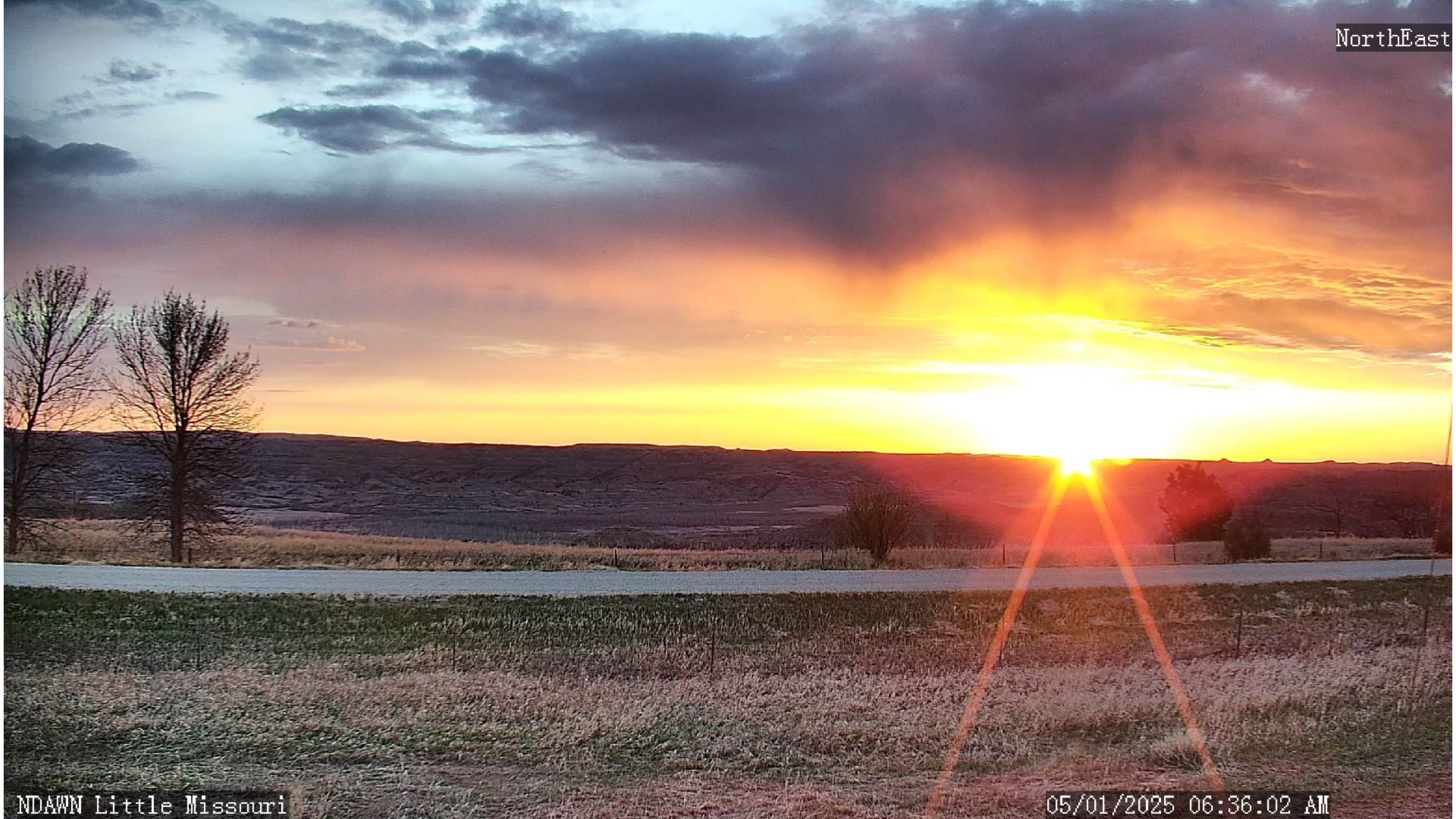


# **North Dakota Bi-Weekly Drought Update**

Daryl Ritchison, May 1, 2025



NorthEast



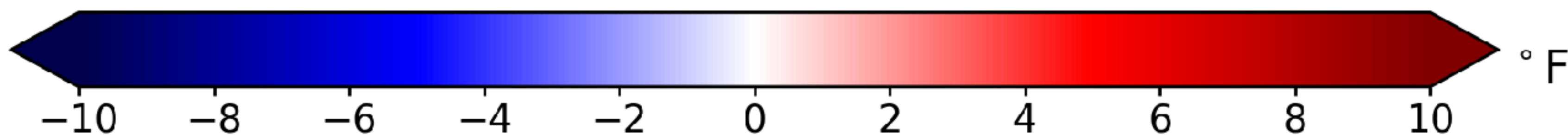
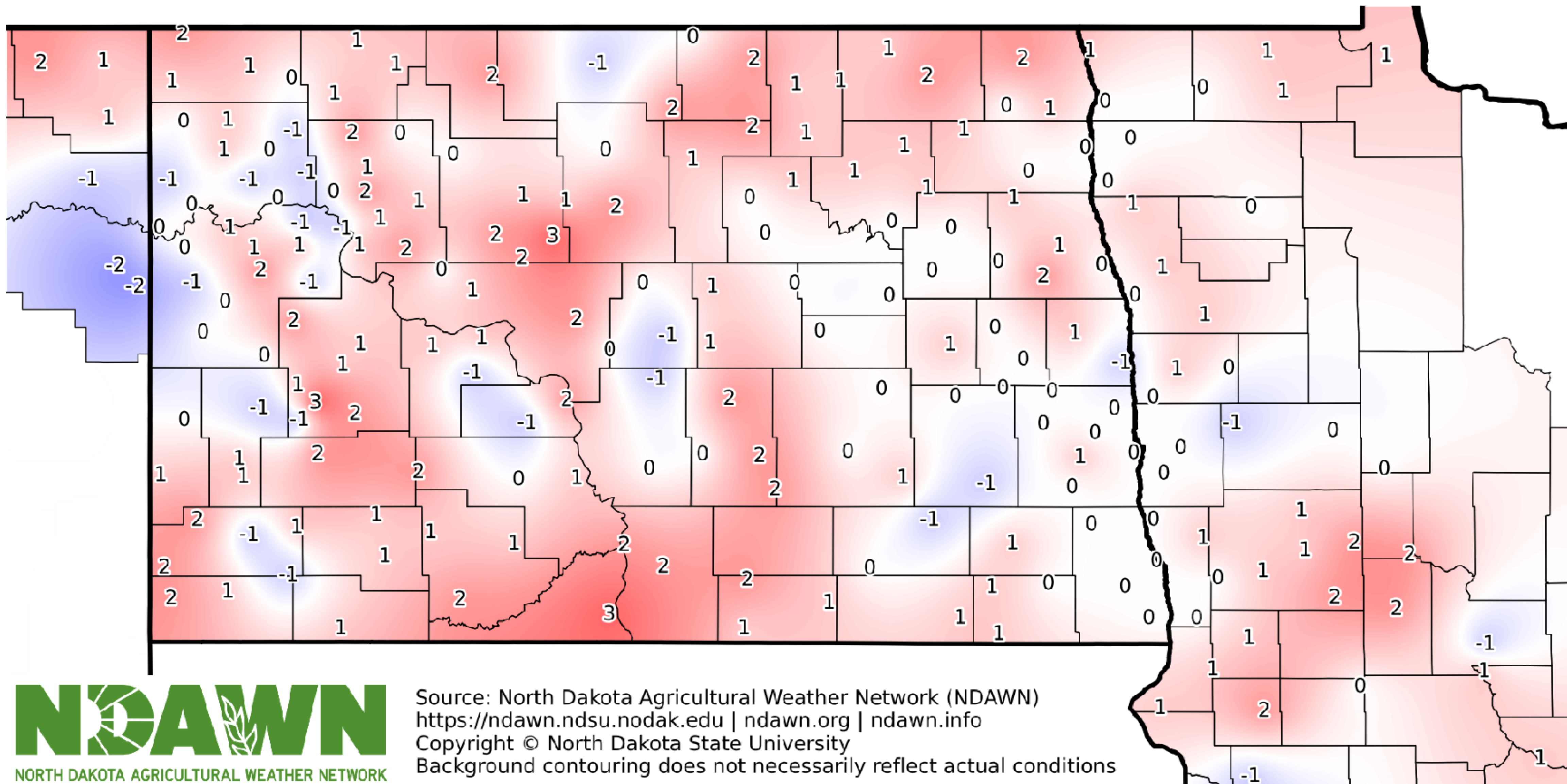
NDAWN Little Missouri

05/01/2025 06:36:02 AM



# Departure from Normal Average Air Temperature ( ° F)

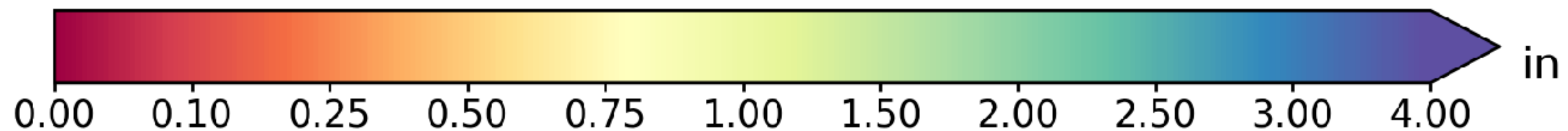
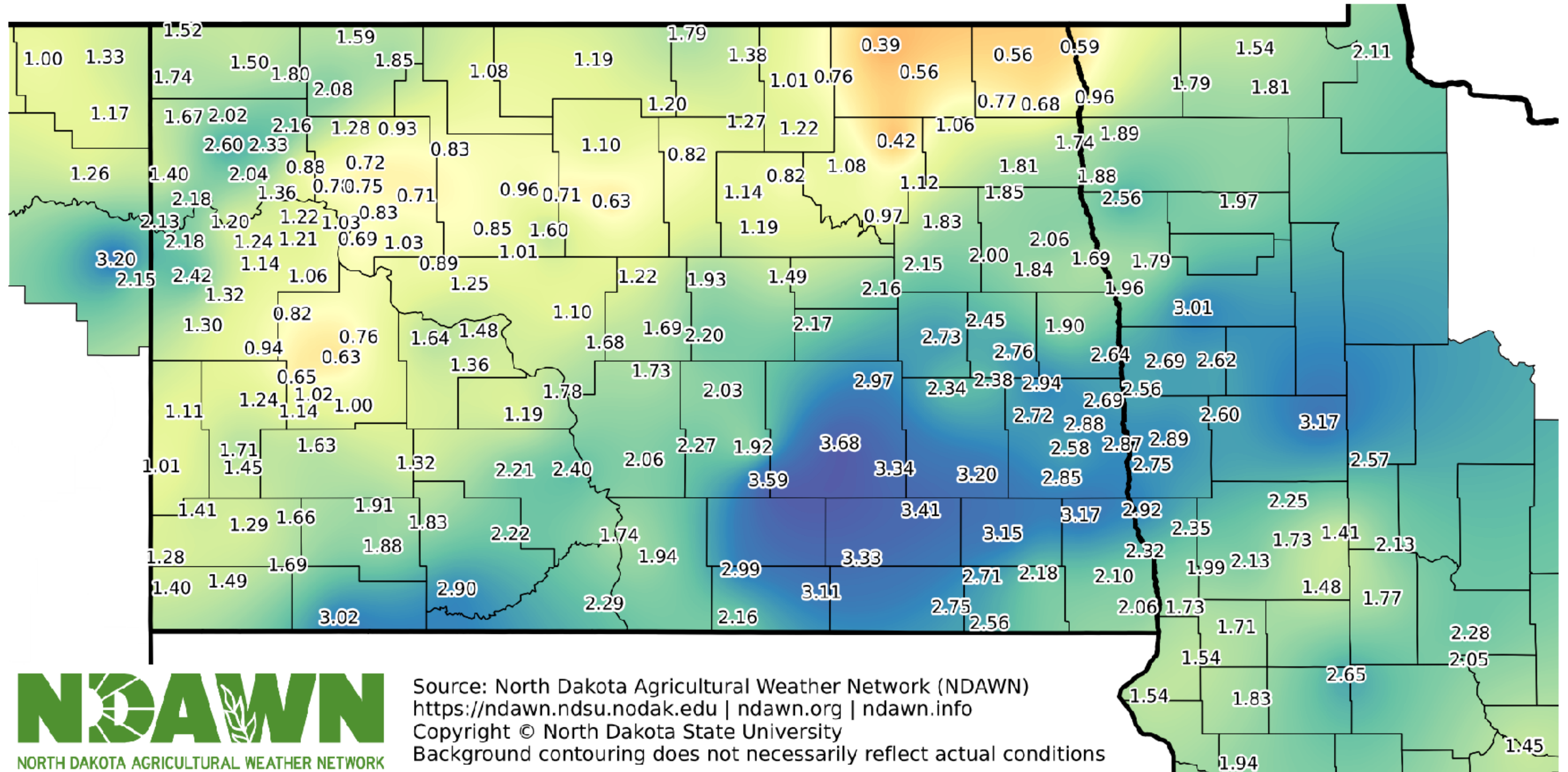
04-01-2025 - 04-30-2025





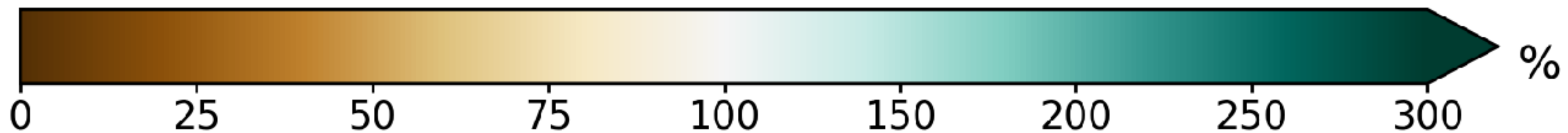
# Total Precipitation (in)

