



Drought Information Statement for NE Minnesota & NW Wisconsin

Valid September 28, 2023

Issued By: NWS Duluth

Contact Information:

- This product will be updated October 13, 2023 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/DLH/DroughtInformationStatement> for previous statements.



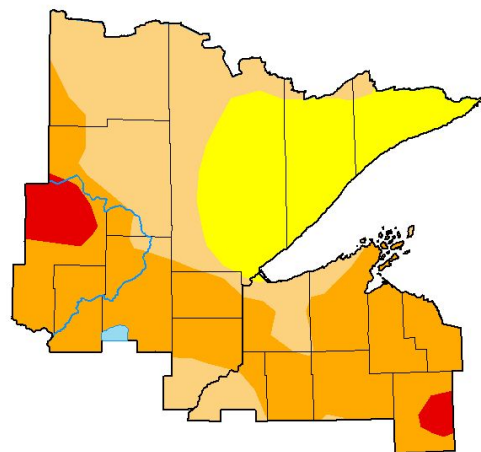


U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for NE Minnesota and NW Wisconsin

- Drought conditions improve across Northland.
- Drought intensity and extent
 - D4 (Exceptional Drought): No longer any D4 drought in the Northland!
 - D3 (Extreme Drought): Northern Cass County and eastern Price County.
 - D2 (Severe Drought): Widespread from the Brainerd Lakes across Pine County and into Northwest Wisconsin.
 - D1 (Moderate Drought): Across portions of north-central Minnesota and the Borderlands, and along the WI South Shore.
 - D0: (Abnormally Dry): Across the MN Arrowhead and North Shore.

U.S. Drought Monitor Duluth, 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	78.51	46.15	4.13	0.00
Last Week 09-19-2023	0.00	100.00	86.41	63.53	30.12	1.75
3 Months Ago 06-27-2023	0.00	100.00	63.09	5.35	0.00	0.00
Start of Calendar Year 01-01-2023	64.70	35.30	0.99	0.00	0.00	0.00
Start of Water Year 09-27-2022	71.95	28.05	11.27	2.57	0.00	0.00
One Year Ago 09-27-2022	71.95	28.05	11.27	2.57	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

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NCEI/NOAA



droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 8am EDT September 19th.



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Recent Change in Drought Intensity

Link to the latest [4-week change map](#) for NE Minnesota and NW Wisconsin

- Four Week Drought Monitor Class Change.
 - Drought Worsened: Slight worsening across the Borderlands, northern Cass County and Price County.
 - No Change: Portions of the Iron Range and NW WI.
 - Drought Improved: 1 to 3 class improvements from the Brainerd lakes to the Twin Ports and along the North and South Shore, as well as over southern Pine and Burnett Counties.

