MAC-T Monthly Call

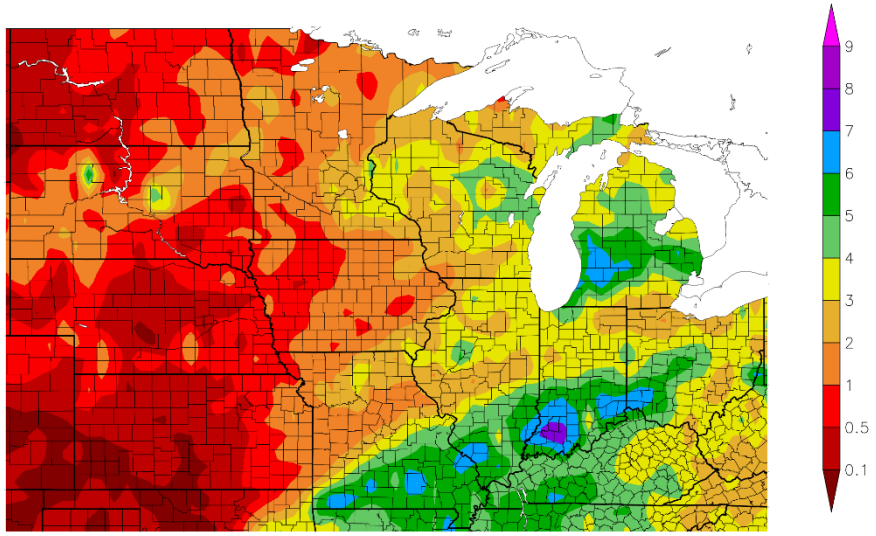
Midwest Agriculture and Climate Team

April 12, 2023

For more information:
Dennis.todey@usda.gov

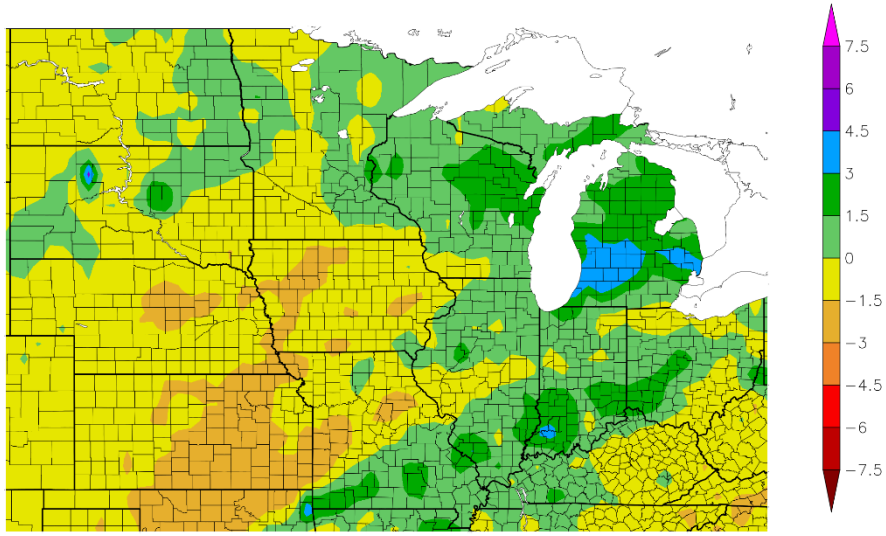
USDA Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

Precipitation (in)
3/12/2023 – 4/10/2023



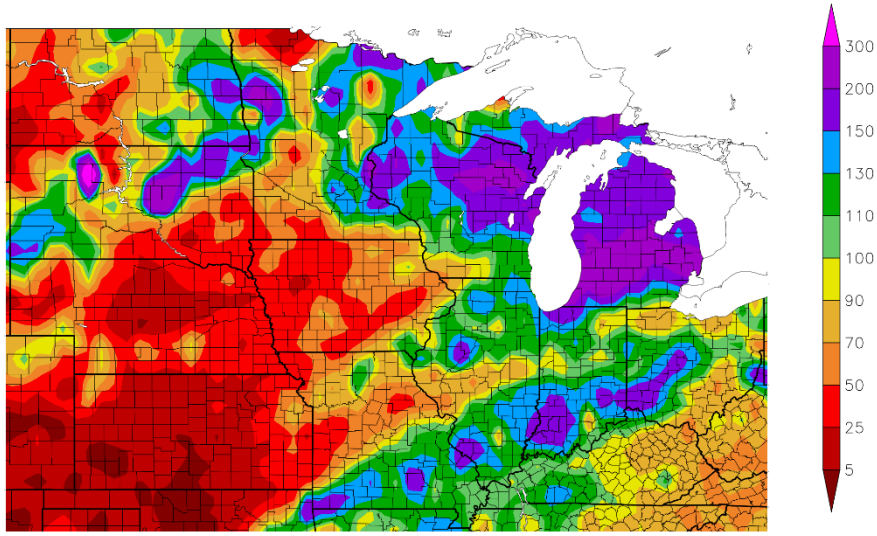
Generated 4/11/2023 at HPRCC using provisional data. NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
3/12/2023 – 4/10/2023



Generated 4/11/2023 at HPRCC using provisional data. NOAA Regional Climate Centers

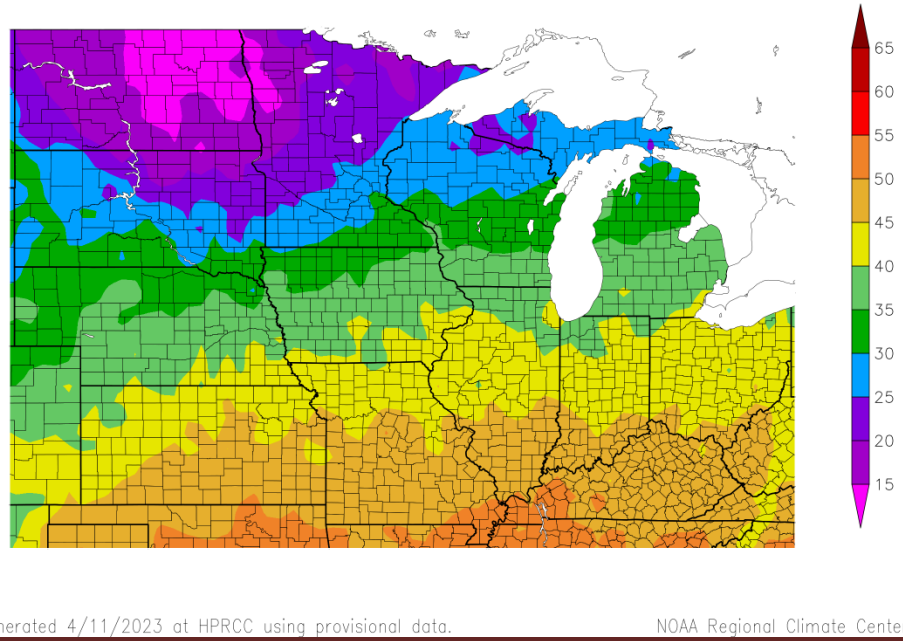
Percent of Normal Precipitation (%)
3/12/2023 – 4/10/2023

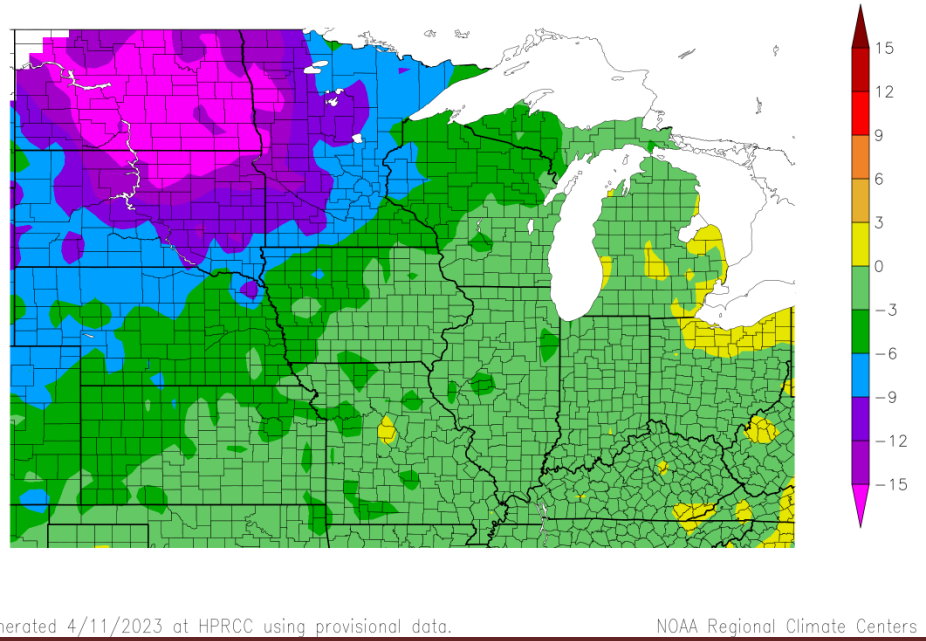


Generated 4/11/2023 at HPRCC using provisional data. NOAA Regional Climate Centers

