



Drought Information Statement for the Central Tennessee Valley

Issued by: WFO Huntsville, AL

Contact information: sr-hun.webmaster@noaa.gov

- Since much of the area is in D2-D3 drought, this product will be updated at least once per month, but statements may be updated otherwise to communicate any significant information.
- Please see all currently available products at <https://drought.gov/drought-information-statements>
- Please visit <https://www.weather.gov/hun/DroughtInformationStatement> for previous statements





U.S. Drought Monitor

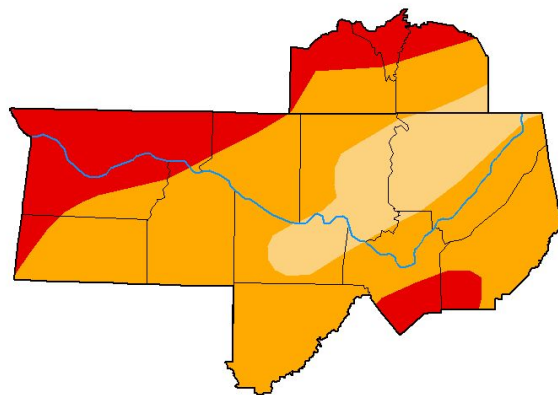
Latest U.S. Drought Monitor Map

- **Drought intensity and Extent**

- **D4 Exceptional Drought:** None
- **D3 Extreme Drought:** Much of northwestern Alabama, northern Lincoln and Franklin (TN) Counties, and most of Moore County...also, southern portions of DeKalb and Marshall Counties
- **D2 Severe Drought:** A SW to NE swath, stretching from Franklin (AL), Lawrence, and Cullman Counties northeastward through much of the area through Franklin (TN), Jackson, and Dekalb Counties.
- **D1 Moderate Drought:** A generally narrow area from far East/Central Morgan County, northeastward through eastern Madison, western Jackson Counties, and a very small portion of northwestern MARshall County.
- **D0 Abnormally Dry:** None

U.S. Drought Monitor
Huntsville, AL WFO

January 9, 2024
(Released Thursday, Jan. 11, 2024)
Valid 7 a.m. EST



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>

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droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 7AM CDT, January 9, 2024.



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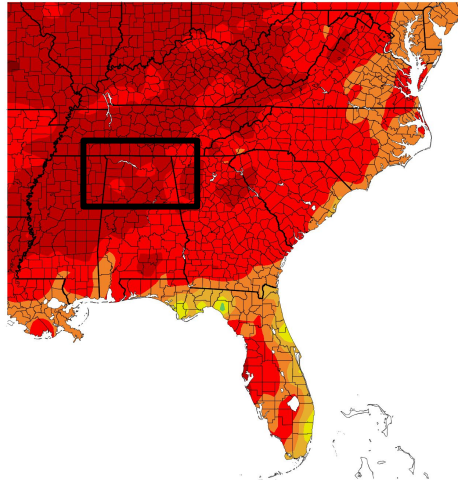


Precipitation - Past 120 Days

Main Takeaways

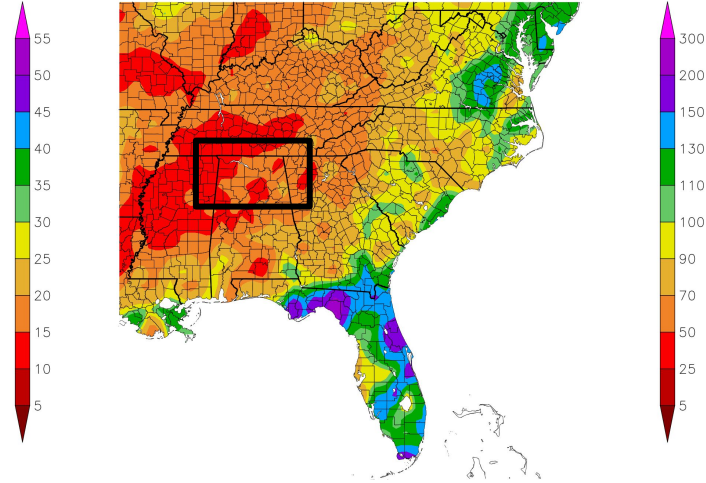
- Rainfall has ranged largely from around 7 inches to 15 inches over the past 120 days, with a good portion of that rain falling in early and late December, and recently on Jan 9th. Normal 120-day precipitation for this time of year is around 17-19 inches.
- Rainfall amounts range from around 30-70% of normal for the past 120 days as shown in the graphic on the right.