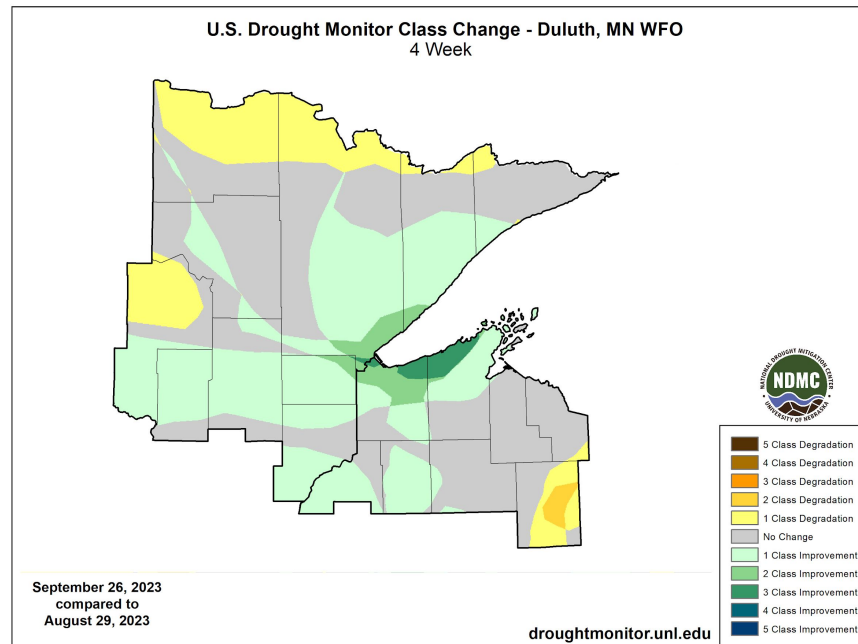


Image Caption: U.S. Drought Monitor 4-week change map valid 8am EDT April 6th.

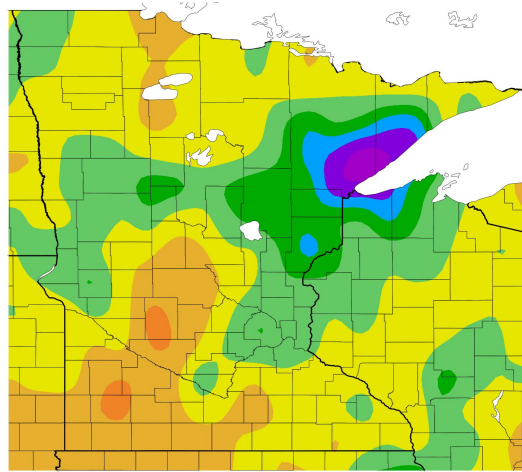




Precipitation

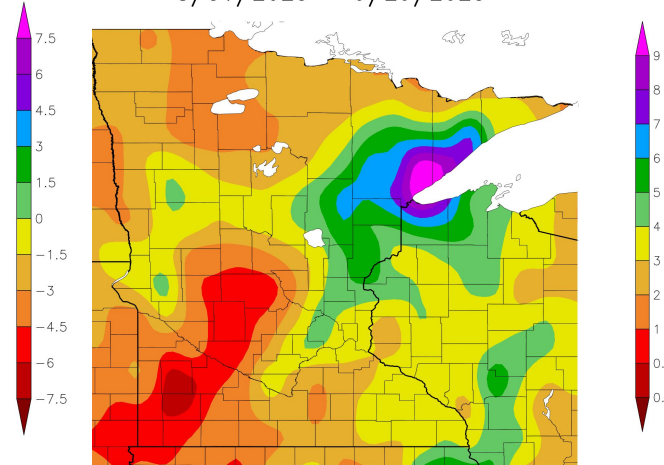
- Significant rainfall through the month of September.
- Heavy rainfall lead to flooding from the Twin Ports to Two Harbors.
- Portions of the borderlands and NE Wisconsin missed out on some of this rain, leading to below normal amounts.

Departure from Normal Precipitation (in)
8/31/2023 – 9/29/2023



Generated 9/30/2023 at HPRCC using provisional data.

Precipitation (in)
8/31/2023 – 9/29/2023



NOAA Regional Climate Centers 23 at HPRCC using provisional data.

NOAA Regional Climate Center

Image Captions:

Left - Precipitation Amount

Right - Percent of Normal Precipitation

Data Courtesy High Plains Regional Climate Center.

Data over the past 30 days ending Sep 29, 2023

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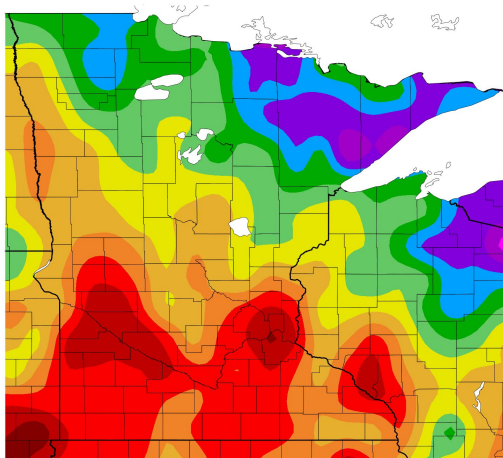
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Temperature

