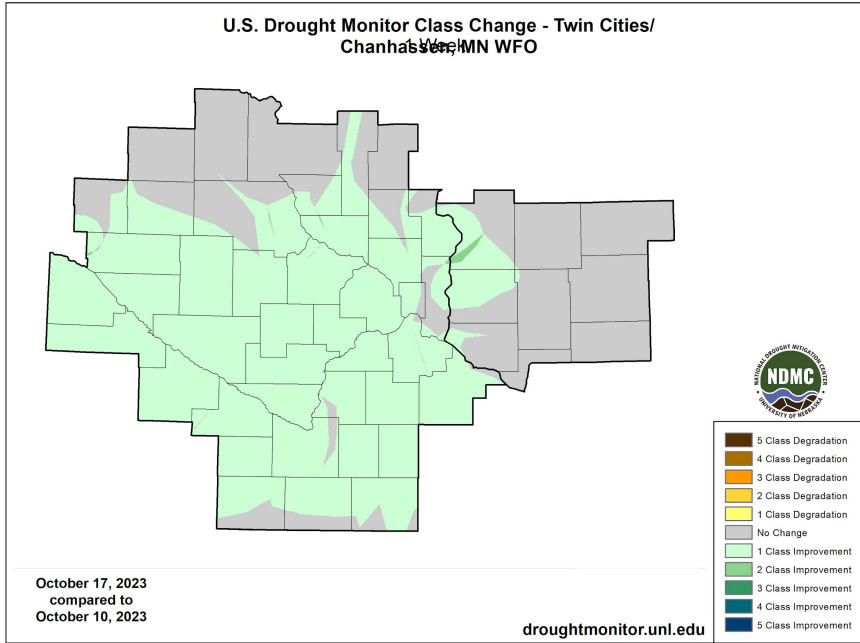


Image Caption: U.S. Drought Monitor 1-week change map valid 7am CDT October 17, 2023.

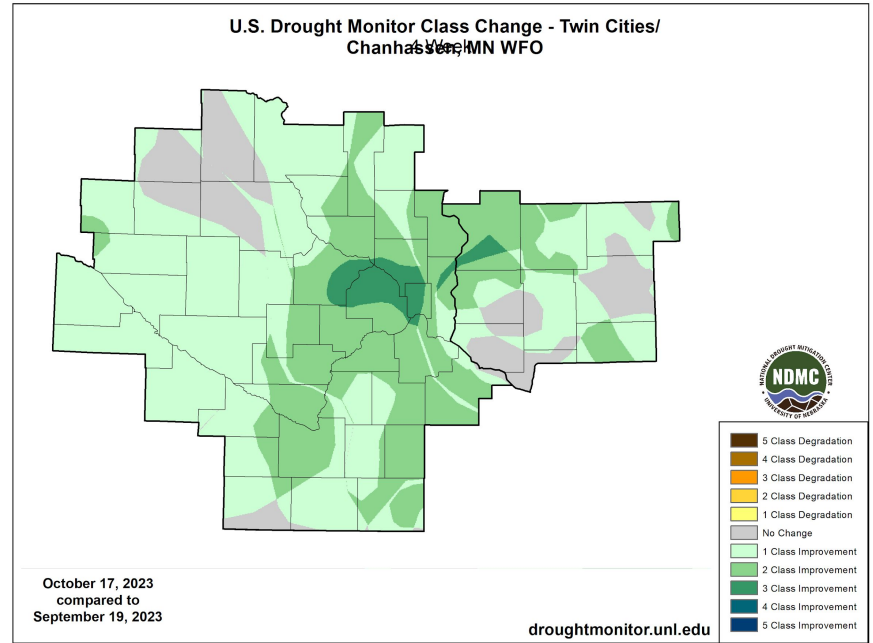


Image Caption: U.S. Drought Monitor 4-week change map valid 7am CDT October 17, 2023.



