



# Drought Information Statement

## For East Tennessee, Southwest Virginia, and Southwest North Carolina

Valid December 21, 2023

Issued By: WFO Morristown, TN

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

- This product will be updated in the next week or sooner if drought conditions change significantly.
- Please see all currently available products at <https://drought.gov/drought-information-statements>.
- Please visit <https://www.weather.gov/mrx/DroughtInformationStatement> for previous statements.





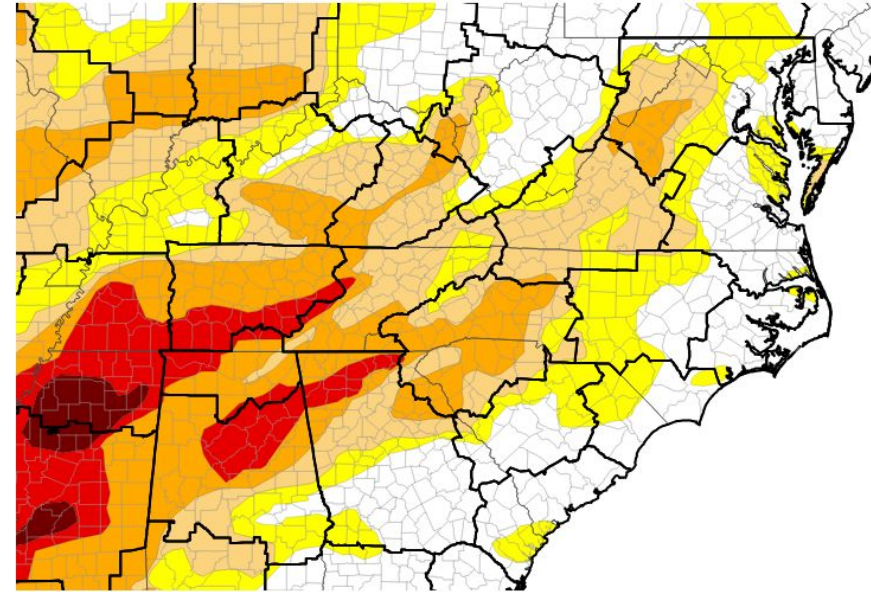
# U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for the NWS Morristown CWA

- **Drought intensity and Extent**

- **D4 (Exceptional Drought):** None.
- **D3 (Extreme Drought):** Parts of Plateau.
- **D2 (Severe Drought):** Southeast Tennessee and Cherokee and Clay counties of North Carolina.
- **D1 (Moderate Drought):** Much of the northern Plateau, central and northeast Tennessee, and southwest Virginia.
- **D0: (Abnormally Dry):** Parts of southwest Virginia and northeast Tennessee.

U.S. Drought Monitor



U.S. Drought Monitor



Source(s): NDMC, NOAA, USDA; image courtesy of Drought.gov

Data Valid: 12/19/23



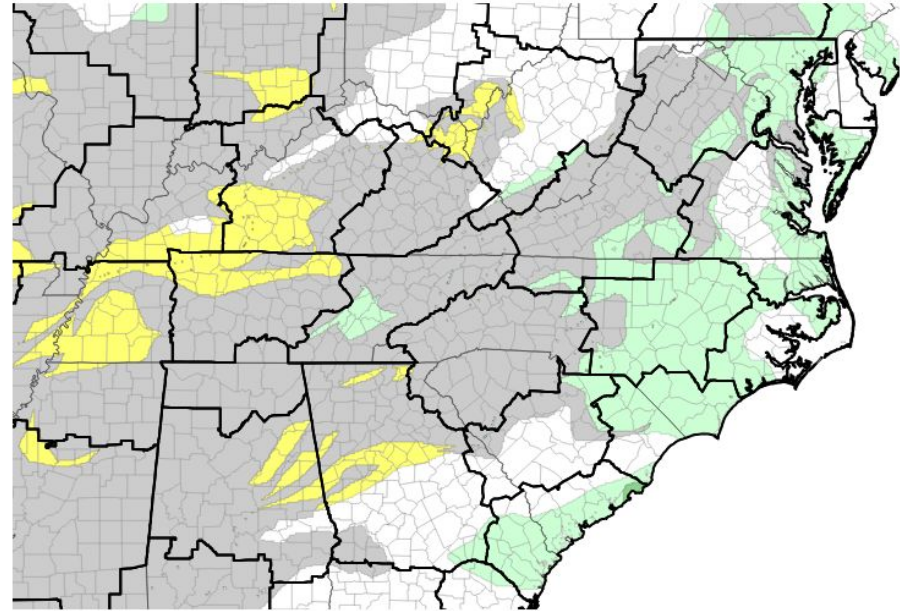


# Recent Change in Drought Intensity

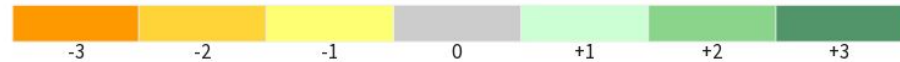
Link to the latest 1-week change map for the Southern Appalachians