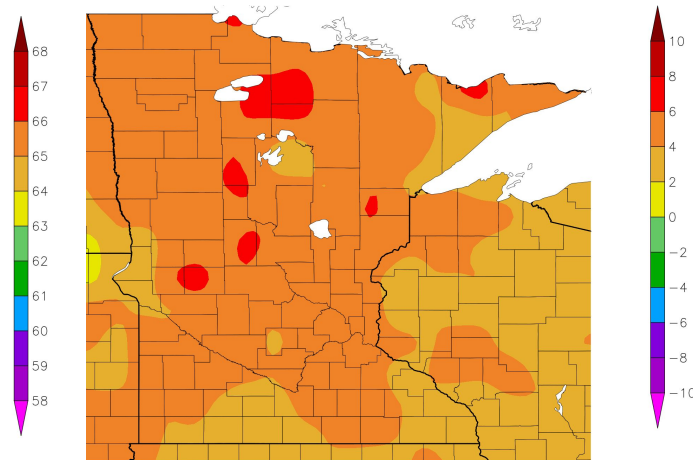
- Temperatures have been several degrees above normal across the Northland through the month.

Temperature (F)
8/31/2023 – 9/29/2023



Generated 9/30/2023 at HPRCC using provisional data.

Departure from Normal Temperature (F)
8/31/2023 – 9/29/2023



NOAA Regional Climate Centers 023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Image Captions:

Left - Average Temperature

Right - Departure from Normal Temperature

Data Courtesy High Plains Regional Climate Center.

Data over the past 30 days ending Sep 29, 2023

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Summary of Impacts

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

Hydrologic Impacts

- Recent rains have improved streamflows, but rivers over north-central Minnesota remain low.

Agricultural Impacts

- Many agriculture sectors report much lower than average harvests and stressed animal herds after summer drought.

Fire Hazard Impacts

- Recent rains have return fire danger to low.

Other Impacts

- There are no known impacts at this time

Mitigation Actions

- None reported.





Hydrologic Conditions and Impacts

- Rivers over north-central Minnesota and the Iron Range across the Upper Mississippi and Rainy River basins remain with below normal streamflow.
- Several Minnesota water trails still rated as “low” or “scarpable” by MN DNR.

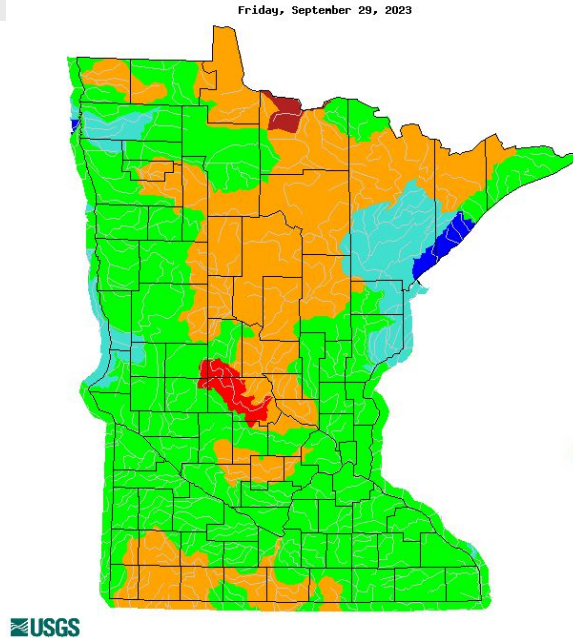
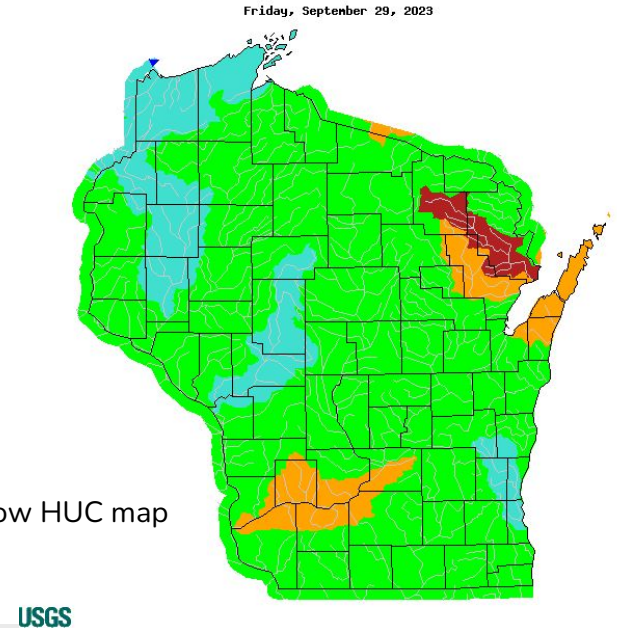