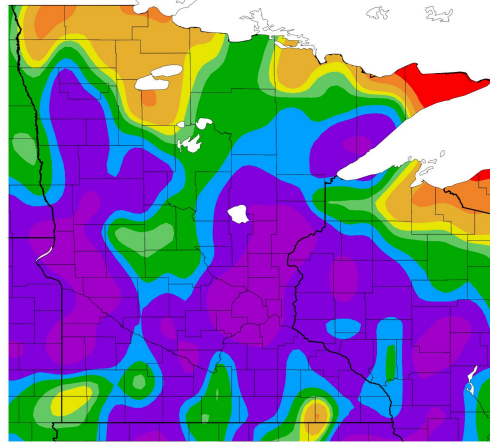


Precipitation Departures

1-month and 3-month percent of normal precipitation

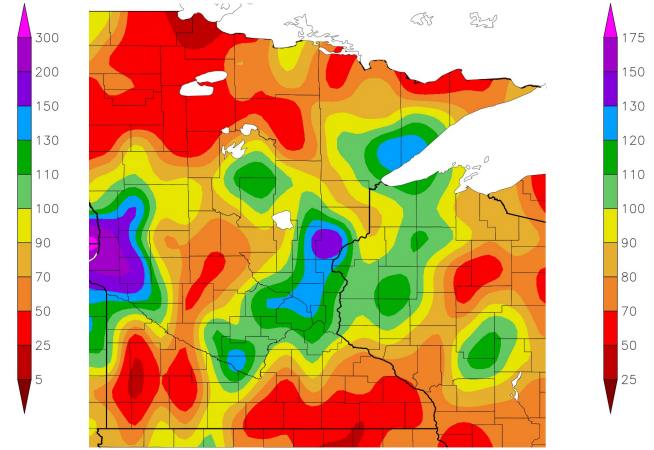
- Much of the region has now seen above normal rainfall over the past month.
- This rain has helped, but a long term deficit remains, going back to last spring.
 - For example, in the metro area, a deficit of around 6 inches since May remains (it had been over 10 inches going into September).

Percent of Normal Precipitation (%)
9/19/2023 – 10/18/2023



Generated 10/19/2023 at HPRCC using provisional data.

Percent of Normal Precipitation (%)
7/21/2023 – 10/18/2023



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 October 17, 2023



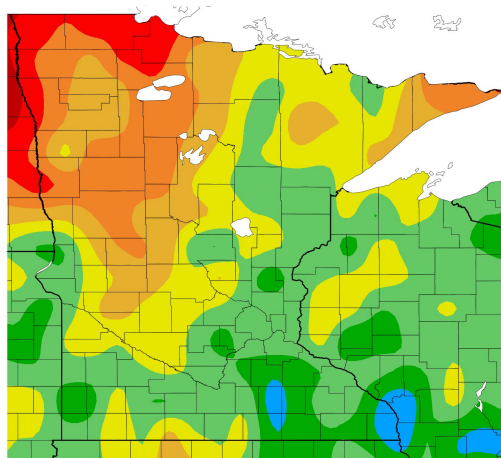


Temperature Departure

1-week and 1-month temperature departure

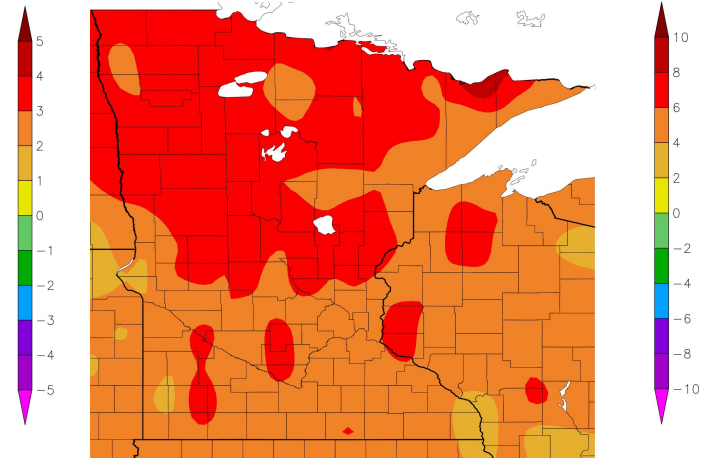
- The last week was near normal for temperatures, within 2 degrees on either side of normal.
- Multiple heat waves have kept temperatures above normal overall for the past month, around 4 to 6 degrees above normal.