04-01-2025 - 04-30-2025

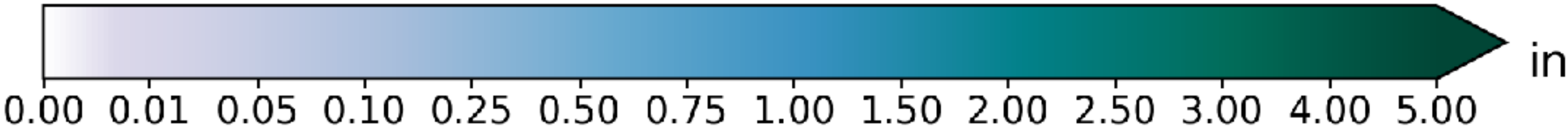
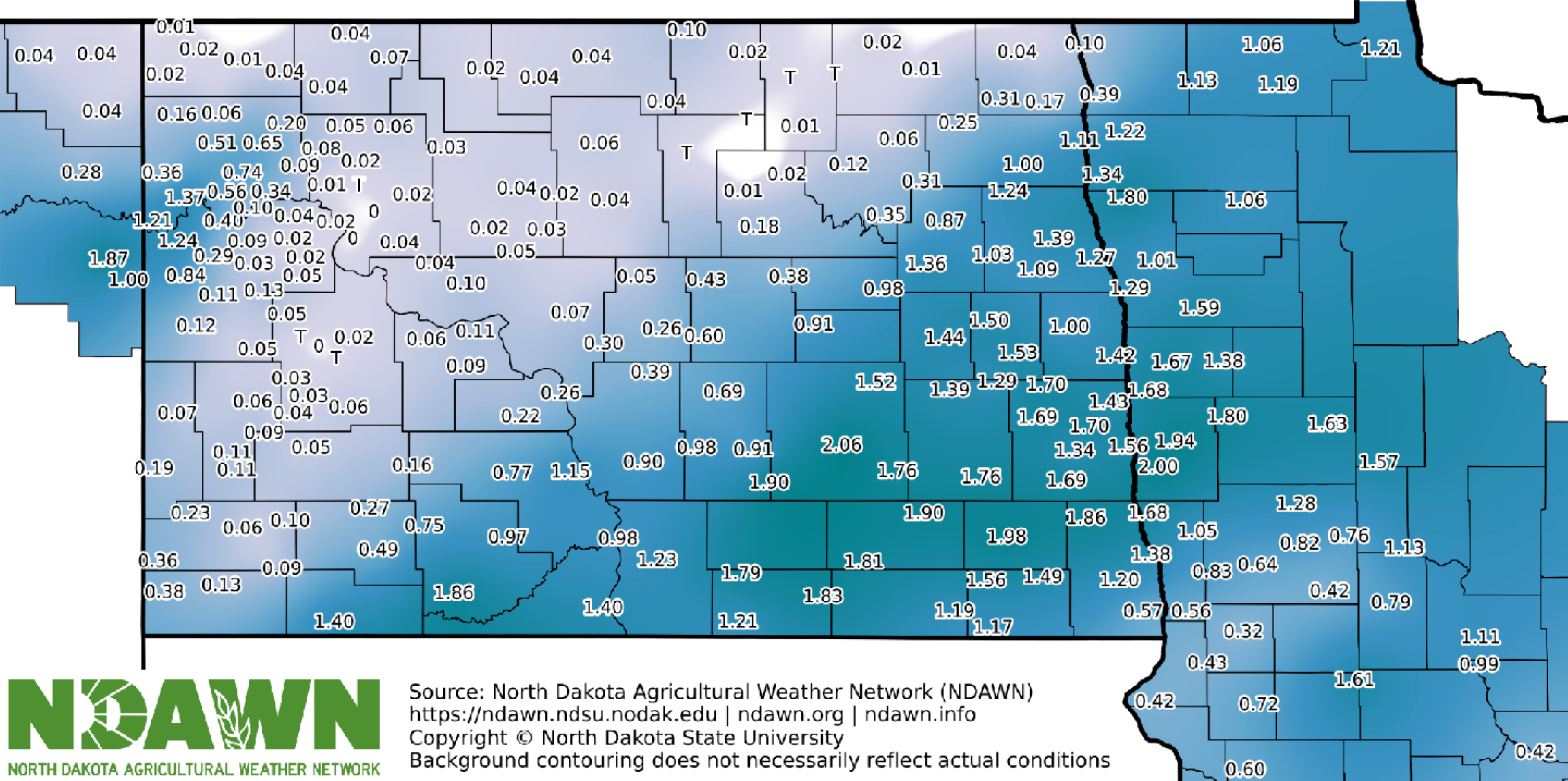




04-01-2025 - 04-30-2025







# Past 7 Days Precipitation



East



NDAWN Sunny Slope

04/29/2025 09:15:57 AM

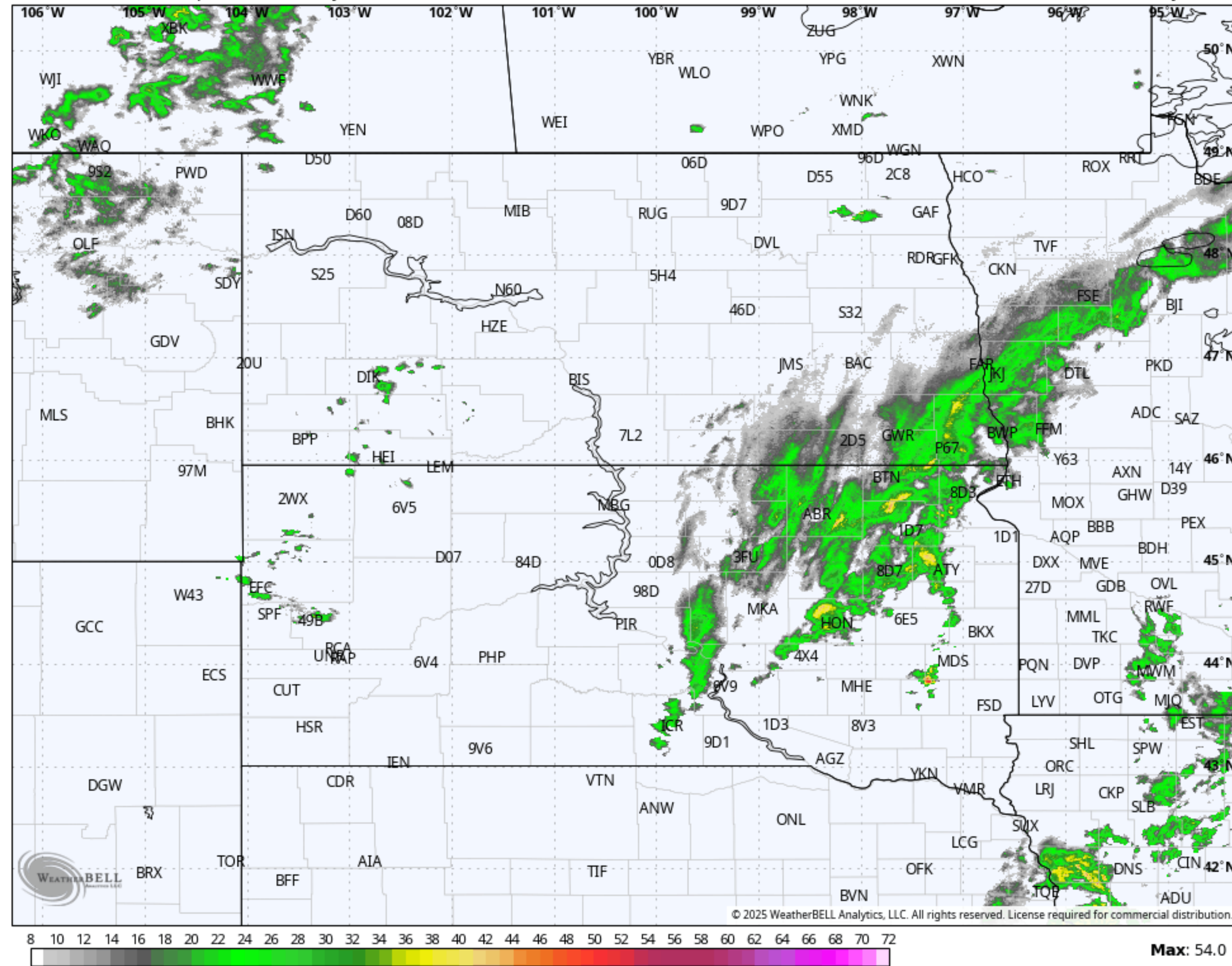






MRMS 1 km • Composite Reflectivity (dBZ)

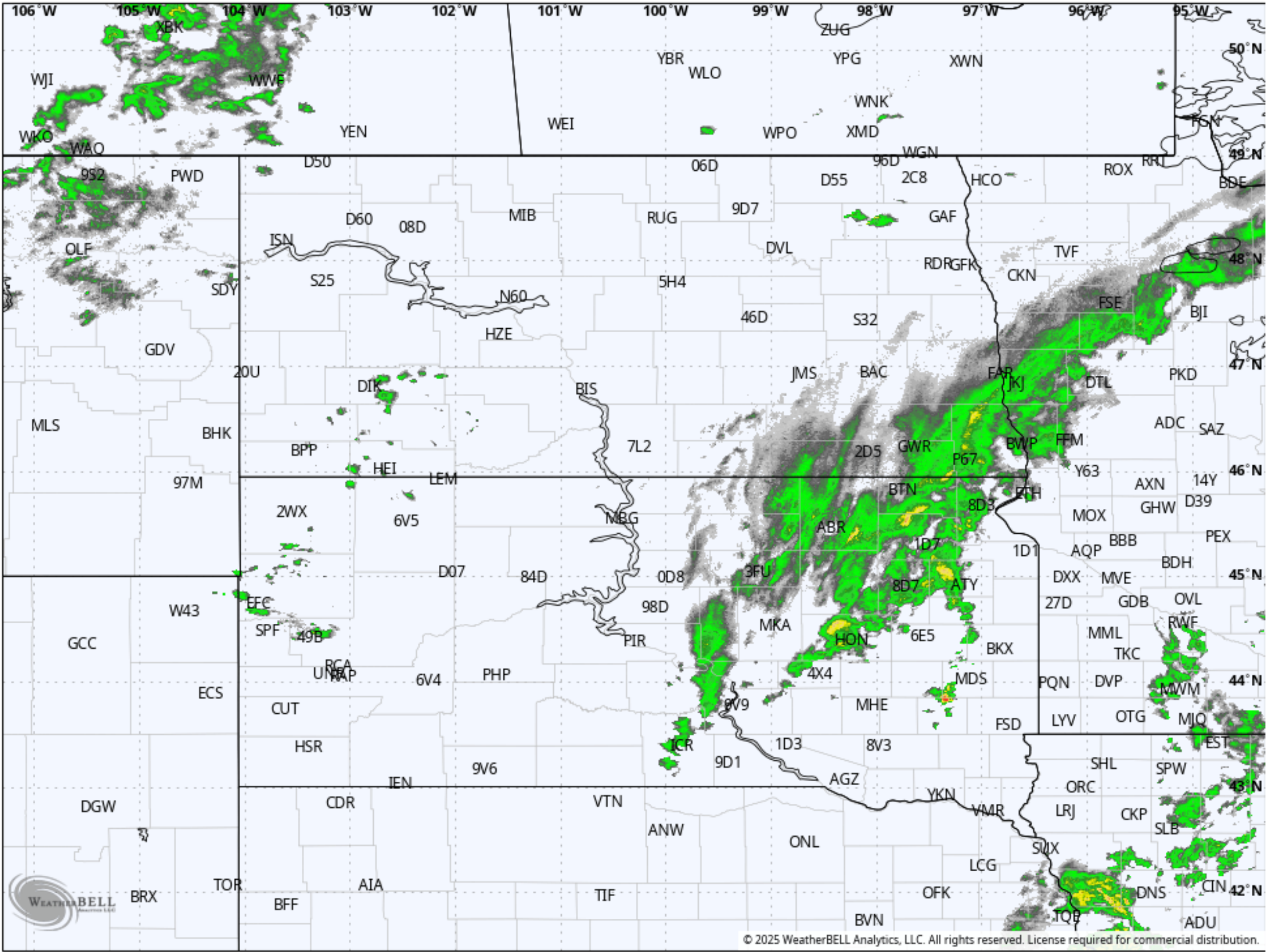
**Valid:** 0910z Thu 1 May 2025



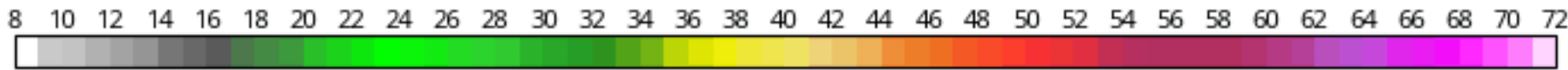


MRMS 1 km • Composite Reflectivity (dBZ)

Valid: 0910z Thu 1 May 2025



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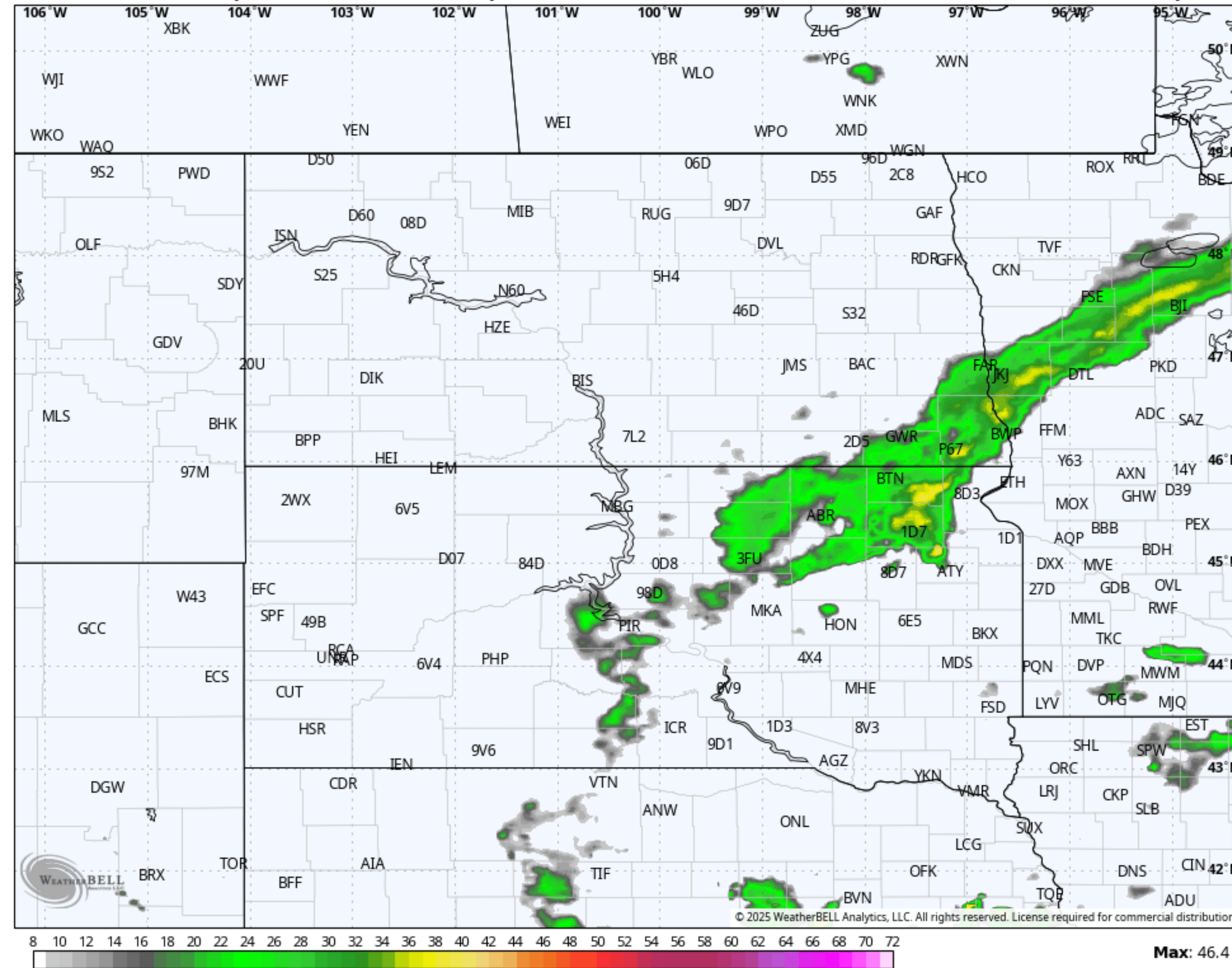


