



# Drought Information Statement for The Central Tennessee Valley

January 10, 2025

Issued By: WFO Huntsville, AL

Contact Information: [sr-hun.webmaster@noaa.gov](mailto:sr-hun.webmaster@noaa.gov)

- Drought continues for most areas, but conditions have improved overall since early December. This statement will be updated if or when drought conditions or impacts change significantly in the next several weeks.
  - Please see all currently available products at <https://drought.gov/drought-information-statements>
  - Please visit <https://www.weather.gov/hun/DroughtInformationStatement> for previous statements
  - Please visit <https://www.drought.gov/dews/Southeast>
- 
- MODERATE DROUGHT CONTINUES ACROSS MOST OF THE REGION, WITH SEVERE AND EXTREME DROUGHT ACROSS SOME CENTRAL AREAS AND IN PORTIONS OF SOUTHERN MIDDLE TENNESSEE.





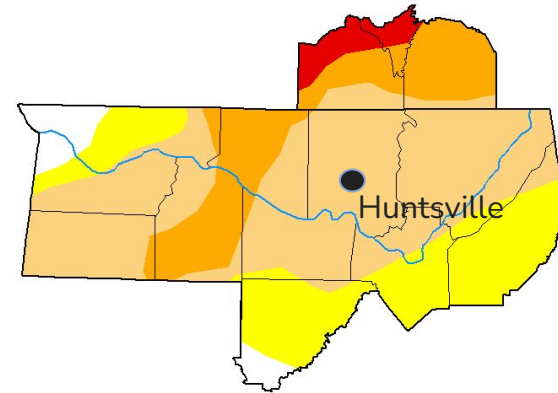
# U.S. Drought Monitor

Latest U.S. Drought Monitor Map

- **Drought intensity and Extent**
  - **D4 (Exceptional Drought):** None
  - **D3 (Extreme Drought):** About the northern half of Moore County and portions of northern Lincoln County
  - **D2 (Severe Drought):** Portions of Franklin, Moore and Lincoln Counties in Tennessee. In Alabama, mainly portions of Limestone and Lawrence Counties, along with small areas of eastern Lauderdale and Franklin Counties, and northwest Morgan County
  - **D1 (Moderate Drought):** Portions of southern Lincoln and Franklin Counties (TN), and much of northern Alabama, including the Huntsville metro
  - **D0 (Abnormally Dry):** Portions of Lauderdale and Colbert Counties, and areas from Cullman County northeastward through southern Marshall, much of DeKalb County and a small area of southern Jackson County

U.S. Drought Monitor  
Huntsville, AL WFO

January 7, 2025  
(Released Thursday, Jan. 9, 2025)  
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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CPC/NOAA



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

Image Caption: U.S. Drought Monitor valid 7 AM CDT, January 7, 2025



National Oceanic and Atmospheric Administration

U.S. Department of Commerce

National Weather Service  
Huntsville, AL



# One-Month Change in Drought Intensity

- Four-Week U.S. Drought Monitor Class Change
  - **Drought Worsened:** A very small area on the border of northeast Moore and northwest Franklin Counties
  - **No Change:** Most of the area
  - **Drought Improved:** Various areas in northern Alabama, including locations from eastern Morgan through southern/eastern portions of Madison, northern Jackson, and far southeast Franklin County (TN)...also, a swath from northern Limestone into northwest Madison Counties, small portions of southwest Lincoln, northwest Lauderdale and southeast Franklin (AL) Counties.