- Mostly drier than average west/more wet east.
- 150-200% average around Great Lakes
- Less than 50% average much of IA-NE-KS

https://hprcc.unl.edu/maps.php?map=ACISClimateMaps



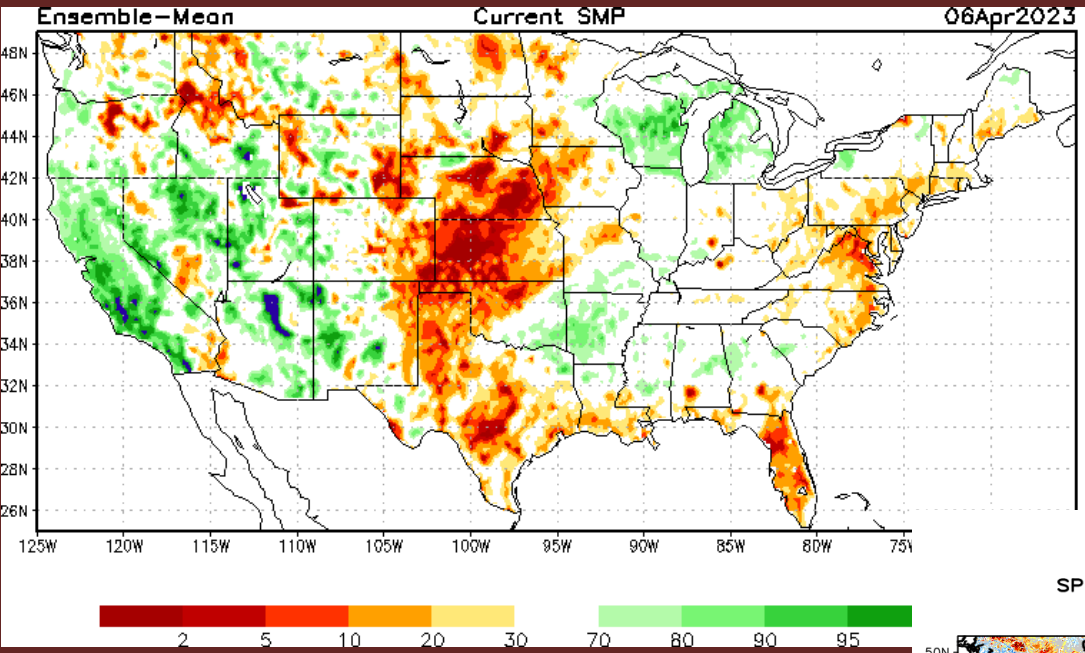


- Very cool still north with heavy snow pack
- 12-15 F below average
- Cooler than average whole region but only a couple degree below.

https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

Soil Moisture

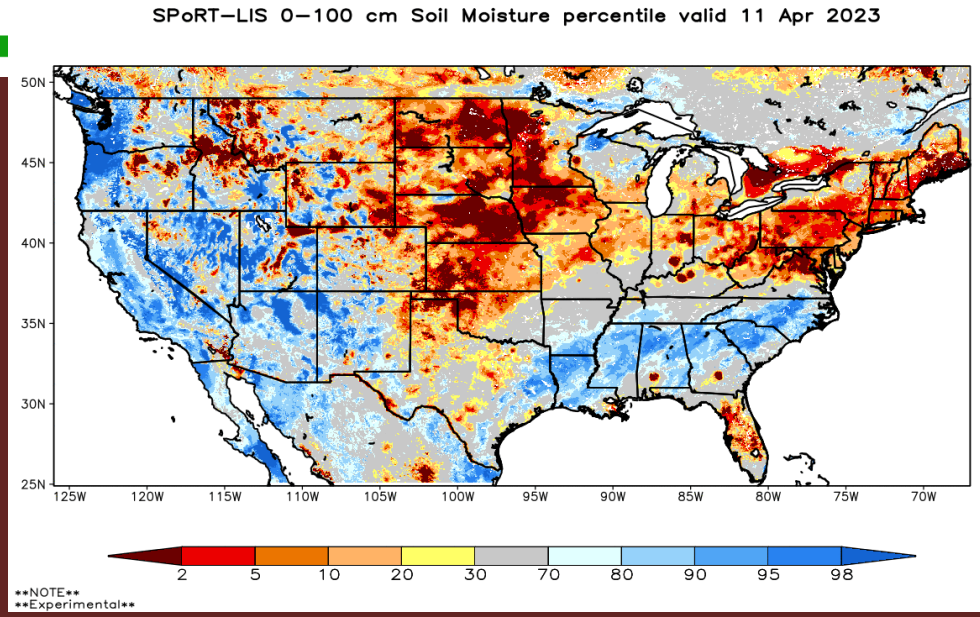
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml#



- Still very dry soils Plains into parts of MO-IA-MN
- Closer to average/wet east.
- NASA-SPoRT still seems a bit out to lunch.
- Soils still a question under big snow areas – unclear how much moisture entered soils.