Precipitation (in)
9/13/2023 – 1/10/2024



1/11/2024 at HPRCC using provisional data.

Percent of Normal Precipitation (%)
9/13/2023 – 1/10/2024



NOAA Regional Climate Center 2024 at HPRCC using provisional data.

NOAA Regional Climate Center

Image Captions from ACIS High Plains Regional Climate Center:

Left - 120-Day Precipitation Totals, Right - 120-Day Percent of Normal Precipitation. Data ending January 10, 2024



Summary of Impacts

Hydrologic Impacts

- No hydrologic impacts of note, although streamflows fell during the late summer and fall due to the dry weather. However, streamflows have experienced periodic rises with recent rainfall since about mid-November, but continue to fall to a below normal base state.
- See next slide for more hydrologic information and streamflows and lake levels.

Agricultural Impacts

- USDA Crop and Progress Condition Reports late summer into fall noted that operators had been delayed from planting winter wheat crops. Pastures for grazing were reported to be in poor to very poor condition. Operators continued to feed supplemental hay to cattle due to the poor grazing conditions. Please see the latest Crop and Progress Condition Reports for [Alabama](#) and [Tennessee](#) from the USDA for more information. (Note: these reports will not be available again until spring.)

Fire Hazard Impacts

- The dry weather that quickly caused deterioration in conditions resulted in the Alabama Forestry Commission (AFC) issuing Fire Alerts earlier this fall. However, on December 4, the 'No Burn' order was lifted across the state, including the counties in the Huntsville County Warning and Forecast Area. Thus, burn permits will be issued as normal. Debris burn permits are currently required in TN counties as usual this time of year. [AFC link](#); [TN Wildland Fire Link](#).

Drought Mitigation Actions

- On December 12, The Alabama Dept. of Economic and Community Affairs - Office of Water Resources placed Drought Region 1 in a Drought Advisory. Drought Region 3 (which includes Cullman County) remains in a Drought Warning.
- Water managers are urged to carefully monitor conditions and encourage the wise and efficient use of our water resources.
- Public water system customers are encouraged to follow their local water system's recommendations regarding water use.
- All other water users should make prudent decisions on their water use to protect available resources
- You can see the latest Alabama Drought Declaration here... <https://adeca.alabama.gov/wp-content/uploads/DroughtDeclaration.pdf>.
- Please refer to your municipality and/or water provider for any mitigation information in the future.





Hydrologic Conditions

Main Takeaways

- Some improvements have occurred in streamflows in recent weeks. However, some basins in the area are experiencing 7-Day avg flows in the 10th-24th percentile for this time of year. Portions of northeastern Alabama and southern middle Tennessee remain below the 10th percentile.
- Lake/Reservoir levels remain generally near normal.

Additional data:

None at this time to report

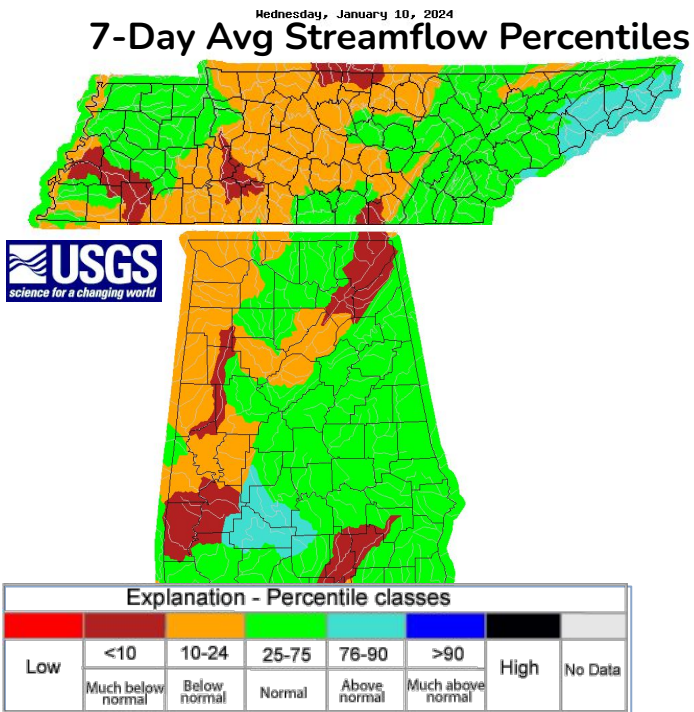


Figure Caption: USGS 7-day streamflow percentiles for Tennessee and Alabama, valid Jan 10, 2024

Lake Stages

Reservoir/ Lake	Pool Elevation (ft)	Current Elevation (ft)	Percent Full
Bear Creek	566	566	100%
Little Bear Creek	608	608	100%
Cedar Creek	566	566	100%
Tim's Ford	874	874	100%
Nickajack	633-635	634	Within Operating Range (WOR)
Guntersville	593-594	594	WOR
Wheeler	551-552	552	WOR
Wilson	505-506	506	WOR
Pickwick	408-410	409	WOR
Lewis Smith	498	502	>100%

Table caption: Reservoir conditions as of Jan 10, 2024





Agricultural Impacts

Main Takeaways

- Soil Moisture values have increased in recent months due to increased rainfall, but amounts are low for this time of year (when soils are typically wettest).
- 0-200 cm depth soil moisture percentiles (left image) indicate values largely at or below the 5th percentile across NW Alabama, with values generally around the 5th to 30th ranking percentile elsewhere.
- Meanwhile, the crop moisture index (right image) indicates values were Slightly Dry for the weekly period ending Jan 6, 2024.

SPoRT-LIS 0-200 cm Soil Moisture percentile valid 11 Jan 2024

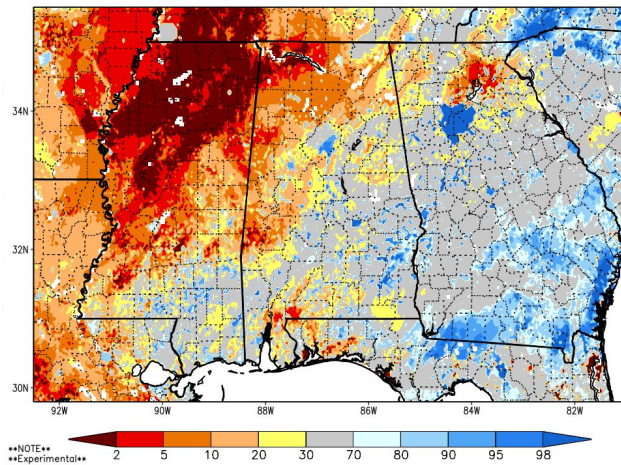
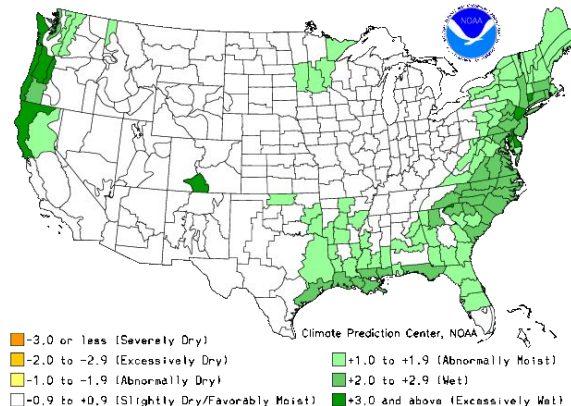


Image Captions:

Left: NASA Short-term Prediction Research and Transition Center 0-200 cm Soil Moisture Ranking Percentile based on a 33-year climatology (1981-2013), Jan 11, 2024

Right: Crop Moisture Index by Division. Weekly value for period ending Jan 6, 2024

Crop Moisture Index by Division
Weekly Value for Period Ending JAN 6, 2024
Short Term Need vs. Available Water in a Shallow Soil Profile



■ -3.0 or less (Severely Dry)
■ -2.0 to -2.9 (Excessively Dry)
■ -1.0 to -1.9 (Abnormally Dry)
■ +1.0 to +1.9 (Abnormally Moist)
■ +2.0 to +2.9 (Wet)
■ -0.9 to +0.9 (Slightly Dry/Favorably Moist)
■ +3.0 and above (Excessively Wet)



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Other Impacts

Main Takeaways

- Lack of normal rainfall from late August to mid-November lead to impacts especially to the agricultural industry.