Max: 54.0



**NAM 3 km** Init 06z 1 May 2025 • 1000m AGL Reflectivity (dBZ)

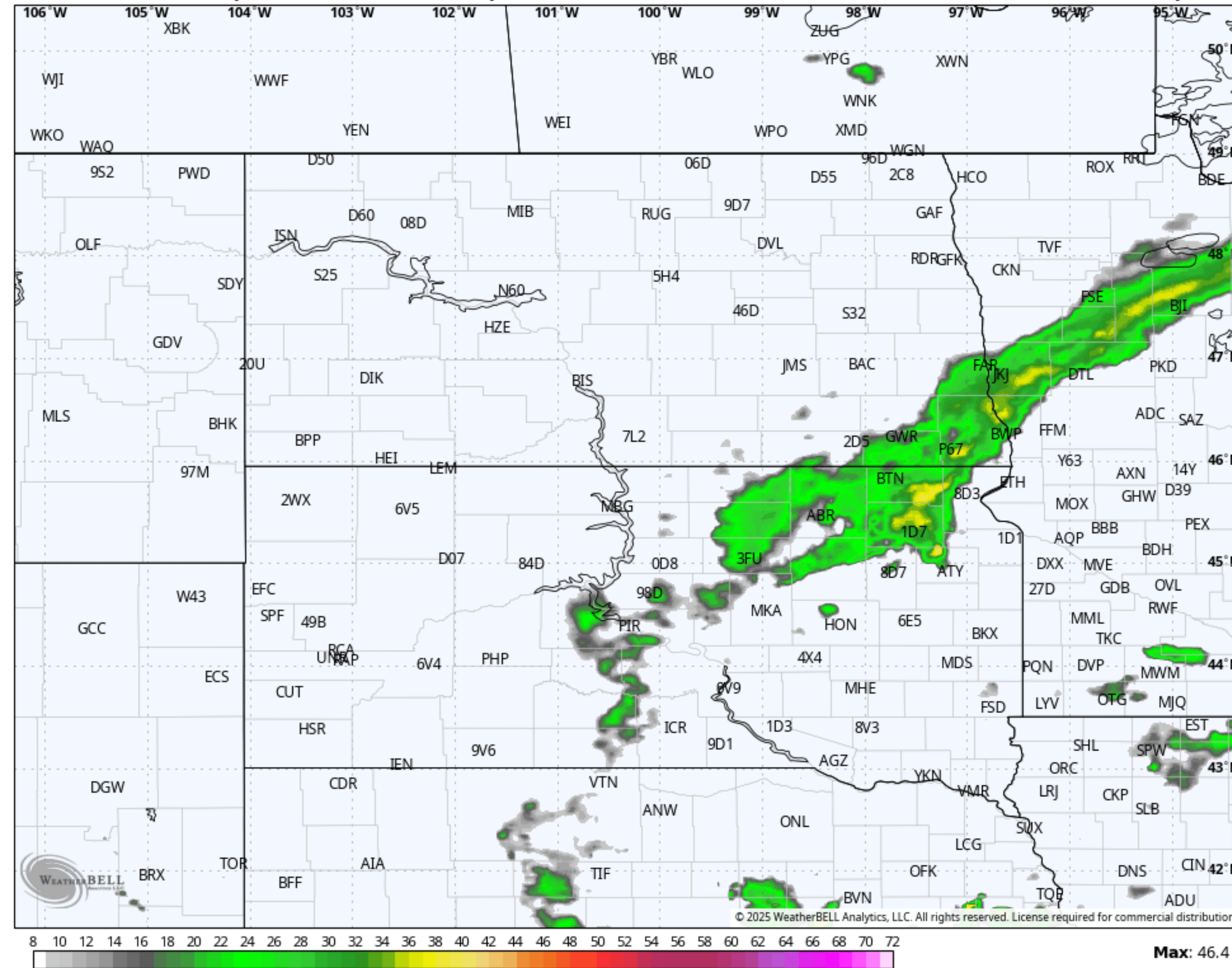
**Hour: 0 • Valid: 06z Thu 1 May 2025**





**NAM 3 km** Init 06z 1 May 2025 • 1000m AGL Reflectivity (dBZ)

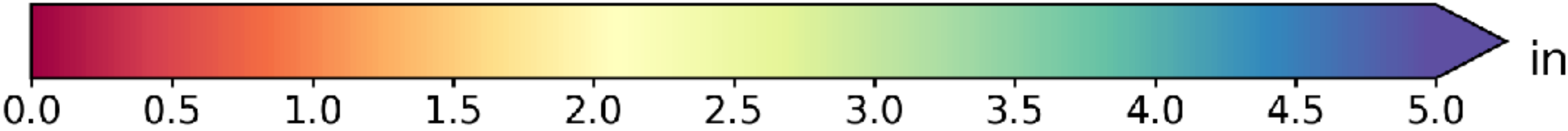
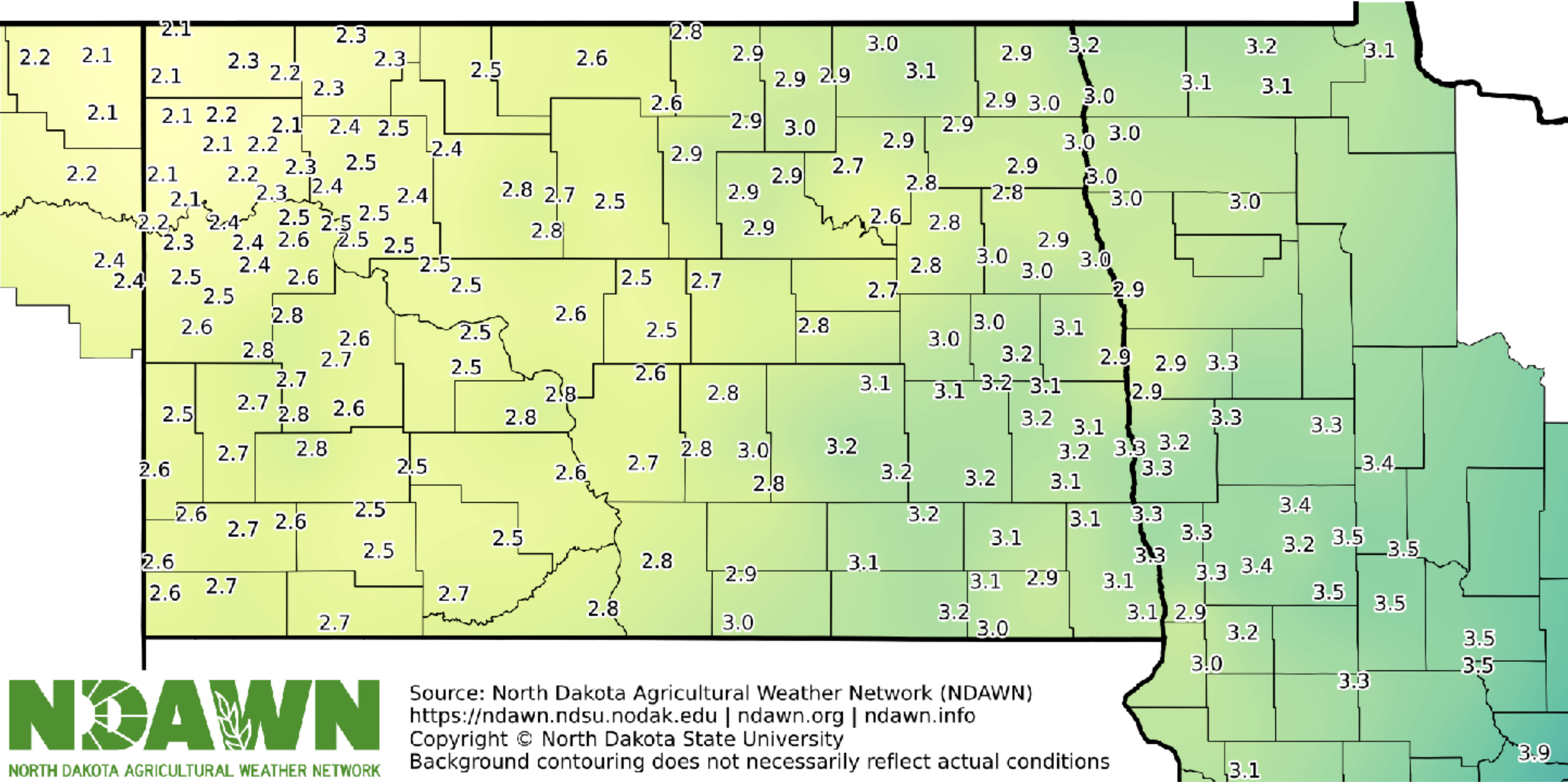
**Hour: 0 • Valid: 06z Thu 1 May 2025**





May Total Precipitation (in)

1991-2020 Climate Normals



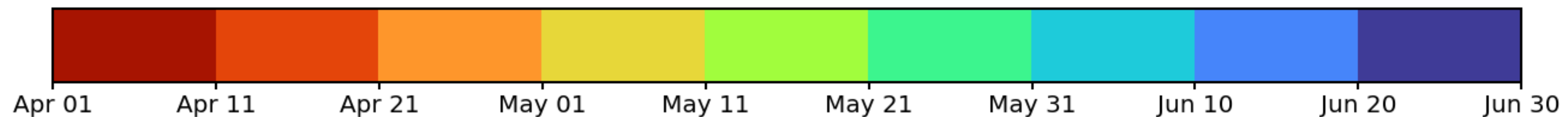
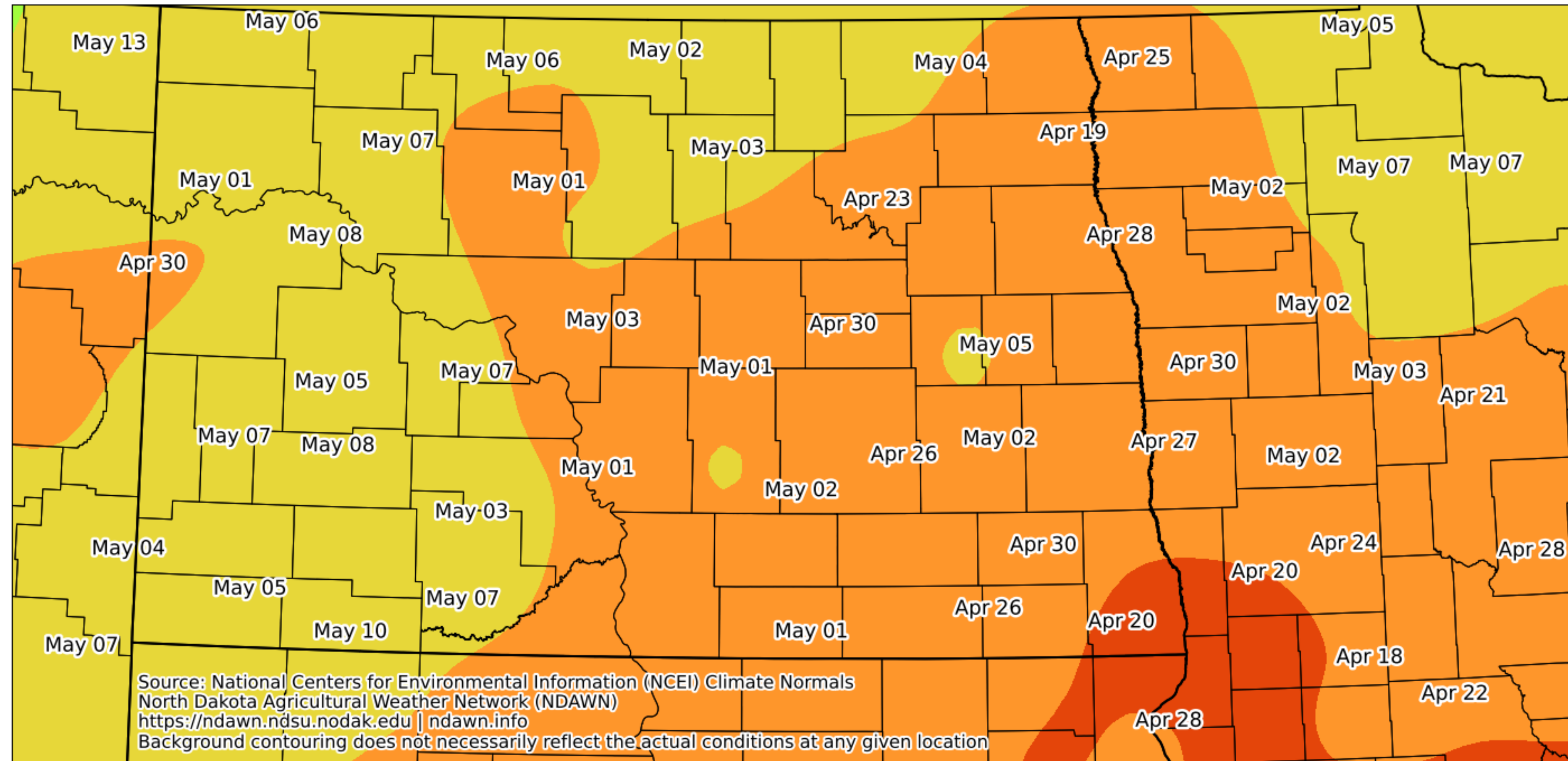
# May Average Precipitation



