

Hydrologic and Climate Assessment

January 7, 2020



Photo Credit: Kat Bledsoe

Aaron B. Wilson

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DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

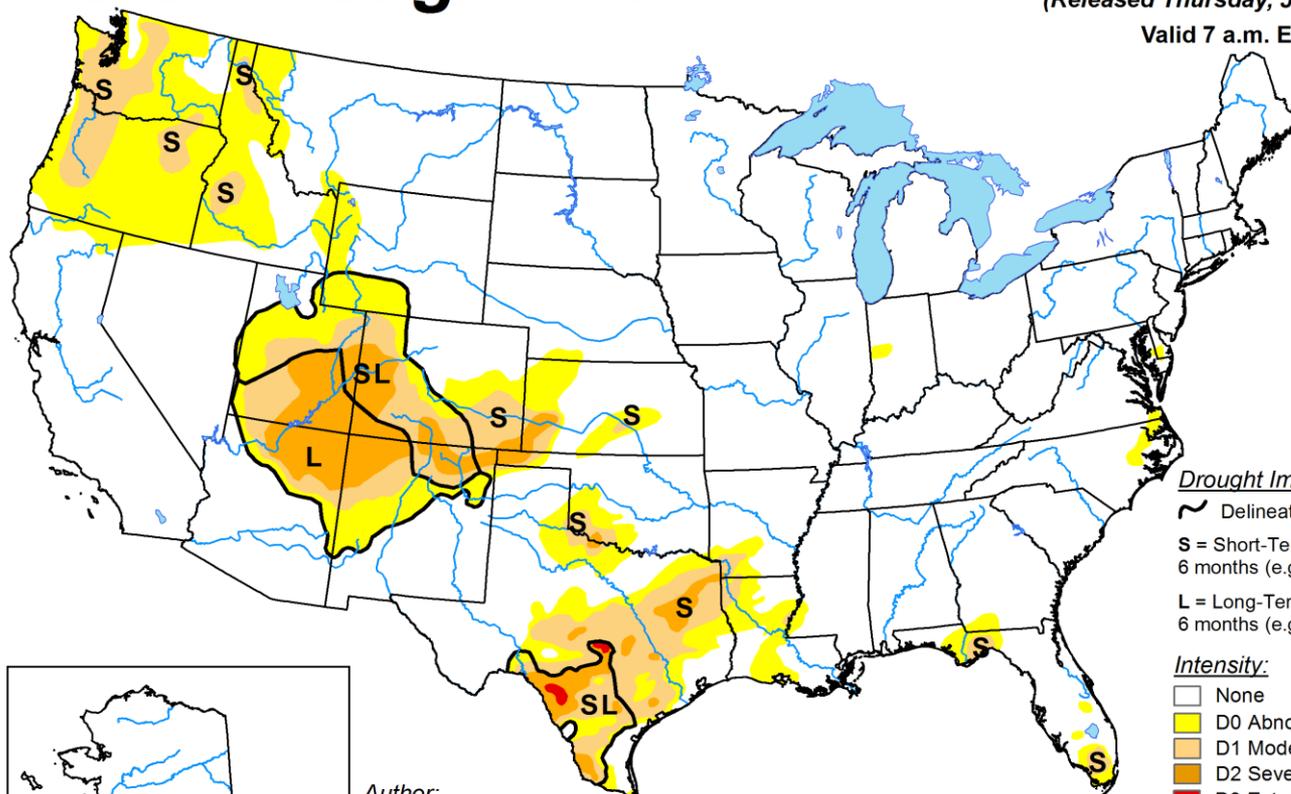
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U.S. Drought Monitor

December 31, 2019
 (Released Thursday, Jan. 2, 2020)
 Valid 7 a.m. EST

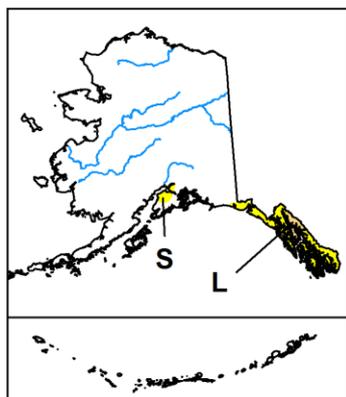


Drought Impact Types:

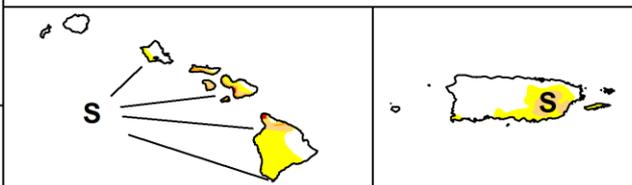
- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

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



Author:
 Brad Pugh
 CPC/NOAA



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>



droughtmonitor.unl.edu



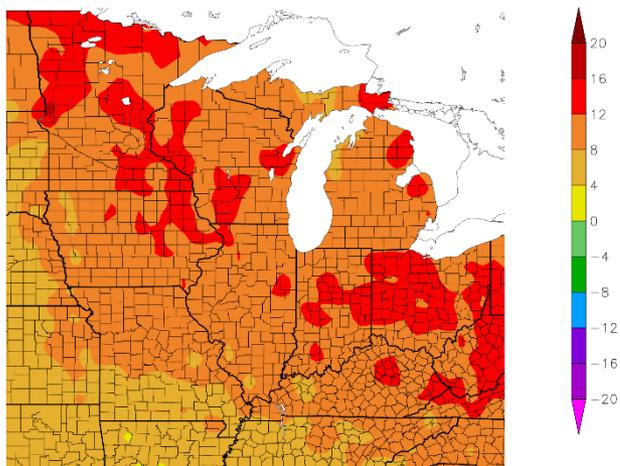
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Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)
12/30/2019 – 1/5/2020

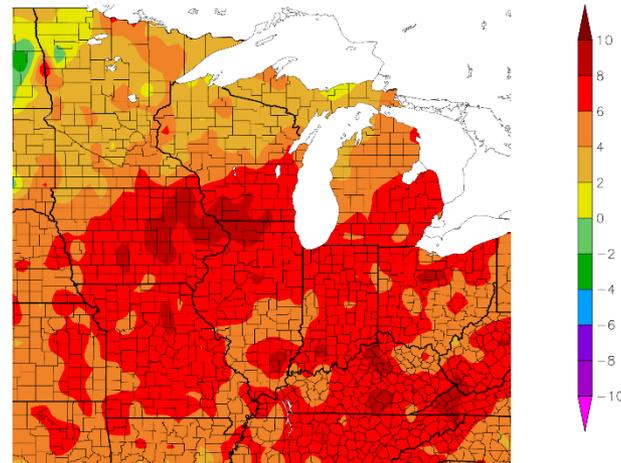


Generated 1/6/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

30-Day

Departure from Normal Temperature (F)
12/7/2019 – 1/5/2020

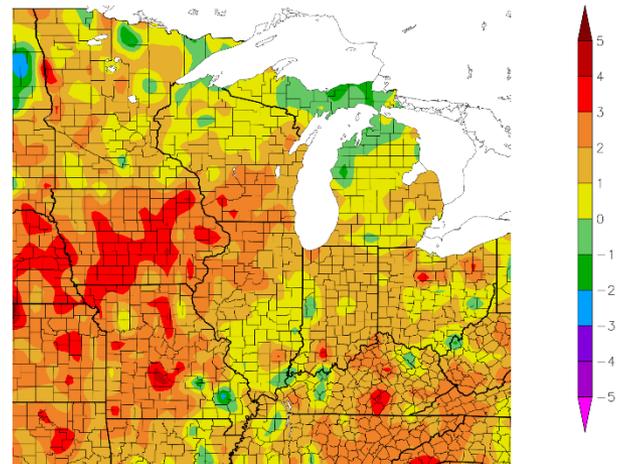


Generated 1/6/2020 at HPRCC using provisional data.