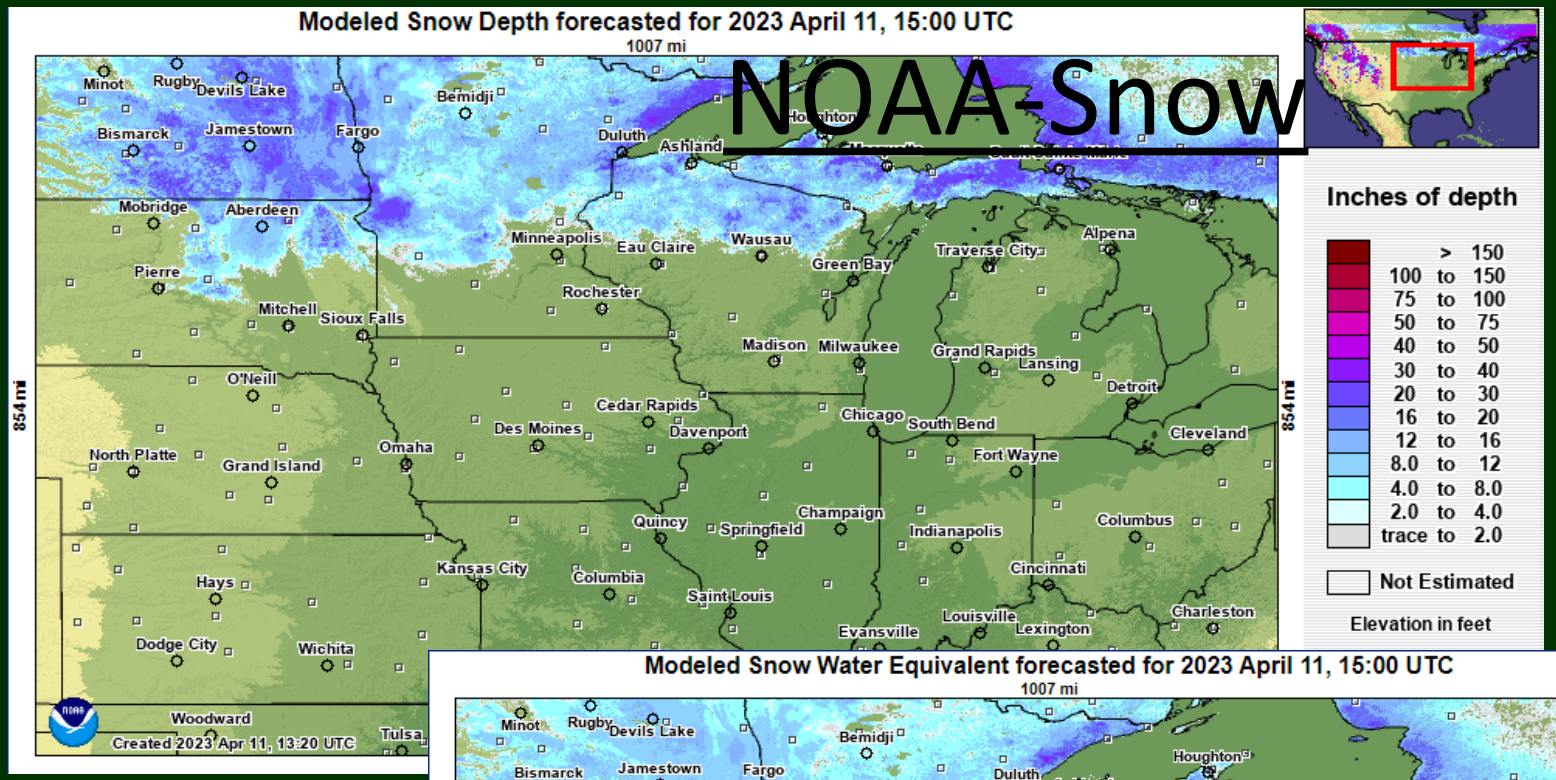
Both percentile maps

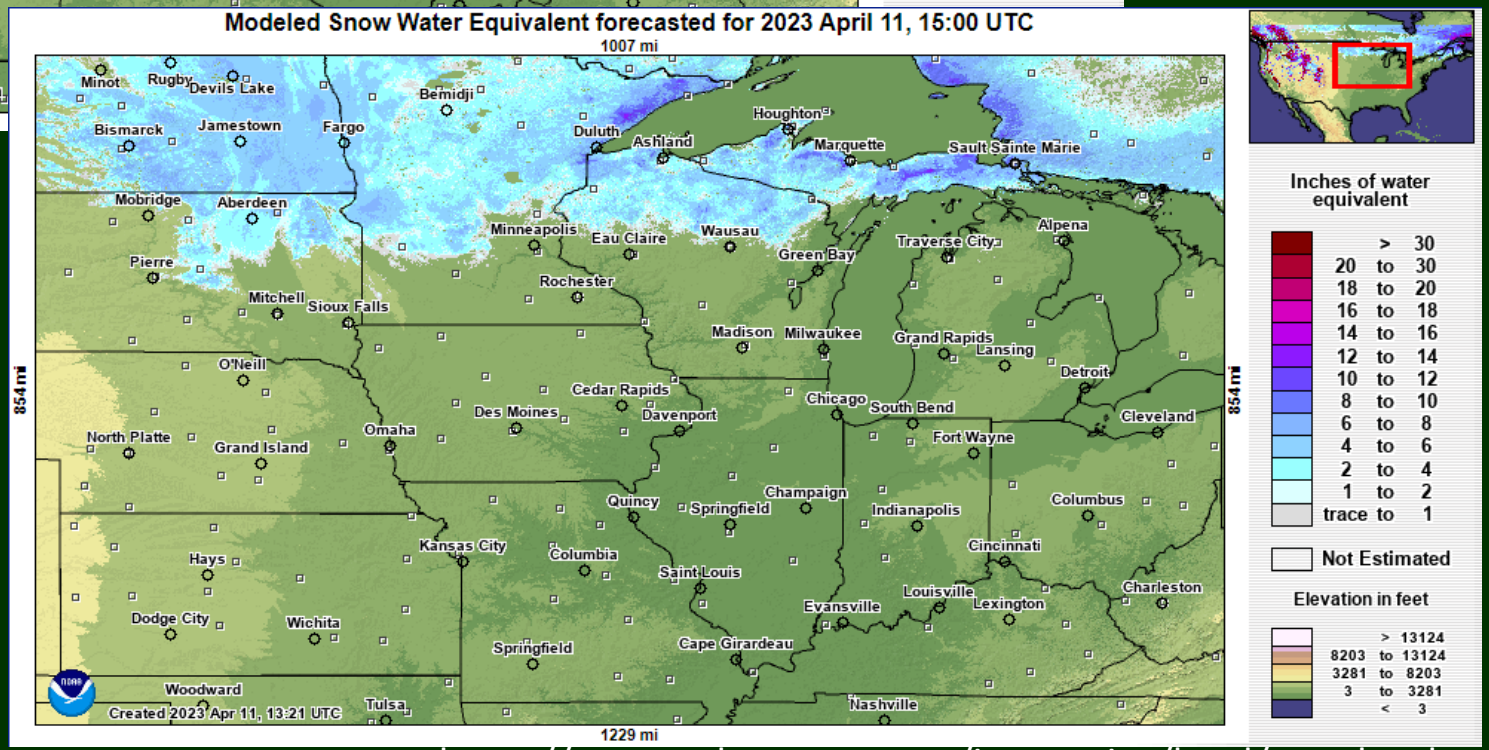
- Upper – whole profile
- Lower – top 100 cm (~40”)