# Climatological Date of Early Last Freeze (32 ° F)

1991-2020 Climate Normals

Early Defined as the 90th Percentile

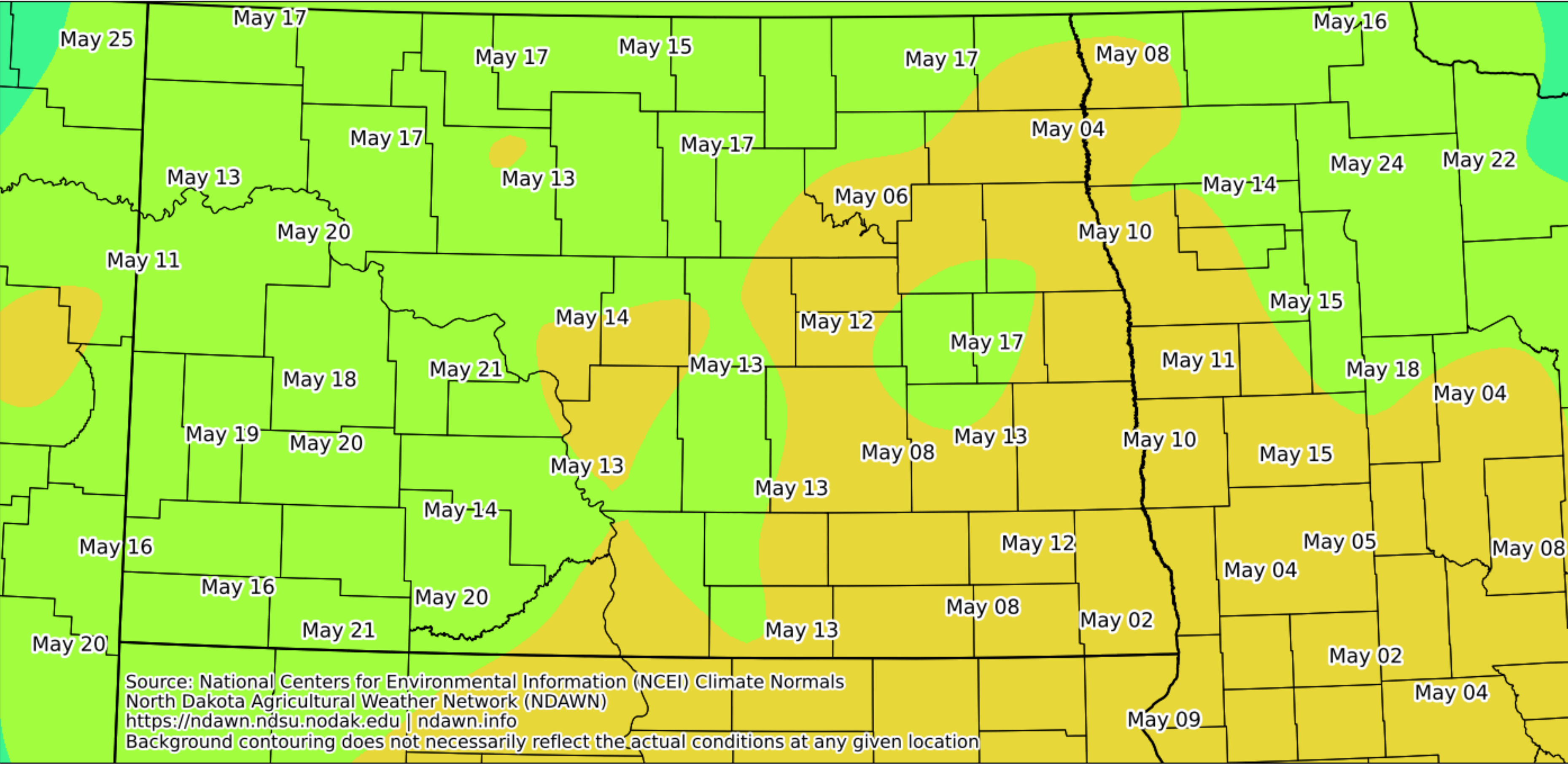




Climatological Date of Median Last Freeze (32 ° F)

1991-2020 Climate Normals

Median Defined as the 50th Percentile

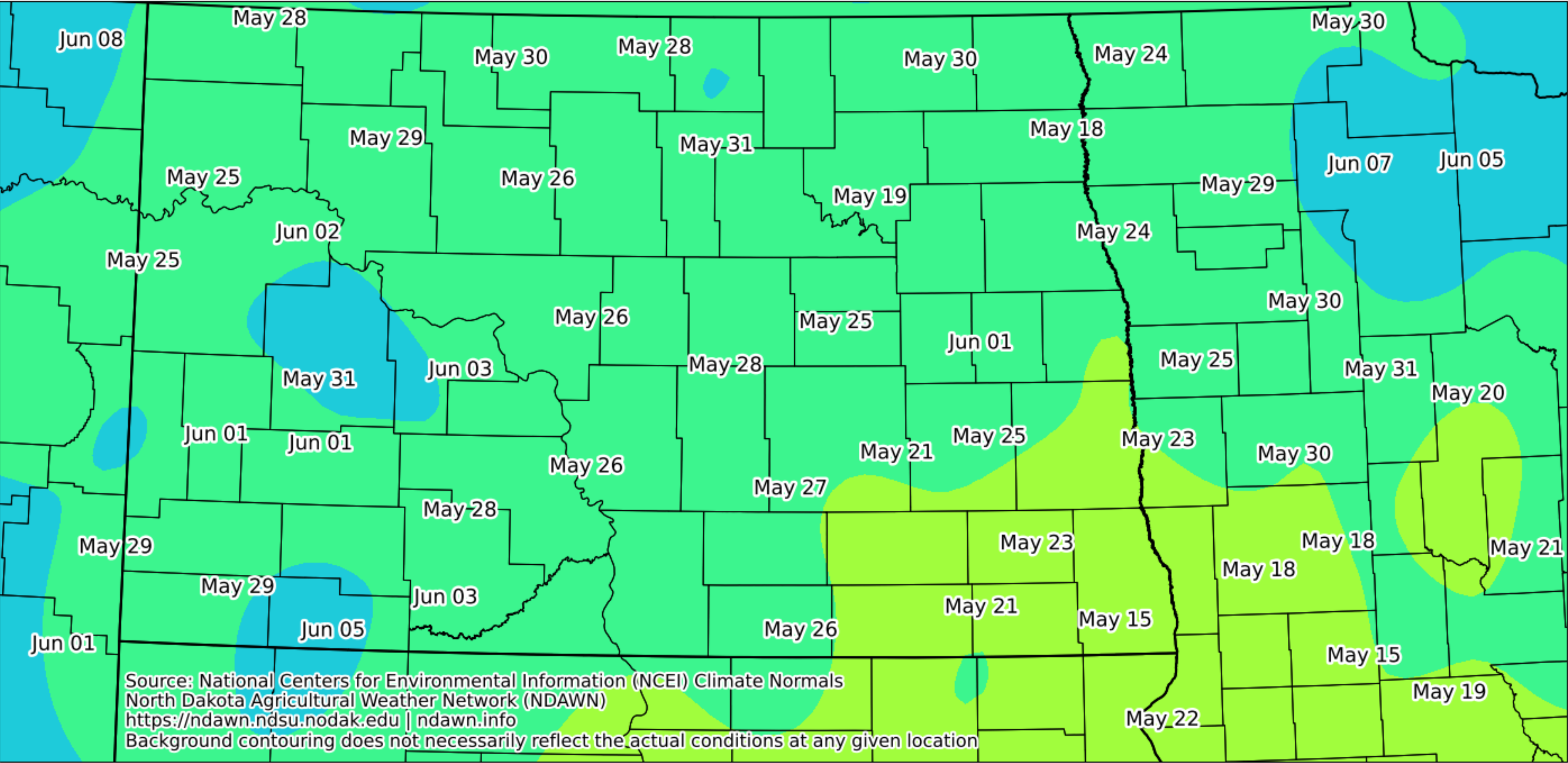




# Climatological Date of Late Last Freeze (32 ° F)

1991-2020 Climate Normals

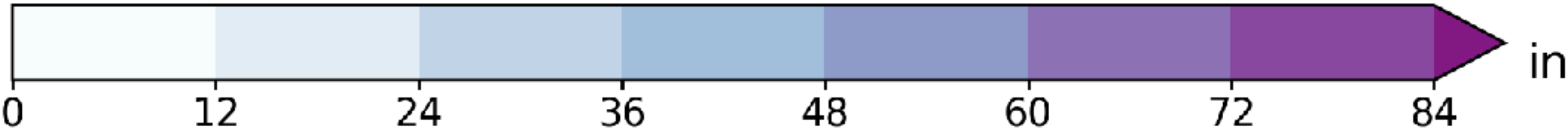
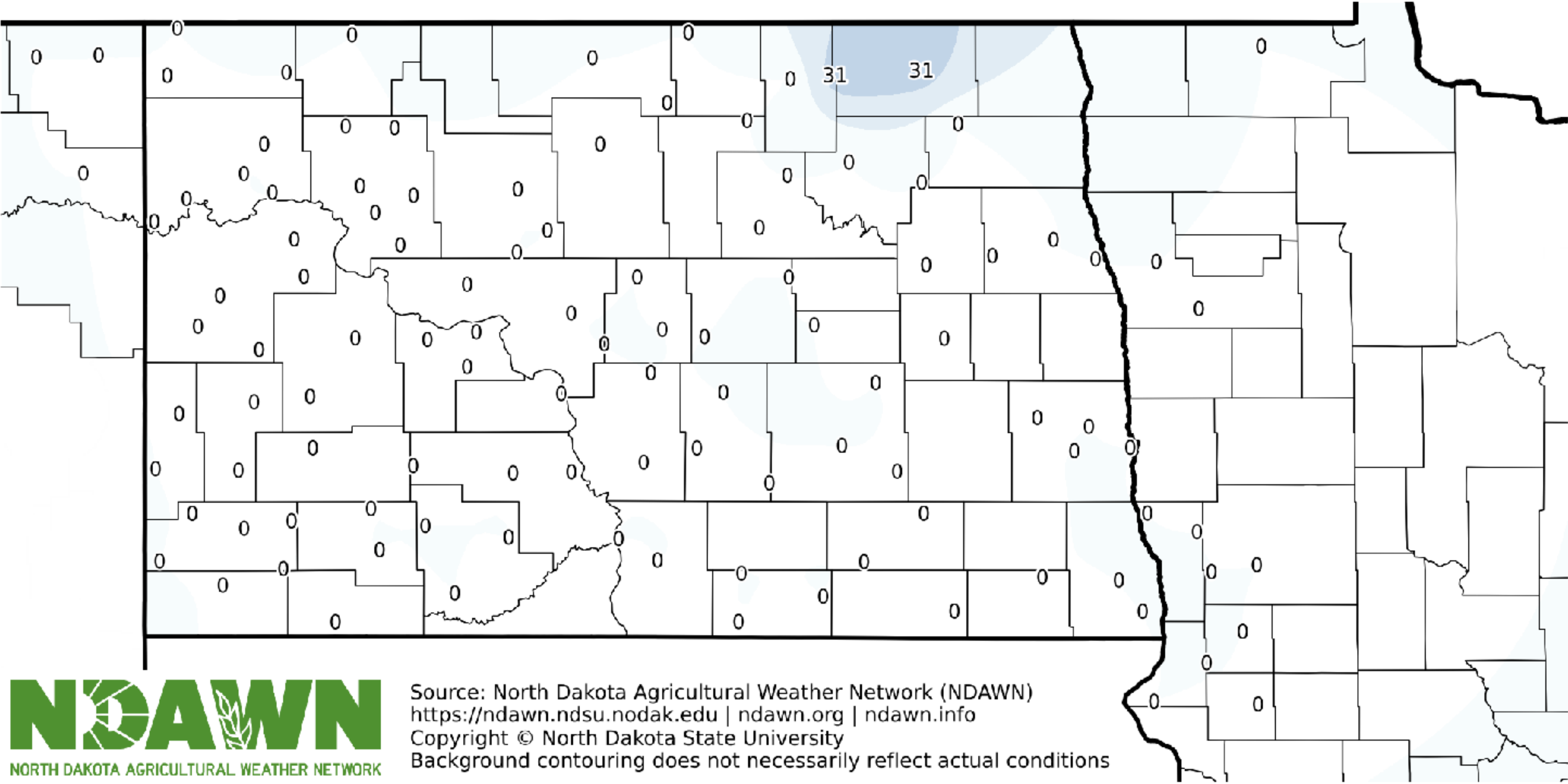
Late Defined as the 10th Percentile





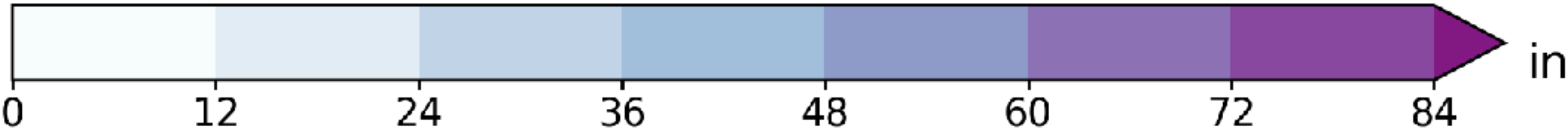
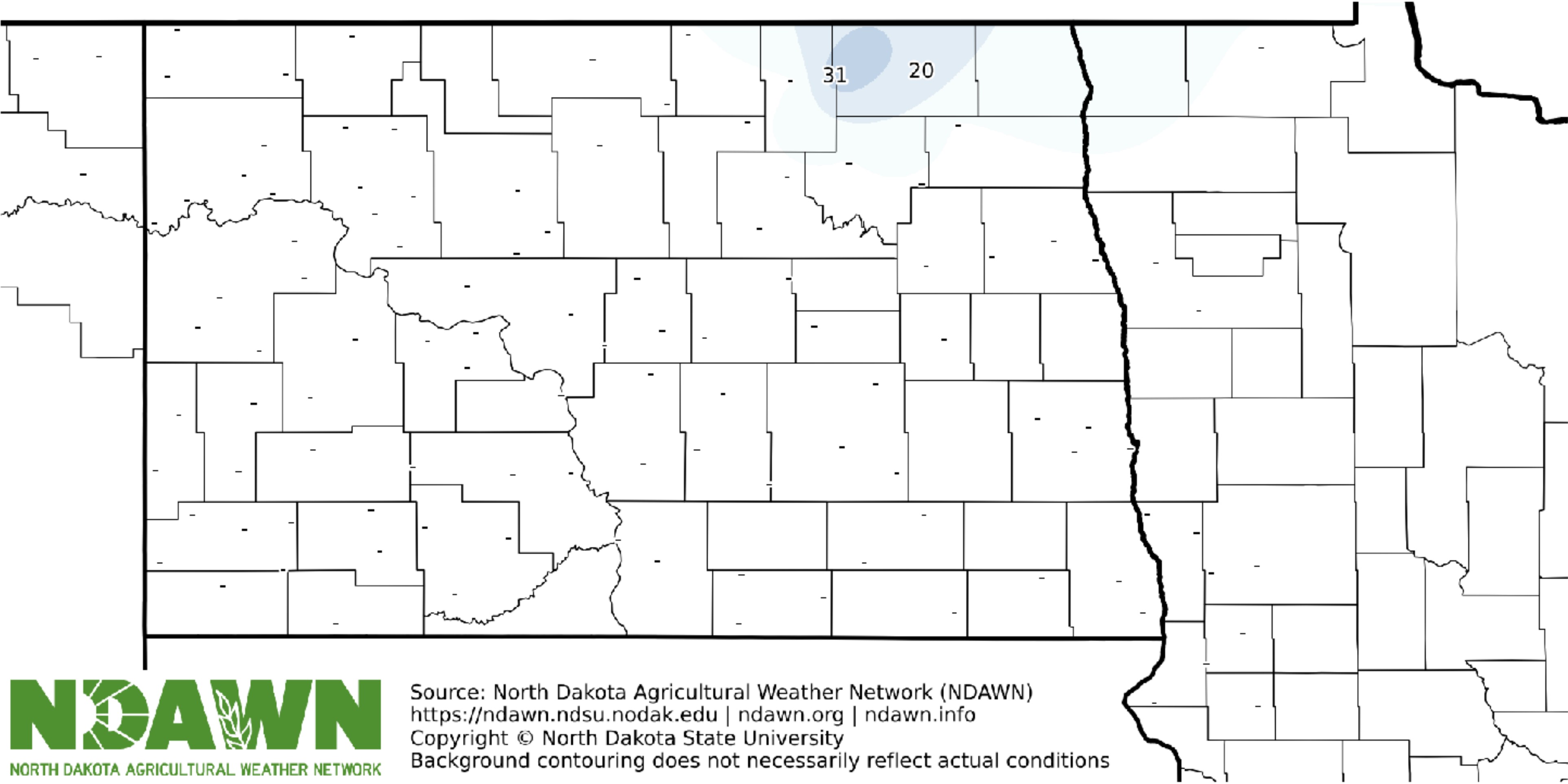
Frost Depth (in)