Image Caption: USGS 7 day average streamflow HUC map valid MM DD YYYY





Agricultural Impacts

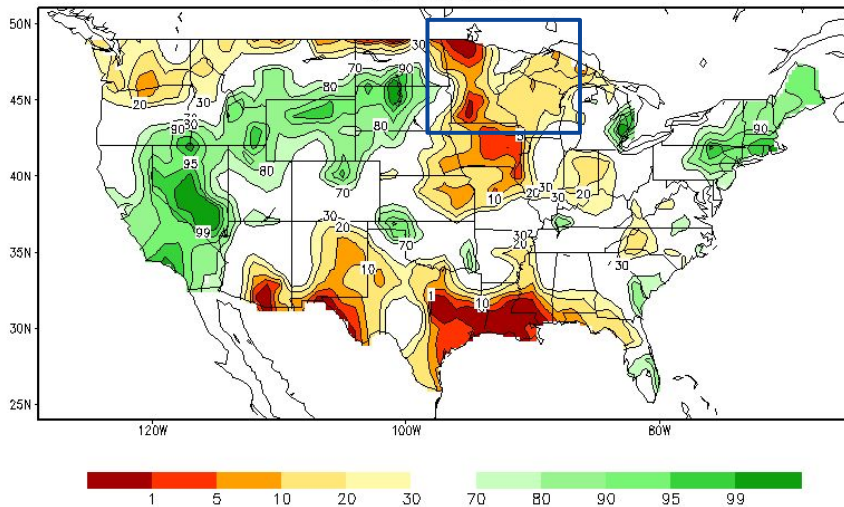
- Soil moisture still low in places, fall harvest far below normal.

Image Captions:

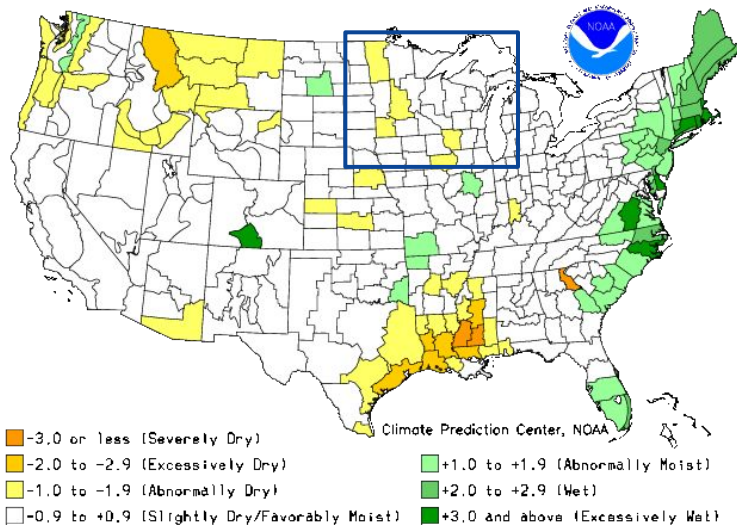
Left: CPC Calculated [Soil Moisture Ranking Percentile](#) valid April 20, 2023