https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html

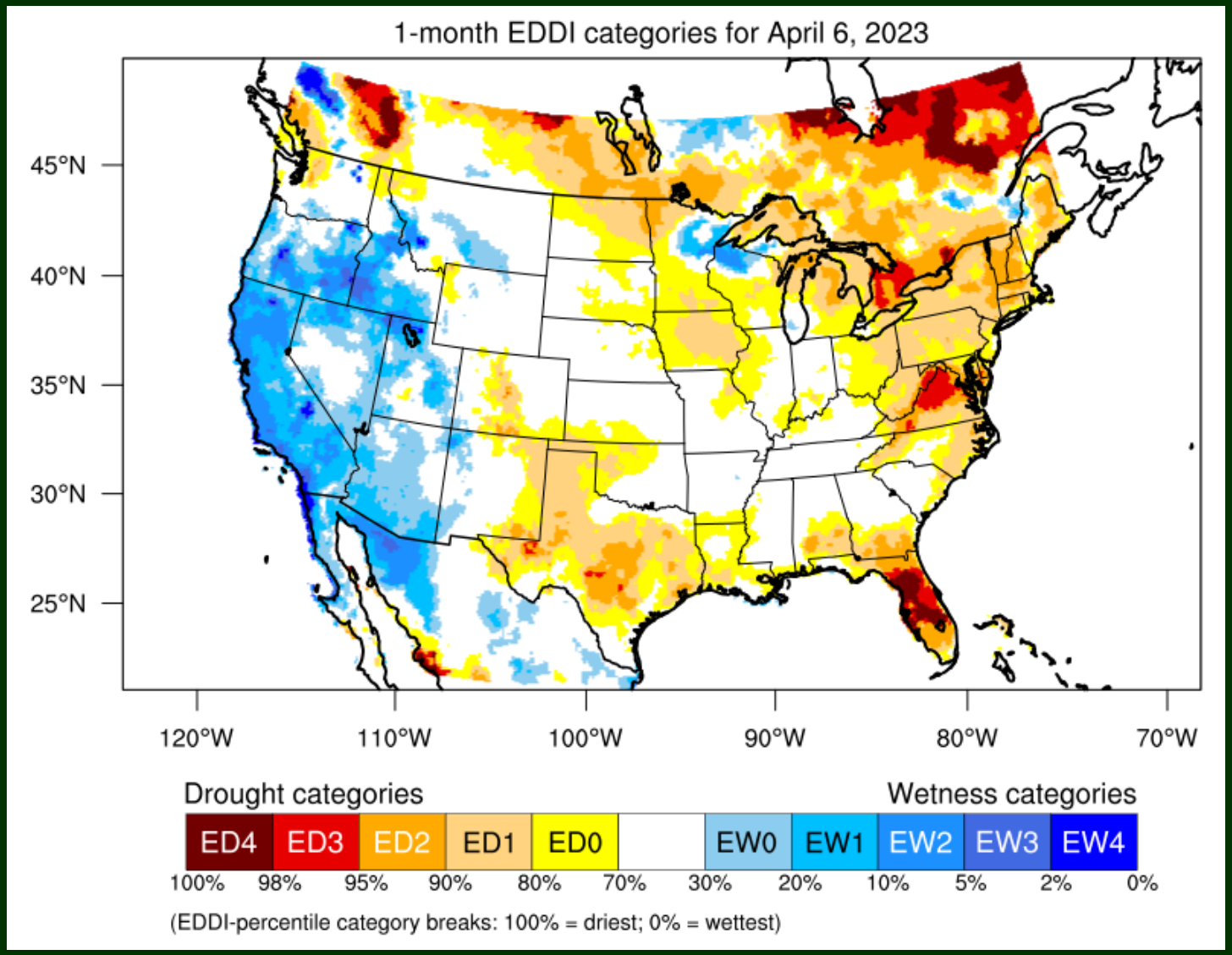
NOAA-Snow





https://www.nohrsc.noaa.gov/interactive/html/map.html

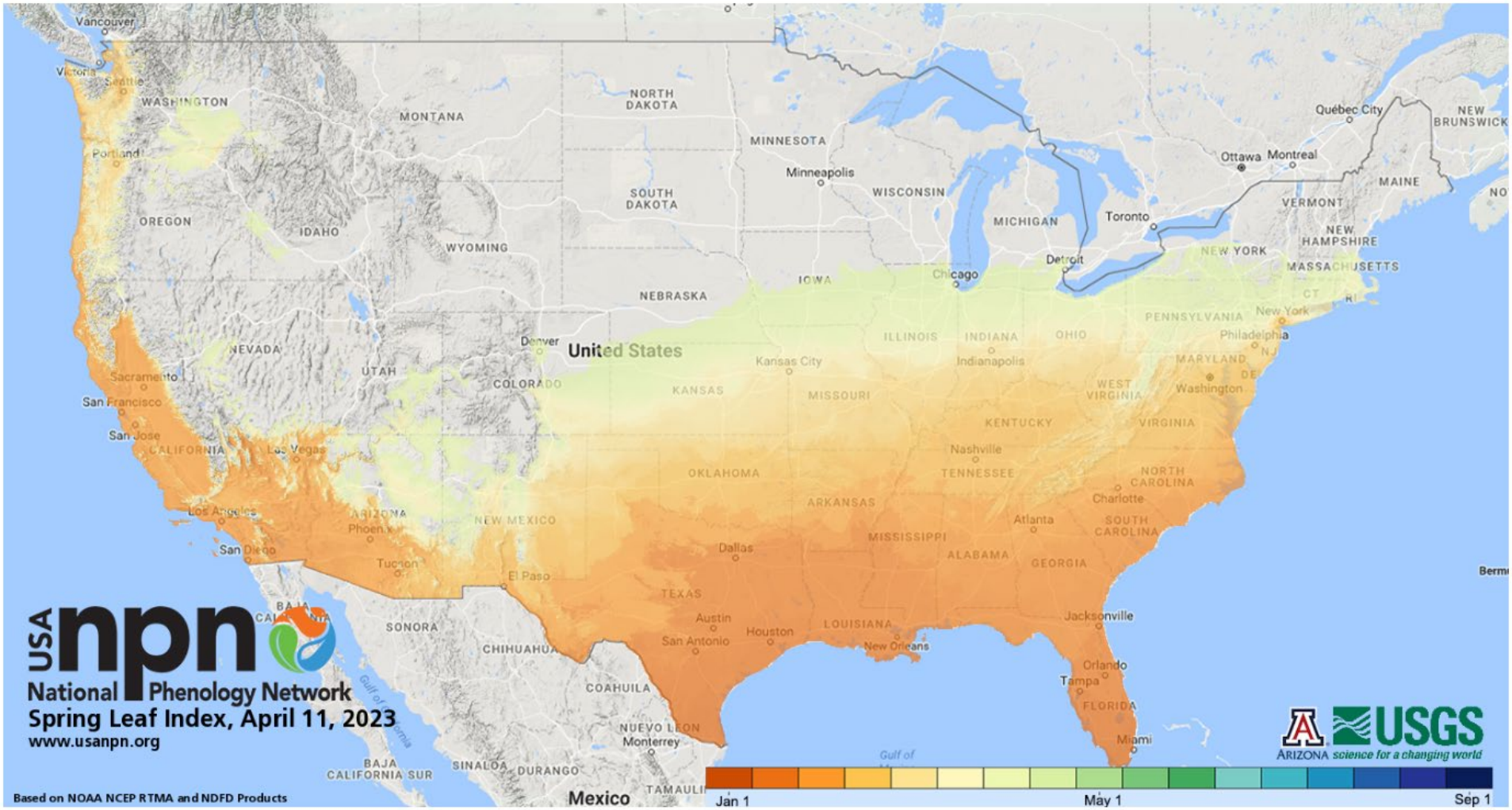
ET Estimates-EDDI



- Higher than average ET rates continue despite cool conditions.

https://psl.noaa.gov/eddi/#current_conditions

Status of Spring



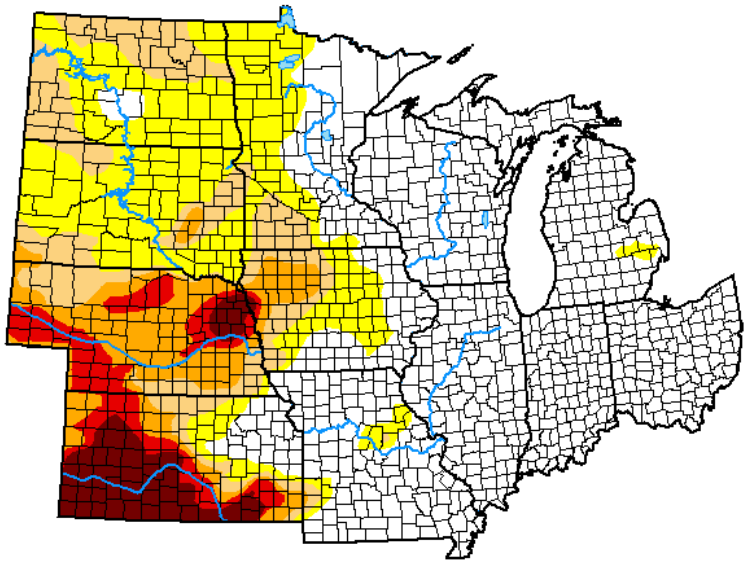
- Early “spring” by several weeks.
- Many plants at risk for freeze.

https://psl.noaa.gov/eddi/#current_conditions

Drought in the Midwest

U.S. Drought Monitor

North Central States



April 4, 2023

(Released Thursday, Apr. 6, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	50.91	49.09	27.71	16.49	9.03	4.59
Last Week 03-28-2023	51.47	48.53	29.97	16.63	9.03	4.45
3 Months Ago 01-03-2023	23.51	76.49	51.22	24.39	11.79	5.25
Start of Calendar Year 01-03-2023	23.51	76.49	51.22	24.39	11.79	5.25
Start of Water Year 09-27-2022	32.06	67.94	43.99	21.51	9.92	4.04
One Year Ago 04-05-2022	52.40	47.60	33.04	17.92	1.87	0.20

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 https://droughtmonitor.unl.edu/About.aspx

Author:

David Simeral

Western Regional Climate Center

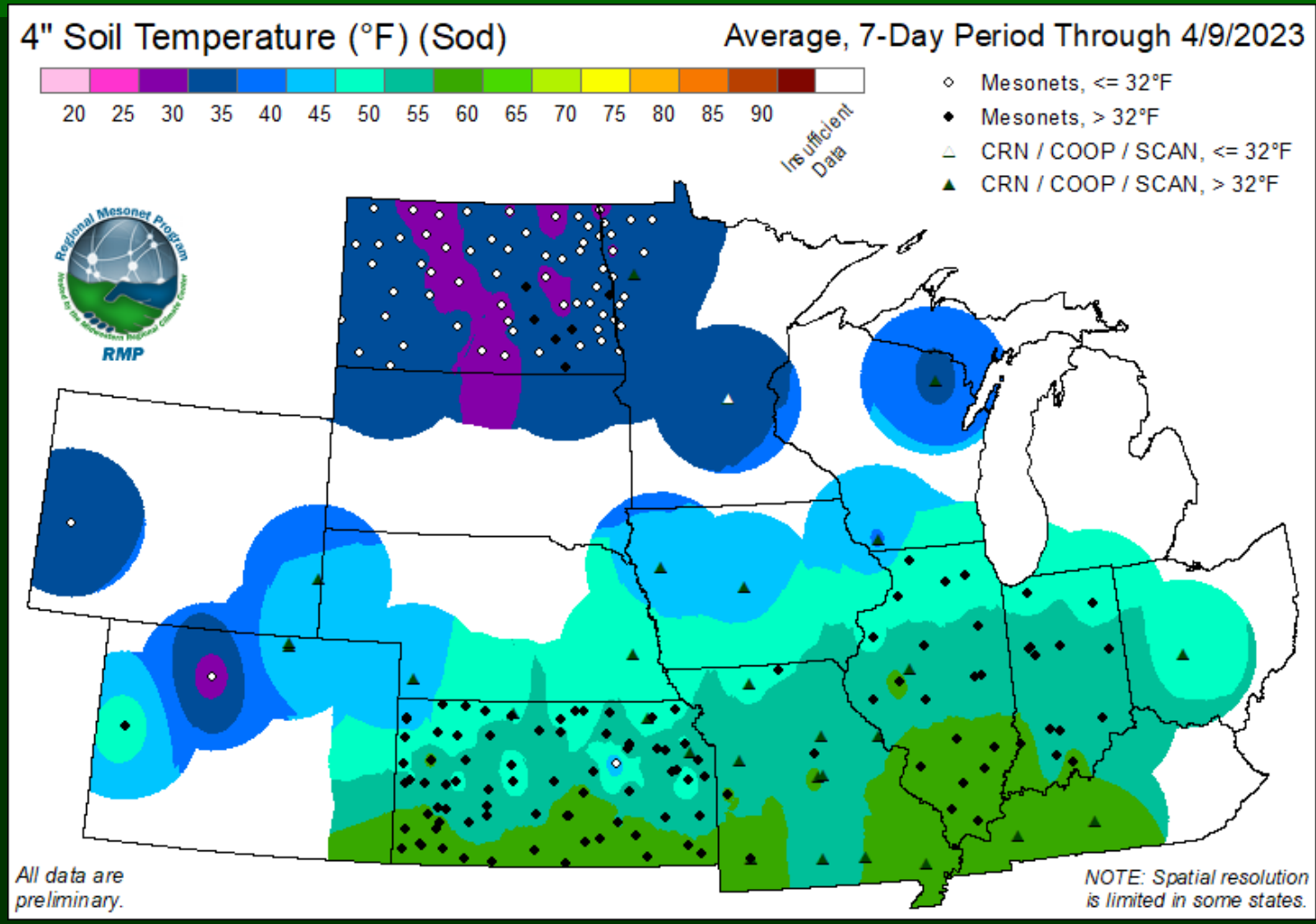
droughtmonitor.unl.edu

- 49% coverage with D0 or more. 28% in drought (D1+).
- Worst over Plains with persistent areas of D3-D4

http://droughtmonitor.unl.edu/

Soil Temperatures

Frozen soils (4”) still in northern areas.



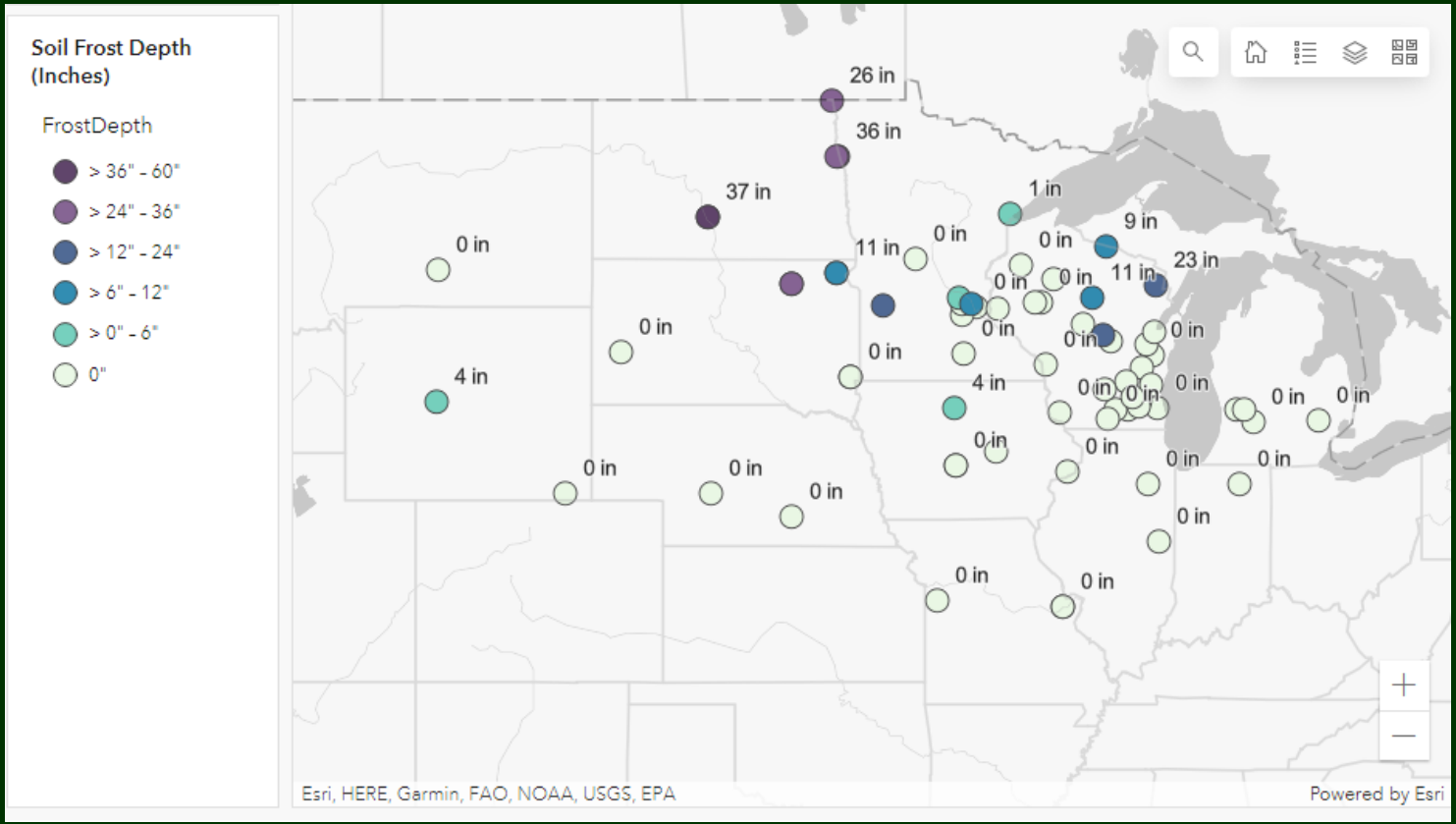
https://mrcc.purdue.edu/RMP/currentMaps.html

Frost Depth

Frozen soils (to some depth) still in northern areas.

Fairly deep in Plains.