Apr 30 2025 07:00 AM



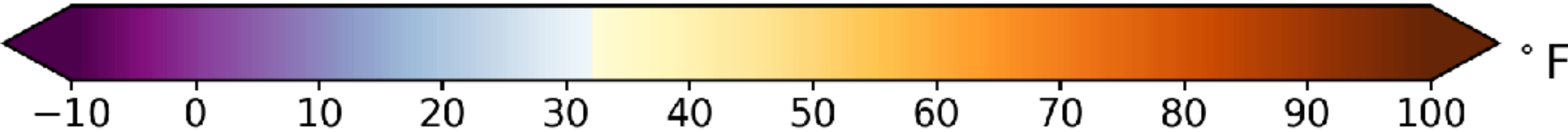
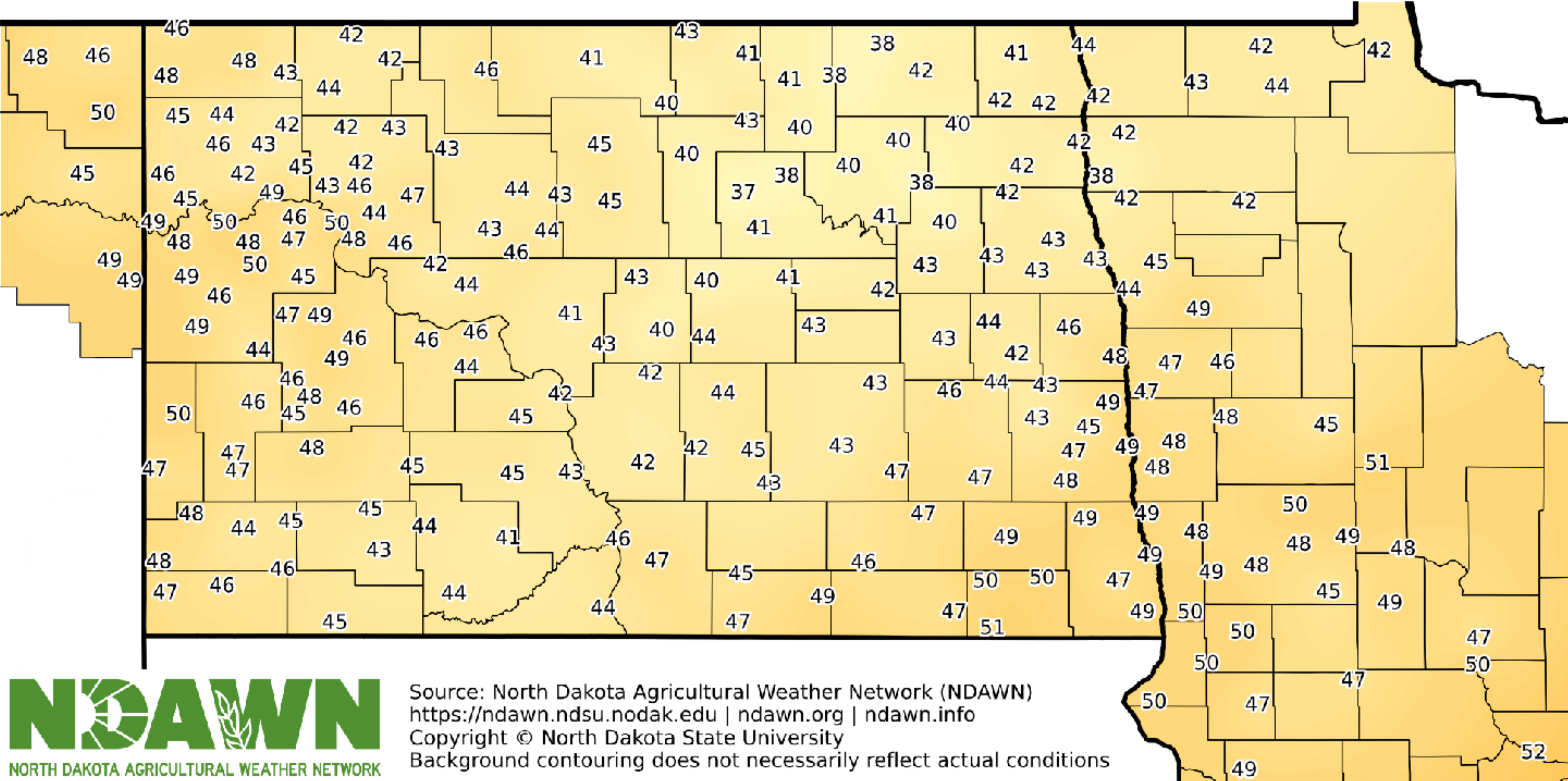
# Frost Depth





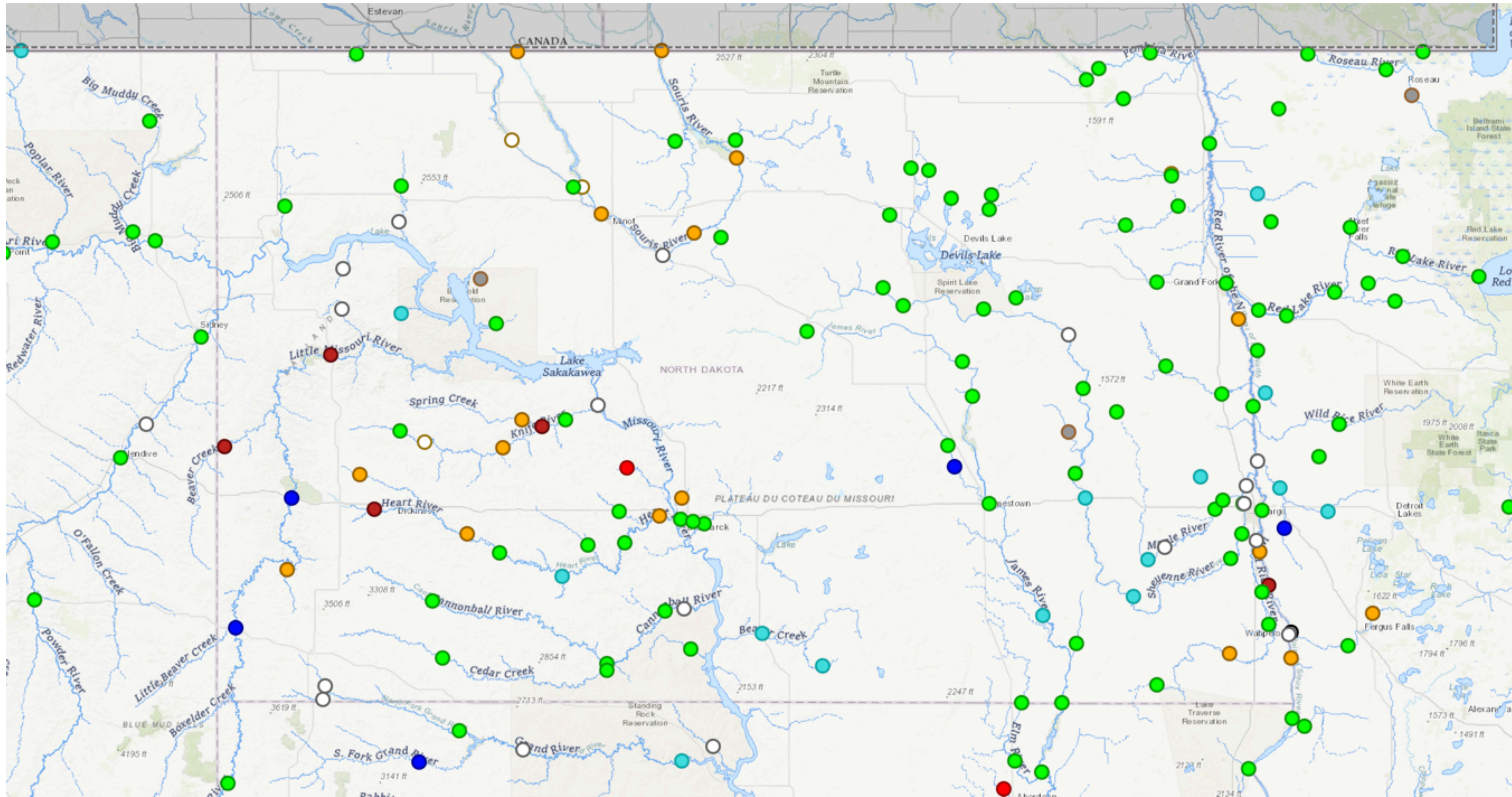
# Top of Frost Depth





4 inch Bare Temperature



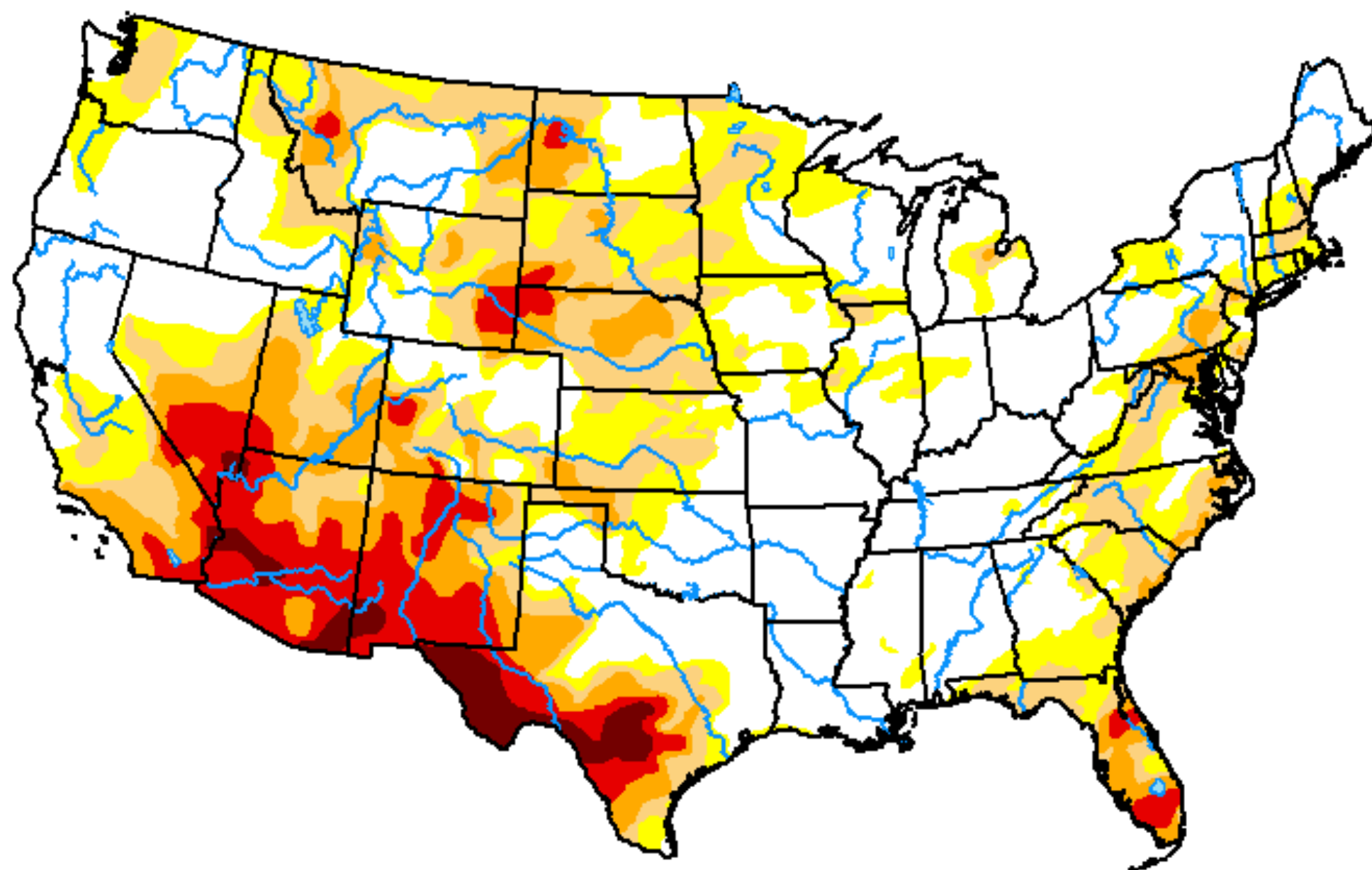


# Stream Flows

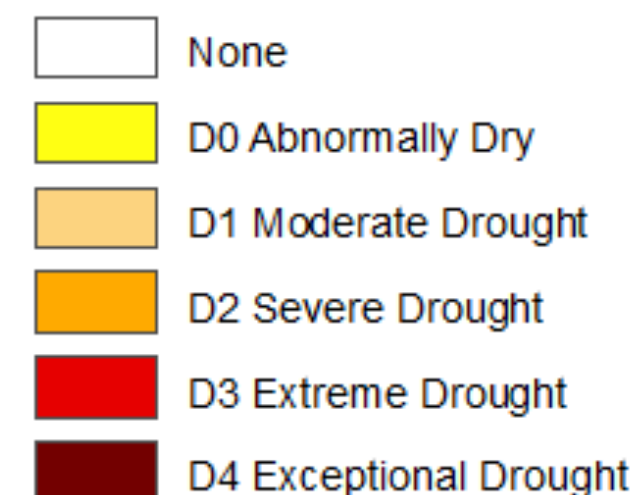


*U.S. Drought Monitor*  
**Contiguous U.S. (CONUS)**

**April 29, 2025**  
(Released Thursday, May 1, 2025)  
Valid 8 a.m. EDT



Intensity:



*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 Tinker  
CPC/NOAA/NWS/NCEP



