

MAC-T Monthly Call

Midwest Agriculture and Climate Team

December 1, 2021

For more information:

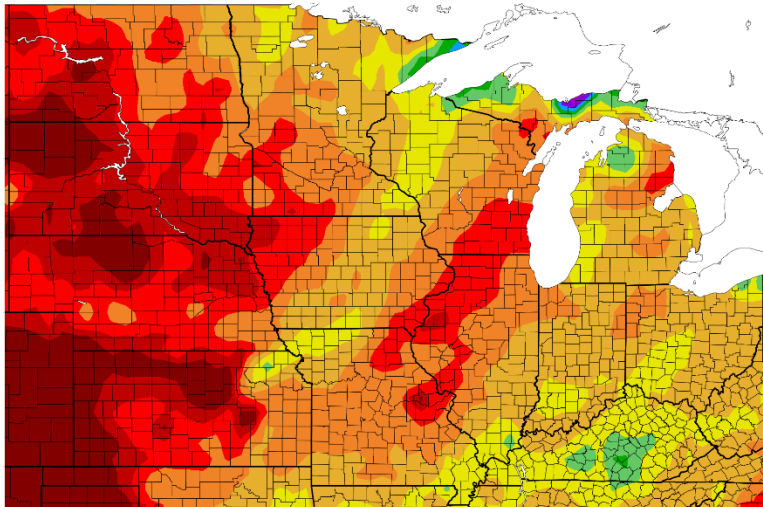
Dennis.todey@usda.gov



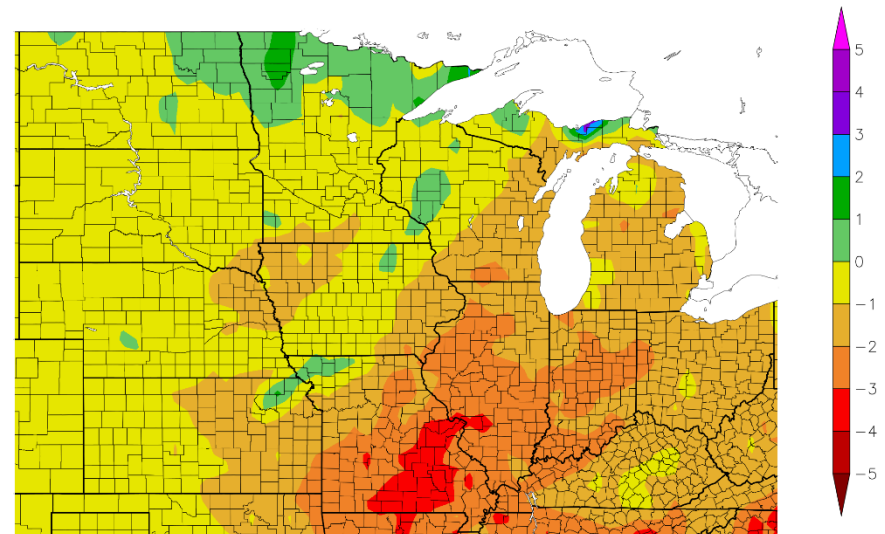
Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE



Precipitation (in)
10/31/2021 - 11/29/2021



Departure from Normal Precipitation (in)
10/31/2021 - 11/29/2021



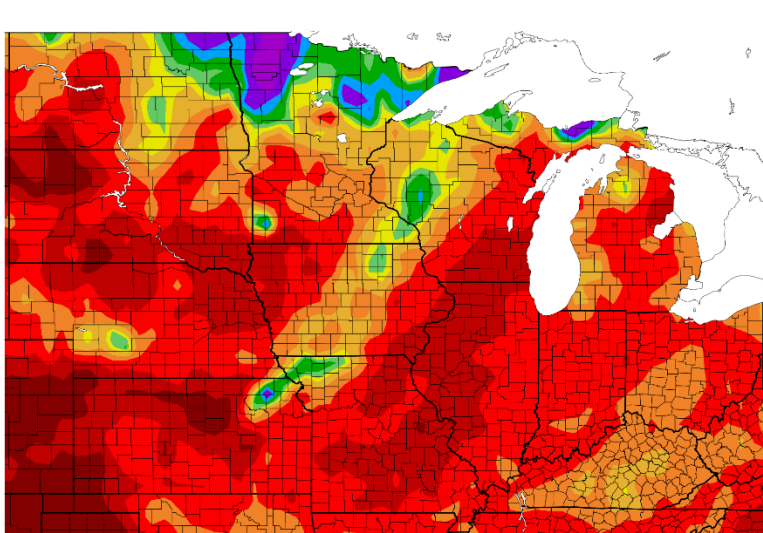
Generated 11/30/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

Generated 11/30/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
10/31/2021 - 11/29/2021

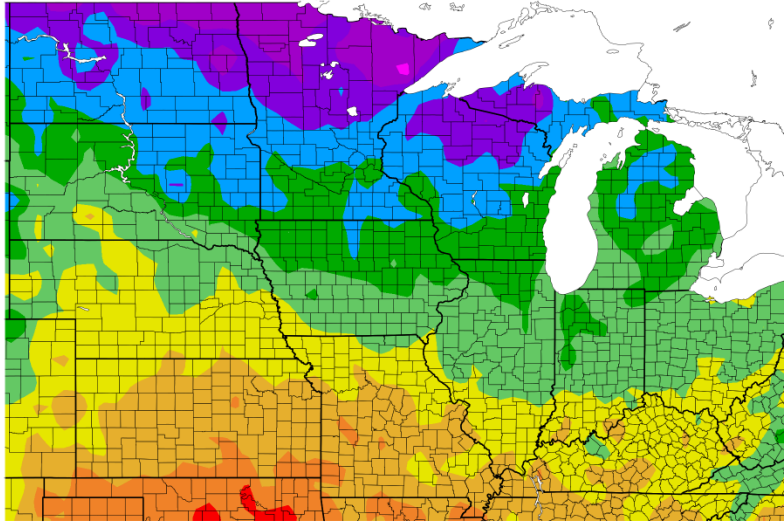


Generated 11/30/2021 at HPRCC using provisional data.