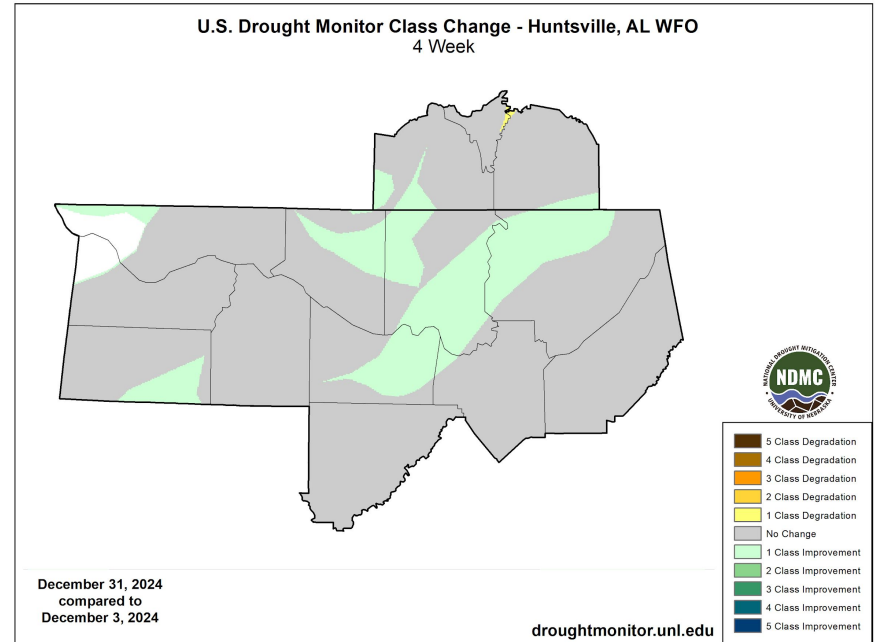
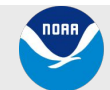


Image Caption: U.S. Drought Monitor 4-week change map valid ending 7AM CDT December 31, 2024.



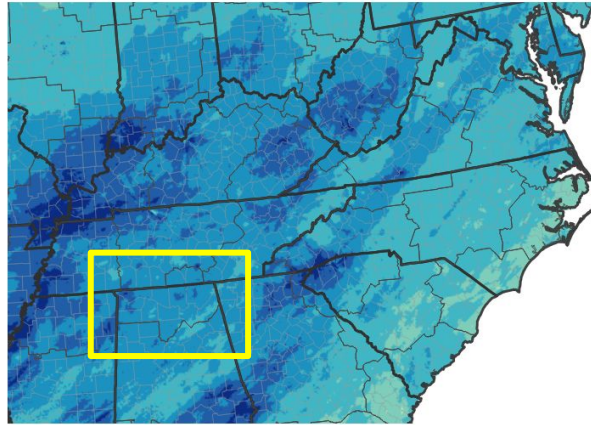


# Precipitation - Past 30 Days

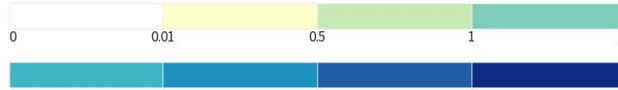
## Main Takeaways

- Precipitation ending January 10, 2025 totaled mainly around 4-6 inches.
- Rainfall was generally near 75-90% of normal for most locations, but was a little above normal mainly in portions of Lauderdale and Colbert Counties.

30-Day Precipitation Accumulations (Inches)

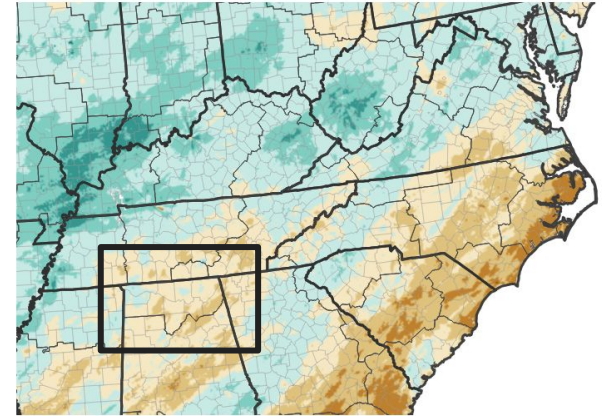


Inches of Precipitation

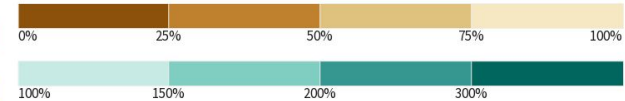


Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov Last Updated: 01/10/25

30-Day Percent of Normal Precipitation



Percent of Normal Precipitation (%)



Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov Last Updated: 01/10/25

Left - 30-Day Precipitation Totals, Right - 30-Day Percent of Normal Precipitation. Data ending Jan 10, 2025.





