

# Drought Information Statement for the Western Carolinas and NE Georgia Valid December 8, 2023

Issued By: WFO Greenville-Spartanburg, SC Contact Information: <a href="mailto:joshua.palmer@noaa.gov">joshua.palmer@noaa.gov</a>

- This product will be updated before December 23, 2023.
- Please see all currently available products at <u>https://drought.gov/drought-information-statements</u>.
- Please visit <u>https://www.weather.gov/gsp/drought</u> for previous statements.





U.S. Drought Monitor

Link to the latest U.S. Drought Monitor for the NWS Greenville-Spartanburg Service Area

### Reintroduction of Extreme Drought Conditions for portions of Upstate South Carolina and western North Carolina

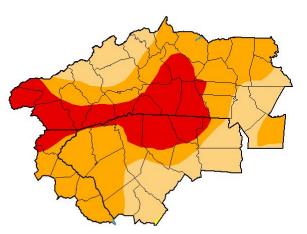
### **Drought Intensity and Extent**

- D3 (Extreme Drought): Reintroduction in mountainous areas near the NC/SC state line as well as the foothill region from northern Greenville County, SC to Burke County, NC due to well below-normal rainfall since November 28th and increasing 60- and 90-day rainfall deficits.
- D2 (Severe Drought): No changes since November 28th.
- D1 (Moderate Drought): Upgraded to D1 from D2 over the Oconaluftee River watershed due to above-normal rainfall since mid-November.



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## U.S. Drought Monitor Greenville-Spartanburg, SC WFO



#### December 5, 2023

(Released Thursday, Dec. 7, 2023) Valid 7 a.m. EST

|   | Drought Conditions (Percent Area) |        |              |       |       |      |  |  |
|---|-----------------------------------|--------|--------------|-------|-------|------|--|--|
|   | None                              | D0-D4  | D1-D4        | D2-D4 | D3-D4 | D4   |  |  |
| Current                                 | 0.00                              | 100.00 | 99.92        | 71.42 | 25.67 | 0.00 |  |  |
| Last Week<br>11-28-2023                 | 0.00                              | 100.00 | <u>99.91</u> | 72.02 | 15.98 | 0.00 |  |  |
| 3 Month s Ago<br>09-05-2023             | 82.45                             | 17.55  | 1.70         | 0.00  | 0.00  | 0.00 |  |  |
| Start of<br>Calendar Year<br>01-03-2023 | 97.20                             | 2.80   | 1.64         | 0.00  | 0.00  | 0.00 |  |  |
| Start of<br>Water Year<br>09-26-2023    | 58.28                             | 41.72  | 1.70         | 0.00  | 0.00  | 0.00 |  |  |
| One Year Ago<br>12-06-2022              | 64.74                             | 35.26  | 14.98        | 0.00  | 0.00  | 0.00 |  |  |

#### Intensity:

None D2 Severe Drought
D0 Abnormally Dry D3 Extreme Drought
D1 Moderate 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

#### Author

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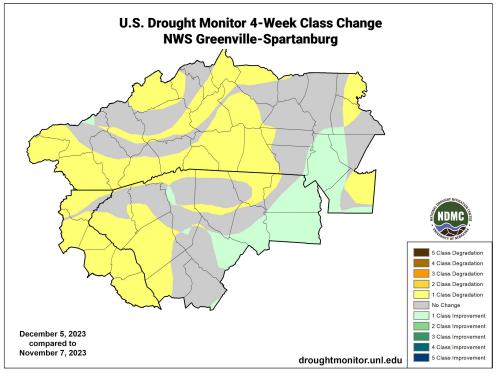
droughtmonitor.unl.edu

## Recent Change in Drought Intensity

Link to the latest <u>4-week change map</u> for the southeast U.S.