Impacts

- The overall lack of normal rainfall over the late summer and fall period resulted in very dry soils and lack of necessary grasses and forages for livestock farmers. Numerous reports from around the region over that period indicates that the lack of grass and ability to grow cold season grasses resulted in the need for supplemental hay feeding. Also, stress to livestock was reported due to the dry, hard ground conditions. Farm water resources such as retention ponds had dried up in some locations, resulting in increased hauling of outside water resources. Some producers indicated the need to sell livestock.
- Some reports had indicated increased wildlife foraging near people.

You can go to the [Condition Monitoring Observer Reports](#) page from the National Drought Mitigation Center to see individual reports of drought impacts at various timescales across the region.

Further Drought Mitigation Actions

- All counties in the Huntsville County Warning and Forecast area have been placed as Primary Counties in the USDA Secretarial Disaster Declaration for Drought. To learn more, go to the [USDA Disaster Designation Information](#) web page.





Seven Day Precipitation Forecast

- Next 7 days:

- About one-half to one inch of precipitation is expected over the next seven days, through January 18th.
- Around 1.00 to 1.25 inches of precipitation is normal for this time of year for a weekly period.

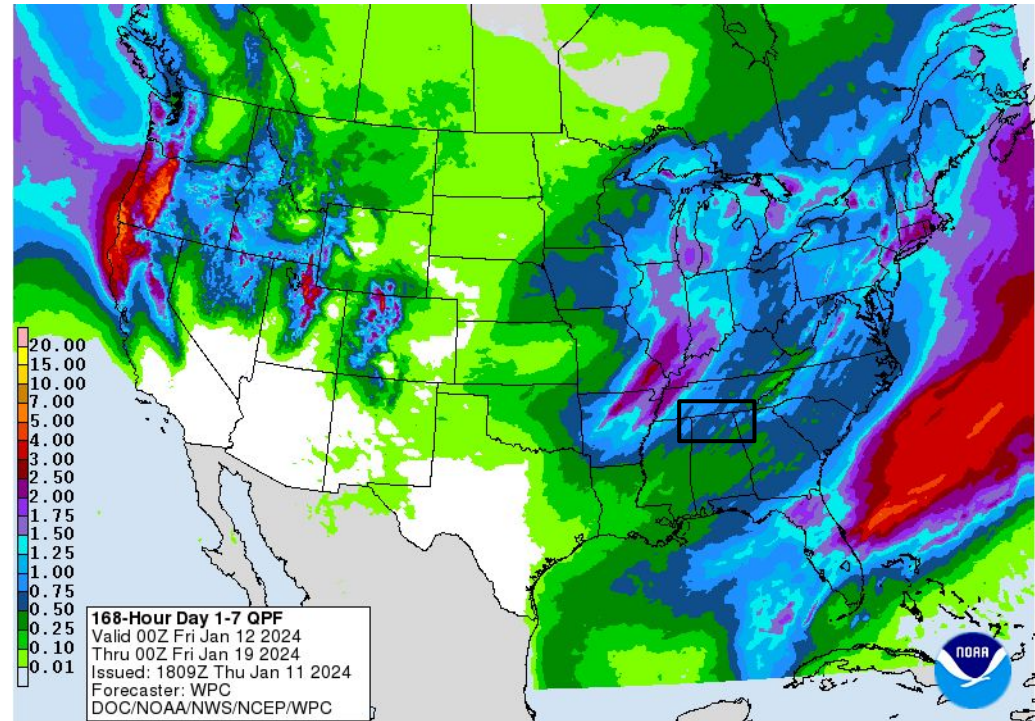
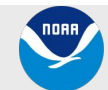


Image Caption: Weather Prediction Center 7-day precipitation forecast valid 7PM Jan 12 to 7PM Jan 19 (CST)





8-14 Day Outlook

Temperature and Precipitation Outlook

Main Takeaways

- Below Normal temperatures are favored for the area.
- Above Normal precipitation is slightly favored for southwest portions of the area, but Near Normal precipitation favored in the northeast ~half of the area.