Right: [Crop Moisture Index by Division](#). Weekly value for period ending Sep 23, 2023

Calculated Soil Moisture Ranking Percentile
SEP 29, 2023



Crop Moisture Index by Division
Weekly Value for Period Ending SEP 23, 2023
Short Term Need vs. Available Water in a Shallow Soil Profile





Fire Hazard Impacts

Link to [Wildfire Potential Outlooks from the National Interagency Coordination Center](#).

- Fire danger has decreased, but there is still some wildfire potential for October as fuels ripen in the fall.

Latest MN burn ban and fire danger information available [here](#).

Latest WI burn ban and fire danger information available [here](#).

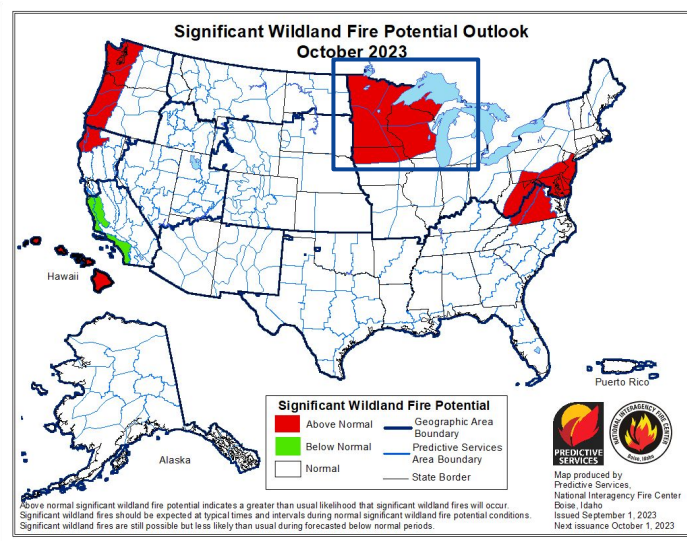
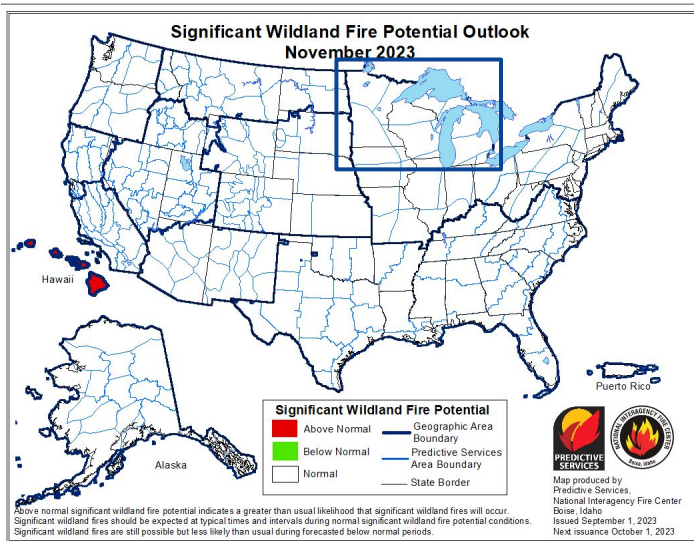


Image Caption: [Significant Wildland Fire Potential Monthly Outlook](#) for September and October 2023





Seven Day Precipitation Forecast

- Average to above average precipitation possible.
- Some areas of locally heavy rain possible as well.