### Four Week U.S. Drought Monitor Class Change (November 7 to December 5, 2023)

- **Drought Degradation:** The upper Savannah River Valley, the southern NC mountains, the Blue Ridge Escarpment, and Madison County, NC all experienced one class of degradation since November 7th.
- No Change: Portions of the interior NC mountains, Upstate SC, and the western NC Piedmont experienced no overall change in drought since November 7th.
- **Drought Improvement:** Portions of the Charlotte metro and the lower SC Piedmont, from Laurens County to York County, experienced one class of improvement since November 7th.

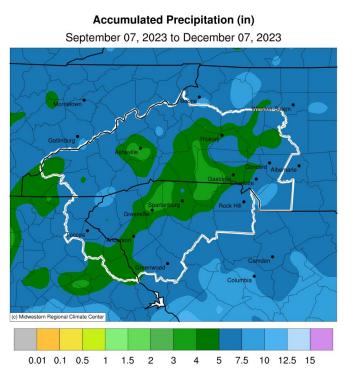




Precipitation

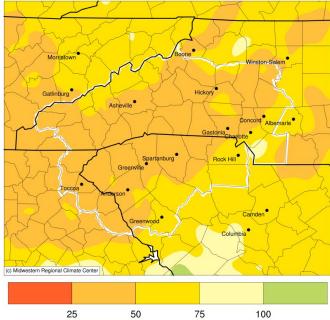
#### Data over the past 90 days from September 7, 2023 to December 7, 2023

- NC Mountains: 3.5-8" of precipitation has fallen since September 7, which is 30-60% of normal.
- Northeast GA: 4.5-7.5" of precipitation has fallen since September 7, which is 30-50% of normal.
- Upstate SC: 3.5–7.5" of precipitation has fallen since September 1, which is 30-70% of normal.
- NC Piedmont: 3.5–8" of precipitation has fallen since September 7, which is 30-80% of normal.



#### Accumulated Precipitation (in): Percent of 1991-2020 Normals

September 07, 2023 to December 07, 2023





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

## Hydrologic Impacts

- The Catawba-Wateree and Keowee-Toxaway River Basins are in Stage 1 drought.
- The Upper Savannah River is in Level 2 drought.
- Topsoil moisture is decreasing again due to limited rainfall this past week. Deeper soil moisture remains well-below normal.

## Fire Hazard Impacts

- The NC Forest Service is reminding the public to be "careful, ready, and responsible when burning outdoors."
- Two wildfires, about 125-180 acres in size, are occurring in McDowell County, NC. Containment has increased to 55-85%.

## **Mitigation Actions**

- Numerous municipalities are enacting Stage 1/Voluntary Water Restrictions, including, but not limited to, in NC: Canton, Franklin, Marion, Lenoir, Taylorsville, Iredell County, Union County; and in SC: Landrum.
- Some municipalities, including Hendersonville and Highlands in NC, have enacted Stage 2 Mandatory Water Restrictions.
- Refer to your municipality and/or water provider for mitigation information.



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## Hydrologic Conditions and Impacts

USGS 28-Day Average Streamflows for the U.S. Available Here

 As of December 7th, 28-day average USGS streamflows across most of the service area are below the 25th percentile of historical flows. The upper Catawba, South Fork Catawba, Broad, French Broad, and Toxaway-Seneca rivers are running well-below normal or lower than 90 percent of historical flows. The Chattooga, Pigeon, and Little Tennessee rivers are running near the lowest values on record for the calendar date. Recent rainfall has improved streamflows in the Oconaluftee River watershed.



Image Caption: North Carolina 28-Day Average Streamflows



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Science for a changing world

Explanation - Percentile classes

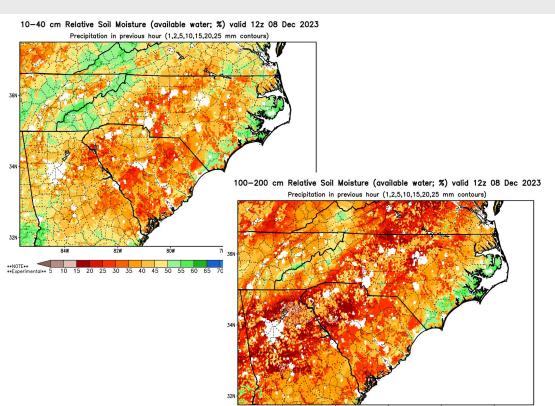
| •   |                      |                 | •      |       |                      | •    | 0          |
|-----|----------------------|-----------------|--------|-------|----------------------|------|------------|
| Low | <10                  | 10-24           | 25-75  | 76-90 | >90                  | High | Not-ranked |
|     | Much below<br>normal | Below<br>normal | Normal | Above | Much above<br>normal |      |            |