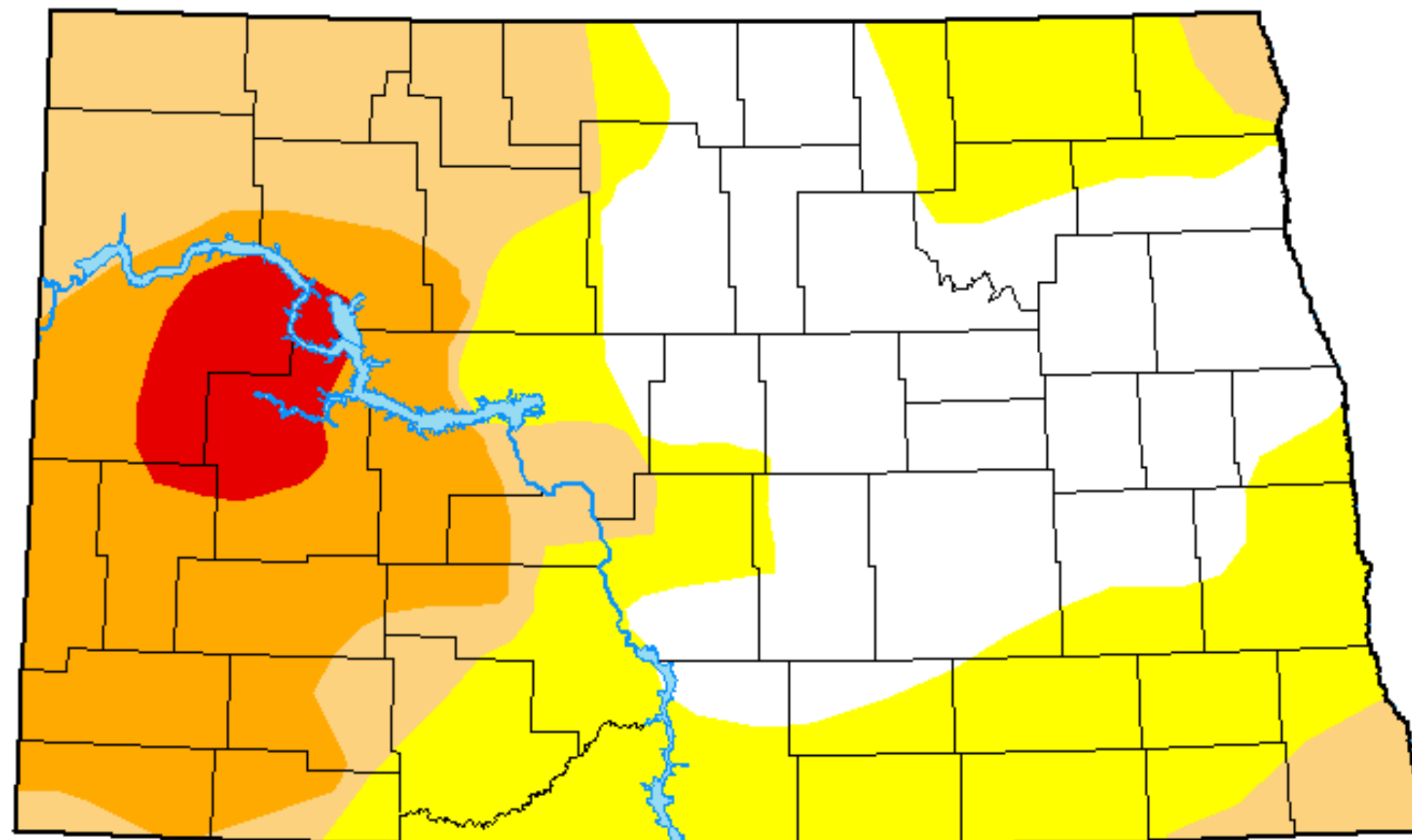
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

# Current Drought Monitor









**U.S. Drought Monitor**  
**North Dakota**

**April 29, 2025**  
(Released Thursday, May. 1, 2025)  
Valid 8 a.m. EDT



**Intensity:**

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme 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 <http://droughtmonitor.unl.edu/About.aspx>*

**Author:**

Richard Tinker  
CPC/NOAA/NWS/NCEP



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

# Current Drought Monitor



# Drought Classification

None

D0 (Abnormally Dry)

D1 (Moderate Drought)

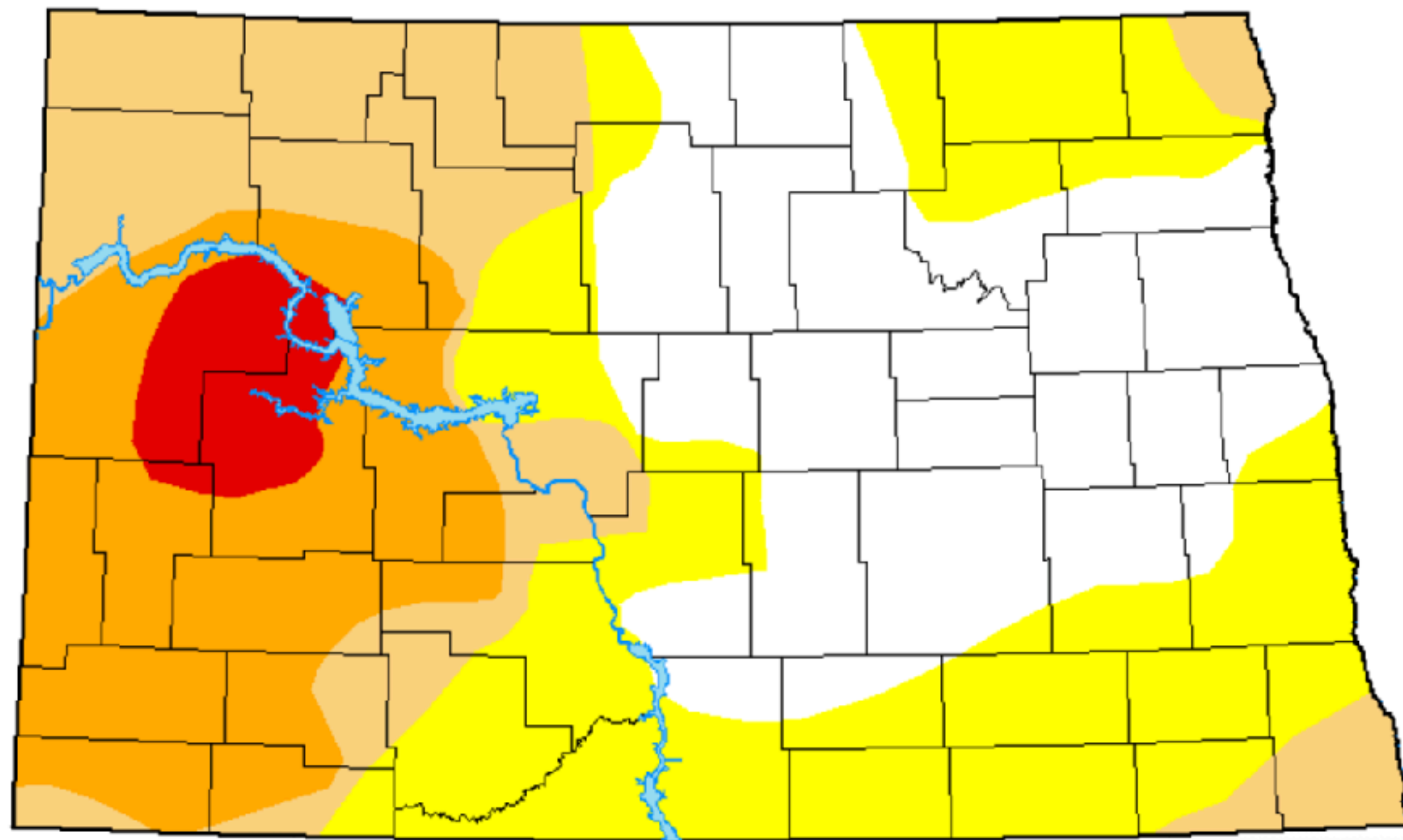
D2 (Severe Drought)

D3 (Extreme Drought)

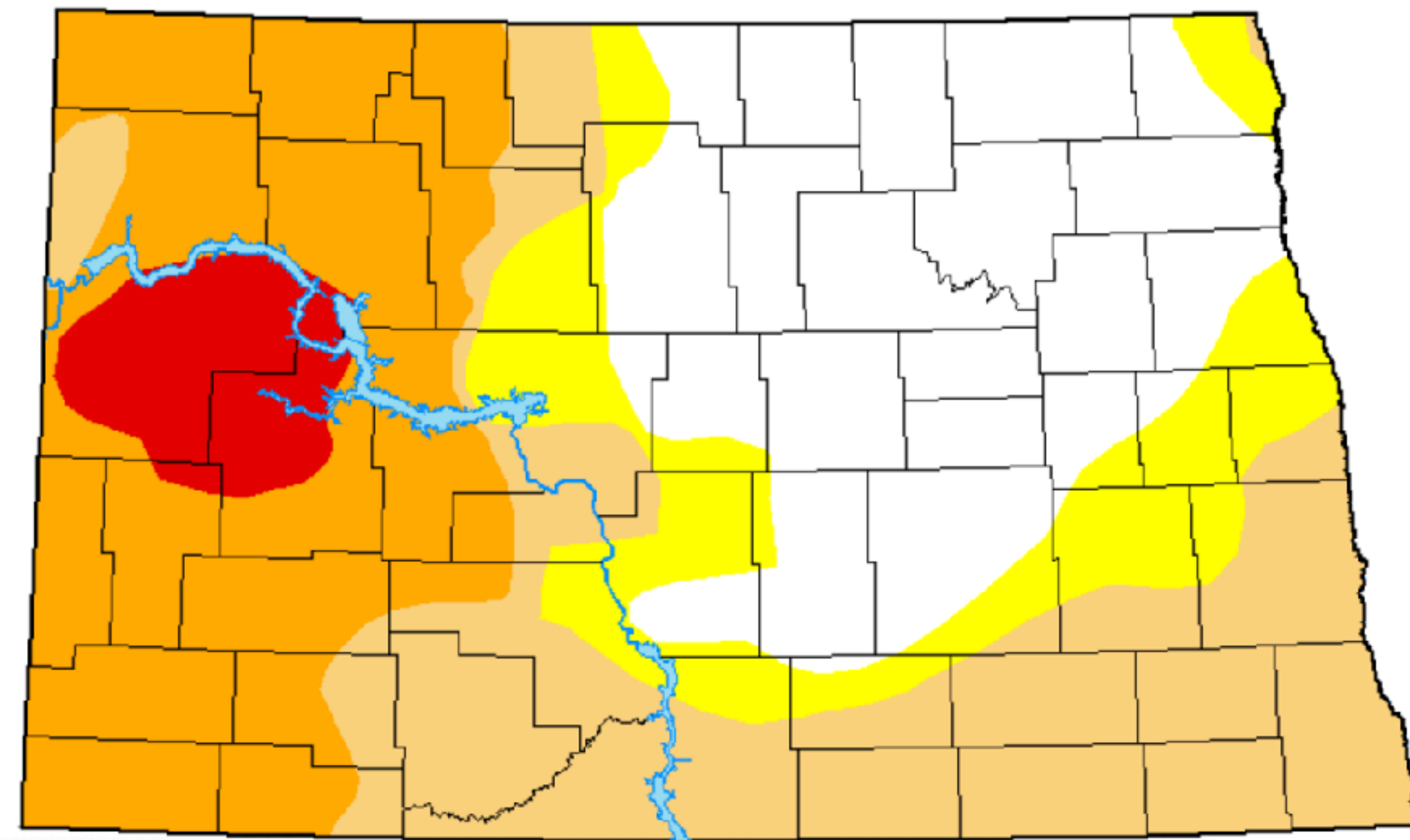
D4 (Exceptional Drought)

No Data

May 1



April 17



## Two Week Comparison



Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	<u>DSCI</u>
Current	<a href="#">2025-04-29</a>	30.68	69.32	39.63	21.29	3.79	0.00	134
Last Week to Current	<a href="#">2025-04-22</a>	29.77	70.23	57.21	30.68	5.11	0.00	163
3 Months Ago to Current	<a href="#">2025-01-28</a>	32.88	67.12	54.92	28.31	4.58	0.00	155
Start of Calendar Year to Current	<a href="#">2024-12-31</a>	32.88	67.12	54.92	28.78	12.99	0.00	164
Start of Water Year to Current	<a href="#">2024-10-01</a>	47.89	52.11	25.17	12.68	3.39	0.00	93
One Year Ago to Current	<a href="#">2024-04-30</a>	51.02	48.98	16.60	5.37	0.00	0.00	71

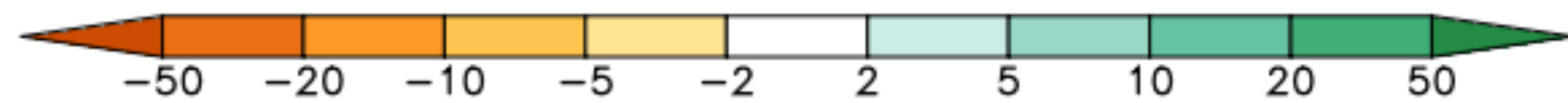
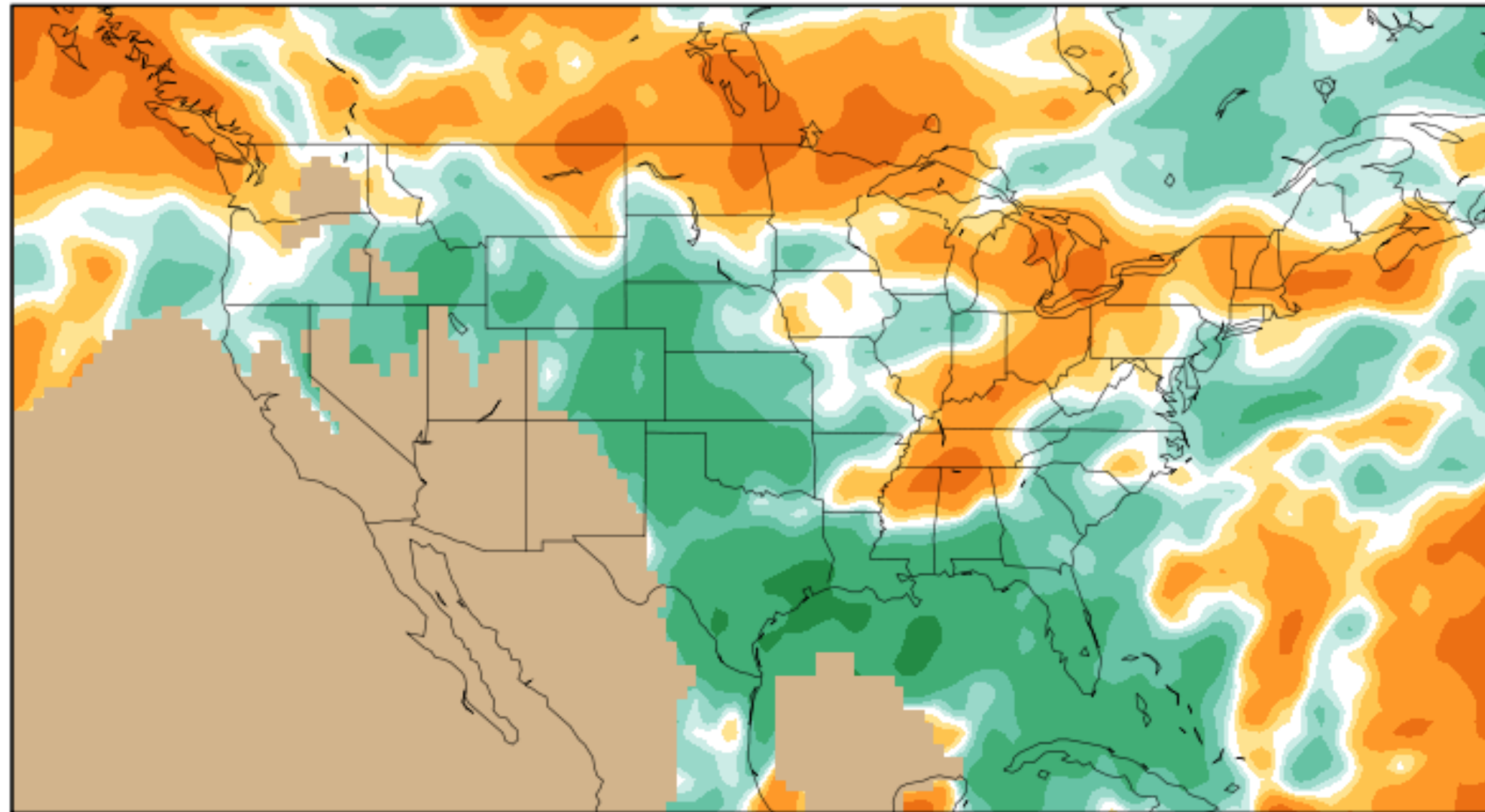
# North Dakota Categorical Percent



