



Drought Information Statement

For East Tennessee, Southwest Virginia, and Southwest North Carolina

Valid October 19, 2023

Issued By: WFO Morristown, TN

Contact Information: 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

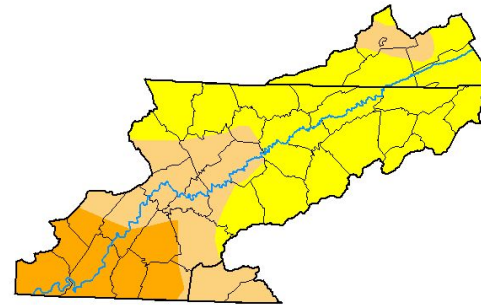
Link to the [latest U.S. Drought Monitor](#) for the NWS Morristown CWA

- Drought conditions continue to worsen across the Tennessee Valley and Southern Appalachians.

- **Drought intensity and Extent**

- **D4 (Exceptional Drought):** None.
- **D3 (Extreme Drought):** None.
- **D2 (Severe Drought):** southern plateau and far southern valley.
- **D1 (Moderate Drought):** Wise, VA and central valley through southwest NC.
- **D0: (Abnormally Dry):** Entire area.

U.S. Drought Monitor Morristown, TN WFO



October 17, 2023
(Released Thursday, Oct. 19, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|--------|-------|-------|-------|-------|------|
| Current | 0.05 | 99.95 | 44.52 | 17.59 | 0.00 | 0.00 |
| Last Week 10-10-2023 | 19.99 | 80.01 | 18.85 | 8.35 | 0.00 | 0.00 |
| 3 Months Ago 07-18-2023 | 82.85 | 17.15 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Calendar Year 01-01-2023 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Water Year 09-26-2023 | 58.94 | 41.06 | 6.95 | 0.00 | 0.00 | 0.00 |
| One Year Ago 10-18-2022 | 42.83 | 57.17 | 38.05 | 5.94 | 0.00 | 0.00 |

Intensity:



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:

Rocky Bilotta
NCEI/NOAA



droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 8am EDT October 17th.





Recent Change in Drought Intensity

Link to the latest [4-week change map](#) for the NWS Morristown CWA

- Four Week Drought Monitor Class Change.
 - **Drought Worsened:** Most places across southeast and central east Tennessee, Cumberland Plateau, and Cherokee and Clay counties of North Carolina.
 - **No Change:** Portions of SW VA.
 - **Drought Improved:** None.

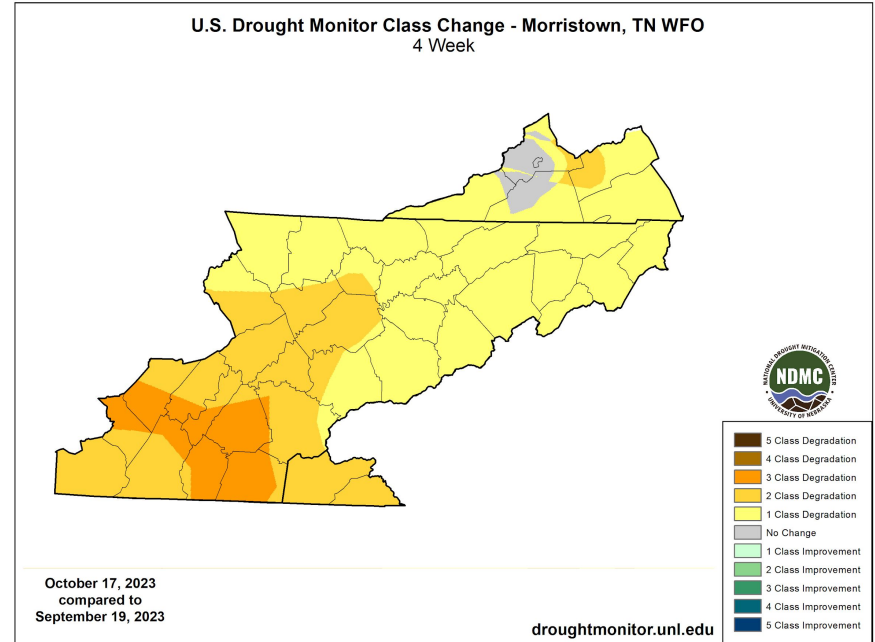


Image Caption: U.S. Drought Monitor 4-week change map valid October 17th.

