



Drought Information Statement

for the NWS Blacksburg Service Area of western Virginia,
southeast West Virginia and northwest North Carolina

Valid December 7, 2023

Issued By: NWS Blacksburg, VA

Contact Information: mk.skywam@noaa.gov

- This product will be updated Dec. 14th, 2023 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/mk/DroughtInformationStatement> for previous statements.





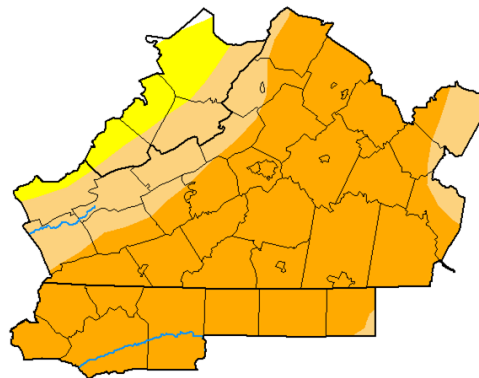
U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for the NWS Blacksburg Service Area

- Drought Intensity and Extent:

- **D2 - Severe Drought:** Widespread across the service area, persists across northwest North Carolina and across much of central Virginia.
- **D1 - Moderate Drought:** Persists across portions of central Virginia, as well as southwest Virginia into southeast West Virginia
- **D0 - Abnormal Dryness:** Persists across portions of southwest Virginia into southeast West Virginia

U.S. Drought Monitor Blacksburg, VA WFO



December 5, 2023

(Released Thursday, Dec. 7, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	0.29	6.94	20.95	71.82	0.00	0.00
Last Week 11-28-2023	0.29	6.86	21.03	71.82	0.00	0.00
3 Months Ago 09-05-2023	48.84	48.81	2.35	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	50.73	32.61	16.66	0.00	0.00	0.00
One Year Ago 12-06-2022	87.45	12.55	0.00	0.00	0.00	0.00

Intensity

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

Author

David Simerali
Western Regional Climate Center



droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 7am EST December 7, 2023.



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

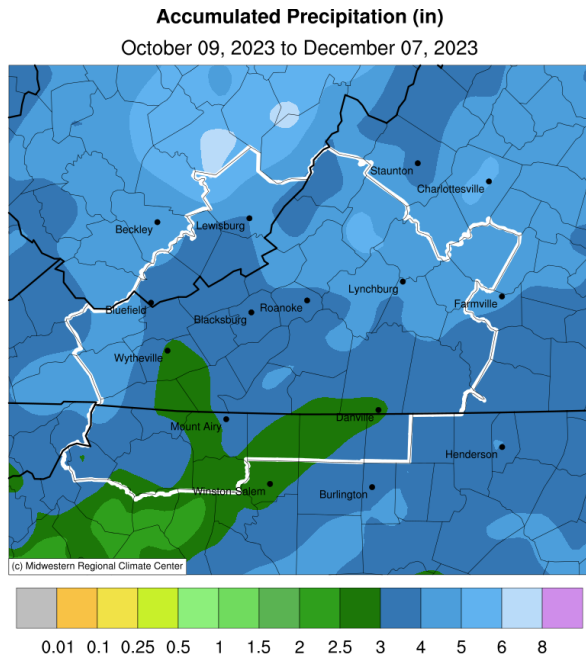
National Weather Service
Blacksburg, VA



Precipitation

Data over the past 60 days ending December 7, 2023

- Precipitation over the past 60 days has generally ranged from between 2.5 and 4 inches for most of the service area, with locally higher or lower totals.
- 60 precipitation totals have been less than half the normal amount for much of the service area south of Highway 460. Further north, precipitation has ranged from between 50 and 75 percent of normal.