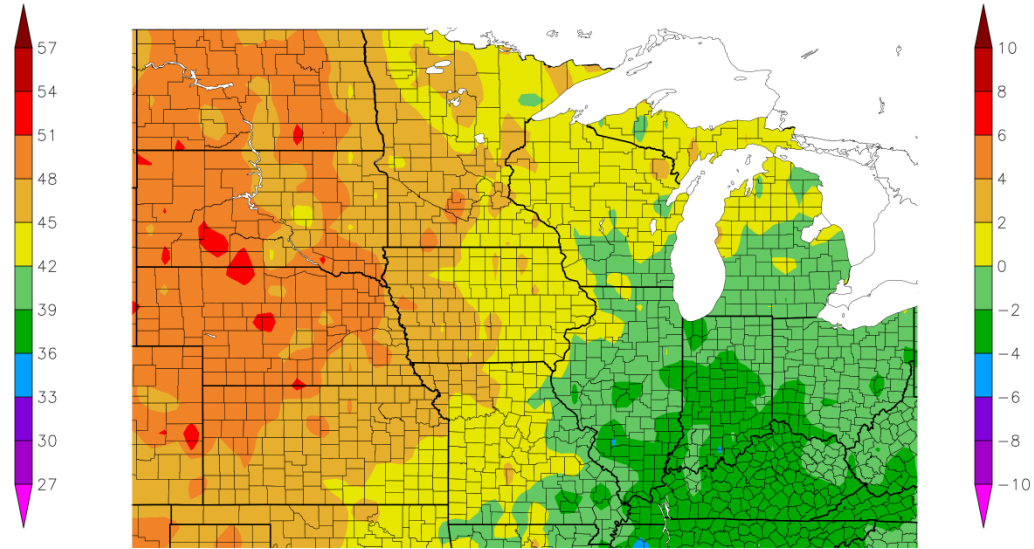
NOAA Regional Climate Centers

- After a wettish period in the early fall conditions have returned to mainly dry across the region.
- Some precipitation occurred from Missouri to Minnesota/Wisconsin
- Large parts of the region are below 50% of average with some even lower.

Temperature (F)
10/31/2021 - 11/29/2021



Departure from Normal Temperature (F)
10/31/2021 - 11/29/2021



Generated 11/30/2021 at HPRCC using provisional data.

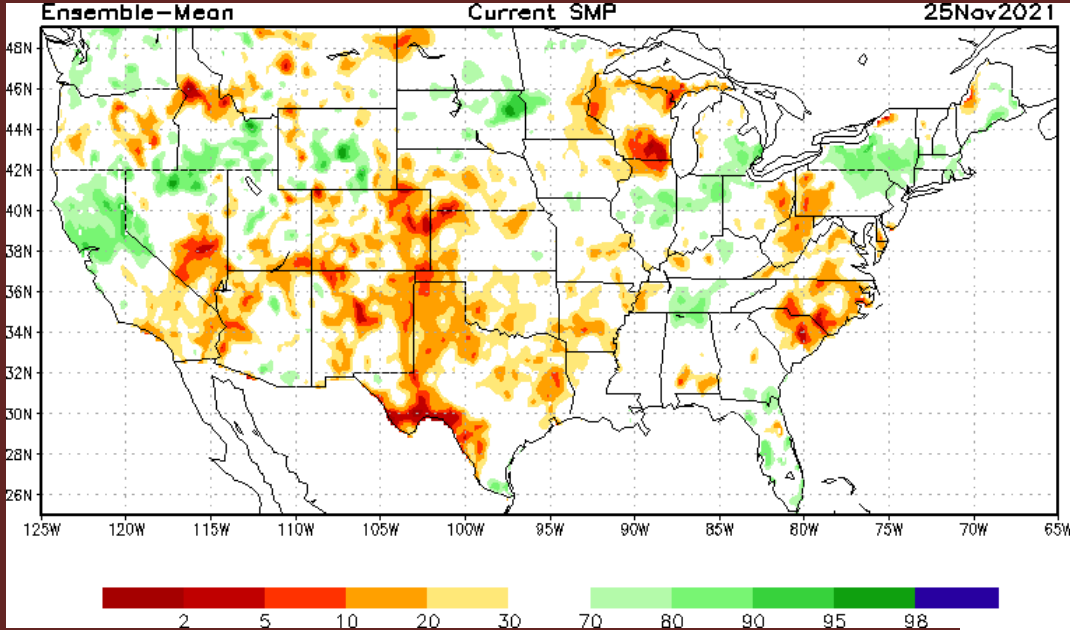
NOAA Regional Climate Centers Generated 11/30/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Warmer than normal across the west (2-6 F)
- Below average east (up to 4 F below)

Soil Moisture

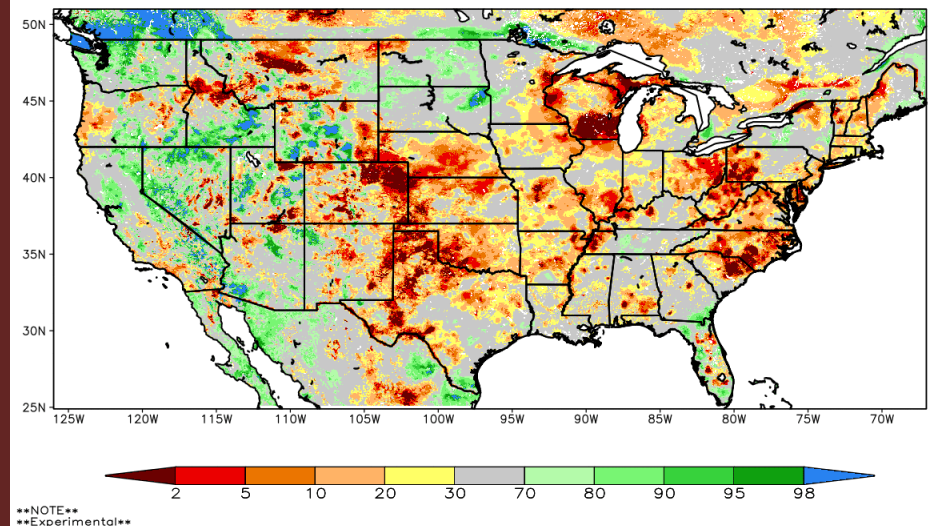
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml#



- The lack of precipitation increased soil dryness somewhat. But during a drier time of year, the impact is smaller.
- Pockets of soil dryness exist all across the region.