- Four Week Drought Monitor Class Change.
  - **Drought Worsened:** None
  - **No Change:** Most places outside of the central and southern Valley
  - **Drought Improved:** Much of the area saw improved drought conditions due to the recent rains.

U.S. Drought Monitor 1-Week Change Map



Drought Change Since Last Week



Source(s): NDMC, NOAA, USDA; image courtesy of Drought.gov

Data Valid: 12/19/23

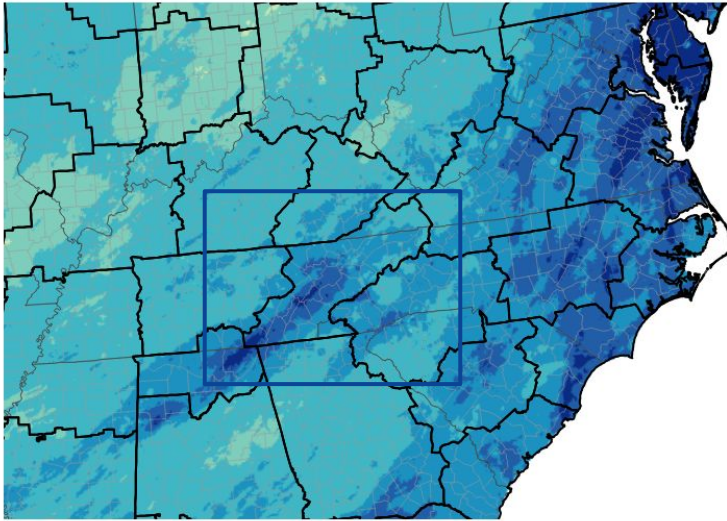




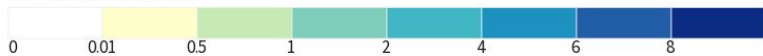
# Precipitation

- Closer to normal precipitation has been occurring.

### 30-Day Precipitation Accumulations (Inches)



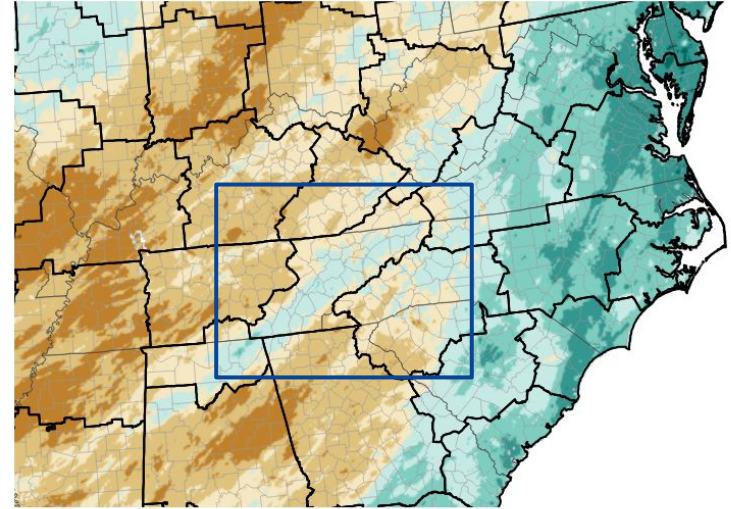
#### Inches of Precipitation



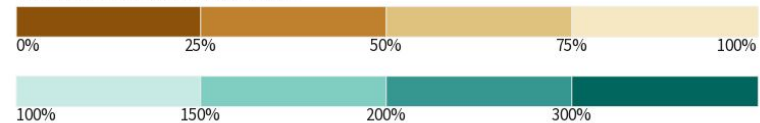
Source(s): National Weather Service Multi-Radar Multi-Sensor System;  
image courtesy of Drought.gov