Departure from Normal Temperature (F)
10/12/2023 – 10/18/2023



Generated 10/19/2023 at HPRCC using provisional data.

Departure from Normal Temperature (F)
9/19/2023 – 10/18/2023



NOAA Regional Climate Centers 2023 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 October 17, 2023





Summary of Impacts

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

Hydrologic Impacts

- The Mississippi River low flow plan has been discontinued, as river levels are no longer threatening low water thresholds.

Agricultural Impacts

- The increasing rain was mostly too late to help crop yields, but is good for the longer term health of the soil.

Fire Hazard Impacts

- Wildfire activity has remained low the last few weeks.

Other Impacts

- Groundwater, and thus the baseflow for rivers and major source of water for lakes and wetlands, remains very low despite the recent rain.





Hydrologic Conditions and Impacts

Average streamflow for the past 7 days

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

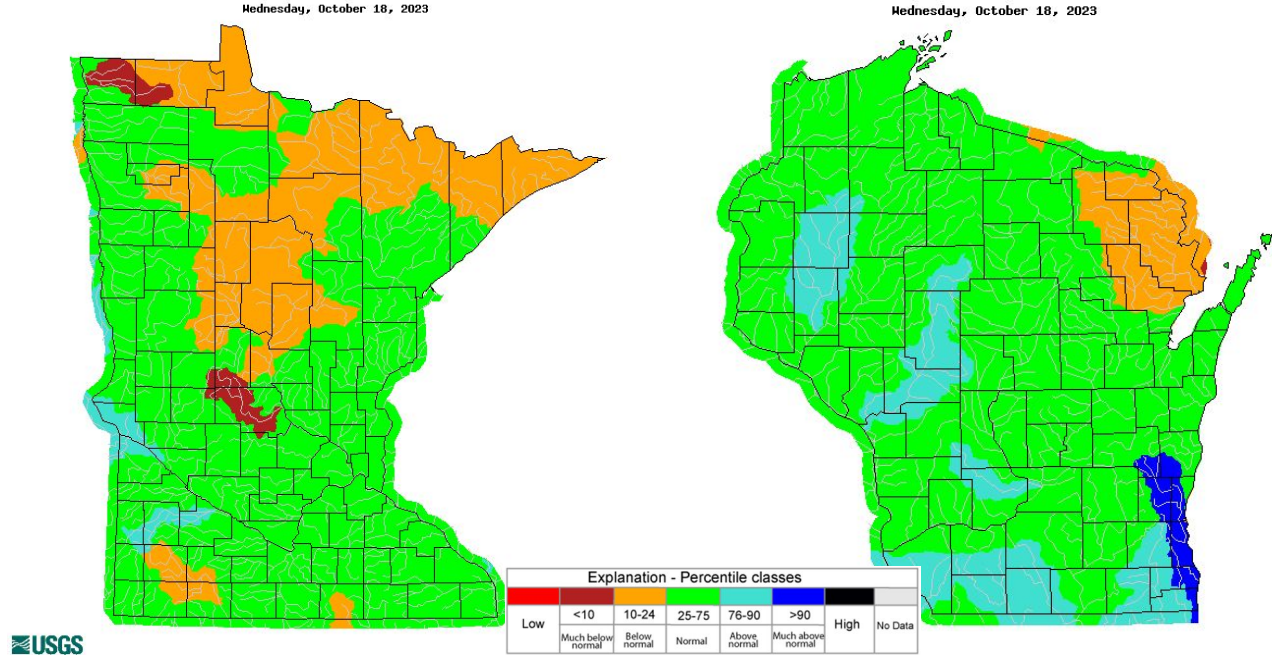


Image Caption: [USGS 7-day Streamflow departure from normal for MN](#). Valid October 18, 2023