- Both percentile maps
- Upper – whole profile
- Lower – top 100 cm (~40")

SPoRT-LIS 0-100 cm Soil Moisture percentile valid 30 Nov 2021

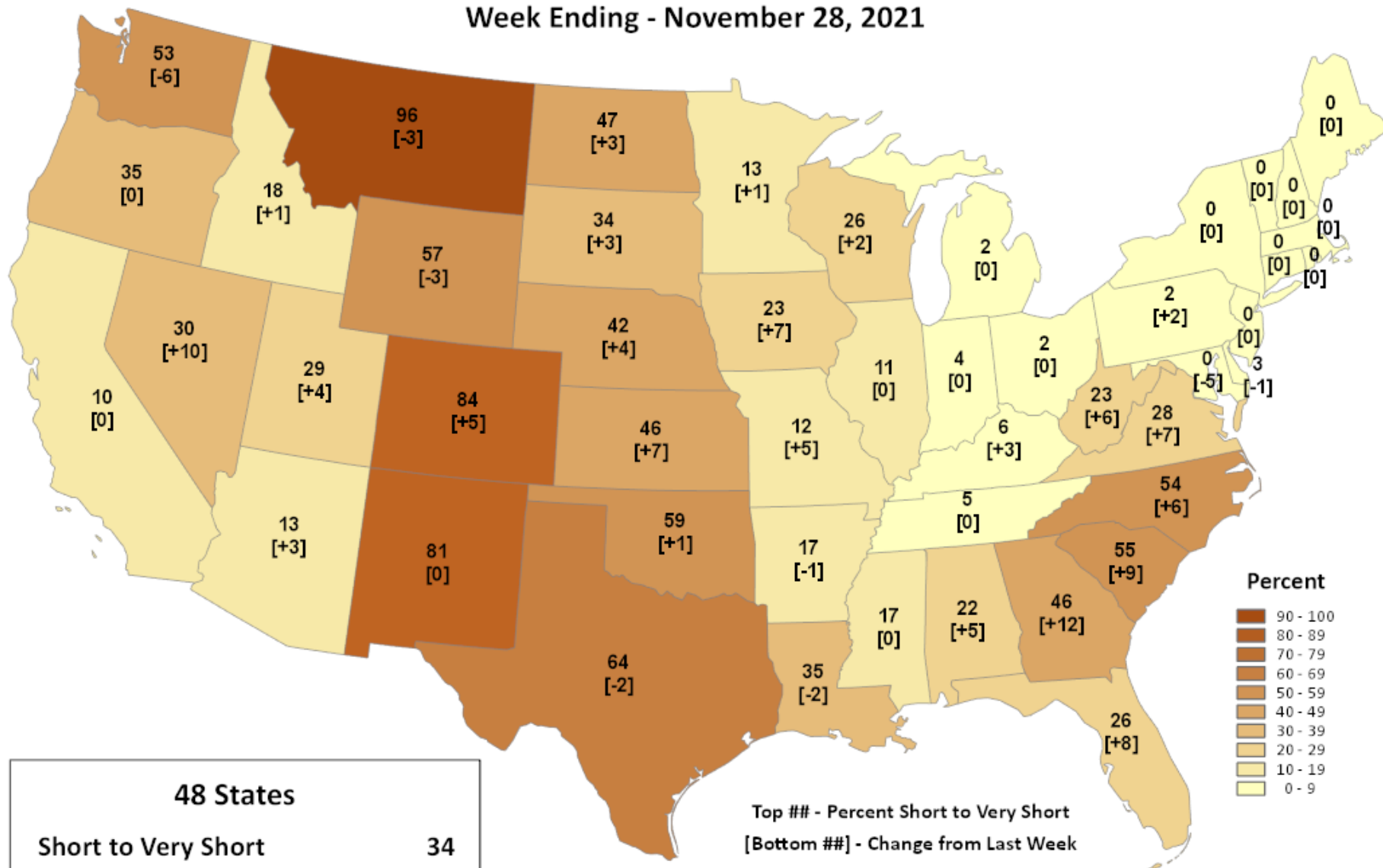


https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html

Topsoil Moisture

Percent Short to Very Short

Week Ending - November 28, 2021



48 States
Short to Very Short **34**
Change from Last Week **+2**

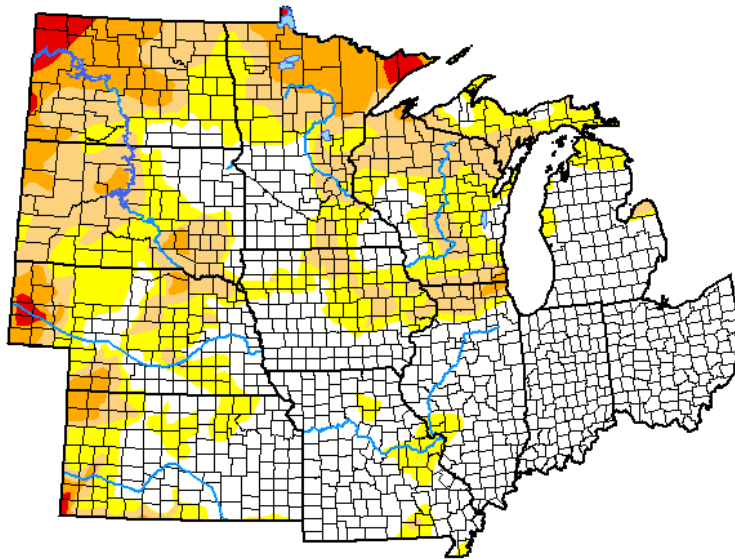
Top ## - Percent Short to Very Short
[Bottom ##] - Change from Last Week

Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Drought in the Midwest

U.S. Drought Monitor North Central States

November 23, 2021
(Released Wednesday, Nov. 24, 2021)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	49.50	50.50	28.44	10.00	1.46	0.00
Last Week <i>11-16-2021</i>	51.08	48.92	28.10	9.79	1.39	0.00
3 Months Ago <i>08-24-2021</i>	39.55	60.45	42.82	30.39	16.74	2.12
Start of Calendar Year <i>12-29-2020</i>	34.48	65.52	38.13	15.29	4.66	0.00
Start of Water Year <i>09-28-2021</i>	39.88	60.12	38.68	24.50	9.27	0.04
One Year Ago <i>11-24-2020</i>	40.90	59.10	32.11	14.62	3.98	0.00

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:

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NCEI/NOAA



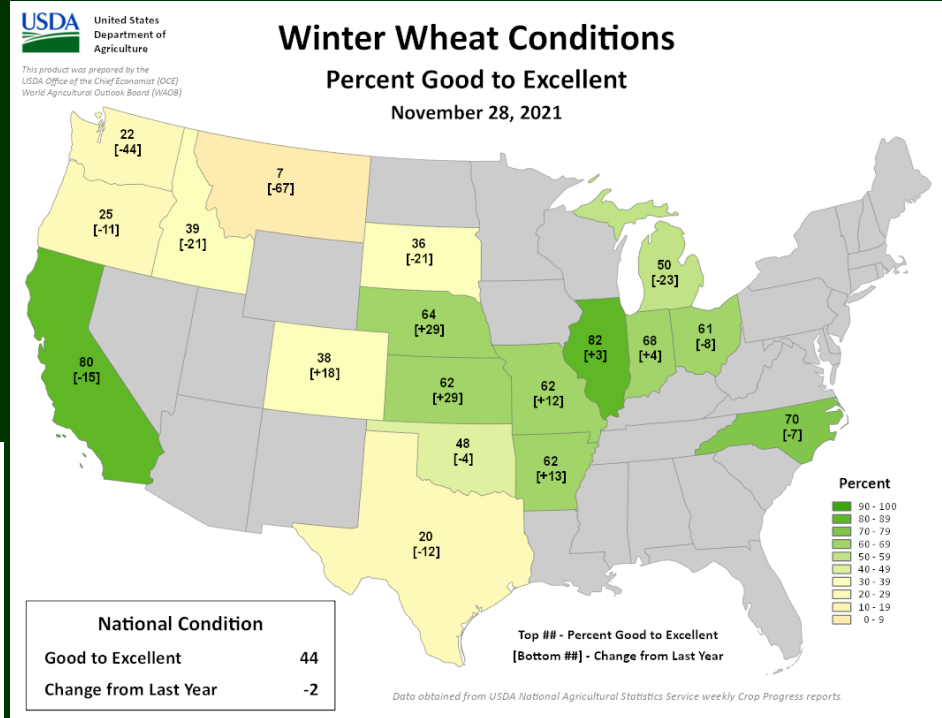
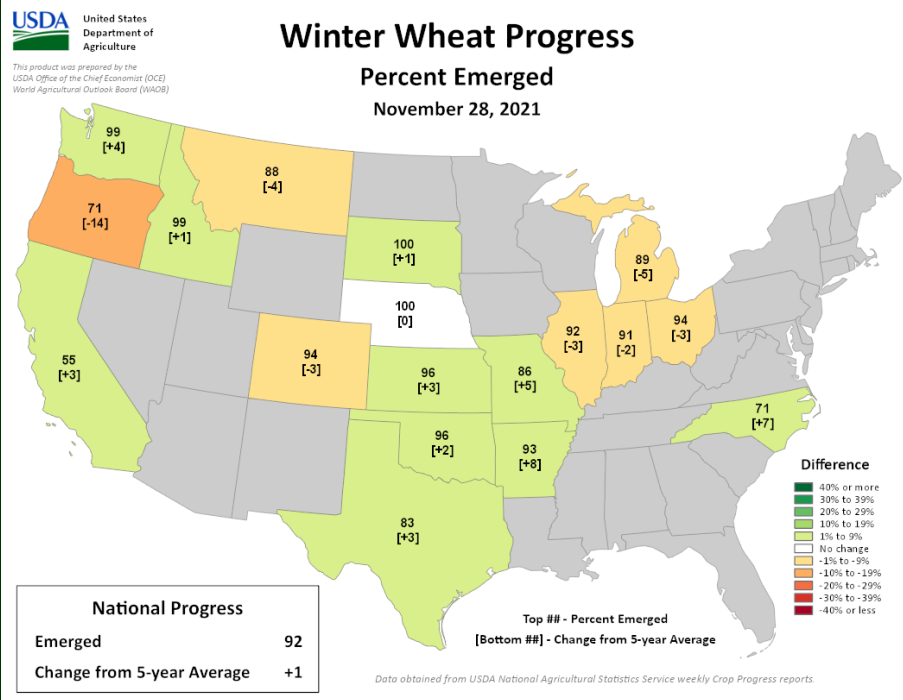
droughtmonitor.unl.edu

- Most drought issues far north/west.
- Pockets still hanging on up to D3.
- Most south/east only pockets of dryness/D0

<http://droughtmonitor.unl.edu/>

Winter Wheat (NASS)