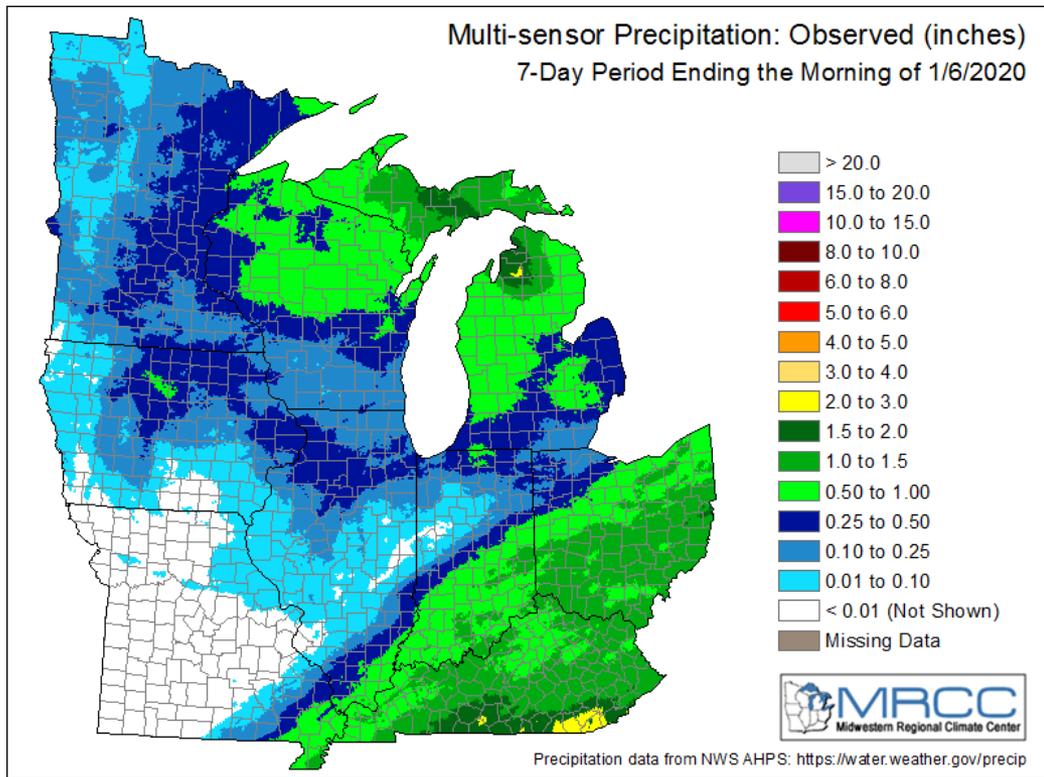
NOAA Regional Climate Centers

60-Day

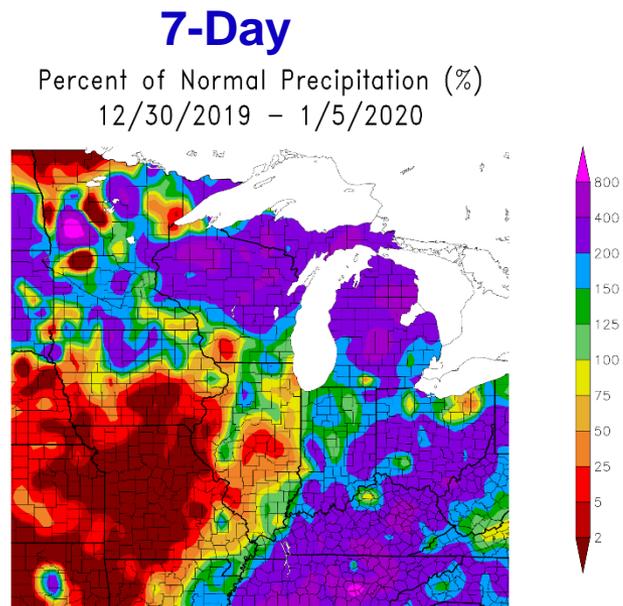
Departure from Normal Temperature (F)
11/7/2019 – 1/5/2020



This Week's Precipitation



Generated 1/6/2020 at HPRCC using provisional data.