Possible Impact

Conditions may be near steady-state or improve slightly during this period.

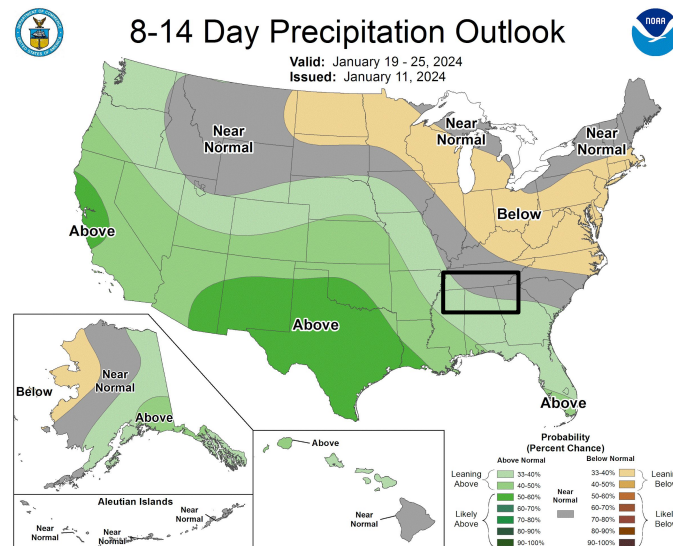
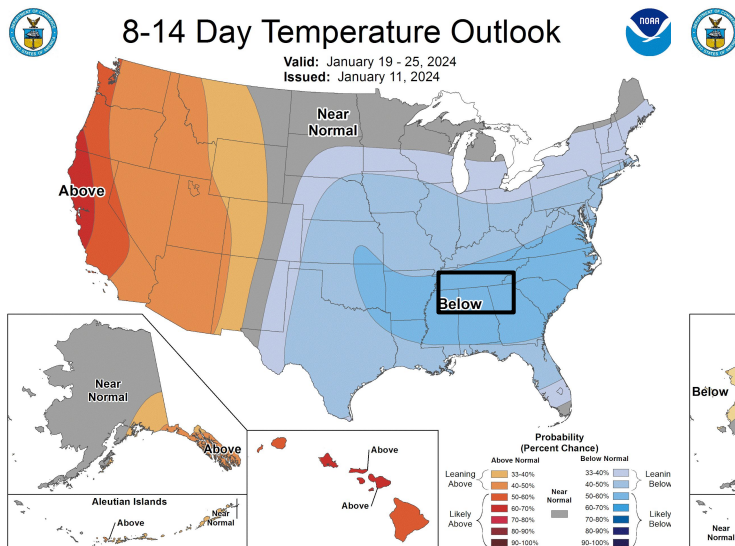


Image Captions:

Left - Climate Prediction Center 8-14 Day Temperature Outlook

Right - Climate Prediction Center 8-14 Day Precipitation Outlook

Valid December 22 to December 28, 2023



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Seasonal Outlook (January to March)

Seasonal Temperature and Precipitation Outlook

Main Takeaways

- **Temperatures:** Equal chances for below, near, or above normal temperatures for the Dec-Feb timeframe.
- **Precipitation:** Above Normal precipitation is slightly favored (33-40% chance) for most of northern Alabama, with Equal Chances for Below, Near, or Above Normal precipitation in Southern Middle Tennessee.

Possible Impact

Some improvement in drought conditions is possible overall during the January to March period. Although, confidence is not high for specific temperature and precipitation conditions.