Last Updated: 12/21/23

### 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

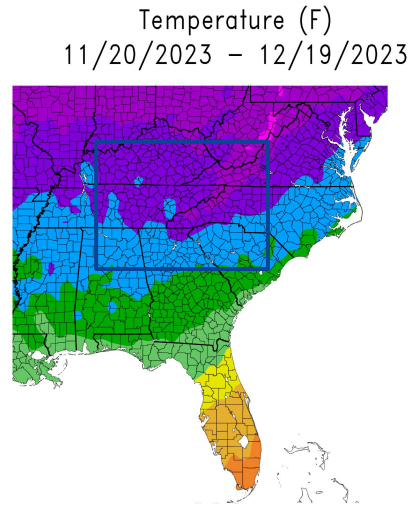
Last Updated: 12/21/23



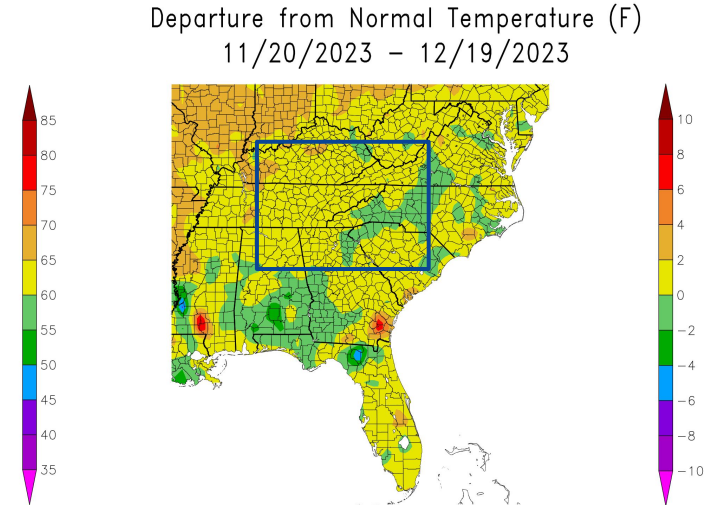


# Temperature

- Temperatures have been slightly above normal during the past 4 weeks.



Generated 12/20/2023 at HPRCC using provisional data.



NOAA Regional Climate Centers 2023 at HPRCC using provisional data.

NOAA Regional Climate Centers





# Summary of Impacts

Links: See/submit [Condition Monitoring Observer Reports \(CMOR\)](#) and view the [Drought Impacts Reporter](#)

## Hydrologic Impacts

- Stream flows have improved across the entire region.

## Agricultural Impacts

- Soil moisture has improved.

## Fire Hazard Impacts

- Tennessee Forestry has reported little to no fire activity after the recent rainfall

## Other Impacts

- Stay tuned for future updates.

## Mitigation Actions

- Please refer to your municipality and/or water provider for mitigation information. Continue to abide by local burning bans and regulations.

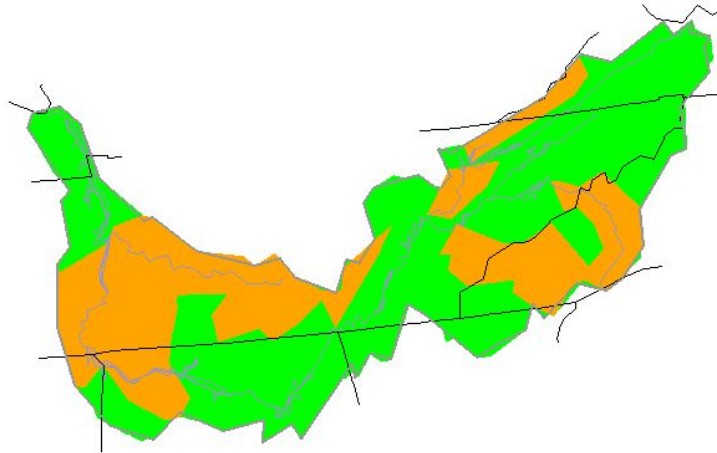




# Hydrologic Conditions and Impacts

Hednesday, December 20, 2023

- Streamflows have improved over much of the area.



Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

Image Caption: USGS 7 day average streamflow HUC map valid 11/29/2023

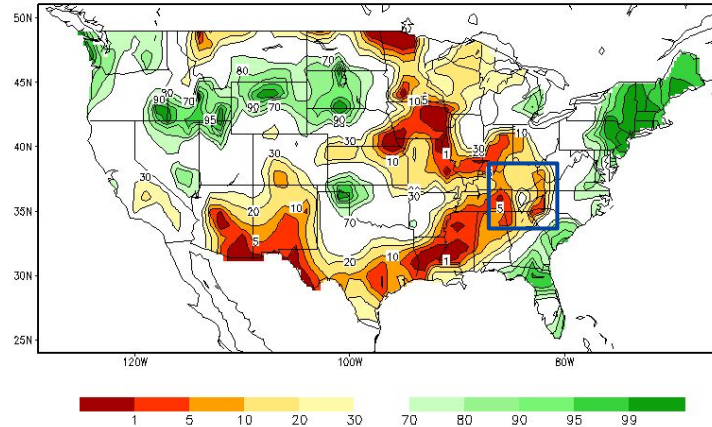




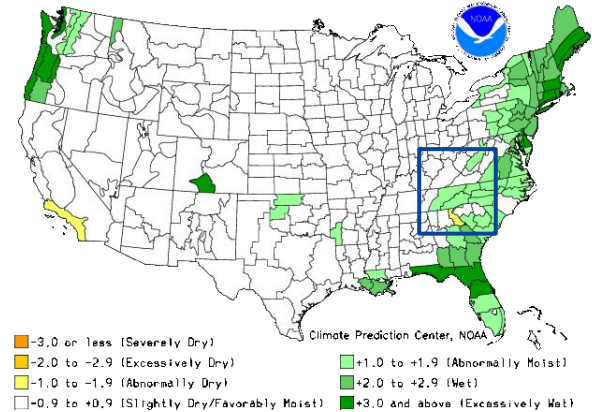
# Agricultural Impacts

- Soil moisture has improved.
- Recent dry weather has resulted in some drier soil conditions over the past week.

Calculated Soil Moisture Ranking Percentile  
DEC 20, 2023



Crop Moisture Index by Division  
Weekly Value for Period Ending DEC 16, 2023  
Short Term Need vs. Available Water in a Shallow Soil Profile







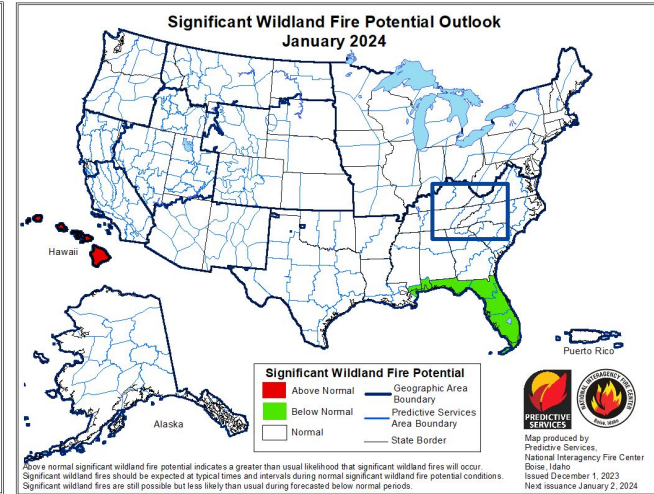
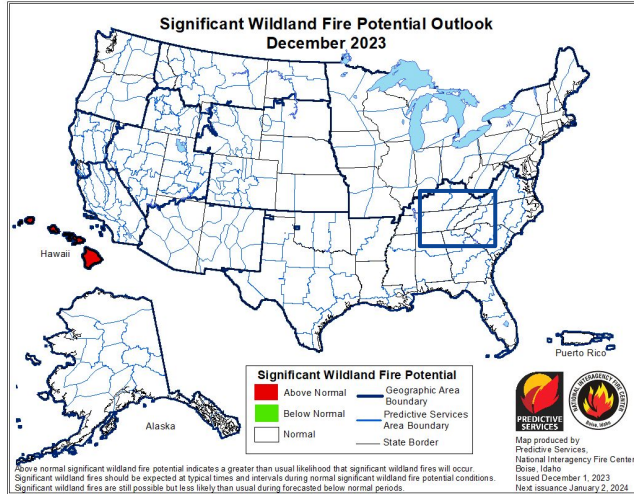
# Fire Hazard Impacts

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

Latest TN Burn Ban map available [here.](#)

Latest VA Burn Ban map available [here.](#)

Latest NC Burn Ban information available [here.](#)