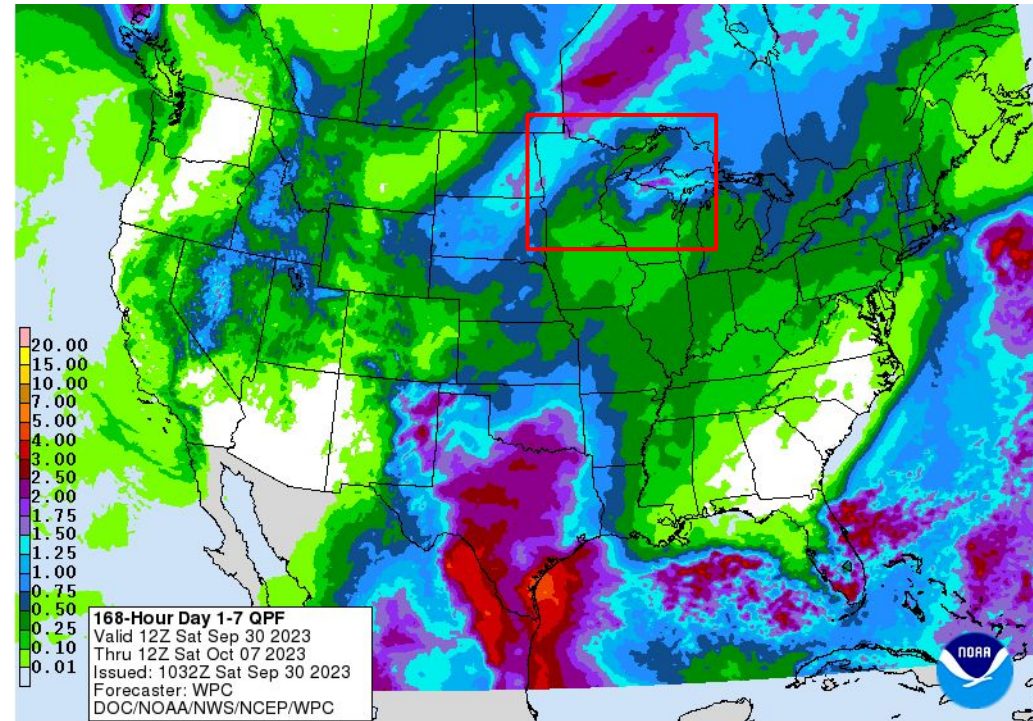


Image Caption: Weather Prediction Center [7-day precipitation forecast](#) valid Saturday September 30 through Saturday October 7





Rapid Onset Drought Outlook

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

- No rapid onset drought expected.



Day 8-14 U.S. Hazards Outlook

Valid: 10/07/2023-10/13/2023



Climate Prediction Center

Made: 09/29/2023 3PM EDT

Follow us:  

www.cpc.ncep.noaa.gov

Image Caption:

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



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Long-Range Outlooks

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

- Above normal temperature and normal to slightly below normal precipitation expected through the month of October.