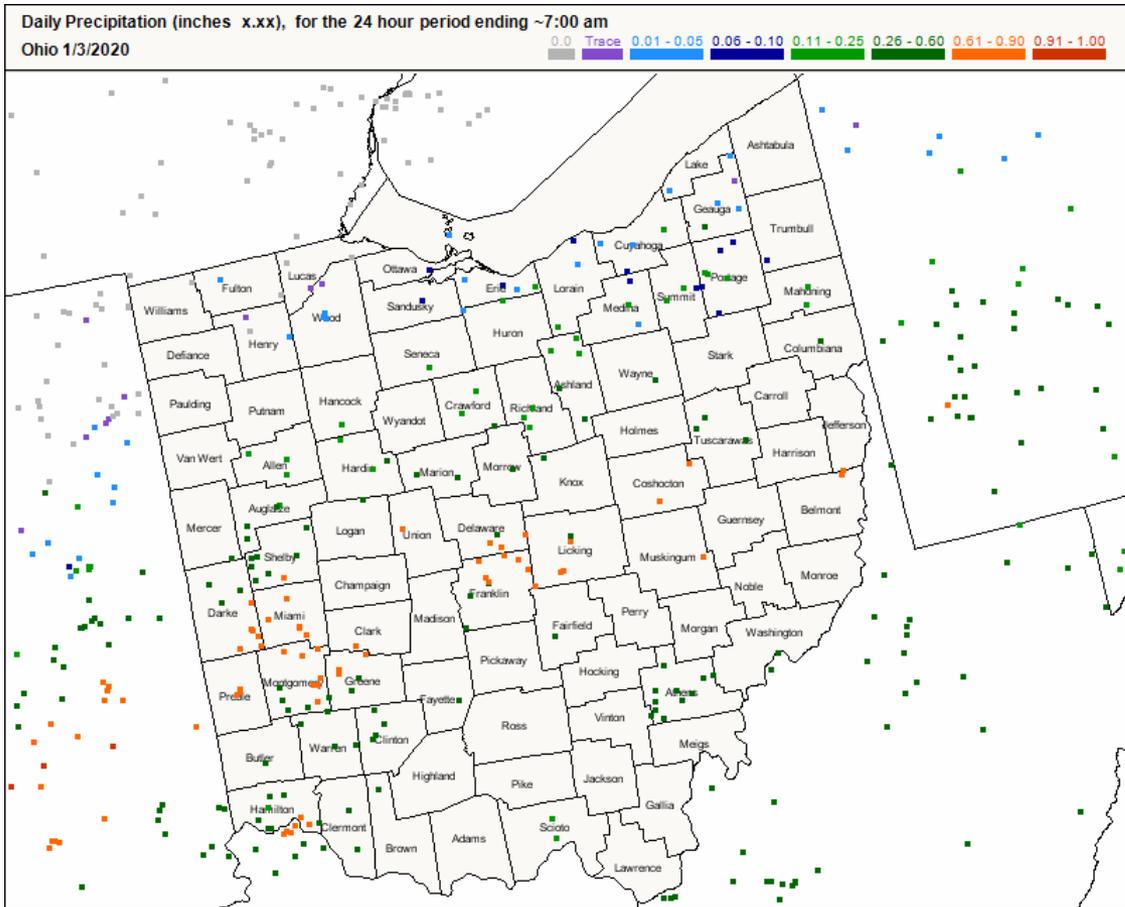


NOAA Regional Climate Centers



CoCoRaHS

Top 10 Wettest



CoCoRaHS Name	Total Precip (inches)
Pataskala 4.1 W	2.68
Columbus 5.4 NW	2.32
Mansfield 2.0 WNW	1.86
Steubenville 2.0 WNW	1.61
Westerville 3.4 N	1.49
Munroe Falls 0.7 NNE	1.45
Hanoverton 0.4 ENE	1.43
Cincinnati 4.2 ESE	1.40
Sunbury 5.7 ESE	1.36
Reynoldsburg 1.1 ENE	1.34

<https://cocorahs.org/>



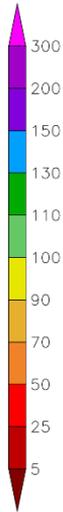
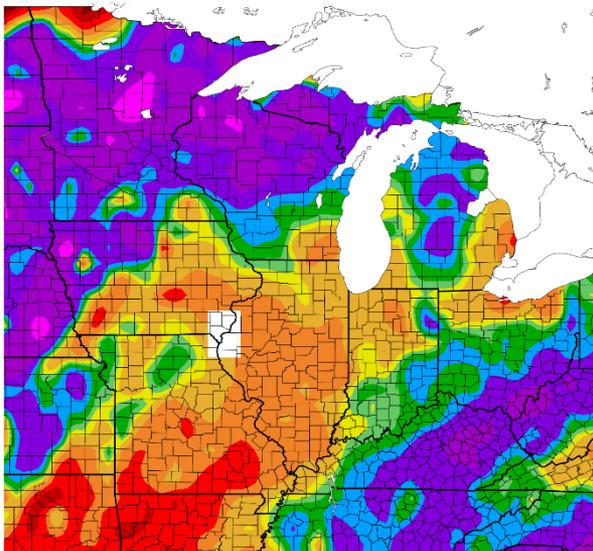
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Precipitation Differences Compared to Average (1981-2010)

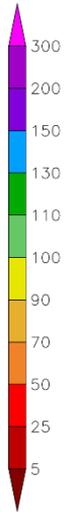
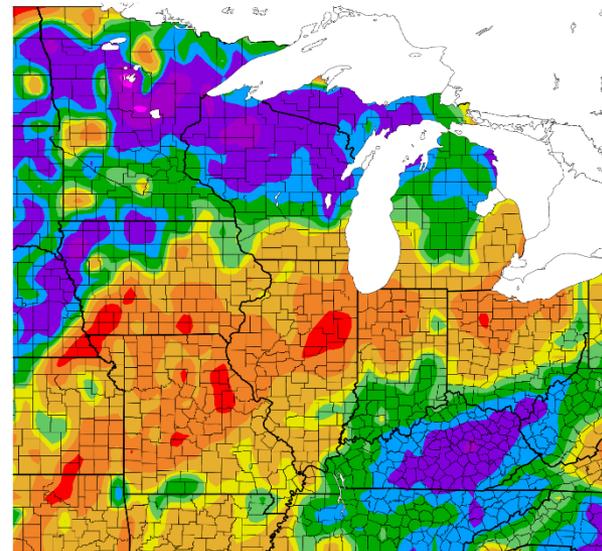
30-Day

Percent of Normal Precipitation (%)
12/7/2019 – 1/5/2020



60-Day

Percent of Normal Precipitation (%)
11/7/2019 – 1/5/2020



Generated 1/6/2020 at HPRCC using provisional data.

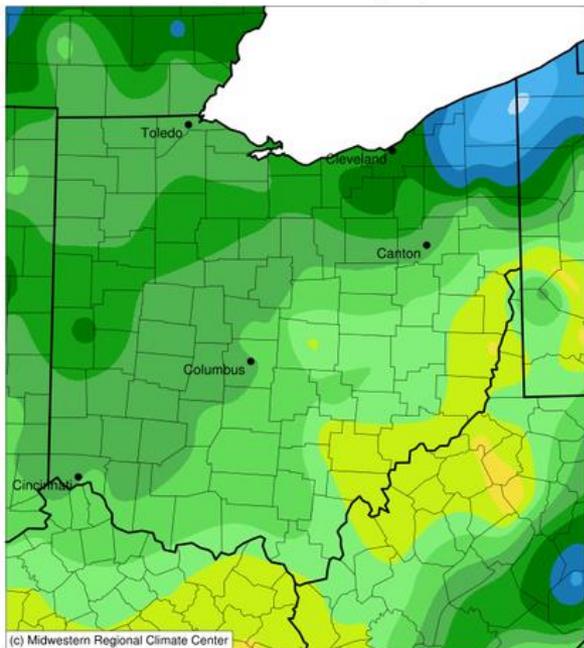
NOAA Regional Climate Centers

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NOAA Regional Climate Centers

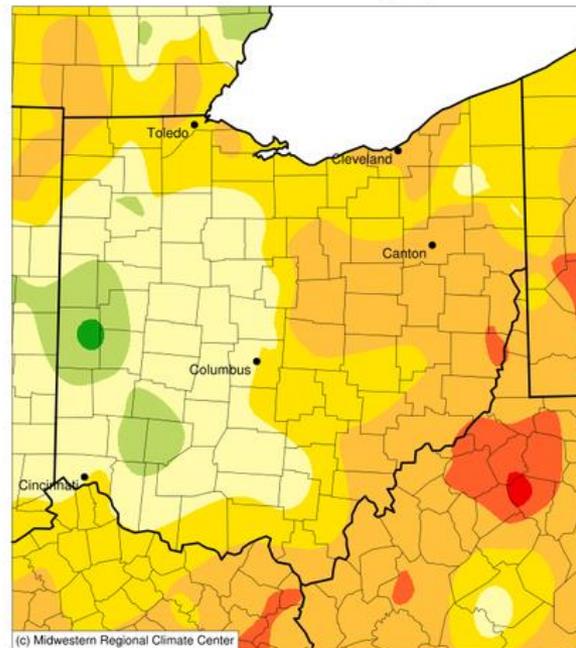
Snowfall and Differences Compared to Average (1981-2010)

Accumulated Snowfall (in)
October 01, 2019 to January 07, 2020



0.01 0.5 1 2 3 5 7.5 10 15 20 25 30 40
Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI,
Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
Generated at: 1/7/2020 10:10:01 AM CST