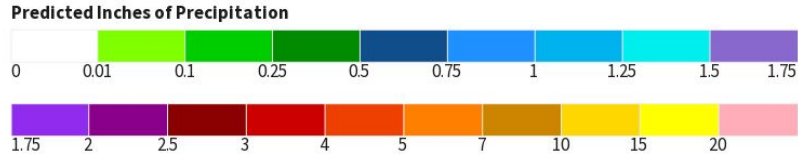
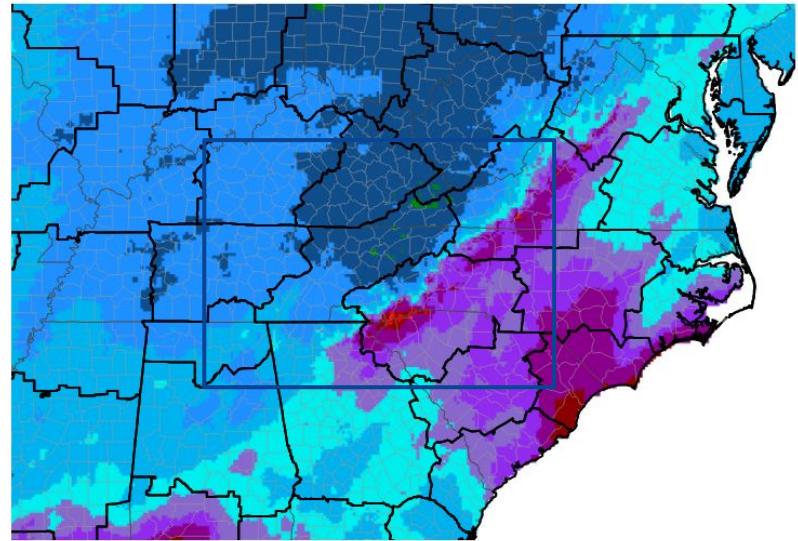




# Seven Day Precipitation Forecast

- Precipitation is expected during the next 7 days.
  - The best chances of precipitation will be on Monday and Tuesday (Dec 25th and 26th). Spotty precipitation will be possible behind the cold front towards the middle of next week.

7-Day Quantitative Precipitation Forecast



Source(s): National Weather Service Weather Prediction Center; image courtesy of Drought.gov Data Valid: 12/21/23



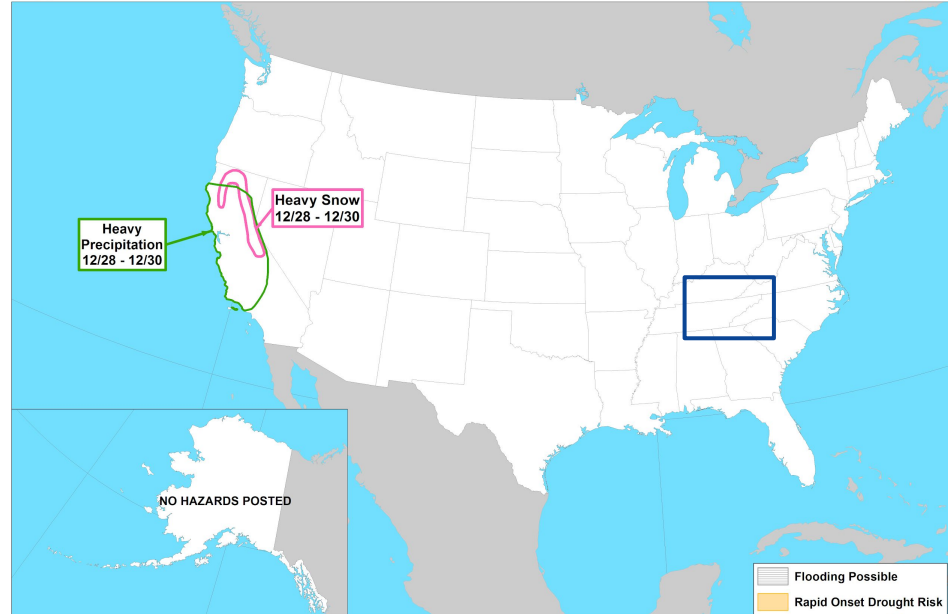
# Rapid Onset Drought Outlook

Links to the latest Climate Prediction Center 8 to 14 day [Temperature Outlook](#) and [Precipitation Outlook](#).

- No rapid drought onset is expected.