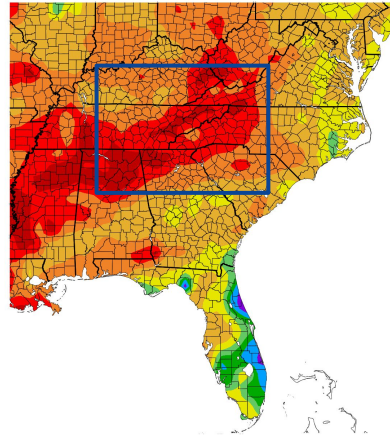




Precipitation

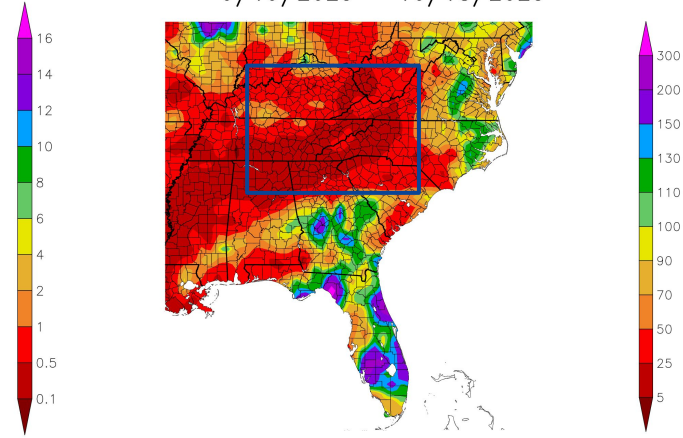
- Notably drier than normal conditions have been occurring across the region.

Precipitation (in)
9/19/2023 - 10/18/2023



Generated 10/19/2023 at HPRCC using provisional data.

Percent of Normal Precipitation (%)
9/19/2023 - 10/18/2023



NOAA Regional Climate Centers 023 at HPRCC using provisional data.

NOAA Regional Climate

Image Captions:
 Left - Precipitation Amount
 Right - Percent of Normal Precipitation
 Data Courtesy High Plains Regional Climate Center.
 Data over the past 30 days ending October 18, 2023

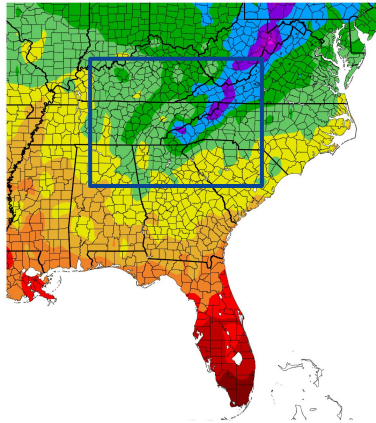




Temperature

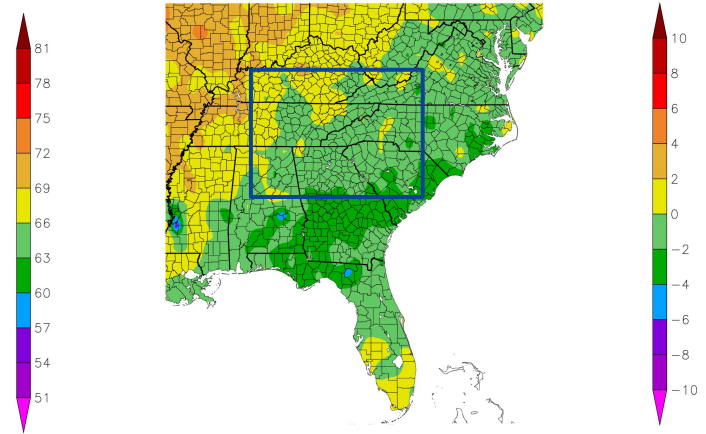
- Temperatures have been near normal during the past 4 weeks.