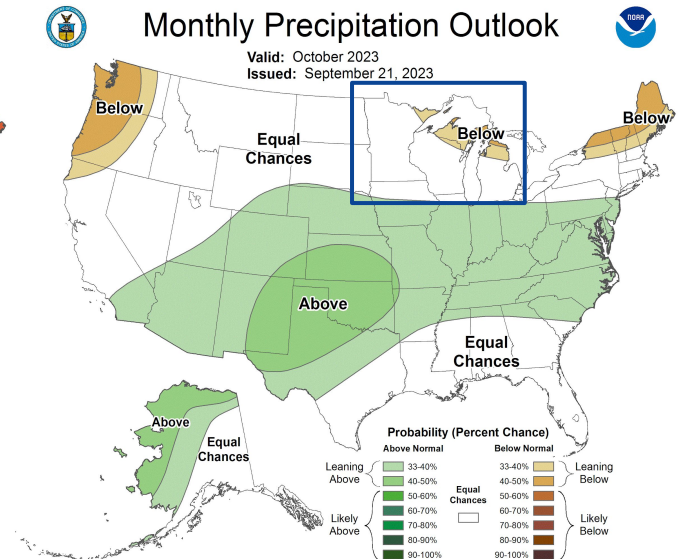
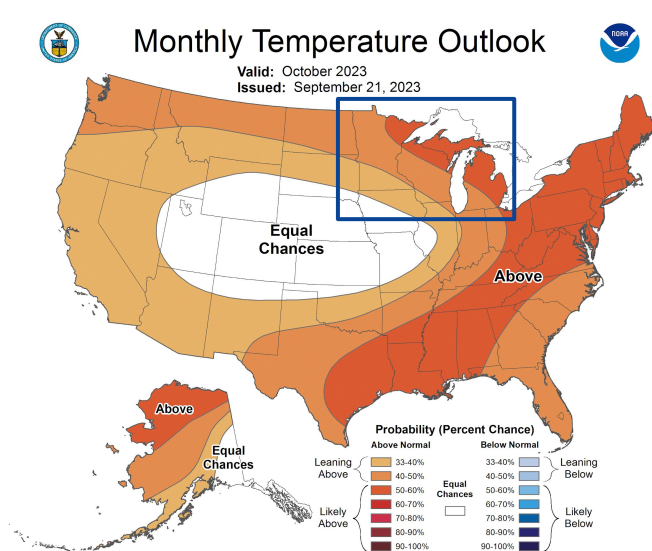


Image Captions:

Left - [Climate Prediction Center Monthly Temperature Outlook](#)

Right - [Climate Prediction Center Monthly Precipitation Outlook](#)

Valid 10 2023



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Drought Outlook

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

- Some drought likely to persist.

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

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

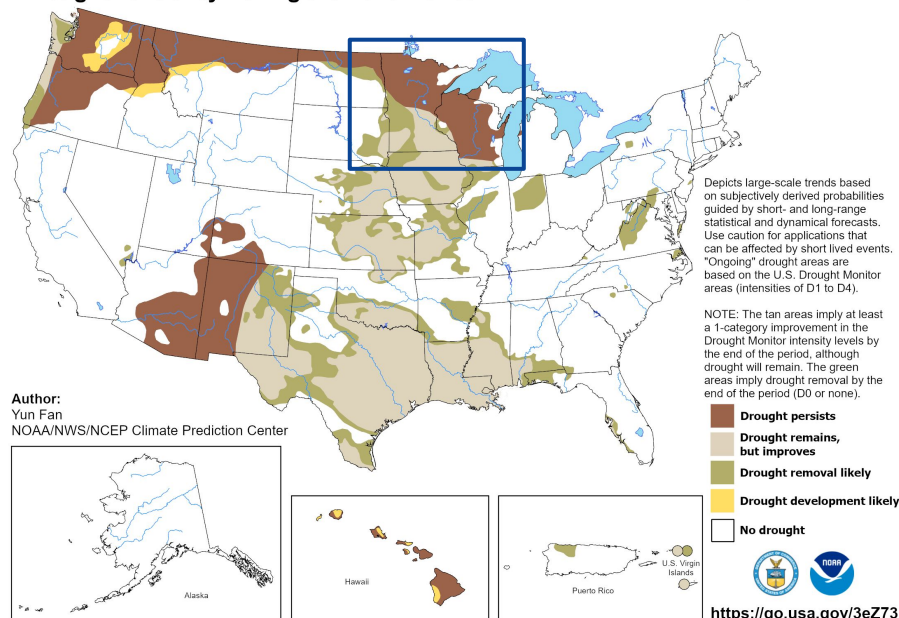


Image Caption:

Climate Prediction Center Monthly Drought Outlook Released Sep 21, 2023 valid for Sep-Dec 2023

Links to the latest:
[Climate Prediction Center Monthly Drought Outlook](#)
[Climate Prediction Center Seasonal Drought Outlook](#)



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