Day 8-14 U.S. Hazards Outlook  
Valid: 12/28/2023-01/03/2024



Climate Prediction Center  
Made: 12/20/2023 3PM EST

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[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

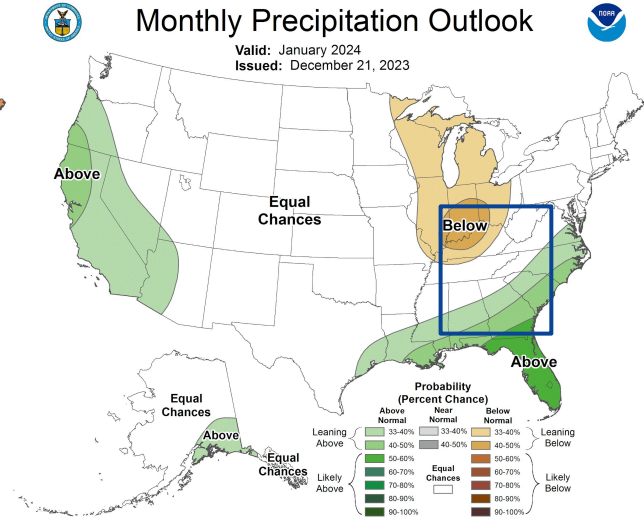
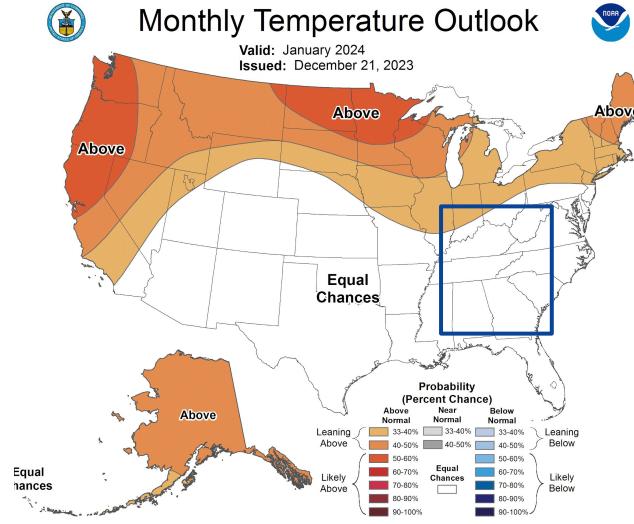




# Long-Range Outlooks

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

- Cooler, near normal temperatures are expected into January
- We'll be between below normal precipitation across the Ohio Valley and wetter than normal conditions across the Southeast U.S.



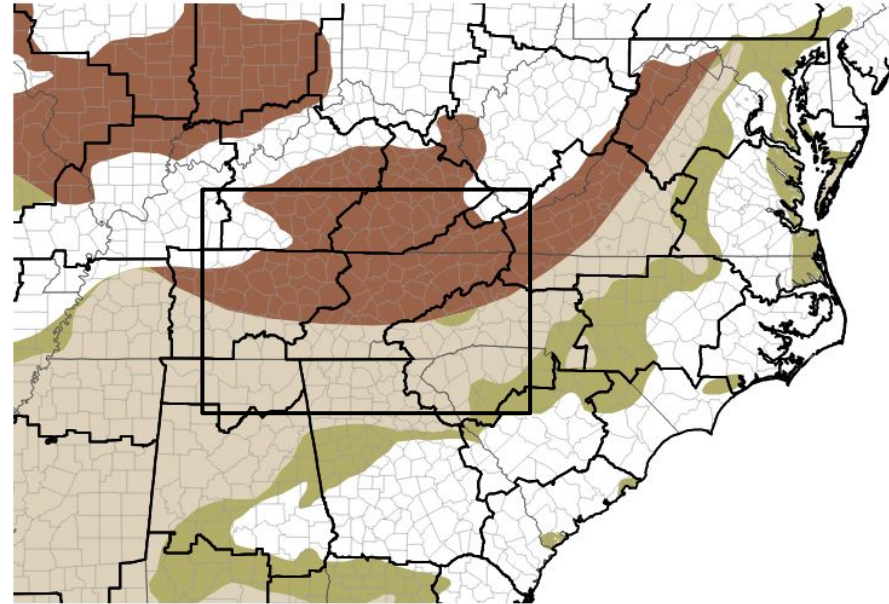


# Drought Outlook

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

- Drought conditions have been steadily improving across the region.

## 1-Month Drought Outlook



### Drought Is Predicted To...



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

Data Valid: 11/30/23

Links to the latest:

[Climate Prediction Center Monthly Drought Outlook](#)

[Climate Prediction Center Seasonal Drought Outlook](#)



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Morristown, TN