# Summary of Impacts

## Hydrologic Impacts

- The marked swings from deficits to surpluses in rainfall since the summer began have produced no significant hydrologic (streamflow) issues, other than a Major Flood that resulted on Big Nance Creek due to the impacts from tropical cyclone Francine. Most of the impacts have been associated with low soil moisture, while some impacts have also occurred with low or dry well levels in some areas.

## Agricultural Impacts

- USDA Crop and Progress Condition Reports in the early summer indicated crops had been negatively impacted due to the hot, dry weather, with corn, soybeans, cotton, hay and pastures all being affected. However, the most significant damage occurred specifically to the corn crop. More recently, reports had continued to indicate poor grazing conditions, with the need to supplement with hay, and low water in creeks and retention ponds. Some producers had experienced delays with planting winter wheat due to the dry conditions. Please see the 2024 Crop and Progress Condition Reports for [Alabama](#) and [Tennessee](#) from the USDA.

## Fire Hazard Impacts

- As reported by the Alabama Forestry Commission, since late June over 1000 acres have burned in northern Alabama within the Huntsville County Warning and Forecast Area. This includes the following larger fires: 100 acres in Colbert County (controlled on Sep 10th), 130 acres in Lawrence County (controlled on September 17th), and 135 acres in Colbert County (controlled on June 26th).

## Mitigation Actions

- All TN and AL counties in the Huntsville County Warning and Forecast Area have been included in a USDA Secretarial Disaster Declaration for Drought. Go to this link for more information: <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>
- On July 17, 2024, The Alabama Dept. of Economic and Community Affairs - Office of Water Resources placed Drought Regions 1 and 3 (which encompasses all of the Huntsville, AL NWS County Warning and Forecast Area) in a Drought Watch. This remains in effect.





# Hydrologic Conditions

- 28-Day average streamflows remain ~10th ranking percentile mainly for portions of the Elk River basin. Otherwise, streams in Lincoln, Moore, and Franklin Counties are generally in the 10-24th percentile over the 28-day period (averaged), with similar percentiles in portions of northeast and northwest Alabama. Otherwise, streams are considered in the Normal range elsewhere in northern Alabama.
- Lake Stages remain generally near to a little above normal

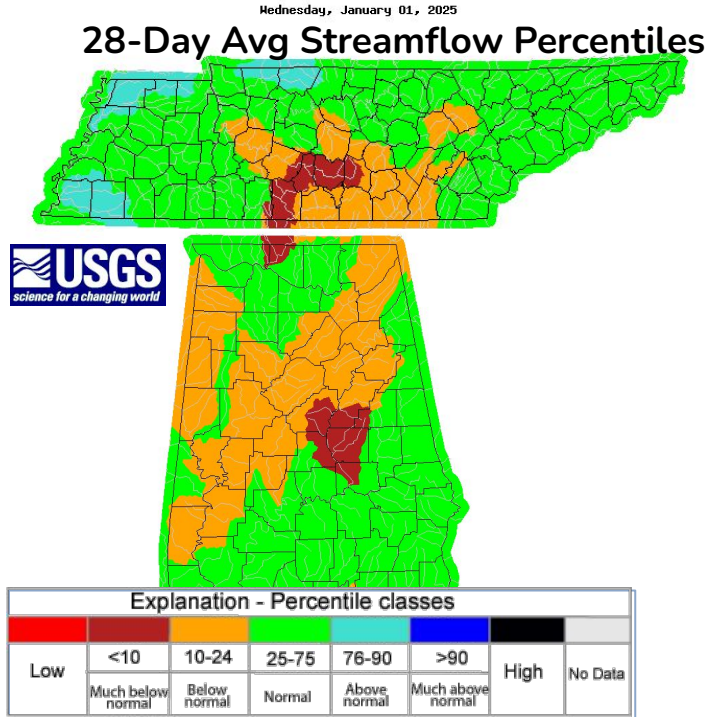
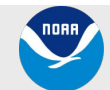


Figure Caption: USGS 28-day streamflow percentiles for Tennessee and Alabama, valid Jan 01, 2025