Accumulated Precipitation (in): Percent of 1991-2020 Normals
October 09, 2023 to December 07, 2023

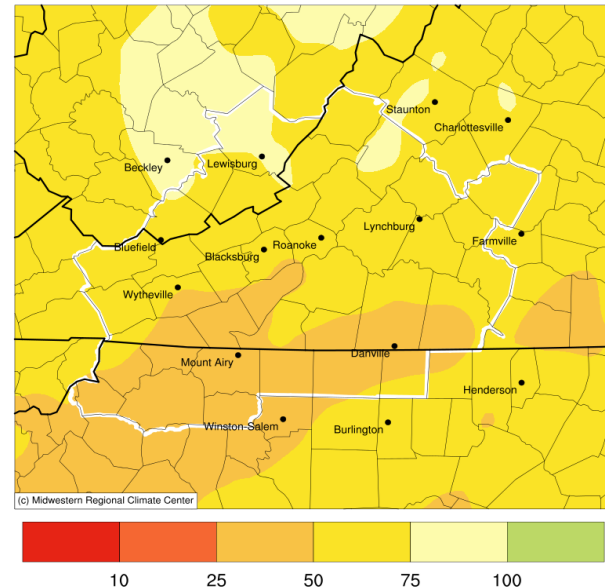


Image Captions:

Left: 60-Day Precipitation Amount Map for the NWS Blacksburg Service Area
Right: 60 Day Percent of Normal Precipitation for the NWS Blacksburg Service Area



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

National Weather Service
Blacksburg, VA



Summary of Impacts

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

Hydrologic Impacts

- Streamflows remain in the Below Normal to Much Below Normal ranges for much of the service area. See next slide for more details.

Agricultural Impacts

- Nearly all of the service area is experiencing soil moisture below the 20th percentile, indicating moderate to locally severe dryness areawide.
- The lack of precipitation will only allow conditions to deteriorate, especially during periods of warmer and sunny weather.

Fire Hazard Impacts

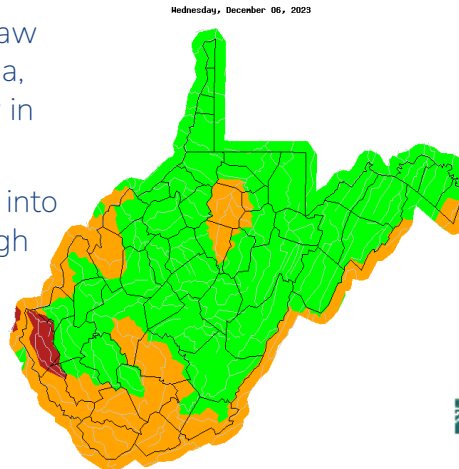
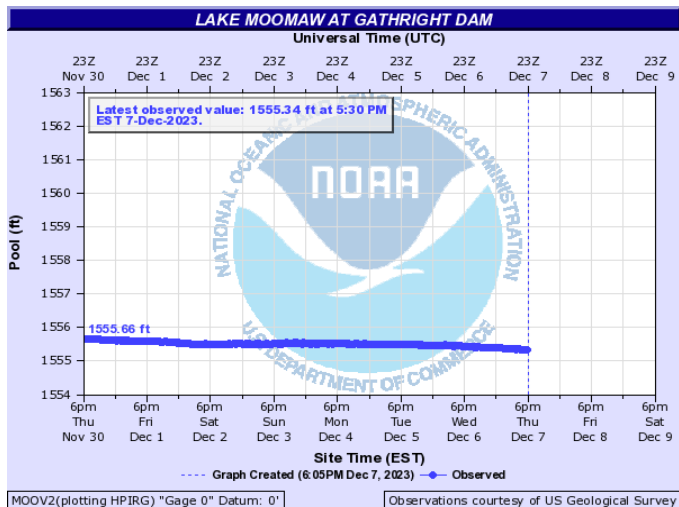
- Portions of the southern Shenandoah Valley have experienced wildland fire activity. Recent rainfall has aided in diminishing this activity. However, if a dry weather pattern returns and persists again, wildland fire activity could increase once again.