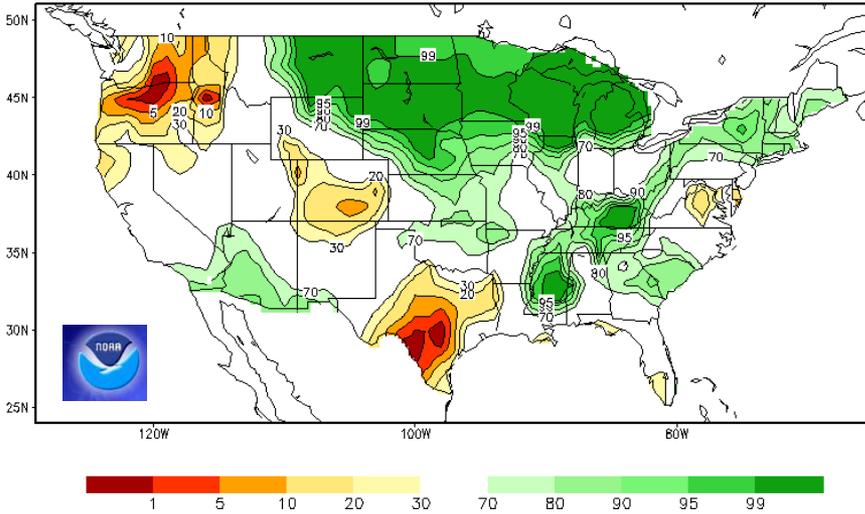
Accumulated Snowfall (in): Percent of 1981-2010 Normals
October 01, 2019 to January 07, 2020



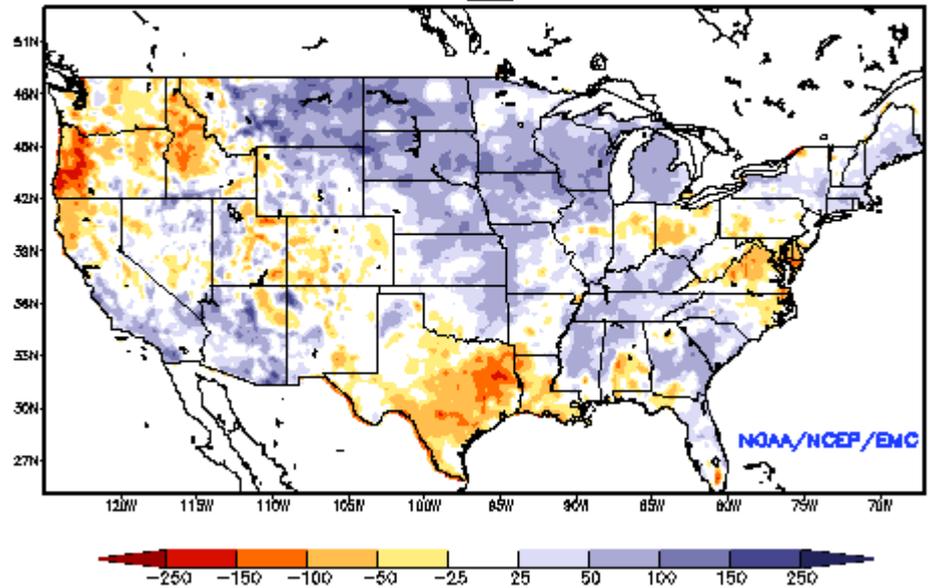
2 5 10 25 50 75 100 125 150 175 200 300 400 500 750
Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI,
Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
Generated at: 1/7/2020 10:10:41 AM CST

Soil Moisture

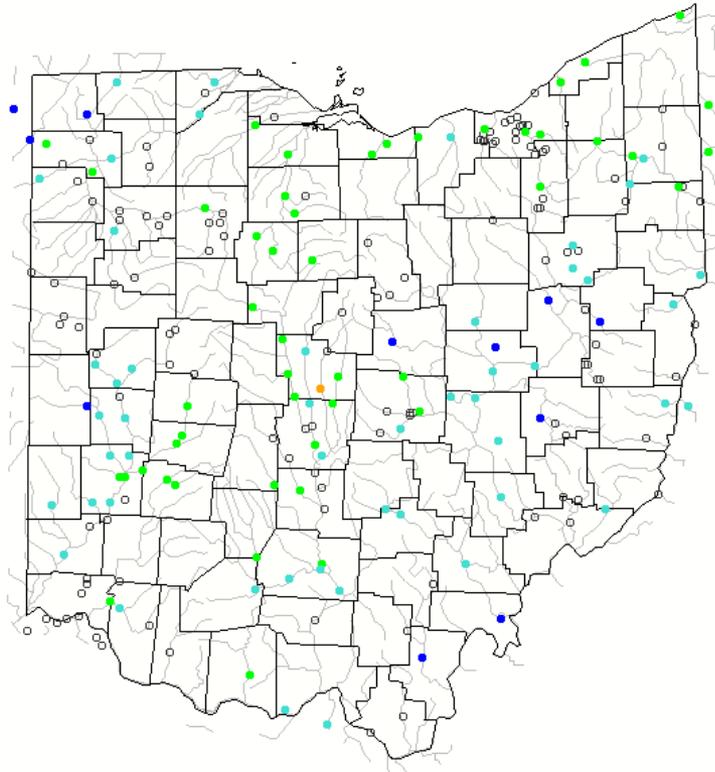
Calculated Soil Moisture Ranking Percentile
JAN 06, 2020



Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JAN 02, 2020

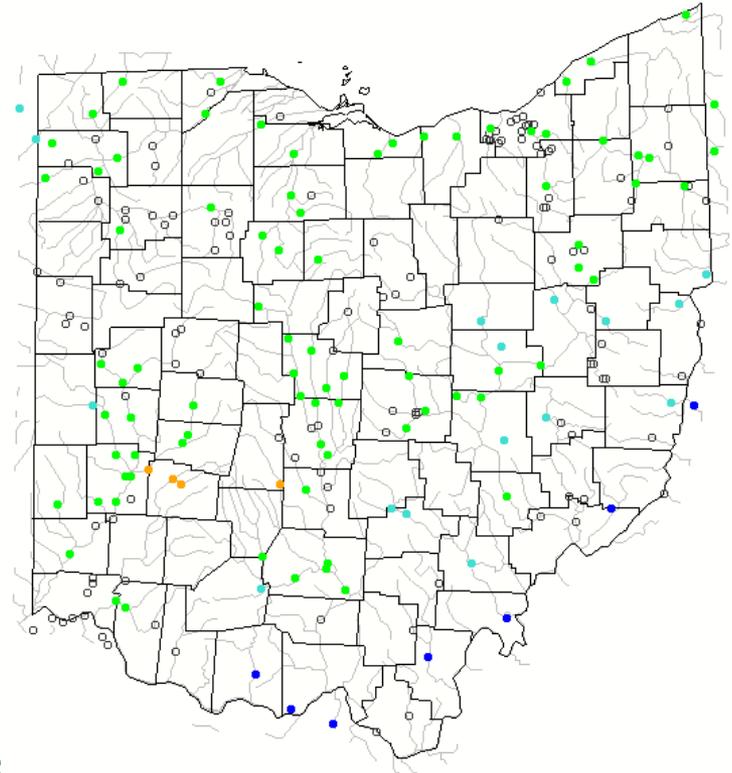


7-DAY



USGS Streamflow

28-DAY



Explanation - Percentile classes

Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Average streamflow compared to historical streamflow for the day of the year