## Lake Stages

Reservoir/ Lake	Pool Elevation (ft)	Current Elevation (ft)	Percent Full
Bear Creek	566	567	>100%
Little Bear Creek	608	609	>100%
Cedar Creek	566	566	100%
Tim's Ford	870	874	>100%
Nickajack	633-635	633	Within Operating Range (WOR)
Guntersville	593-594	594	WOR
Wheeler	551-552	552	WOR
Wilson	505-506	505	WOR
Pickwick	408-410	411	Slight Above
Lewis Smith	498	502	>100%

Table caption: Reservoir conditions as of Jan 09, 2025

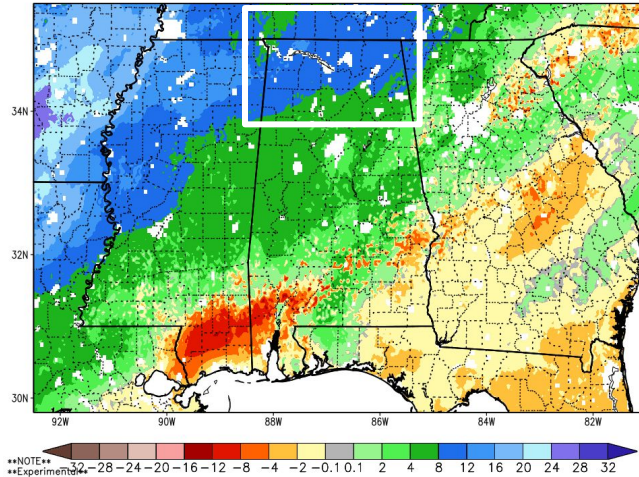




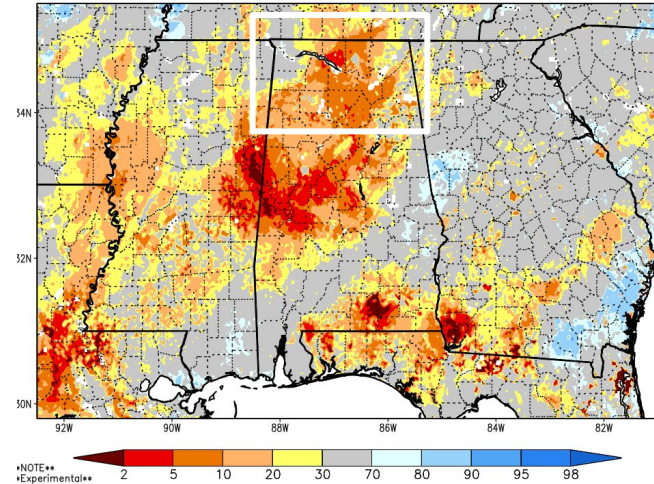
# Agricultural Impacts - Soils

- Per the latest NASA SPoRT soil moisture data, 0-200 cm relative soil moisture has increased generally around 8-12% over the last 30 days.
- Although soil moisture has increased, moisture levels still remain below average for this time of year. 0-200 cm soil moisture values are still around the 10th to 20th ranking percentiles or lower for much of the area.

1-Month Difference in Column Relative Soil Moisture (%) valid 12z 10 Jan 2025



SPoRT-LIS 0-200 cm Soil Moisture percentile valid 10 Jan 2025



### Image Captions:

Left: NASA SPoRT 1-Month Difference in 0-200 cm Relative Soil Moisture, ending Jan 10, 2025

Right: NASA Short-term Prediction Research and Transition (SPoRT) Center 0-200 cm Soil Moisture Ranking Percentile based on a 33-year climatology (1981-2013), Jan 10, 2025





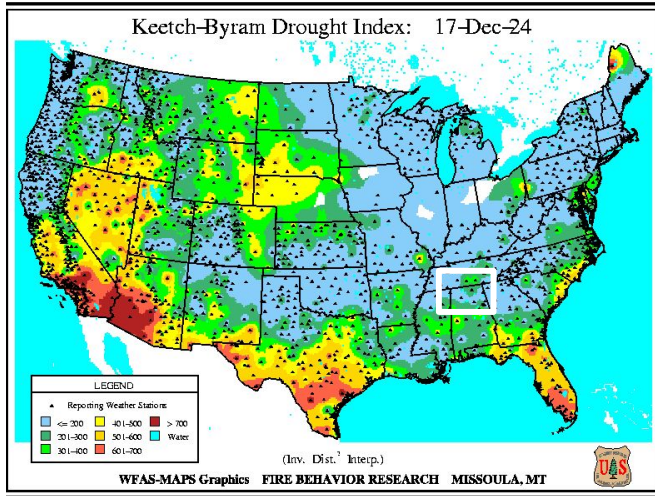
# Fire Hazard Impacts

Link to [Wildfire Potential Outlooks from the National Interagency Coordination Center](#).