Planting Mid-April



https://www.weather.gov/ncrfc/LMI_FrostDepthMap

Assorted AG Issues

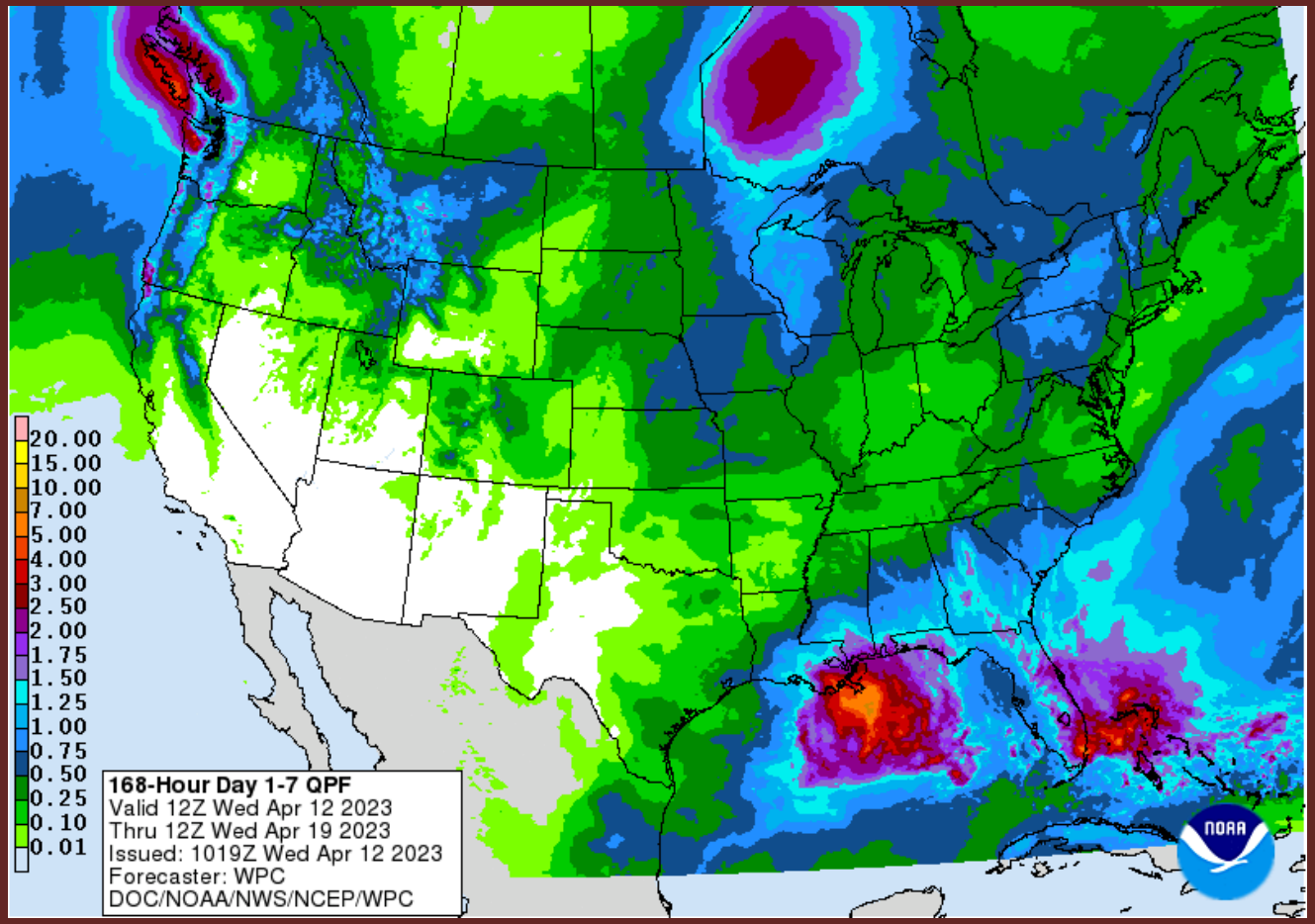
- Dry soils persist west.
- Soils becoming wet (possibly too wet) in east
- Frozen northern areas – questions on soil moisture recovery
- Very quick snow melt.

- Field work and planting rolling

- Winter wheat very poor conditions part of Plains (KS).

- Flooding coming north in chronic place. Questioning how delayed planting could be.

1-7 Day Precip



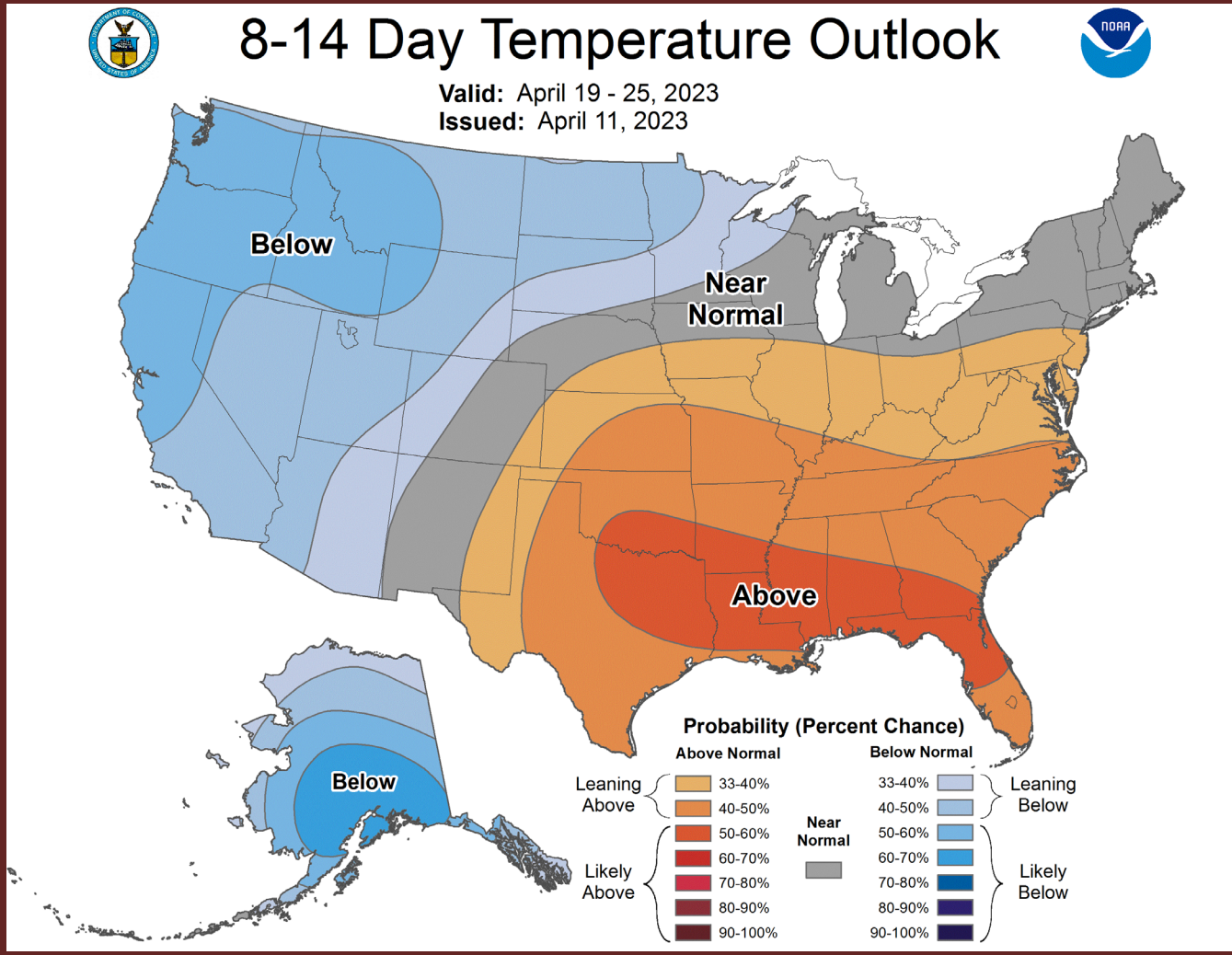
Next 7 days

- Brief cool period over weekend then recovery.
- Showers widespread – don't seem heavy.