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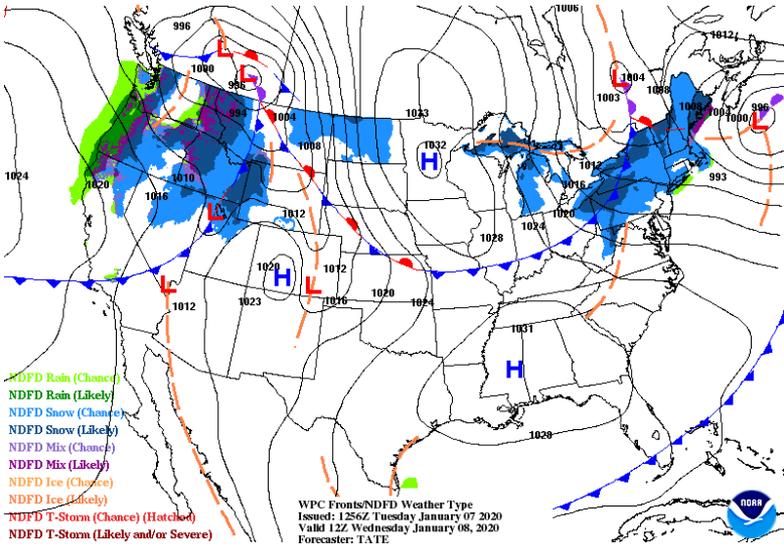
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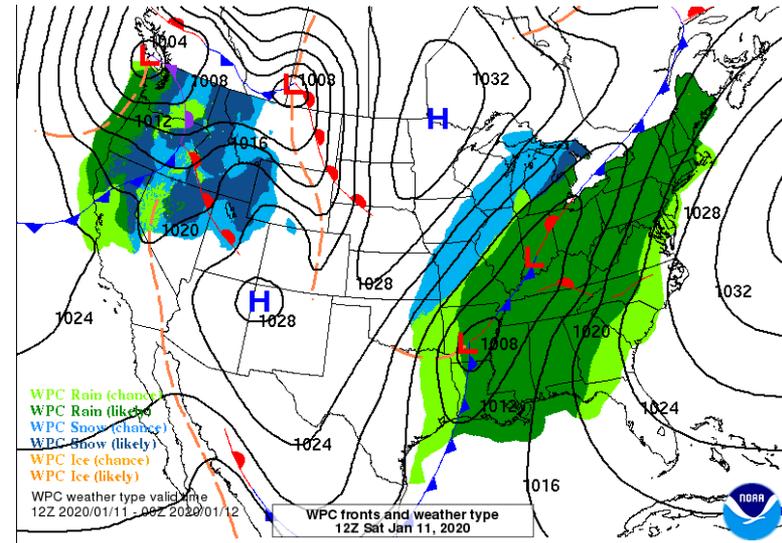


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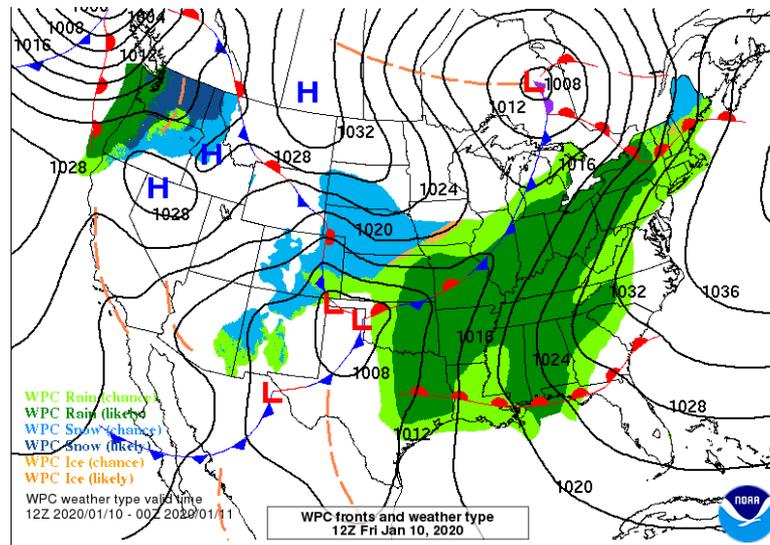
Weather for the Week Ahead