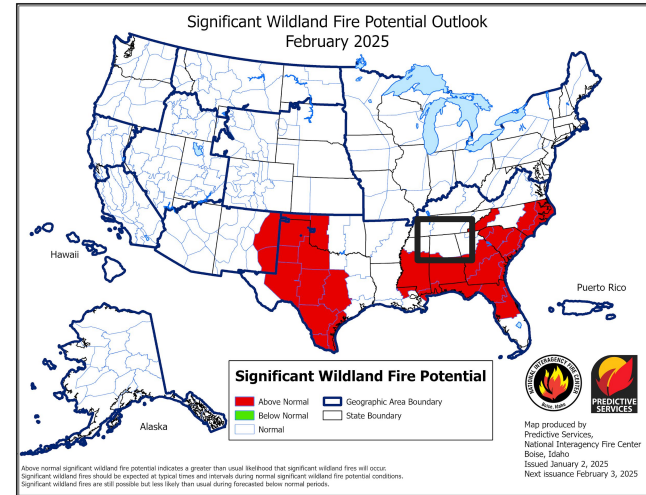
- [Keetch Byram Drought Index \(KBDI\)](#) began to fall in the late fall as warmer weather subsided and the region began to experience greater rainfall. Values have not been updated since Dec 17, 2024, but were generally around 200-400.
- NWS offices may issue Red Flag Warnings when KBDI values climb above 300 in Alabama, although other weather criteria based on wind speeds and relative humidity must also be met.

The Alabama Forestry Commission uses the KBDI as a system for relating current and recent weather conditions to potential or expected fire behavior. It is a numerical index calculated daily for each county. Each number is an estimate of the amount of rain, in hundredths of an inch, needed to bring the soil back to saturation. The index ranges from 0 to 800, with 0 representing a saturated soil and 800 a completely dry soil.

- Burn Permits are required in Tennessee from Oct 15 to May 15 for debris pile fires in areas without local restrictions.
- Predictive Services at the SACC indicates Normal Wildland Fire Potential conditions for February, 2025



Left Image Caption: Keetch-Byram Drought Index (KBDI) for the Continental U.S., estimated for 17 Dec, 2025



Right Image Caption: Significant Wildland Fire Potential Outlook, February 2025





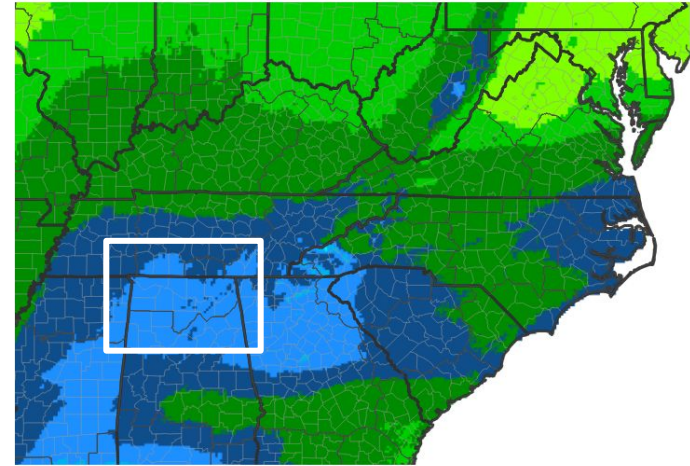


# Seven-Day Precipitation Forecast

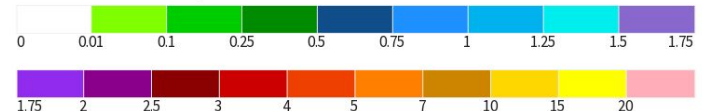
- Forecast Precipitation (Jan 10 - Jan 17):

- Rainfall is forecast to range from around 0.75 to 1.00 inch for the area over the next week through January 17, 2025, but this includes expectations for melted snowfall from the Jan 10, 2025 event.
- Around 1.25 - 1.50 inches of precipitation is normal for this time of year for a weekly period.