Temperature (F)
9/19/2023 – 10/18/2023



Generated 10/19/2023 at HPRCC using provisional data.

Departure from Normal Temperature (F)
9/19/2023 – 10/18/2023



NOAA Regional Climate Centers 2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Image Captions:
Left - Average Temperature
Right - Departure from Normal Temperature
Data Courtesy High Plains Regional Climate Center.
Data over the past 30 days ending October 18, 2023





Summary of Impacts

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

Hydrologic Impacts

- Stream flows have been low

Agricultural Impacts

- There are no known impacts at this time. Soil moisture is lower than normal.

Fire Hazard Impacts

- Tennessee Forestry reported a small increase in small fires across the area.

Other Impacts

- Stay tuned for future updates as drought is likely to worsen in many areas.

Mitigation Actions

- Please refer to your municipality and/or water provider for mitigation information.

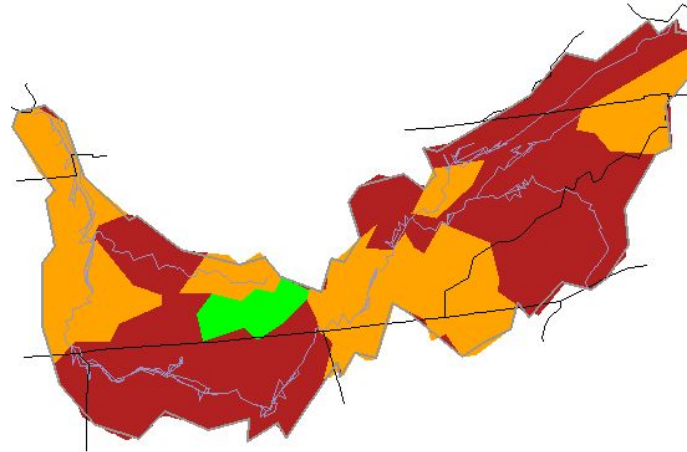




Hydrologic Conditions and Impacts

- Streamflows have been below normal to much below normal for most areas.

Wednesday, October 18, 2023



GS

| 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 10/18/2023

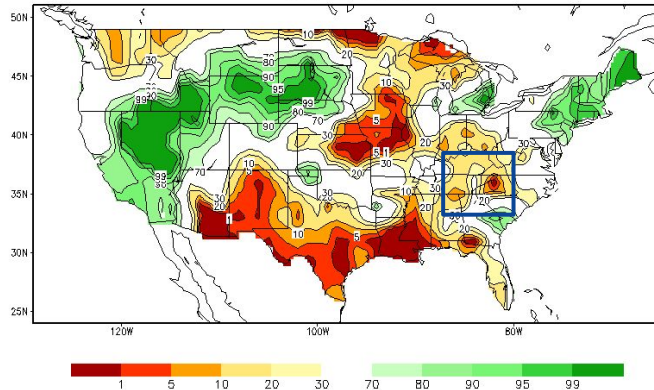




Agricultural Impacts

- Soil moisture is drier than normal.

Calculated Soil Moisture Ranking Percentile
OCT 18, 2023



Crop Moisture Index by Division
Weekly Value for Period Ending OCT 14, 2023
Short Term Need vs. Available Water in a Shallow Soil Profile

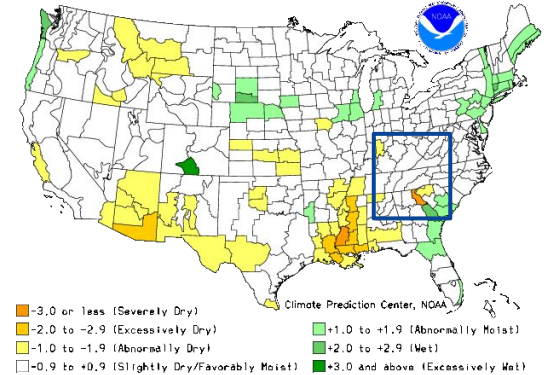


Image Captions:

Left: CPC Calculated [Soil Moisture Ranking Percentile](#) valid Oct 18, 2023

Right: [Crop Moisture Index by Division](#). Weekly value for period ending Oct 14, 2023





Fire Hazard Impacts

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

- Fire conditions are slowly getting worse across the area.