Image Caption: [USGS 7-day Streamflow departure from normal for WI](#). Valid October 18, 2023





Agricultural Impacts

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

Minnesota (Entire State)	As of Oct 15	Very Short Moisture	Short Moisture	Adequate Moisture	Moisture Surplus
	Topsoil	11%	24%	60%	5%
	Subsoil	16%	45%	38%	1%

Wisconsin (Entire State)	As of Oct 15	Very Short Moisture	Short Moisture	Adequate Moisture	Moisture Surplus
	Topsoil	8%	22%	66%	4%
	Subsoil	16%	31%	52%	1%

Crop Condition as of October 15, 2023

Item	Very Poor	Poor	Fair	Good	Excellent
	(percent)	(percent)	(percent)	(percent)	(percent)
Corn	7	17	36	32	8
Pasture and range ...	25	37	29	9	0
Sugarbeets	0	2	6	24	68
Sunflowers	0	5	40	54	1

Crop Progress as of October 15, 2023

Item	This week	Last week	Last year	5-year avg
	(percent)	(percent)	(percent)	(percent)
Corn mature	98	94	95	92
Corn harvested for grain	45	31	33	32
Dry ed. beans harvested	96	90	96	91
Potatoes harvested	92	84	97	92
Soybeans harvested	76	57	80	66
Sugarbeets harvested	61	23	75	57
Sunflowers harvested	36	17	23	28

Crop Condition as of October 15, 2023

Item	Very Poor	Poor	Fair	Good	Excellent
	(percent)	(percent)	(percent)	(percent)	(percent)
Corn	3	15	32	39	11
Pasture and range ..	10	22	38	28	2
Soybeans	4	13	35	38	10

Item	State			
	This week	Last week	Last year	5-year avg
	(percent)	(percent)	(percent)	(percent)
Corn dented	97	95	100	97
Corn mature	86	76	91	85
Corn harvested for grain	14	9	13	18
Corn harvested for silage	93	83	87	86
Fall tillage	21	15	33	25
Soybeans dropping leaves	95	86	96	93
Soybeans harvested	54	27	53	43
Wheat, winter, planted	74	62	82	71
Wheat, winter, emerged	49	38	55	50

MN

WI

Highlights

Soil moisture has improved in both the topsoil and root zone; groundwater (not shown) is still well below normal for mid October. Agriculturally, pasture and range has had the worst response to drought this season.

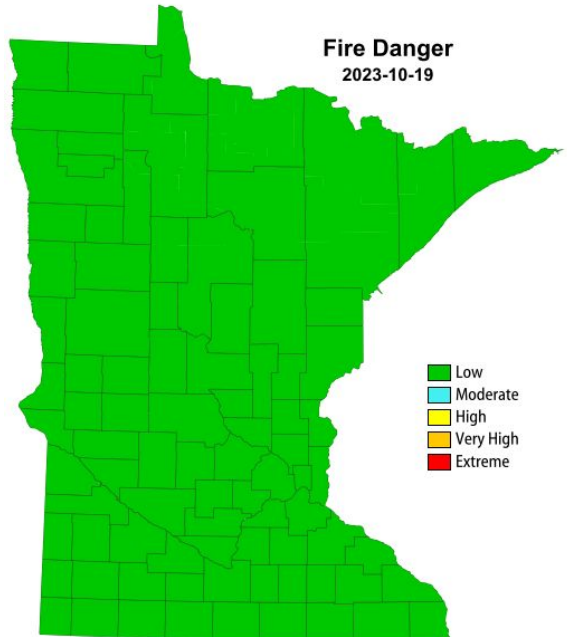




Fire Hazard Impacts

Fire Danger ratings valid for the date listed ONLY

- Wildfire activity has remained low due to a the recent rainfall.