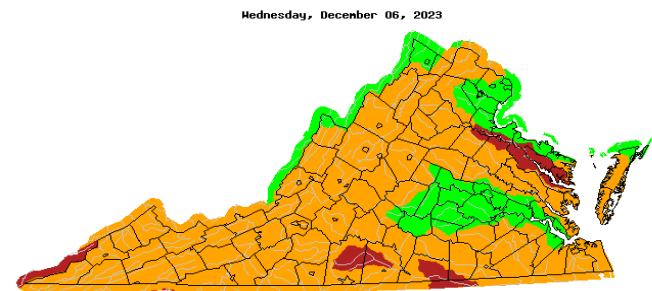


Hydrologic Conditions and Impacts

- Average stream flows over the past 28 days saw slight improvements over the entire service area, with most now Below Normal, with only a few in the Much Below Normal range.
- Inflows from the Jackson River and Back Creek into Lake Moomaw have been below normal through much of the summer and fall.



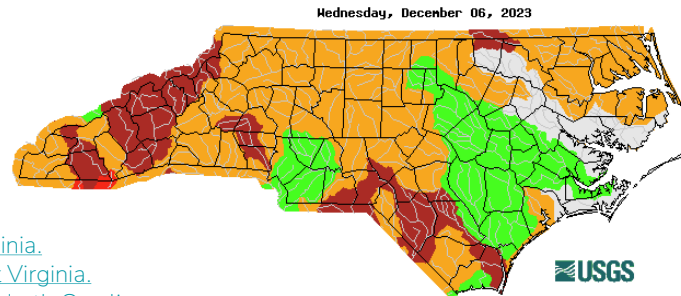
USGS



USGS

USGS

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



USGS

Image Captions:

Top-Right: [USGS 28 day streamflows for Virginia.](#)

Top-Left: [USGS 28 day streamflows for West Virginia.](#)

Bottom-Right: [USGS 28 day streamflows for North Carolina.](#)

Left: [Latest Hydrograph for Lake Moomaw at Gathright Dam.](#)



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

National Weather Service
Blacksburg, VA



Soil Moisture Impacts

- There have been improvements across much of the service area in terms of soil moisture, especially in areas along and west of the Blue Ridge. Some drying has occurred again over the Piedmont of Virginia and North Carolina due to limited rainfall over the past week.
- Nearly all of the service area is still experiencing soil moisture at or below the 20th percentile.
- Some areas are experiencing soil moisture below the 10th and 5th percentile, namely the Allegheny Highlands of Virginia and Foothills in North Carolina.
- The lack of precipitation will allow conditions to deteriorate, especially during periods of warmer weather.

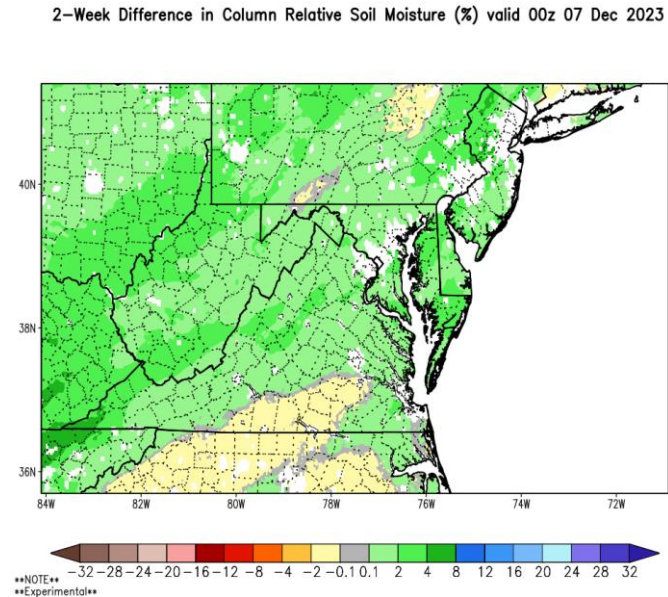
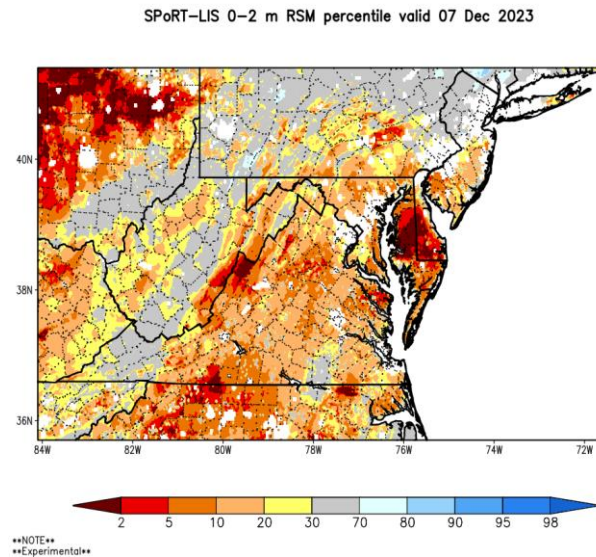