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

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

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

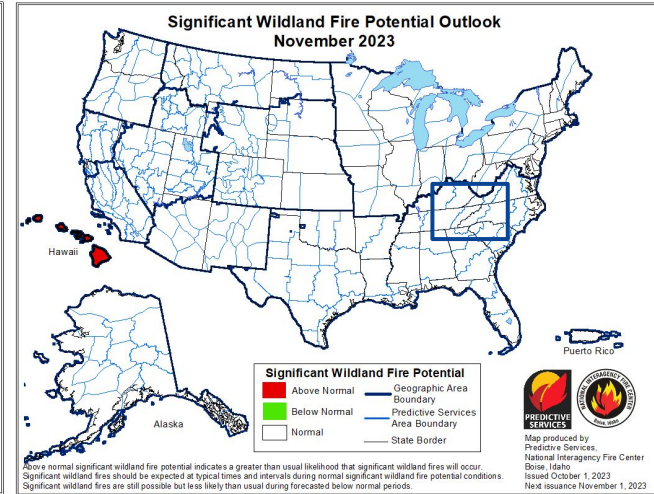
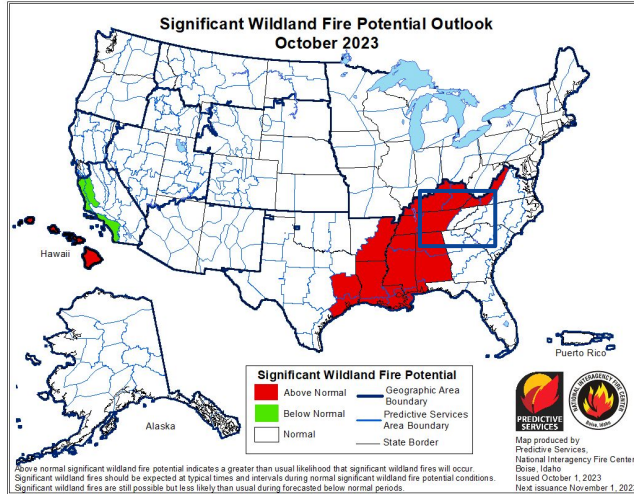


Image Caption: [Significant Wildland Fire](#) for October and November 2023





Seven Day Precipitation Forecast

- Some light precipitation is expected during the next 7 days – mainly on October 19 and 20.
 - Overall amounts will be low with little impact on drought improvement.
 - Highest precipitation amounts will be across the higher elevations.