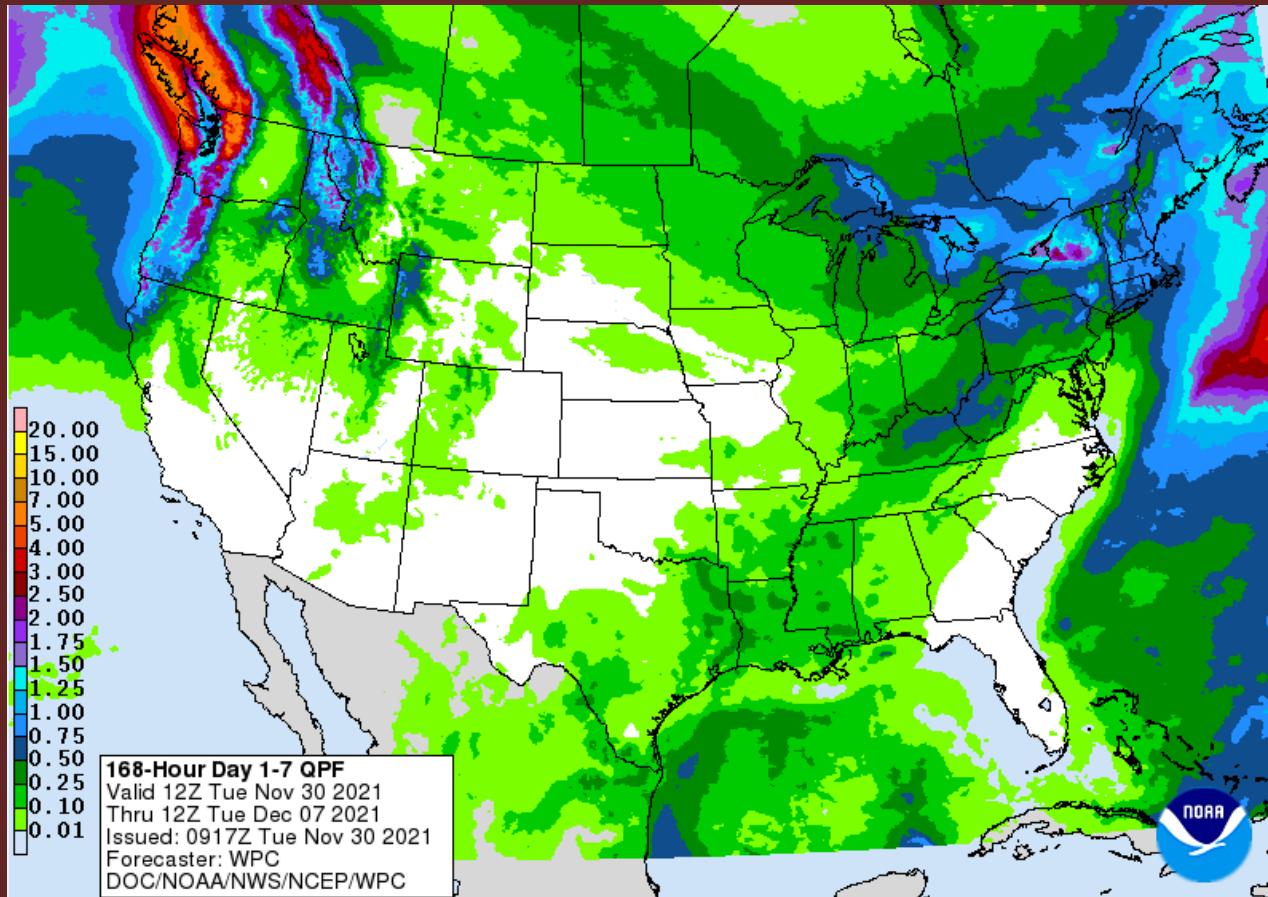
Winter Wheat is mostly emerged (92%). Conditions are generally good east, but poorer in the Plains (SD, CO).



Assorted AG Issues

- Nearly all crops harvest (corn, soybean, sorghum, sunflowers, etc).
- Recent dryness showing up again adding back to some drought issues.
- Winter wheat mostly planting with varying conditions.
- Limited snow so far.