© MNDNR

Image Caption: [Wildfire Danger for MN](#). Valid October 18, 2023

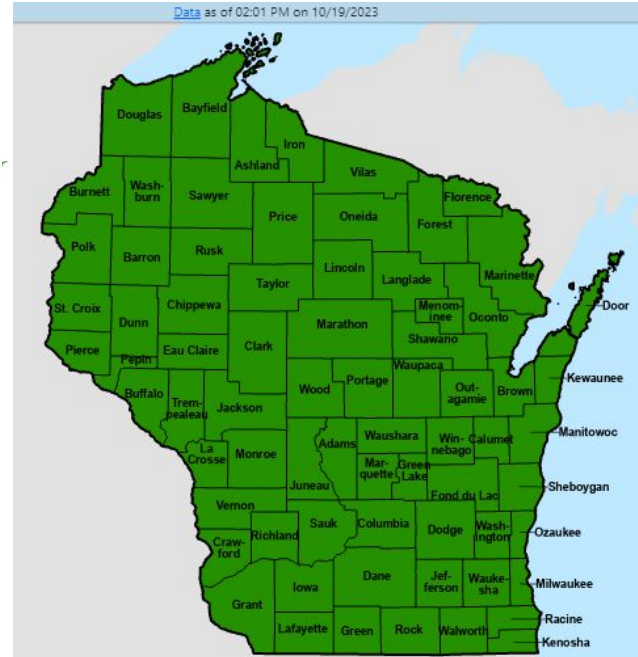


Image Caption: [Wildfire Danger for WI](#). Valid October 18, 2023





Seven Day Precipitation Forecast

- After a mostly dry period lasting through this weekend, precipitation is expected to return next week. Amounts are not looking extremely heavy, closer to normal for late October.
- Temperatures are expected to drop below normal next week as well.



Forecast Precipitation

Valid Ending Thursday October 26th, 2023 at 1 PM CDT

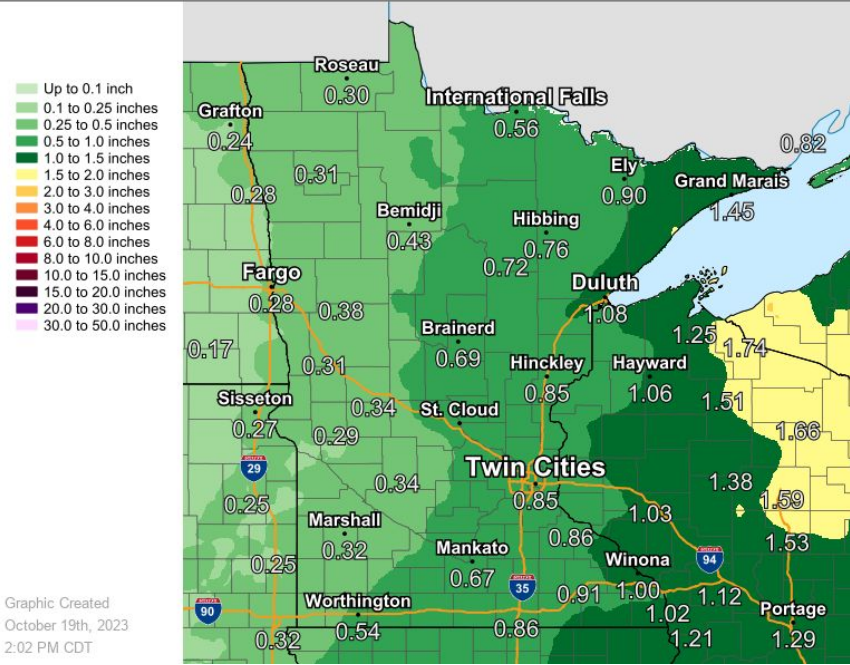


Image Caption: Weather Prediction Center [7-day precipitation forecast](#) valid Thursday October 19 to Thursday October 26, 2023.