Image Captions:

Left: [NASA SPoRT LIS 0-2m Relative Soil Moisture \(RSM\) Percentile](#) valid December 7, 2023

Right: [NASA SPoRT LIS 2-week difference in Column RSM](#) valid December 7, 2023



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

National Weather Service
Blacksburg, VA



Fire Hazard Impacts

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

- [Keetch Byram Drought Index \(KBDI\)](#) values have decreased into the 0 to locally 300 range across a large portion of the service area.
- There are still areas of 300 to 450 in the Shenandoah Valley and into the Piedmont of Virginia and North Carolina. This range indicates that fuels such as dried fallen leaves will begin to contribute to increased fire intensity as additional drying of fuels occurs.
- Fallen leaves serve as fuels and sunshine reaching the surface allows surface fuels to dry, especially during long dry stretches.

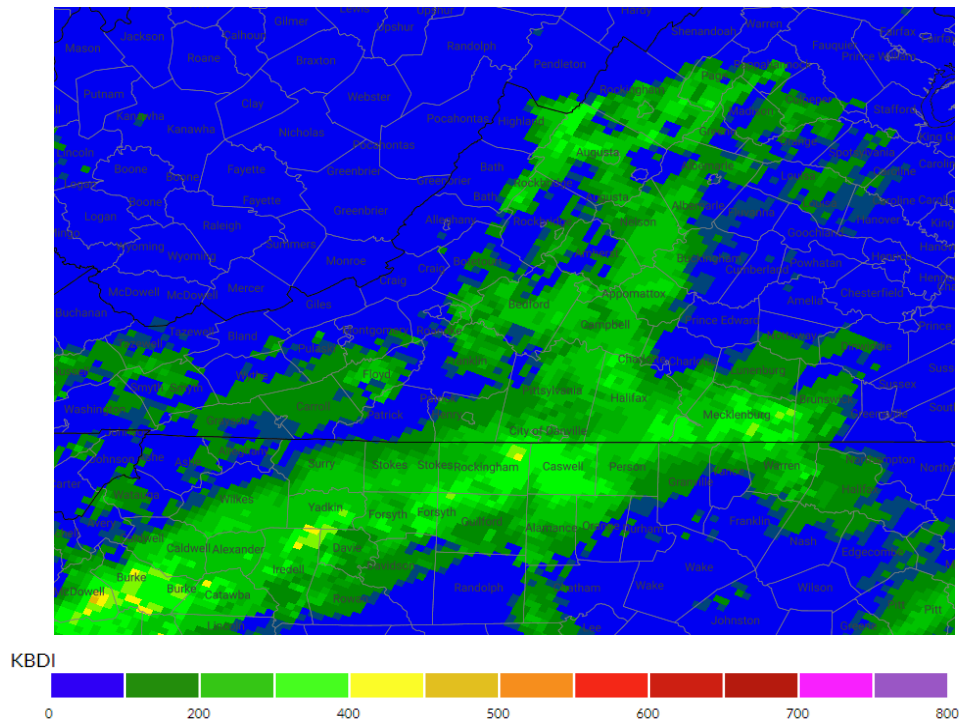


Image caption: Keetch Byram Values are increasing across the service area. Additional information is available at the [here](#).





Seven Day Precipitation Forecast

- A strong cold front will bring widespread 1 to 2 inches of rainfall across the service area on Sunday.
- Behind the front, little to no precipitation is expected through Friday next week.