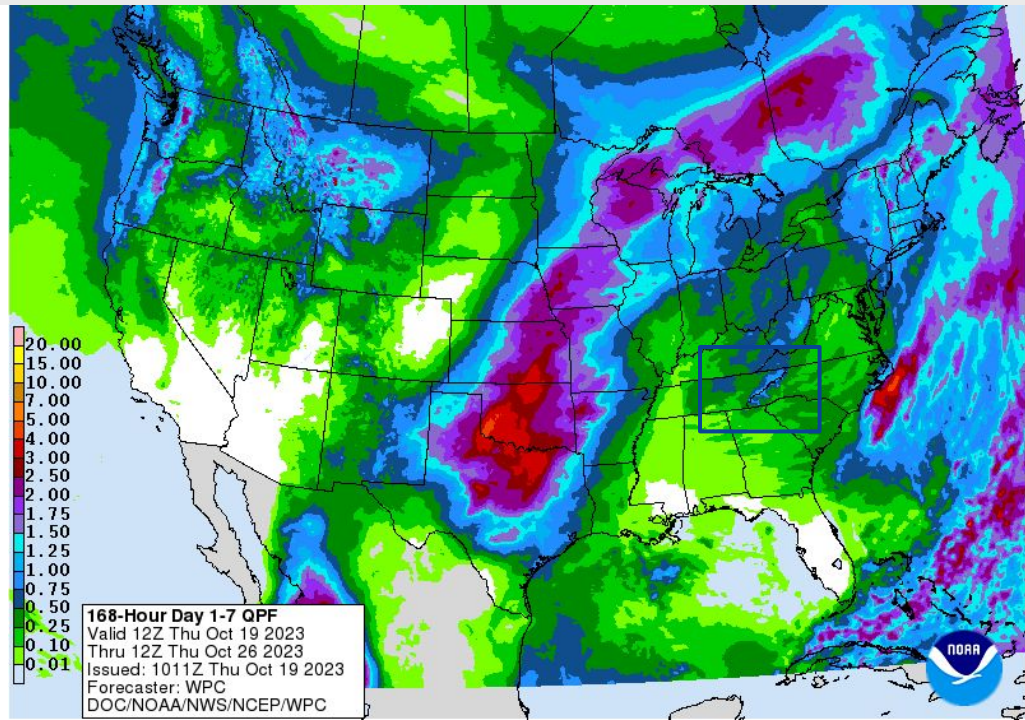


Image Caption: Weather Prediction Center [7-day precipitation forecast](#) valid October 19 to October 26.



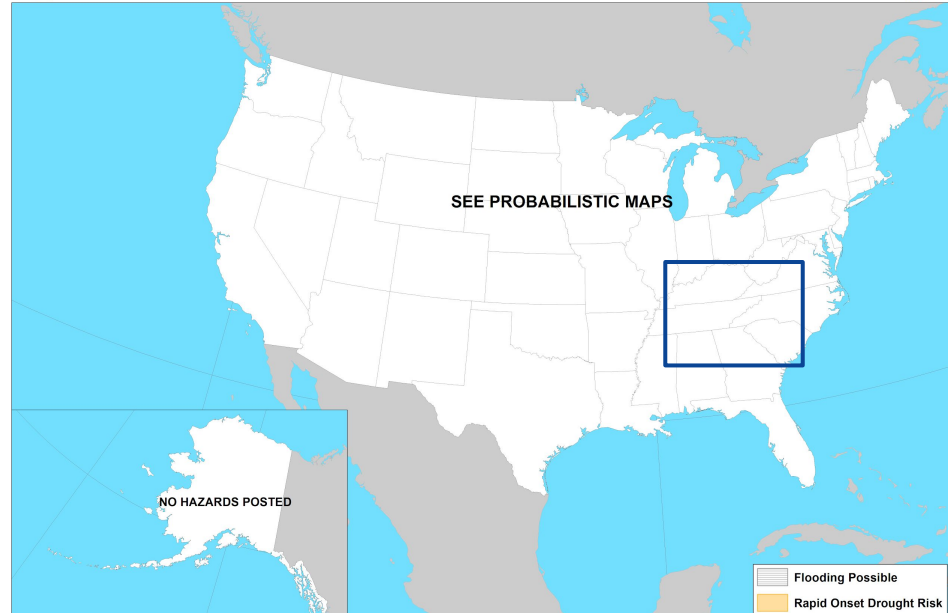
Rapid Onset Drought Outlook

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

- No hazards posted.



Day 8-14 U.S. Hazards Outlook
Valid: 10/26/2023-11/01/2023



Climate Prediction Center
Made: 10/18/2023 3PM EDT

Follow us:
www.cpc.ncep.noaa.gov

Image Caption:

[Days 8 to 14 U.S. Hazards Outlook](#) Valid October 26th to November 1st





Long-Range Outlooks

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

- Above normal temperatures and below normal precipitation are favored over the next month.