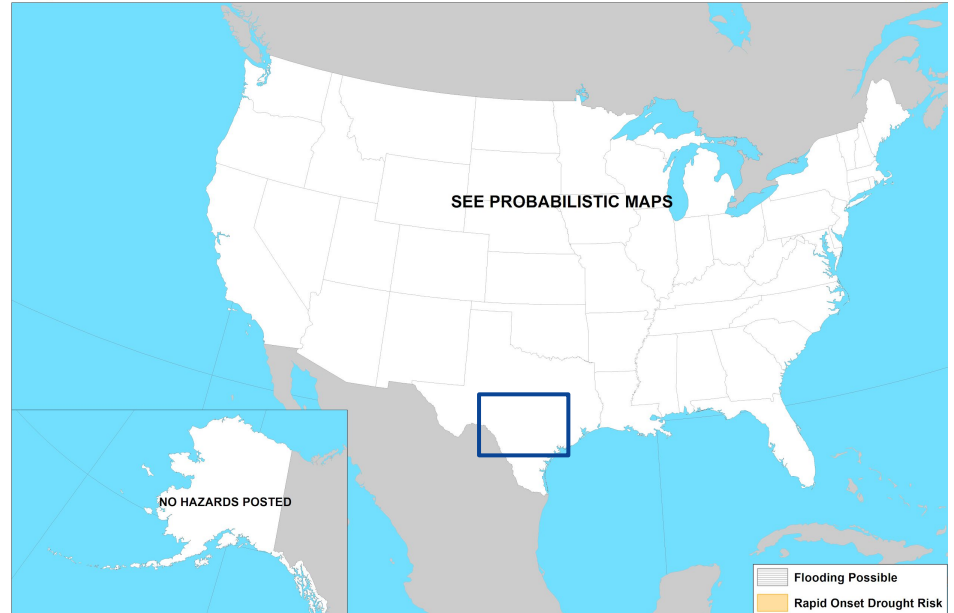
Rapid Onset Drought Outlook

Links to the latest Climate Prediction Center 8 to 14 day [Temperature Outlook](#) and [Precipitation Outlook](#).

- Summarize conditions and impacts here



Day 8-14 U.S. Hazards Outlook
Valid: 10/26/2023-11/01/2023



Climate Prediction Center
Made: 10/18/2023 3PM EDT

Follow us:
www.cpc.ncep.noaa.gov

Image Caption:
[Days 8 to 14 U.S. Hazards Outlook](#) Valid Month DD to DD.





8-14 Day Outlooks

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

- Below normal temperatures are favored for the last week of October.
- The precipitation pattern looks to be fairly active during that week as well.