1-7 Day Precip

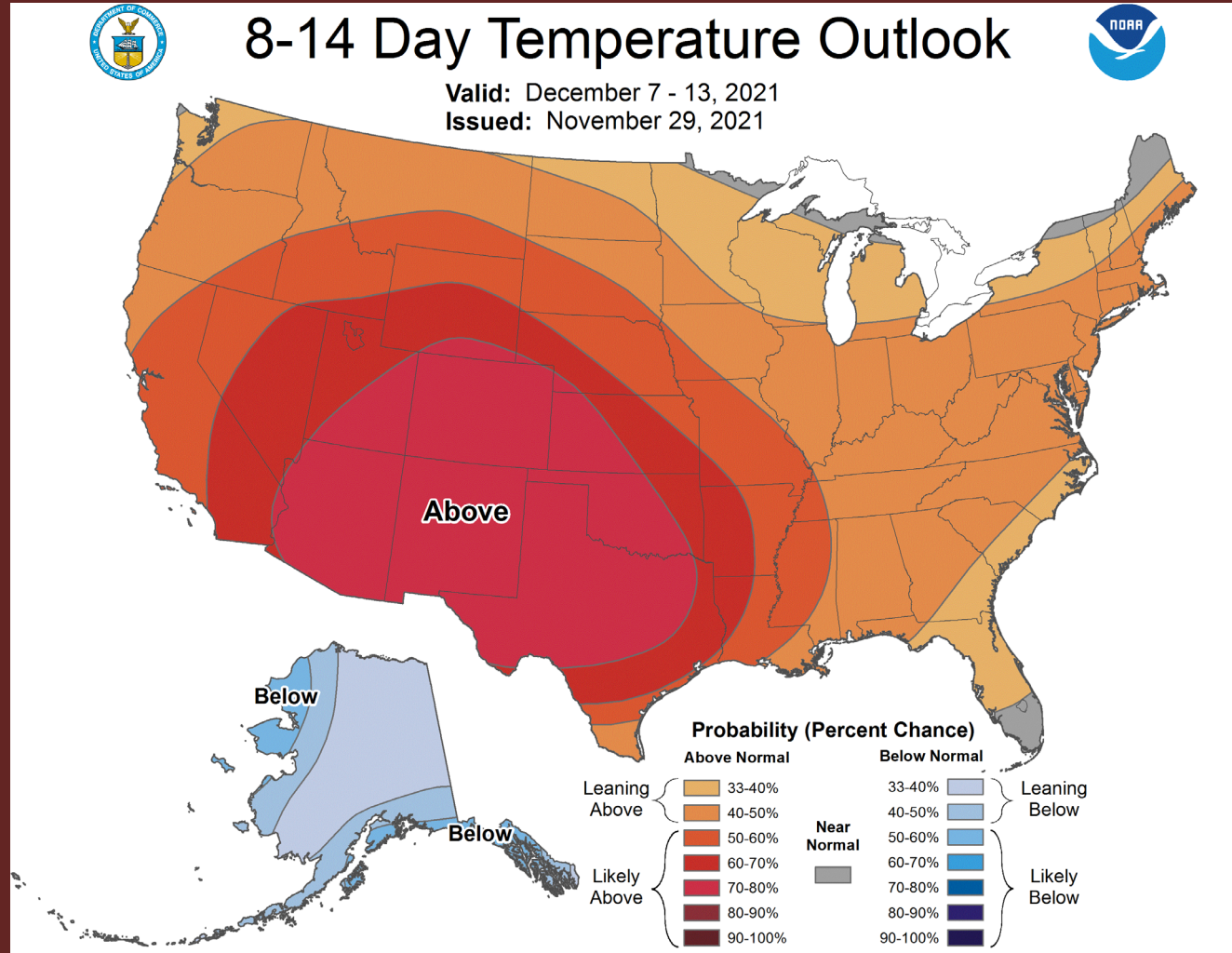


Next 7 days

- Mostly quiet over region with some only light amounts
- More lake effect snow around the Great Lakes again.