http://www.wpc.ncep.noaa.gov/qpf/day1-7.shtml

Temperature Outlook

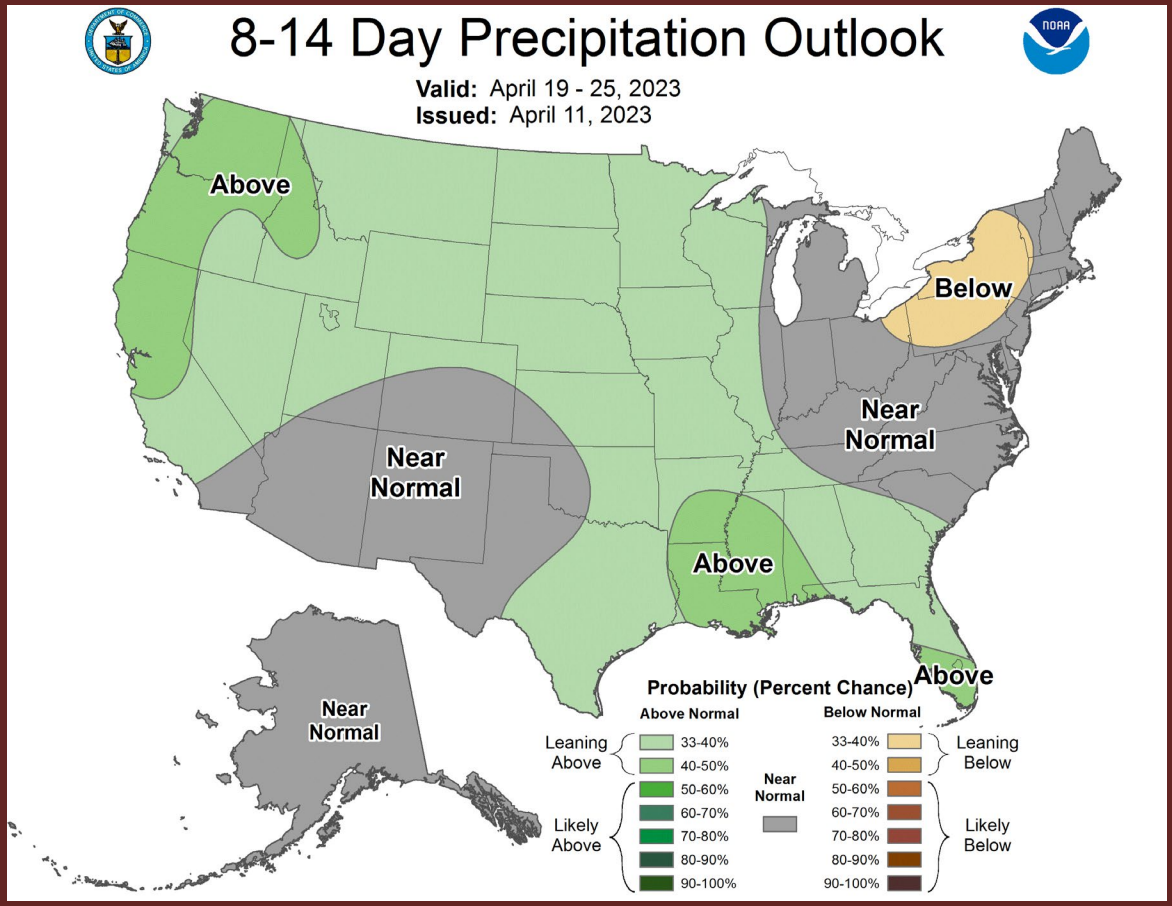
- Better chance for warm southeast next week
- Better chance cool NW



http://www.cpc.ncep.noaa.gov/

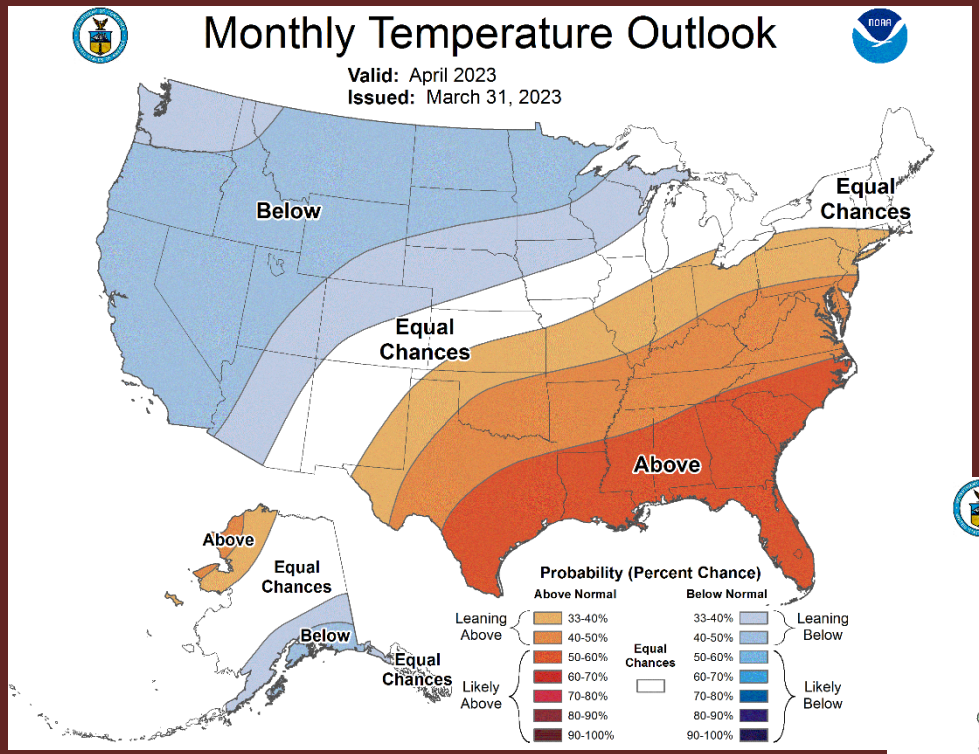
Precipitation Outlook

- Slight chance wetter much of area.
- Very limited chance, though.



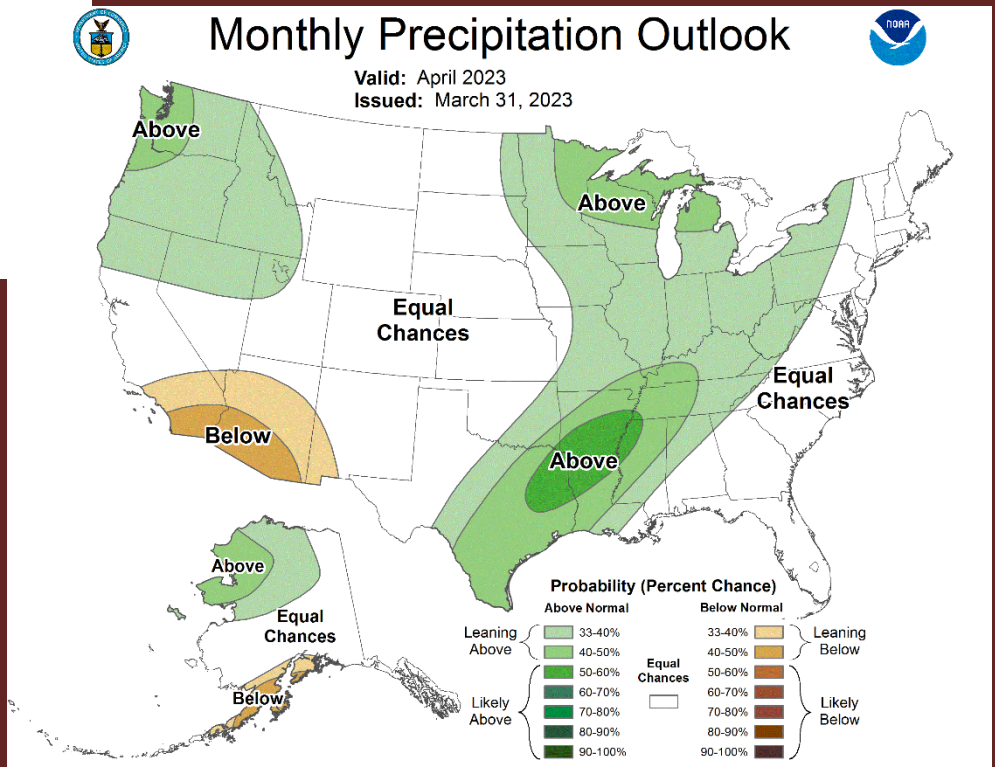
http://www.cpc.ncep.noaa.gov/

1-Month Outlook



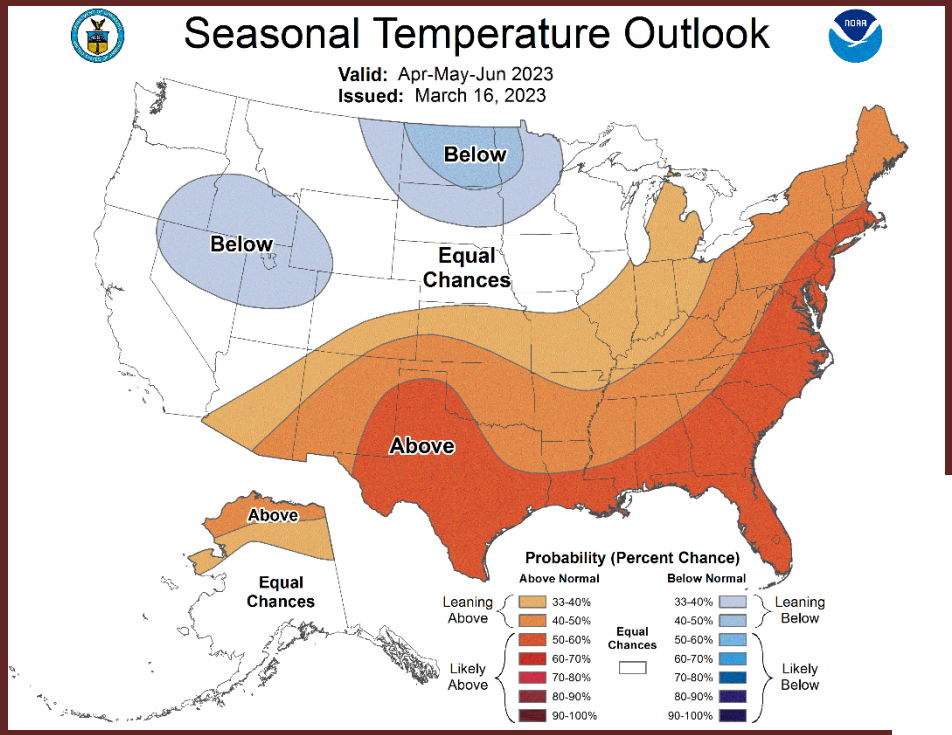
April Monthly Outlook

- Better chance cooler nrn Plains-warmer Ohio Valley
- Wetter more likely Ohio Valley and Great Lakes (again mostly small chance).