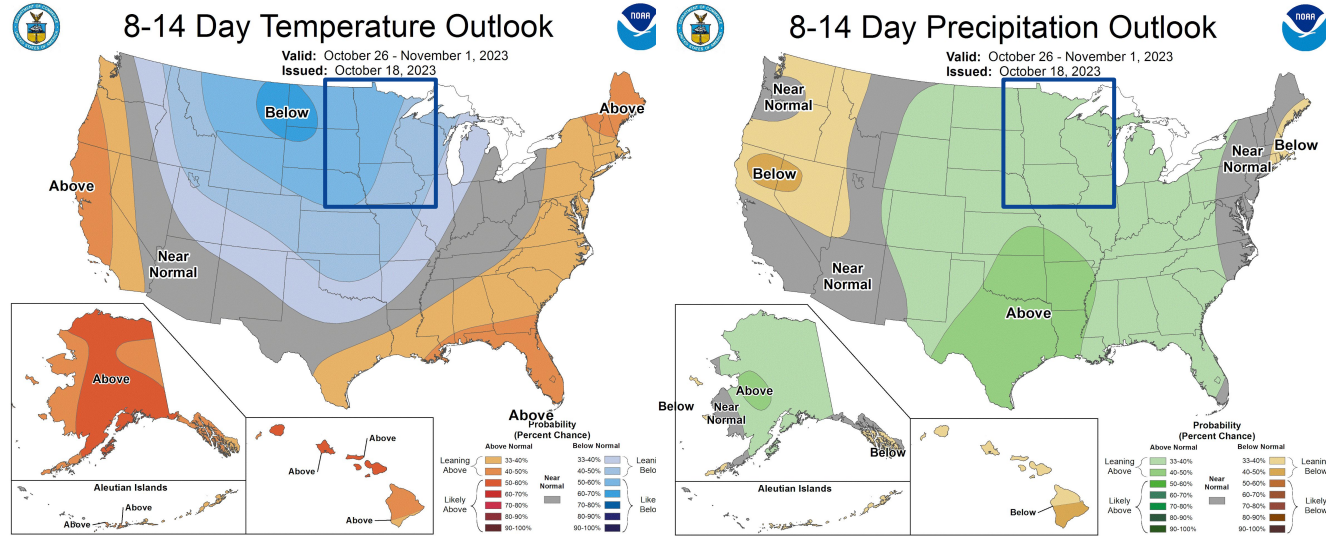


Image Captions:

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

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

Issued October 18, 2023





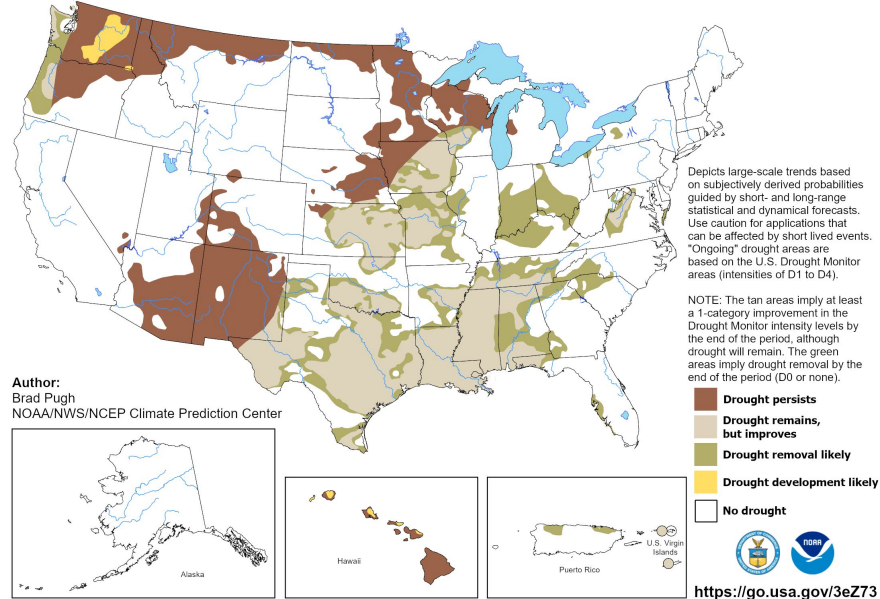
Drought Outlook

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

- The Climate Prediction Center expects drought to persist over our area through the early winter.
- Recent rainfall has improved drought conditions in October, however long term drought persists.

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

Valid for October 19, 2023 - January 31, 2024
Released October 19, 2023



Links to the latest:

- [Climate Prediction Center Monthly Drought Outlook](#)
- [Climate Prediction Center Seasonal Drought Outlook](#)

Image Caption: Climate Prediction Center Seasonal Drought Outlook Released October 19, 2023 valid for Oct-Nov-Dec 2023.





Drought Definitions and State Resources

What do those categories mean?

Drought Category Definitions:

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