Wednesday



Saturday



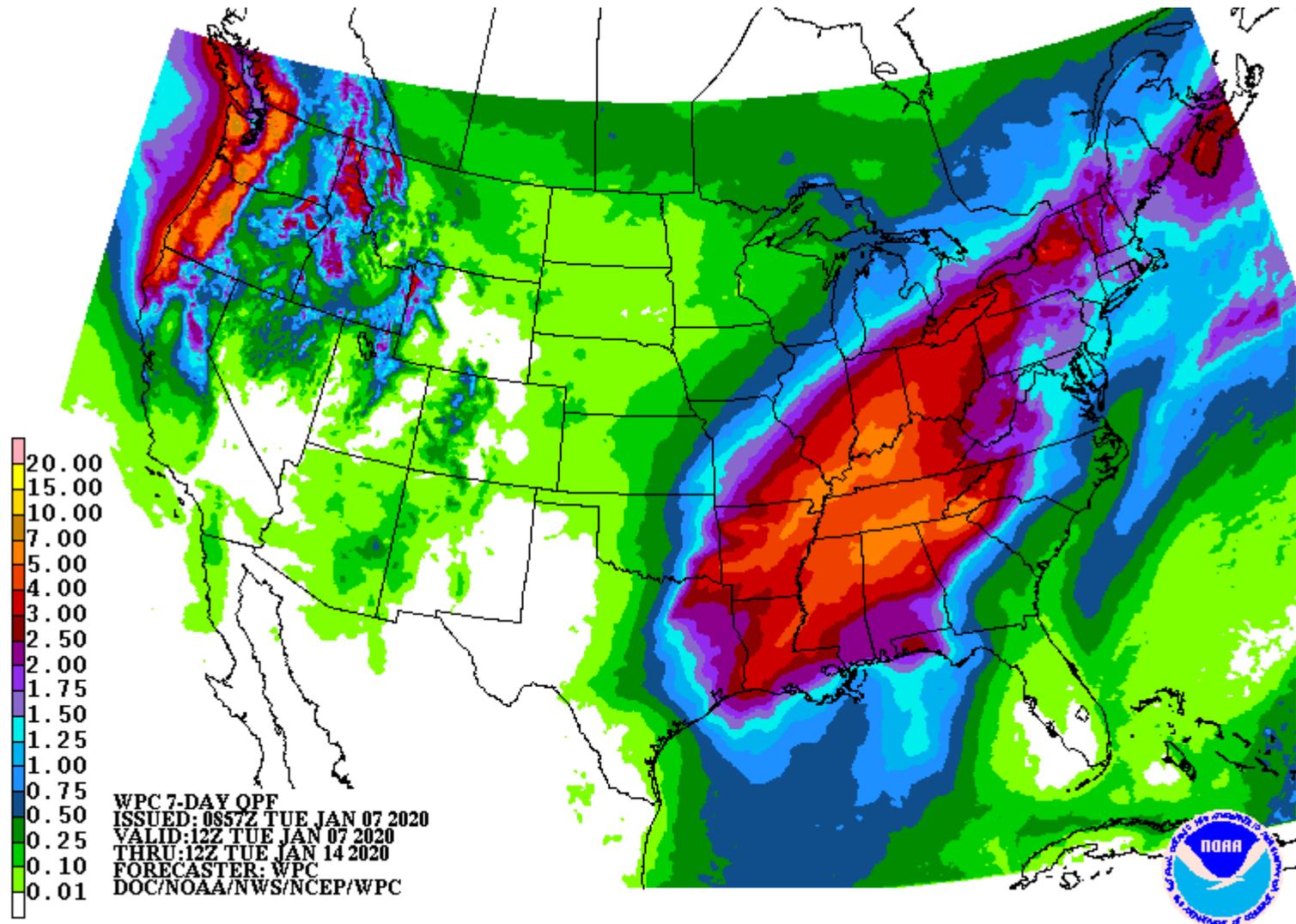
Friday



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Weather for the Week Ahead



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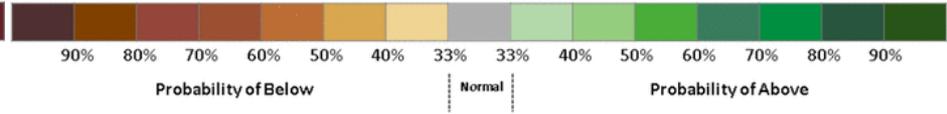
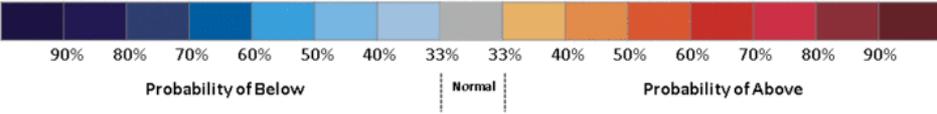
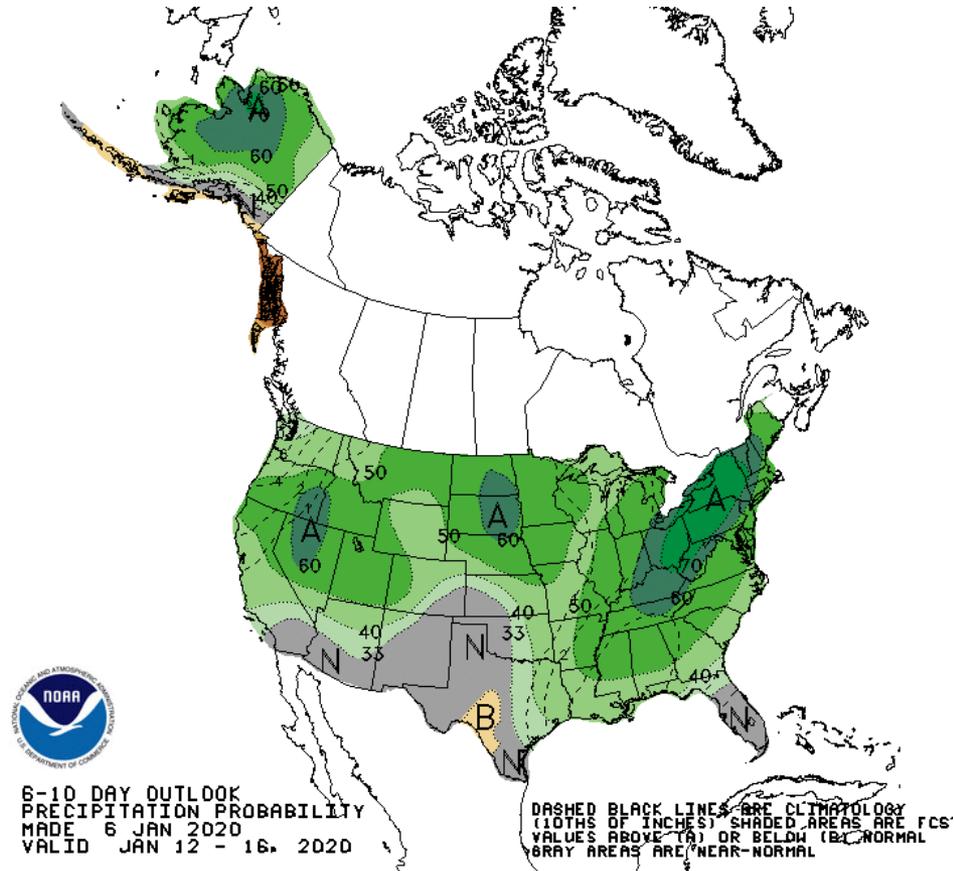
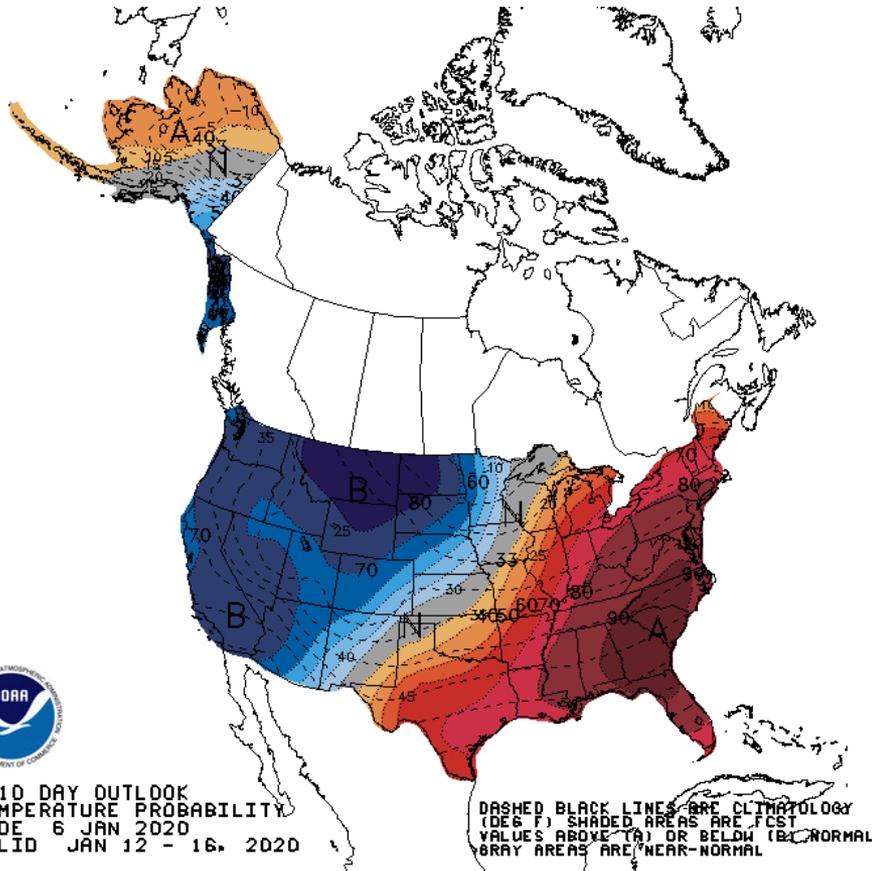
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6-10 Day Outlook