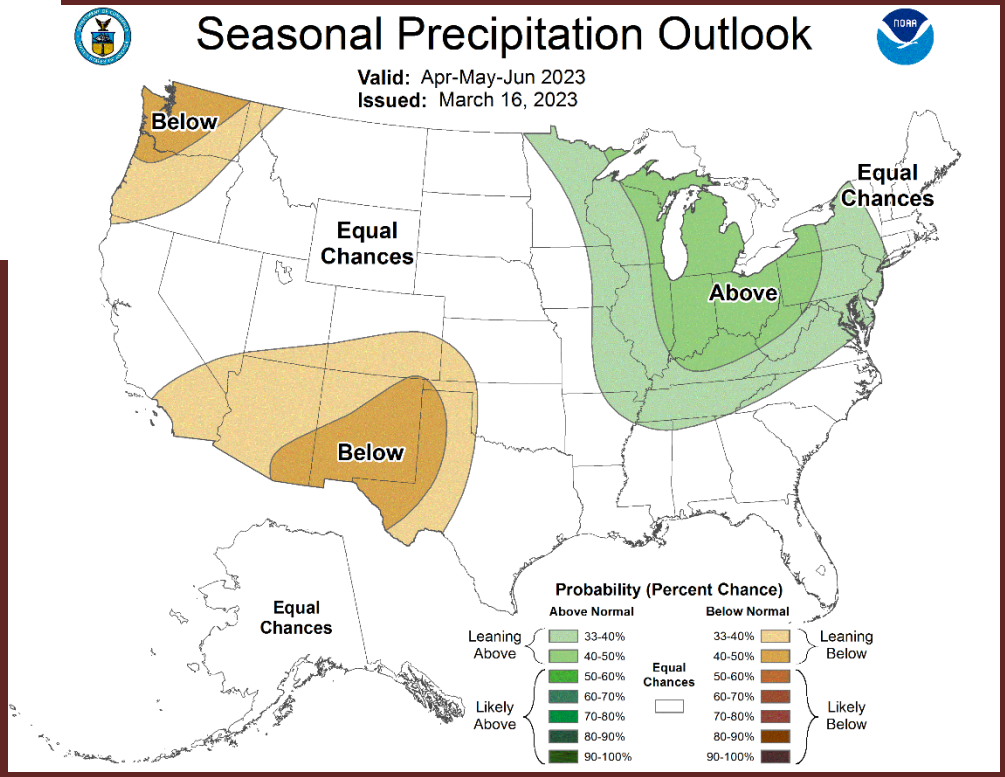


http://www.cpc.ncep.noaa.gov/

March-May Outlook



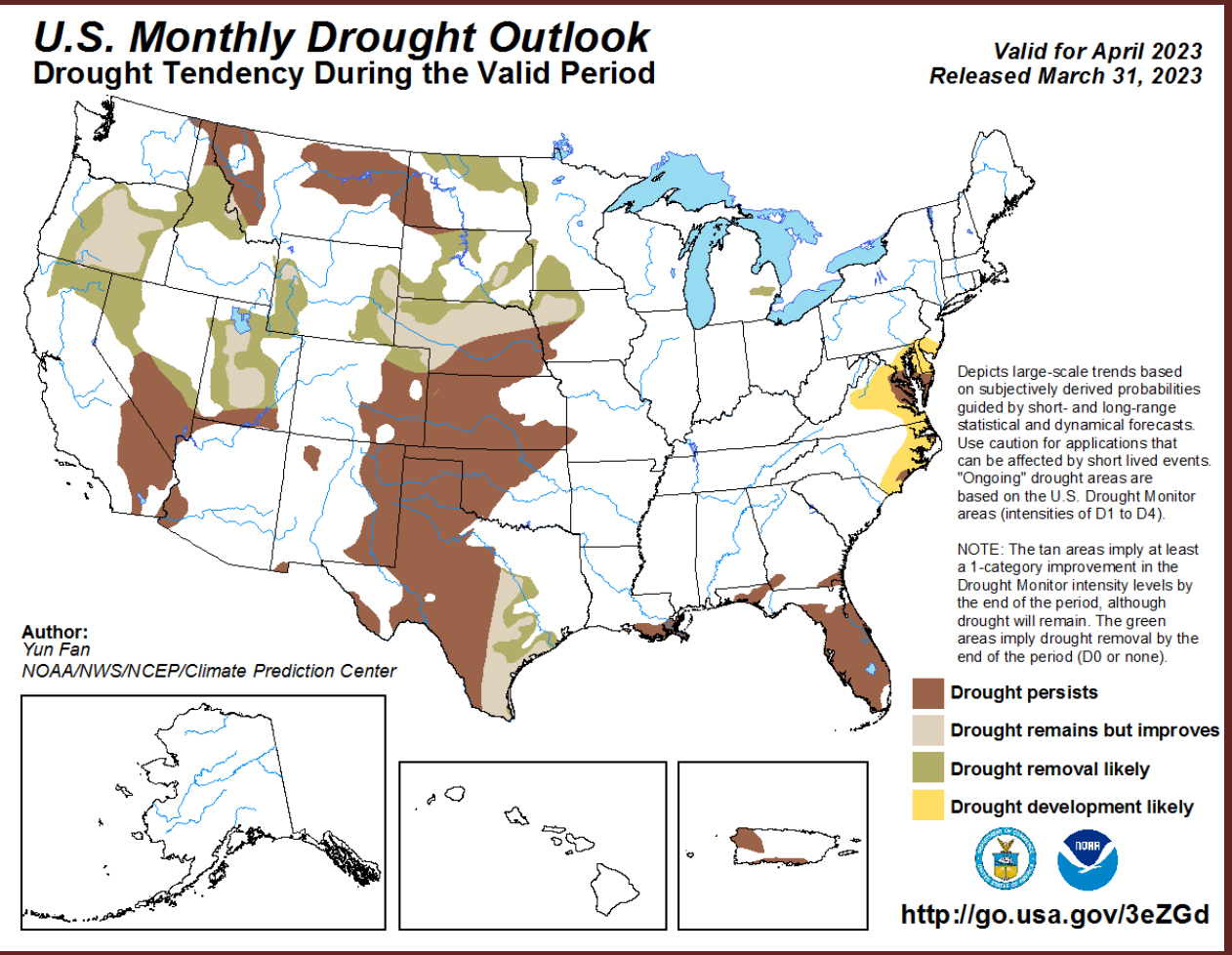
- La Niña gone. Watching transition to El Niño
- Outlook more based on trend and surface conditions



- Drought in Plains likely to remain – but some improvement.

http://www.cpc.ncep.noaa.gov/

Drought in the Midwest/Plains



- Spring 2023 drought outlook – expecting some improvement just by typical spring precipitation.
- Much persistence, though.

Summary

- Spring planting a little delayed southeast but starting all the way into central Corn Belt.
- Very dry soils west still a concern
- Rapid snow removal will lead to flooding along major rivers and lowland problems – question about widespread delays.
- Transition from La Nina should ease some drought concerns.
- Ongoing drought issues in Plains, though.

Next MAC-T Monthly Call

Next Call

May 3, 2023, 9-10am CT