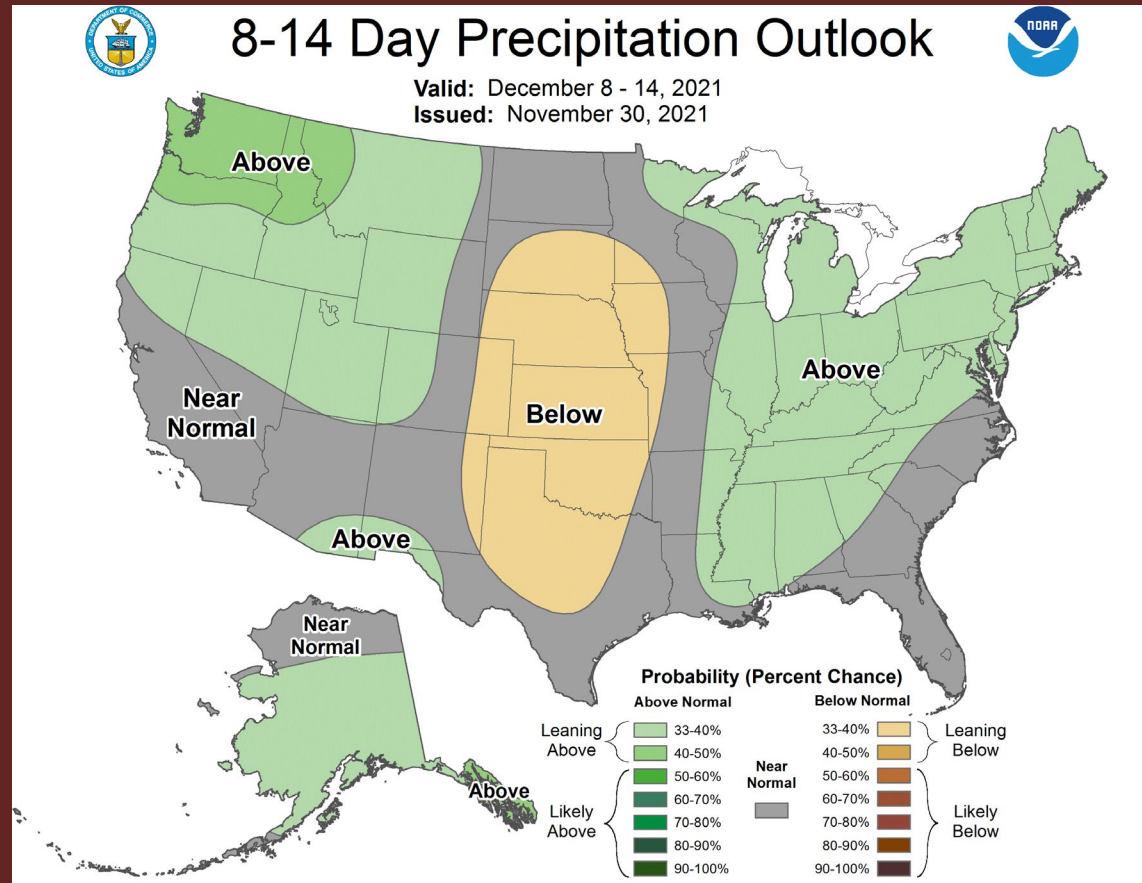
Temperature Outlook

- Warmer than likely over whole region-increasing chances SW

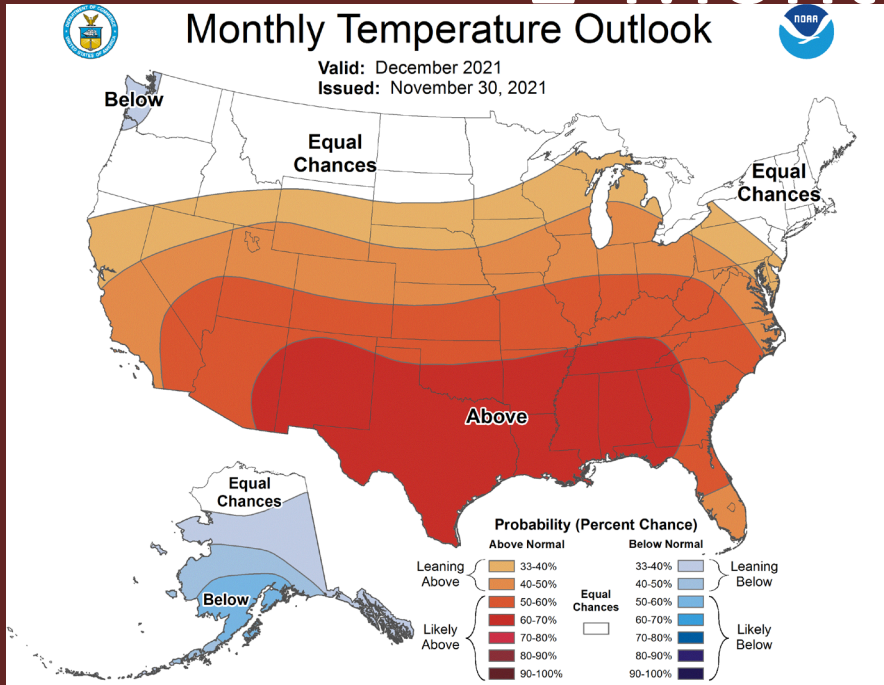


Precipitation Outlook

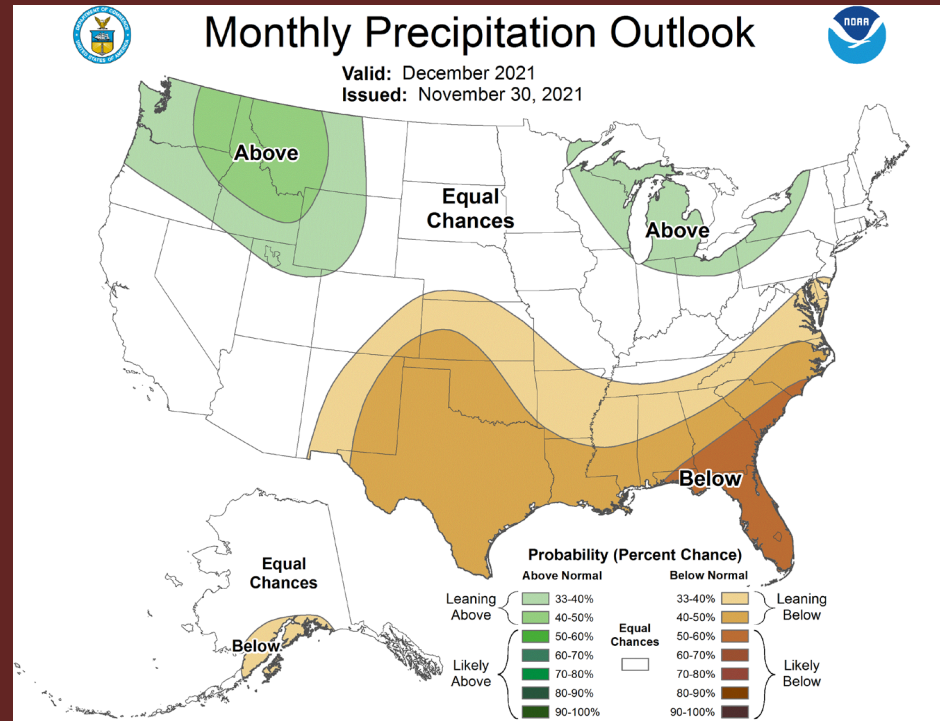
- Slightly increased chances for precip east and far west
- Slightly decreased Plains.



1-Month Outlook

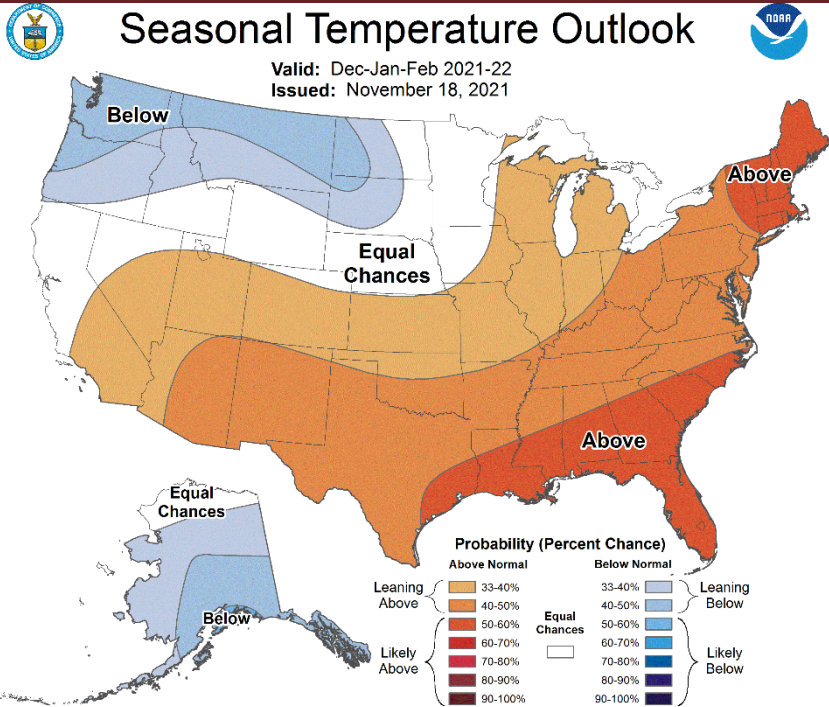


- December outlook
 - Outlooks La Niña look
 - Better chance of warmer further south
 - Slight chance wetter far NW Plains and around Great Lakes
 - Slight chance drier central Plains