7-Day Quantitative Precipitation Forecast for January 10, 2025–January 17, 2025



Predicted Inches of Precipitation



Source(s): National Weather Service Weather Prediction Center; image courtesy of Drought.gov Last Updated: 01/10/25

Image Caption: Weather Prediction Center 7-day precipitation forecast, valid Jan 10-17, 2025



# Monthly Outlooks - January 2025

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- For January, odds are slightly in favor (33-40%) for Above Normal Temperatures for the period. It's important to note that the Monthly Outlook includes probabilities for 3-categories: Above, Near, and Below Normal Temperatures.
- For January, there are generally Equal Chances for Below, Near, or Above Normal Precipitation for the majority of the Tennessee Valley region.

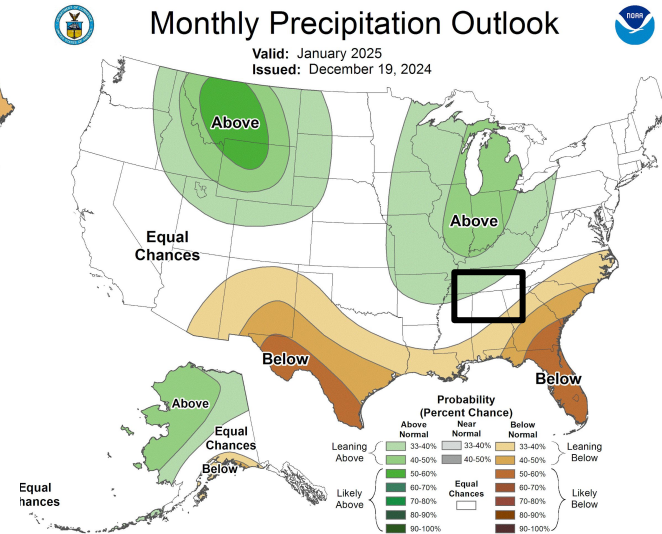
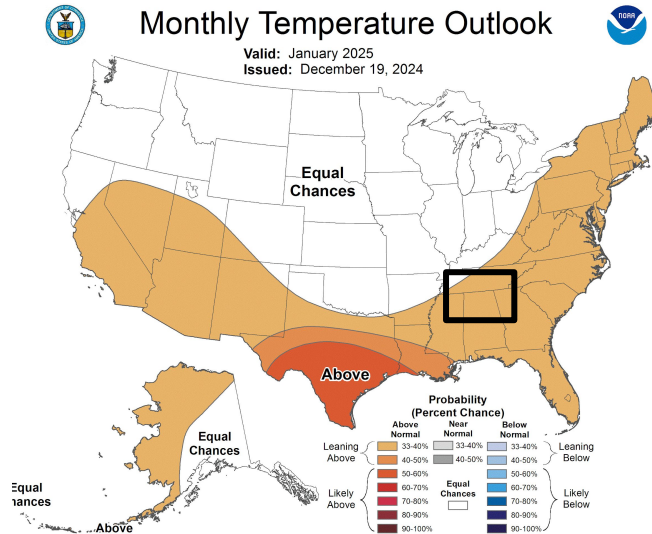


Image Caption: Climate Prediction Center Monthly Outlooks for Temperatures (left) and Precipitation (right) for December 2024





# Seasonal Outlooks - January to March

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

## Main Takeaways

- **Temperatures:** Above Normal Temperatures are moderately favored (40-50% probability) for nearly all of the area for the December to February period.
- **Precipitation:** For the January to March period, there are Equal Chances for Above, Near, or Below Normal Precipitation for the majority of the area, although there is a slight chance (33-40%) for Above Normal Precipitation mainly for portions of Lauderdale and Lincoln Counties.