- Soil Conditions: Topsoil moisture briefly recovered in late November due to near-normal to slightly above normal rainfall across the area. Limited rainfall this past week has depleted much of this recovery. Deeper soil moisture remains well-below normal.
- **Pastures:** Pastures are responding modestly to recent rainfall but remain in poor to very poor condition. Winter hay is being fed early to livestock across much of the area.
- **Crops:** Soil conditions are hindering winter grain planting. Below-normal pecan production due to late summer dryness is being reported in SC.
- Additional Impacts: Christmas tree damage is being reported in Buncombe County, NC.

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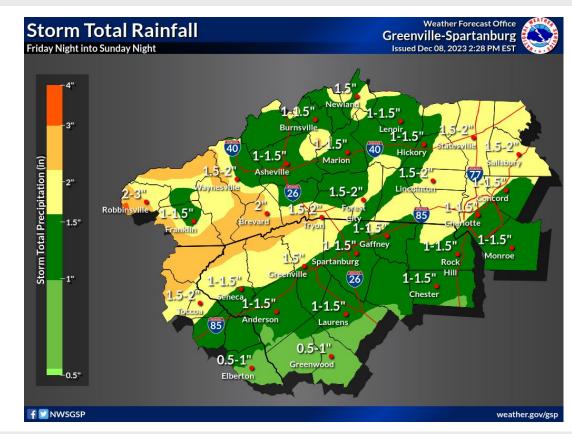
10 15

National Weather Service Greenville-Spartanburg, SC

25 30 35 40 45 50 55 60

## Seven-Day Precipitation Forecast

- A strong storm system capable of producing thunderstorms and isolated to scattered areas of heavy rain will move across the Greenville-Spartanburg service area on December 10. There is medium confidence that most of the area will receive 0.75-1.50" of rainfall. The southwest NC mountains, extreme northeast GA and northwest Upstate SC may see widespread 1.50-2.50" of rainfall.
- Rainfall rates are expected to be high within thunderstorms. Intense rainfall may limit infiltration and increase runoff due to dry soils. Little additional precipitation is expected through December 15th.



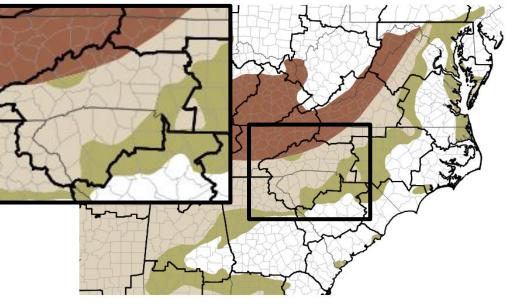


## **Drought Outlook**

Opportunities for rainfall will continue through December and lead to improving drought conditions for many

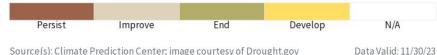
- Short-Term: A strong storm system will move across the Greenville-Spartanburg service area on December 10. There is medium confidence that most of the area will receive 0.75-2.00" of rainfall. This rainfall would prevent drought conditions from worsening over the next 1-2 weeks.
- Long-Term: The CPC Precipitation Outlook for December 2023 calls for a 40% to 50% chance of above-normal precipitation. Historically, El Niño results in a more active storm track across the Gulf Coast and Southeast. Above-normal precipitation would improve drought conditions through December.

Links to the latest: <u>Climate Prediction Center Monthly Drought Outlook</u> <u>Climate Prediction Center Seasonal Drought Outlook</u>



#### 1-Month Drought Outlook: December 2023

#### Drought Is Predicted To...



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