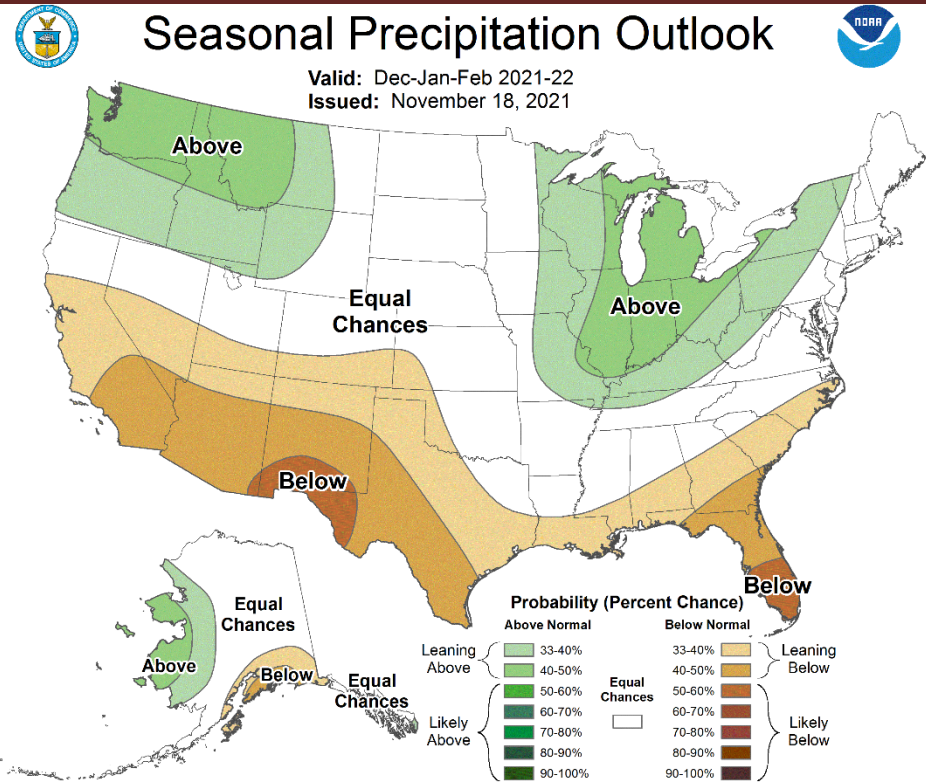


- Lake effect snows more likely around Great Lakes (warm water)
- At this point no major storm systems appearing (will monitor for changes)

December-January Outlook



- La Niña pattern.
- Slight chance warmer south/east.
- Slight chance wetter Great Lakes and far NW.

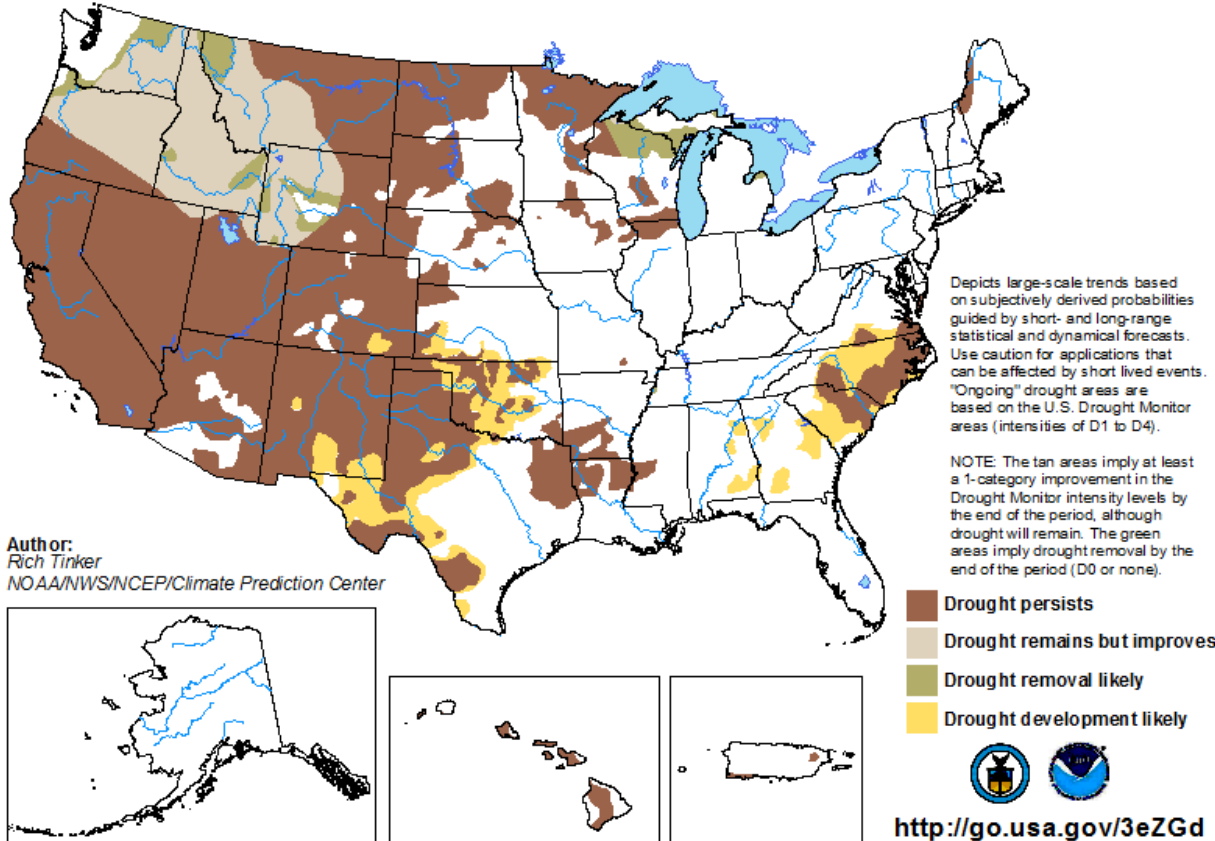


- Better chance precip east later winter.
- Could start causing more soil moisture problems for spring
- Additional moisture NW would be helpful in drought areas.

Drought in the Midwest/Plains

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

Valid for December 2021
Released November 30, 2021



- Monthly outlook for December 2021
- Drought continues with little change in the plains
- Could worsen south with warm/dry possible
- Some improvements possible across parts of Wisconsin/UP Michigan with possible Lake Effect.

Summary

- Crop harvest mostly done. Winter wheat mixed status
- Soil moisture recovered some but some recent slight worsening
- La Niña impacting winter outlooks.
 - Could lead to excess wetness east.
 - More active could help dry northern areas.

Next MAC-T Monthly Call

Next Call

**Early spring, with slides sent out
monthly until then**