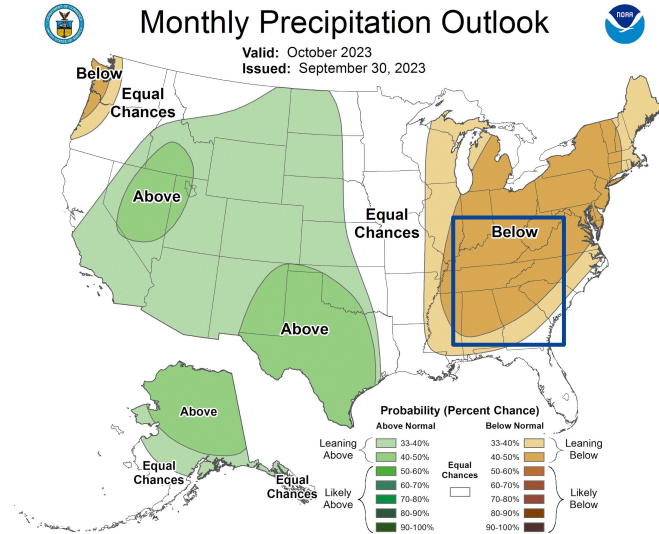
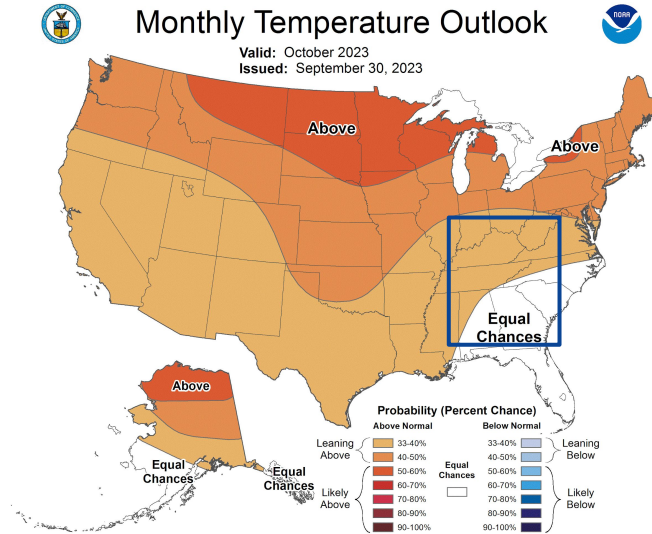


Image Captions:

Left - [Climate Prediction Center Monthly Temperature Outlook](#),

Right - [Climate Prediction Center Monthly Precipitation Outlook](#).

Valid October 2023





Drought Outlook

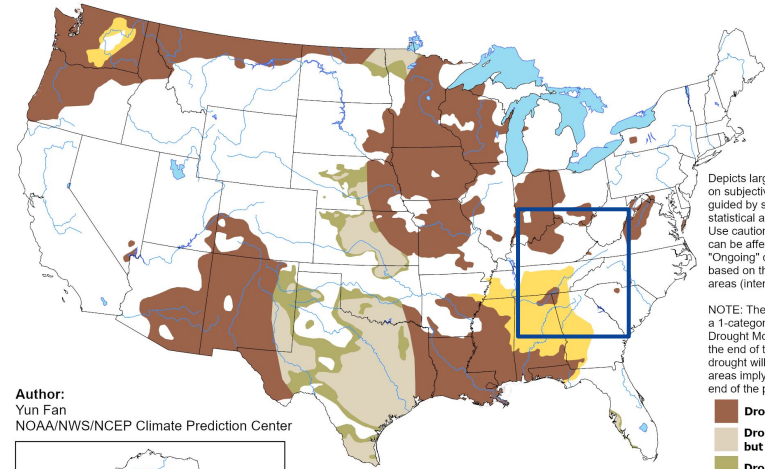
The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- Drought development is likely to continue this month.

U.S. Monthly Drought Outlook

Drought Tendency During the Valid Period

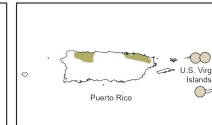
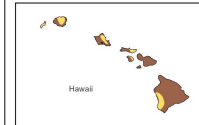
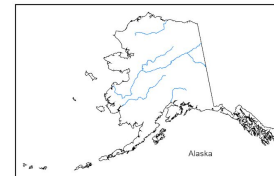
Valid for October 2023
Released September 30, 2023



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. *Ongoing* drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Yun Fan
NOAA/NWS/NCEP Climate Prediction Center



- Drought persists
- Drought remains, but improves
- Drought removal likely
- Drought development likely
- No drought



<https://go.usa.gov/3eZGd>

Image Caption:

Climate Prediction Center Monthly Drought Outlook Released September 30, 2023 valid for October 2023

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