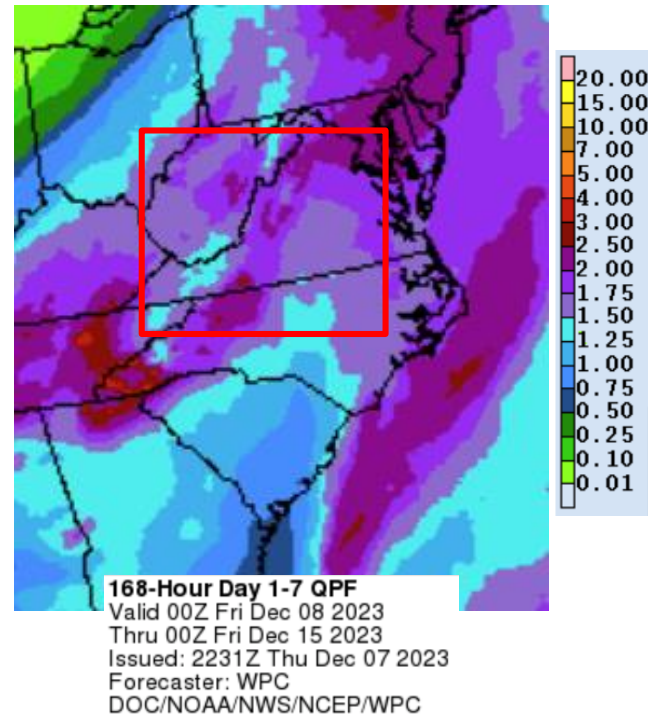


Image Caption: Weather Prediction Center [7-day precipitation forecast](#)
valid December 7th to December 15th 2023





Drought Outlook

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

- During November and the first week of December, drought conditions remained, but improved slightly.
- While improvement is likely across the southern Shenandoah Valley during mid-winter, it is possible that some drought conditions will persist into February.

U.S. Seasonal Drought Outlook Valid for November 16, 2023 - February 29, 2024 Drought Tendency During the Valid Period Released November 16, 2023

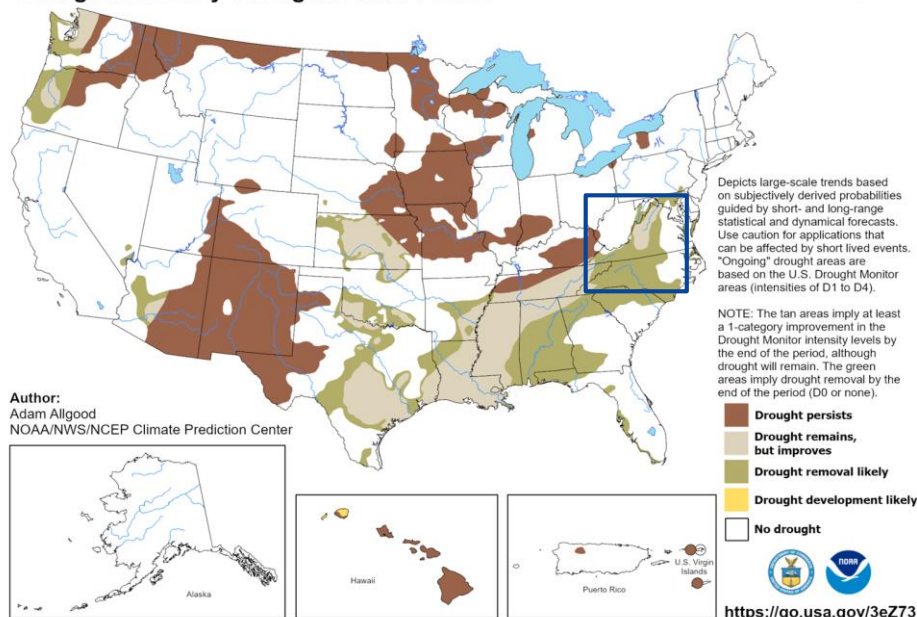


Image Caption:
Climate Prediction Center Seasonal Drought Outlook
Released November 16, 2023
Valid through February 2024

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
Blacksburg, VA