## 2001–2023 Trend in Precipitation (Percent Change Per Decade)

MAY

ERA5 Reanalysis



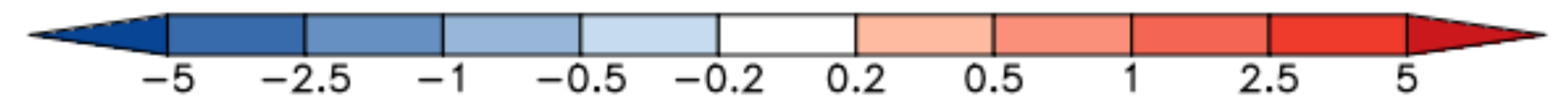
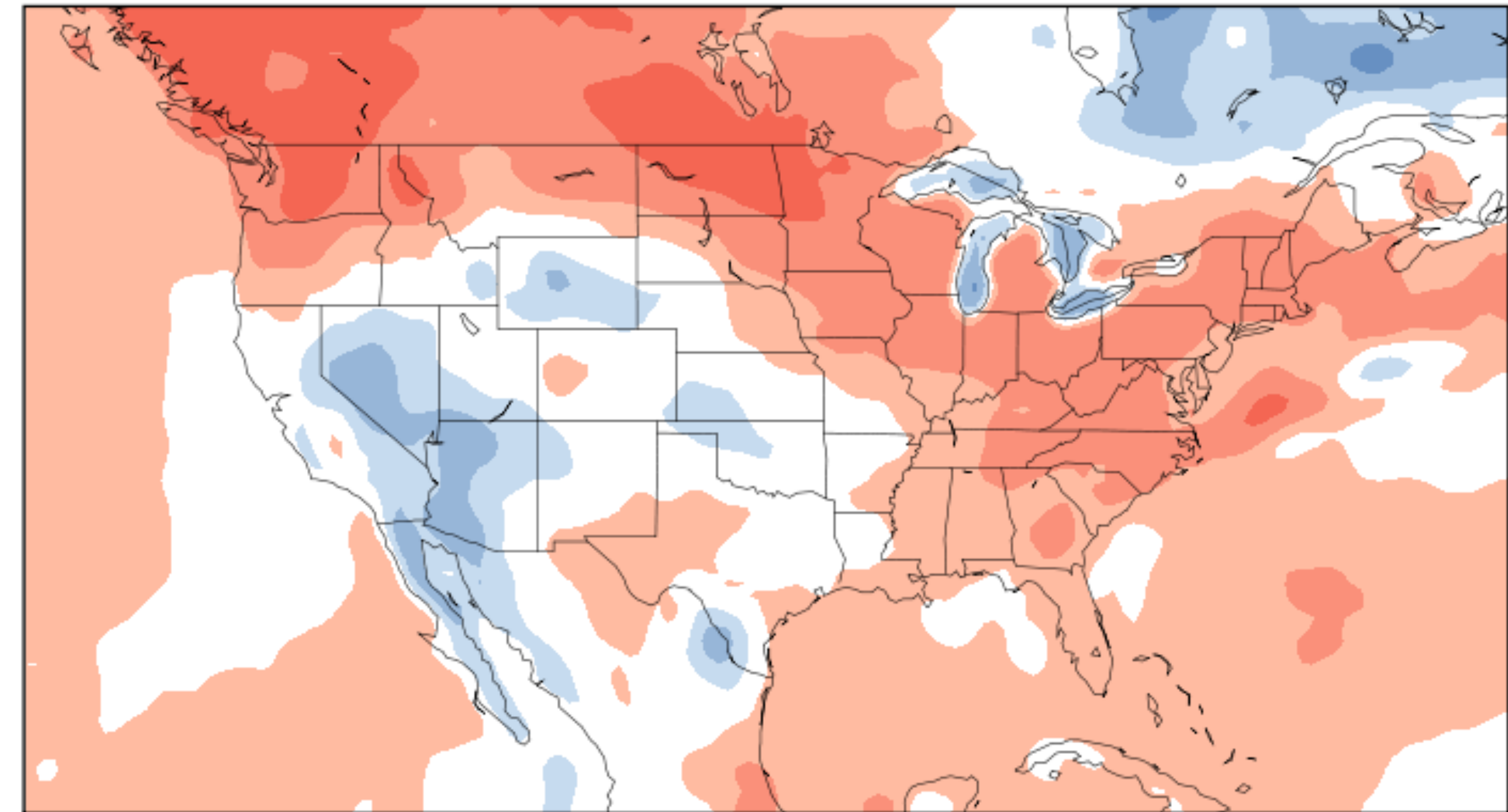
Seasonal Aridity in ERA5 Reanalysis

# May Trends

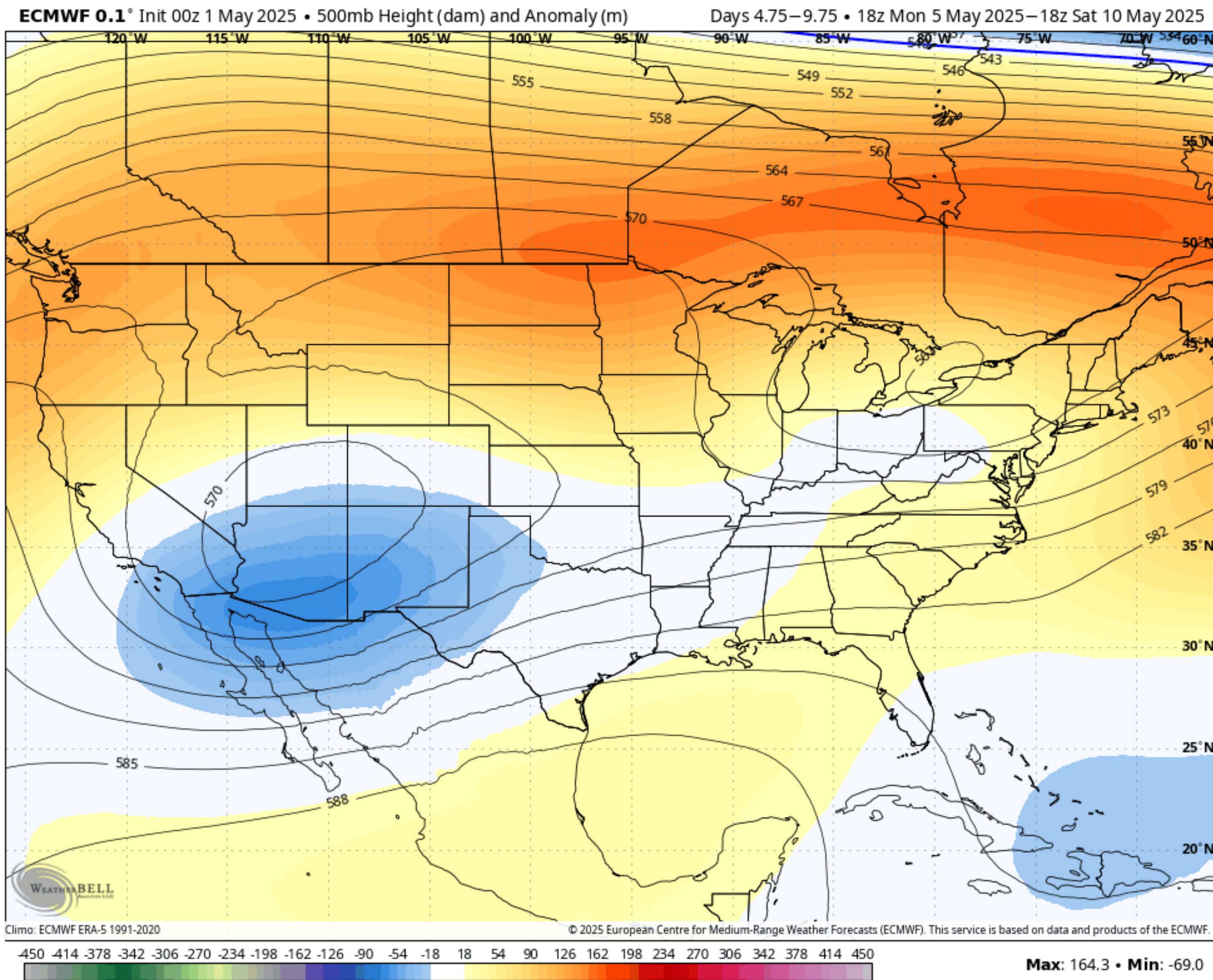
## 2001–2023 Trend in 2m Temperature ( $^{\circ}\text{C}$ decade $^{-1}$ )