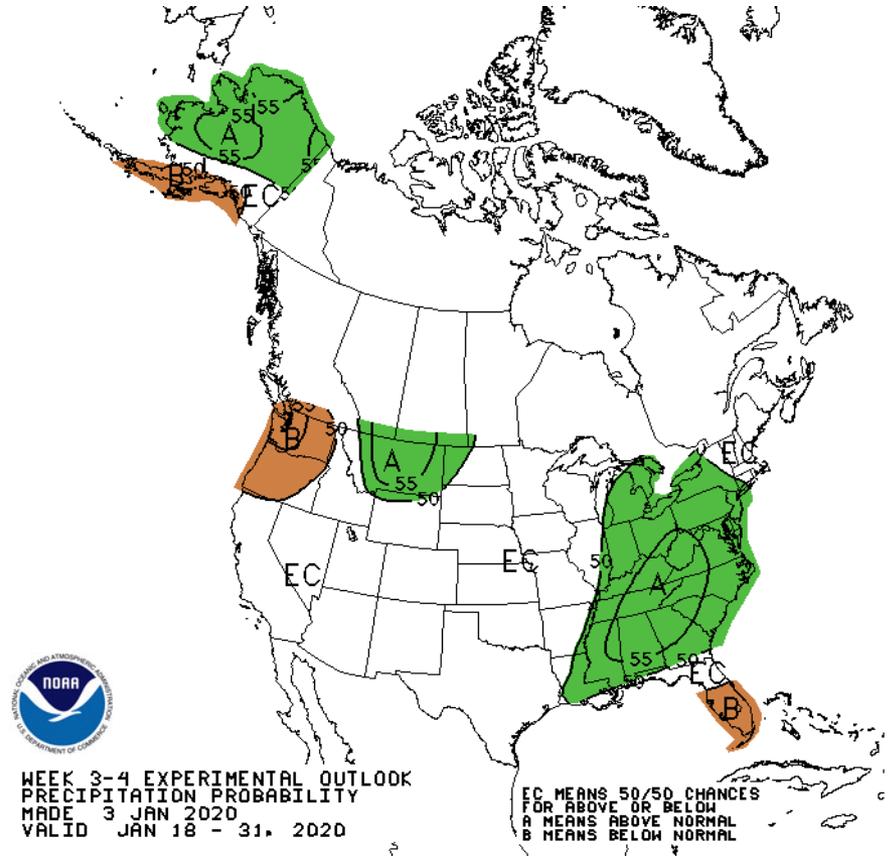
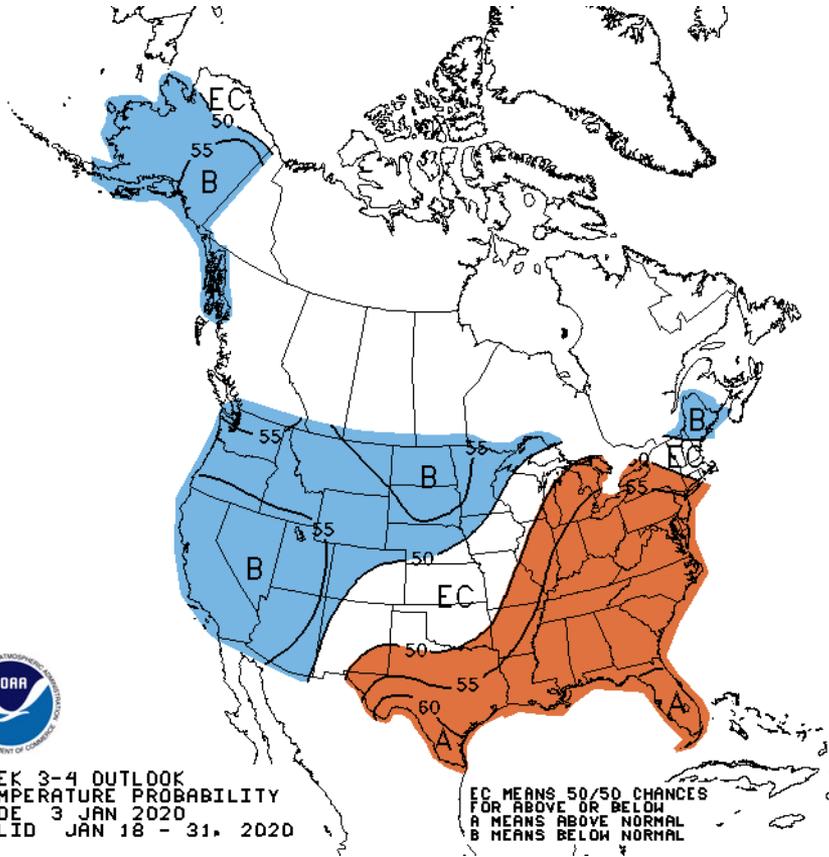
Highs: 33-38°F; Lows: 19-23°F; Precip: 0.50-0.70" (per week)