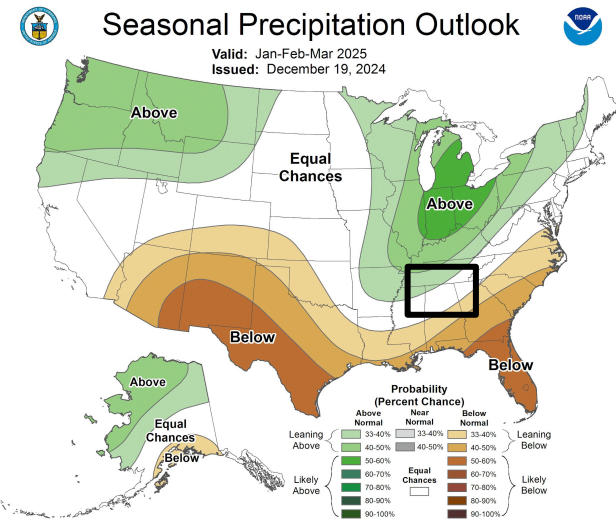
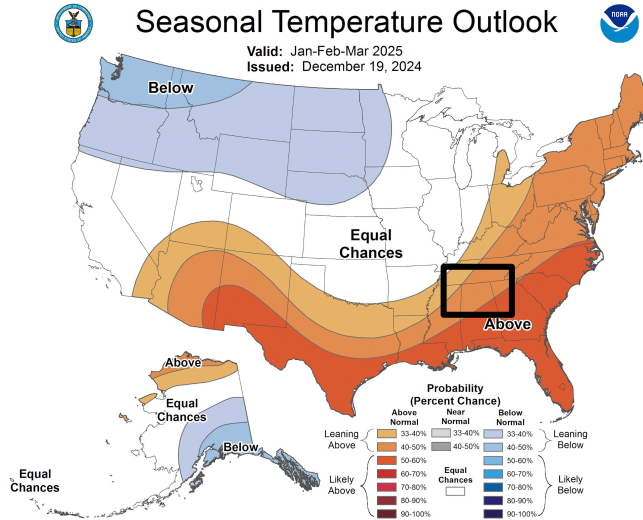


Image Caption: Climate Prediction Center Seasonal Outlooks for Temperatures (left) and Precipitation (right) for January to March 2025

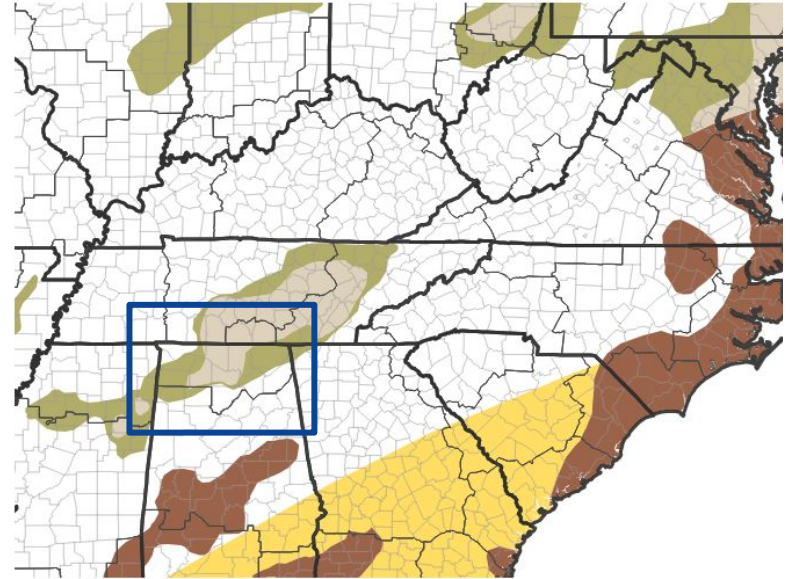


# Seasonal Drought Outlook

The latest monthly and seasonal drought outlooks can be found on the [CPC homepage](#)

- As of the latest Seasonal Drought Outlook, drought conditions are expected to improve or end across the area during the period.

**Seasonal (3-Month) Drought Outlook for December 31, 2024–March 31, 2025**



**Drought Is Predicted To...**



Source(s): Climate Prediction Center; image courtesy of Drought.gov

Last Updated

Links to the latest:

[Climate Prediction Center Monthly Drought Outlook](#)

[Climate Prediction Center Seasonal Drought Outlook](#)