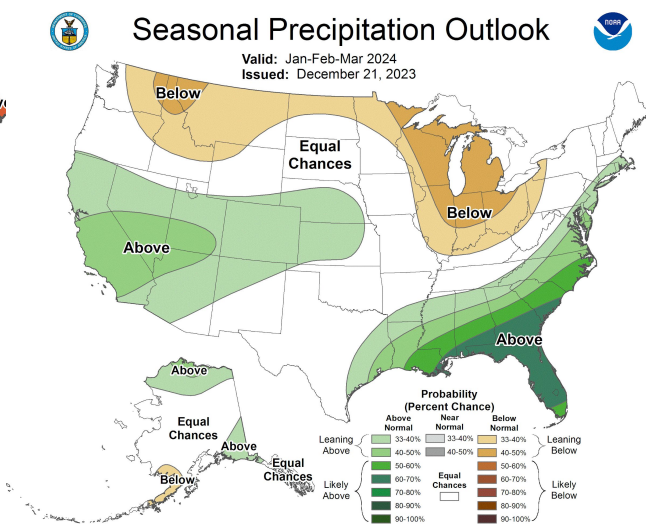
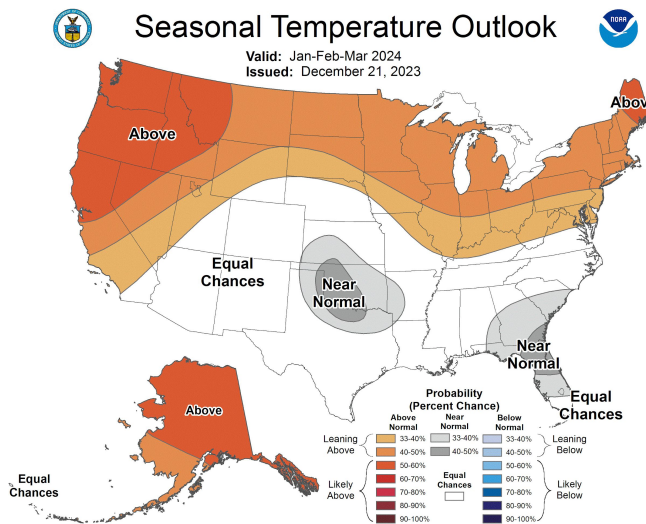


Image Captions:

Left - Climate Prediction Center Seasonal Temperature Outlook.

Right - Climate Prediction Center Seasonal Precipitation Outlook.

Valid January 24 to March 2024



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Local Drought Outlook

Seasonal Outlook

Main Takeaways

- Drought conditions are anticipated to improve across much of northern Alabama during the period, but may linger across areas currently under Extreme (D3) Drought conditions. Drought conditions in Tennessee are expected to persist for this period, at this time.

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

Valid for December 21, 2023 - March 31, 2024
Released December 21, 2023

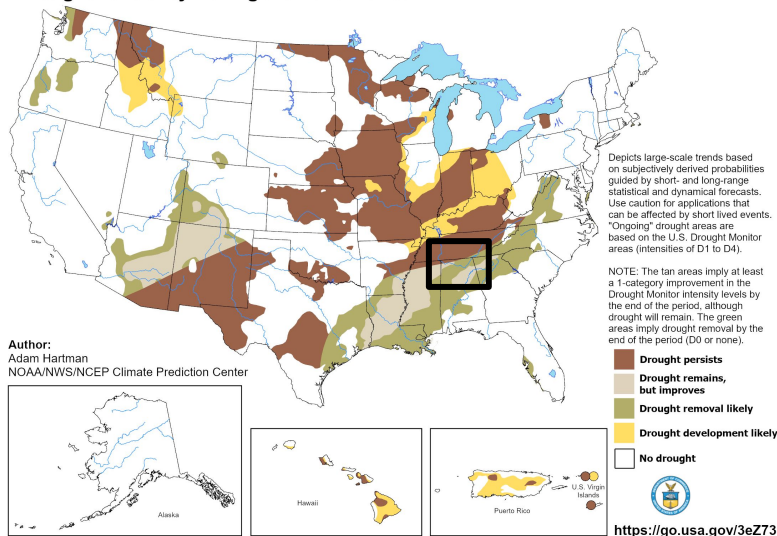


Image Caption:

Climate Prediction Center *Seasonal* Drought Outlook for December 21, 2023 to March 31, 2024, released December 21, 2023 (https://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.png)