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3-4 Week Outlook



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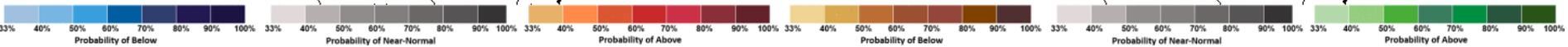
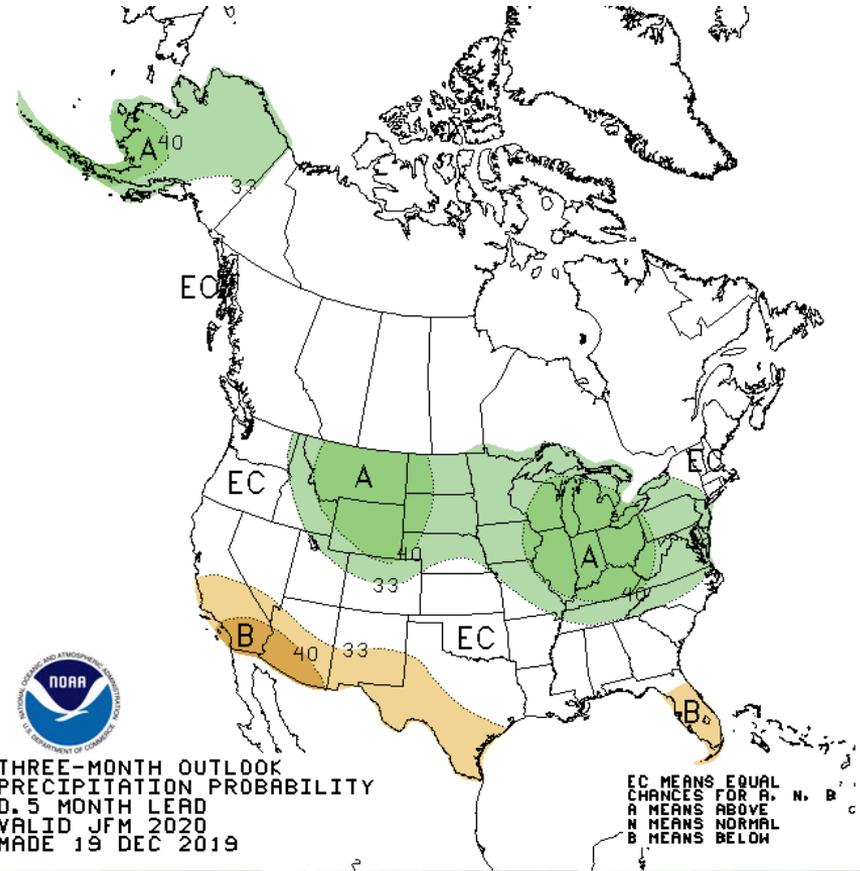
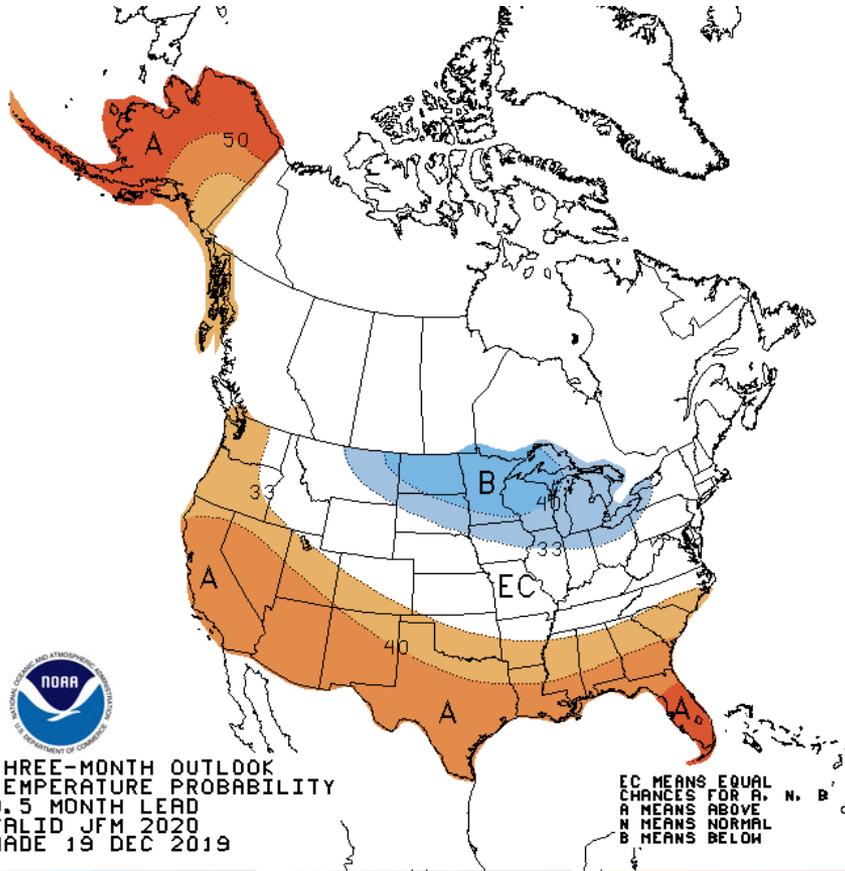
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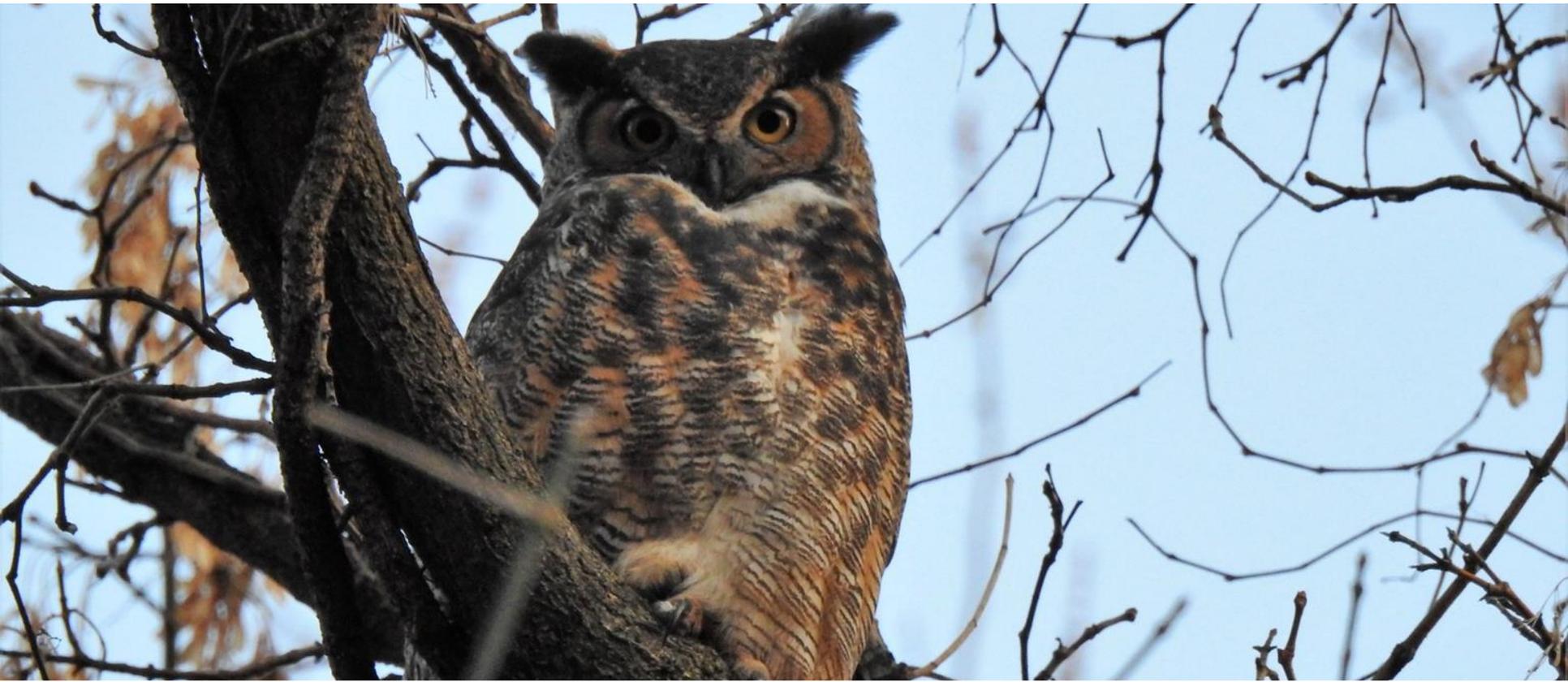
January – March Outlook



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Summary of Conditions



Drought Monitor: None

Climate Recap: Warm with recent wetness

The week ahead: Mild with plenty of rainfall, very little snowfall expected



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Partners and Additional Information

- SCOO's Website: <https://climate.osu.edu>
- NOAA's National Climatic Data Center: www.ncdc.noaa.gov
 - Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov
- USDA Midwest Climate Hub: <https://www.climatehubs.oce.usda.gov/hubs/midwest>
- Climate Portal: www.climate.gov
- U.S. Drought Portal: www.drought.gov
- National Drought Mitigation Center: <https://drought.unl.edu/>
- Midwest Regional Climate Center: <https://mrcc.isws.illinois.edu>
- Community Collaborative Rain Snow Hail Network (CoCoRaHS): <https://cocorahs.org>
- Song: "Wishful Thinking" by Dan Lebowitz