MAY

ERA5 Reanalysis

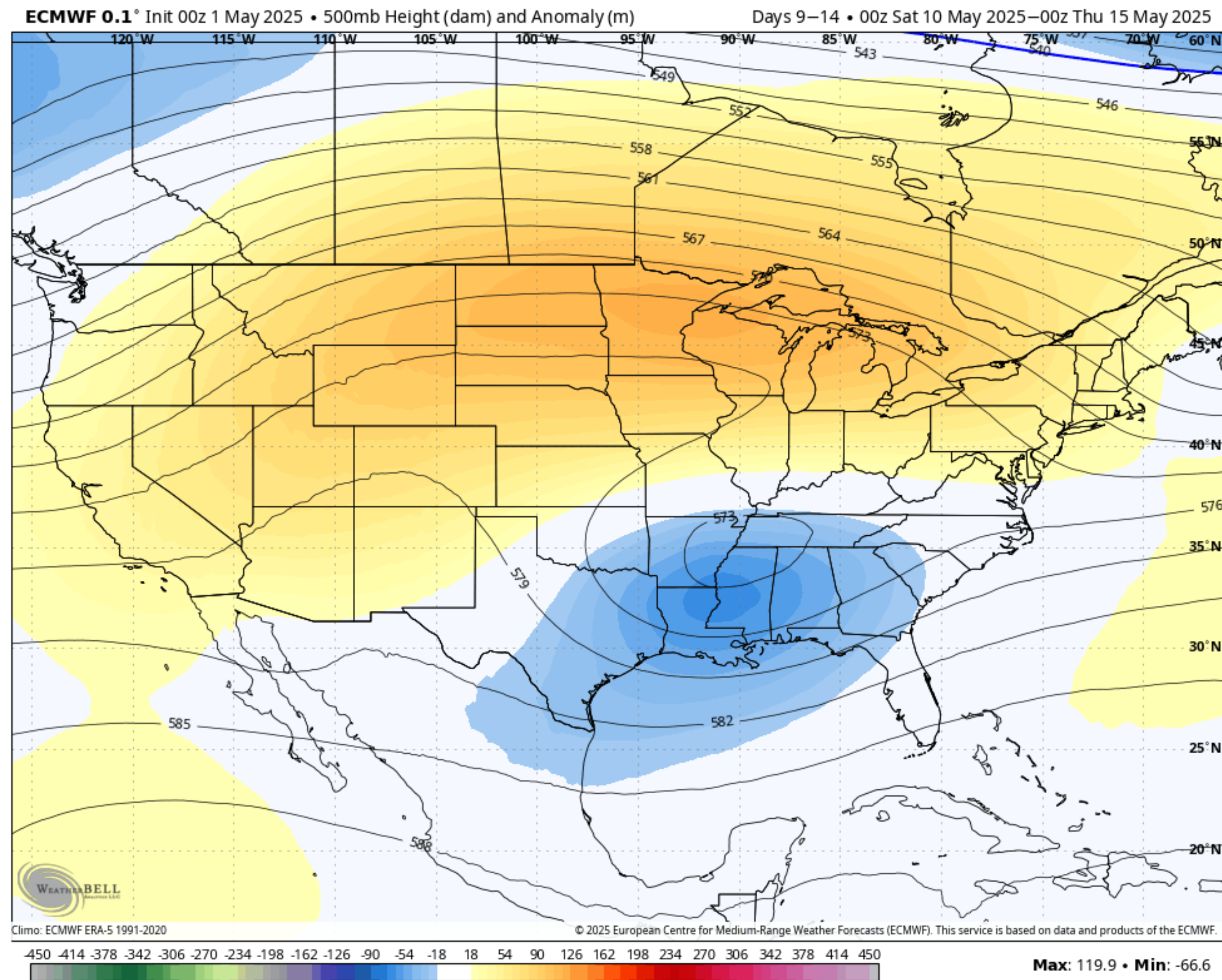






# May 5-10 Upper Level Anomalies





# May 10-15 Upper Level Anomalies

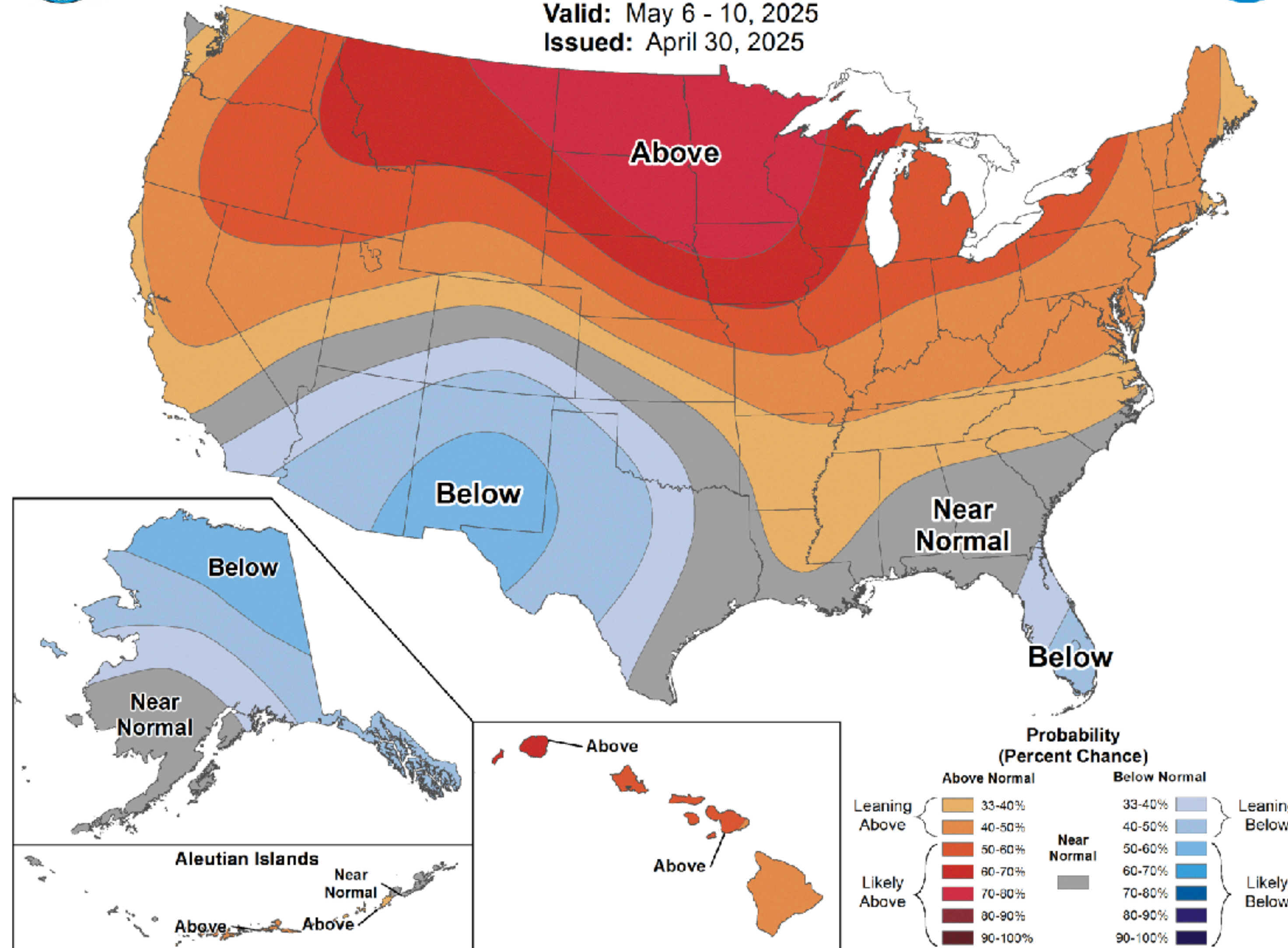




# 6-10 Day Temperature Outlook



Valid: May 6 - 10, 2025  
Issued: April 30, 2025



## 6-10 Day Outlook

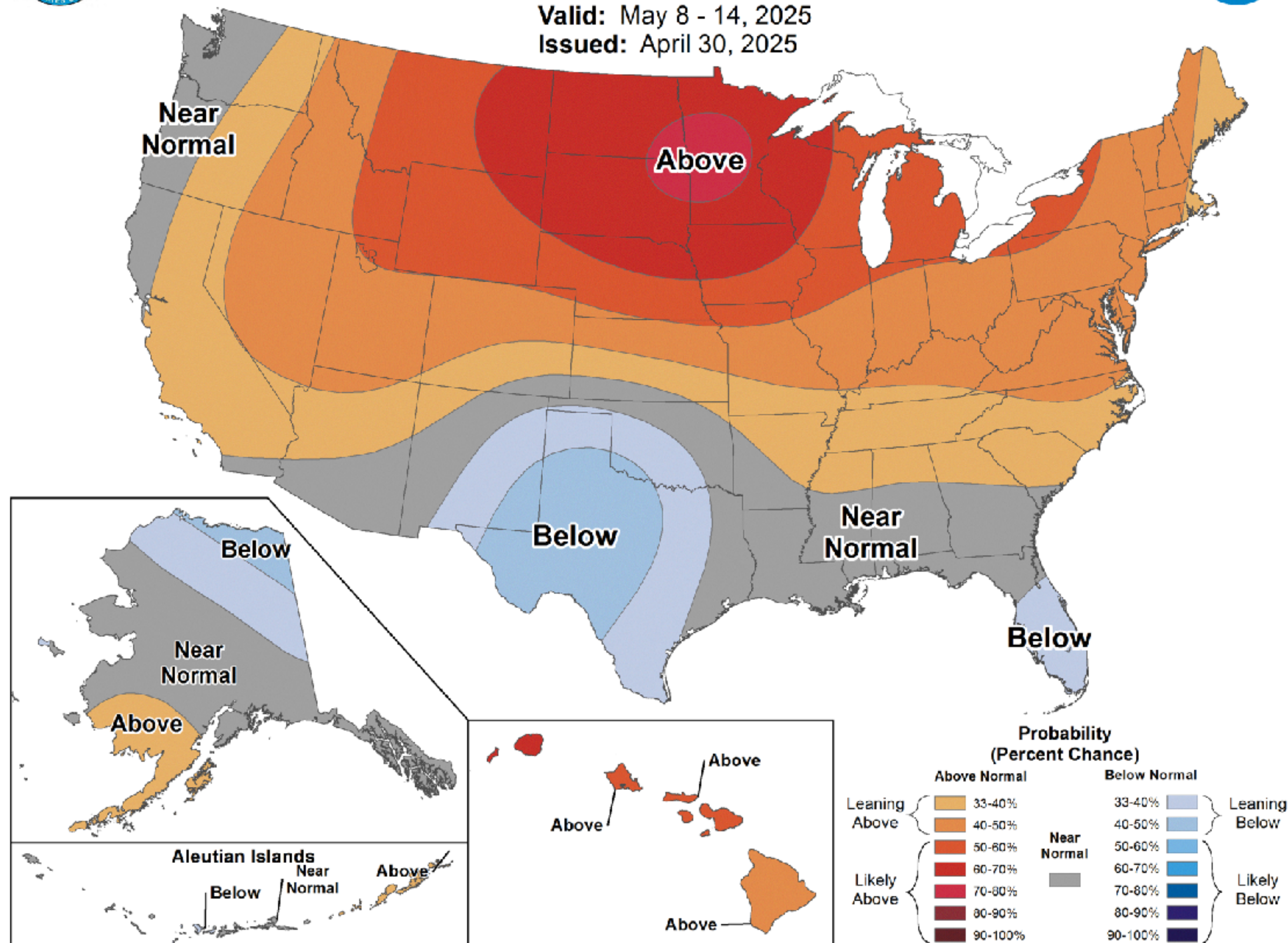




# 8-14 Day Temperature Outlook



Valid: May 8 - 14, 2025  
Issued: April 30, 2025



## 8-14 Day Outlook

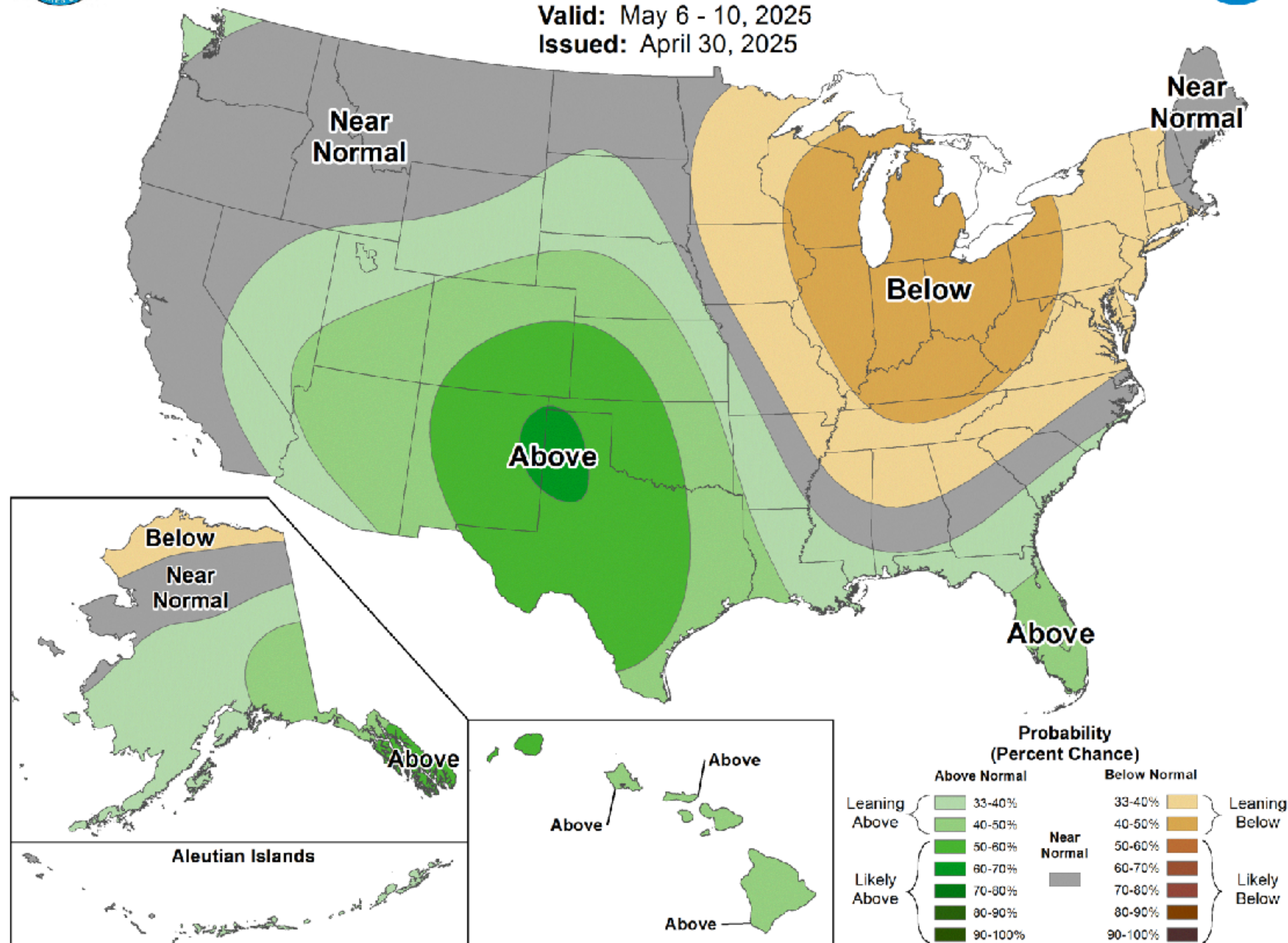




# 6-10 Day Precipitation Outlook



Valid: May 6 - 10, 2025  
Issued: April 30, 2025



## 6-10 Day Outlook

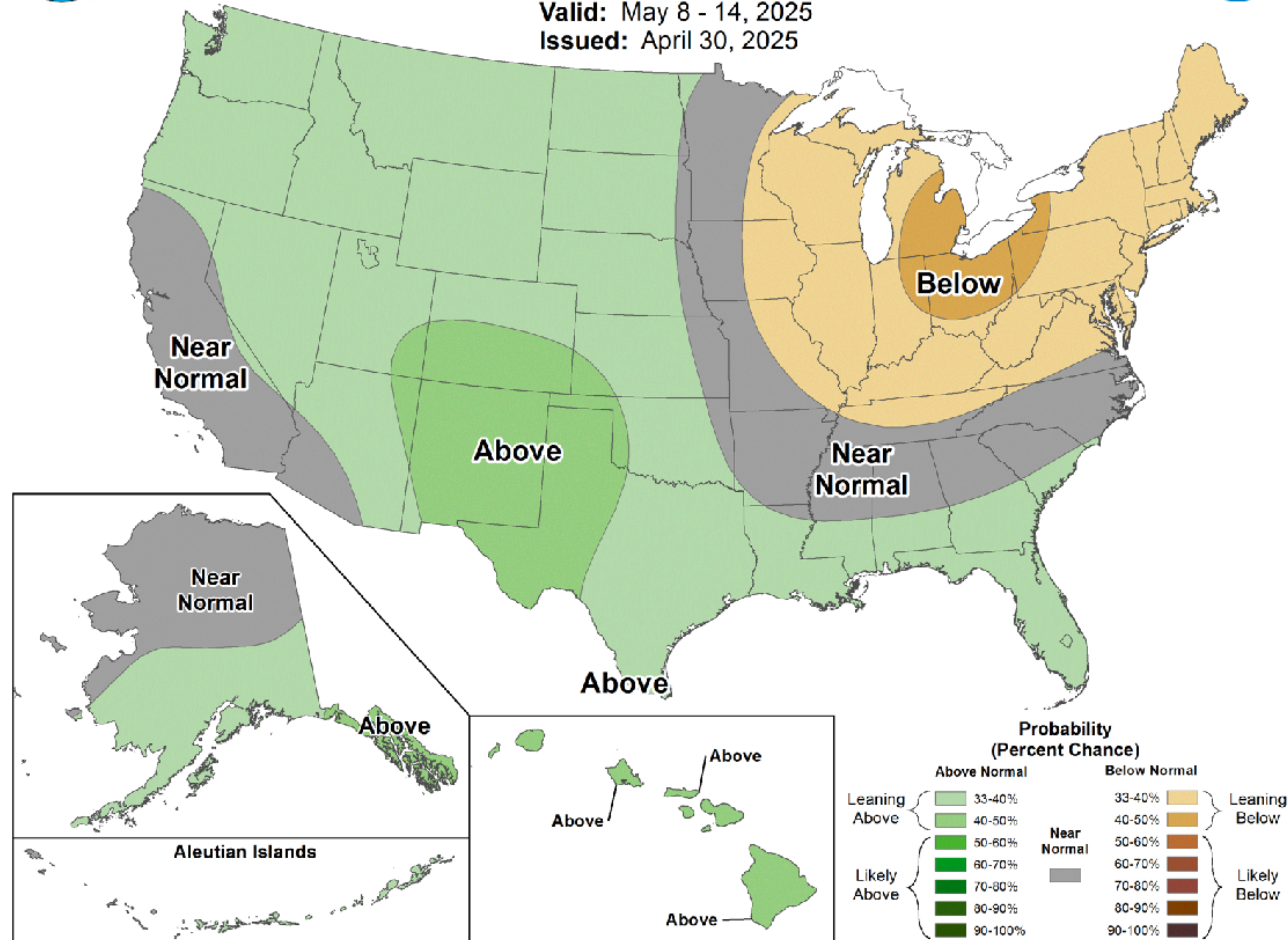




# 8-14 Day Precipitation Outlook



Valid: May 8 - 14, 2025  
Issued: April 30, 2025



## 8-14 Day Outlook



# Summary







# Warming Trend



Warming Trend

Drying Off: Planting in Full Gear



Warming Trend

Drying Off: Planting in Full Gear

Last Freeze of the Season Behind Us?



Warming Trend

Drying Off: Planting in Full Gear

Last Freeze of the Season Behind Us?

Dry Areas Probably Staying Dry



Warming Trend

Drying Off: Planting in Full Gear

Last Freeze of the Season Behind Us?

Dry Areas Probably Staying Dry

Drought Conditions: Changes in the West Possible