

VIRGINIA DROUGHT MONITORING TASK FORCE

Drought Status Report

June 5, 2023

Summary

The Virginia Drought Monitoring Task Force (DMTF) met on Thursday June 1, 2023, to discuss the status of drought monitoring and hydrologic conditions in the Commonwealth of Virginia. Precipitation over the past two-week period was above-normal for some areas in and around the Roanoke Valley and Hampton Roads each receiving 150-300% of normal. The majority of the Commonwealth is below normal historic rainfall amounts for the past 14 day period, with lowest amounts within the Shenandoah Valley. Precipitation maps for the past 60-120-day period show continued dryness in the Eastern Shore, central, and northern Virginia. Area-averaged rainfall since the beginning of the current water year (October 1, 2022) remained below long-term normal values for the Eastern Shore drought evaluation region. Precipitation for the Eastern Shore fell below the 75th percentile (See [DEQ website](#) for more info on drought indicators). ENSO-neutral conditions are transitioning to El Niño conditions favored during June-July with increasing chances of El Niño through fall and early winter.

Streamflow over the past 14-day period has shown improvement in the southwest portions of Virginia, ranking as “Normal” to “Above Normal,” Flows are currently below the 25th percentile for 4 of the 11 drought evaluation regions, Upper James, Northern Coastal Plain, Northern Piedmont, and Shenandoah. The Shenandoah drought evaluation region is currently below the 10th percentile.

Groundwater levels for monitoring wells in the Climate Response Network have shown continued declines in some regions. Levels are currently below the 5th percentile for some sites in the Eastern Shore, York-James, Shenandoah, Roanoke, and Northern Virginia drought evaluation regions. Additional wells below the 25th percentile persist in the Middle James and Northern Piedmont regions. Storage at major water-supply reservoirs throughout Virginia remain within normal ranges at this time. The National Weather Service (NWS) 6-10 day forecast (valid June 6 – 10) published on June 1st, predicted below-normal temperature for a majority of Virginia. There are also equal chances of below-normal and above-normal precipitation for Virginia. The 8-14-day forecast (valid June 8– June 14) published on June 1st, predicts below-normal temperatures for the northern portion of Virginia and above-normal temperature for the farthest southwest corner of the Commonwealth. A 33-40% probability of above-normal precipitation is predicted for southwest Virginia (See Appendix B for forecast maps).

The most recent weekly [U.S. Drought Monitor \(USDM\)](#) web page map for Virginia ([Appendix A](#), released June 1, 2023) showed a decrease dry area compared to the last DMTF meeting due to recent rainfall in the southern and south central portions of Virginia. The USDM showed abnormally dry (D0) conditions mapped across approximately 28% of the Commonwealth, and moderate drought (D1) conditions mapped across approximately 3% of the Commonwealth.

The Task Force discussed the drought indicators identified by the Virginia Drought Assessment and Response Plan. With reductions in drought indicators across central and northern Virginia, the Task Force recommends drought watch for the Shenandoah, and Northern Piedmont while maintaining drought watch for the Eastern Shore drought evaluation region. The Task Force will continue closely monitoring drought indicators, the next DMTF meeting is scheduled for June 15, 2023.

Reports:

The Virginia Department of Wildlife Resources (VDWR) reported no major fisheries related impacts at this time. The U.S. Army Corps of Engineers (USACE) - Wilmington Office reported reservoirs are currently in good shape. Philpott hydropower units remain out of service, USACE continues coordinating with fisheries experts to maintain sufficient releases at Philpott to support downstream aquatic life. Virginia Department of Emergency Management (VDEM) did not have any additional drought-related updates to report.

The Virginia Department of Agriculture and Consumer Services (VDACS), DEQ and NWS submitted written reports. VDACS reported producers in the Shenandoah Valley, Eastern Shore, and some areas of Southwest Virginia are seeing the effects of drier than normal conditions. The DEQ report presents a map of current conditions of DEQ Drought Indicators, with three regions indicated where the DMTF recommends drought watch advisory. Included is a summary of current conditions at the four large multi-purpose reservoirs listed as key reservoir storage indicators in the [Virginia Drought Assessment and Response Plan](#) (All remain above drought watch levels at this time). The NWS provided information about precipitation and current weather forecasts ([Appendix B](#)).

Virginia Department of Agriculture and Consumer Services

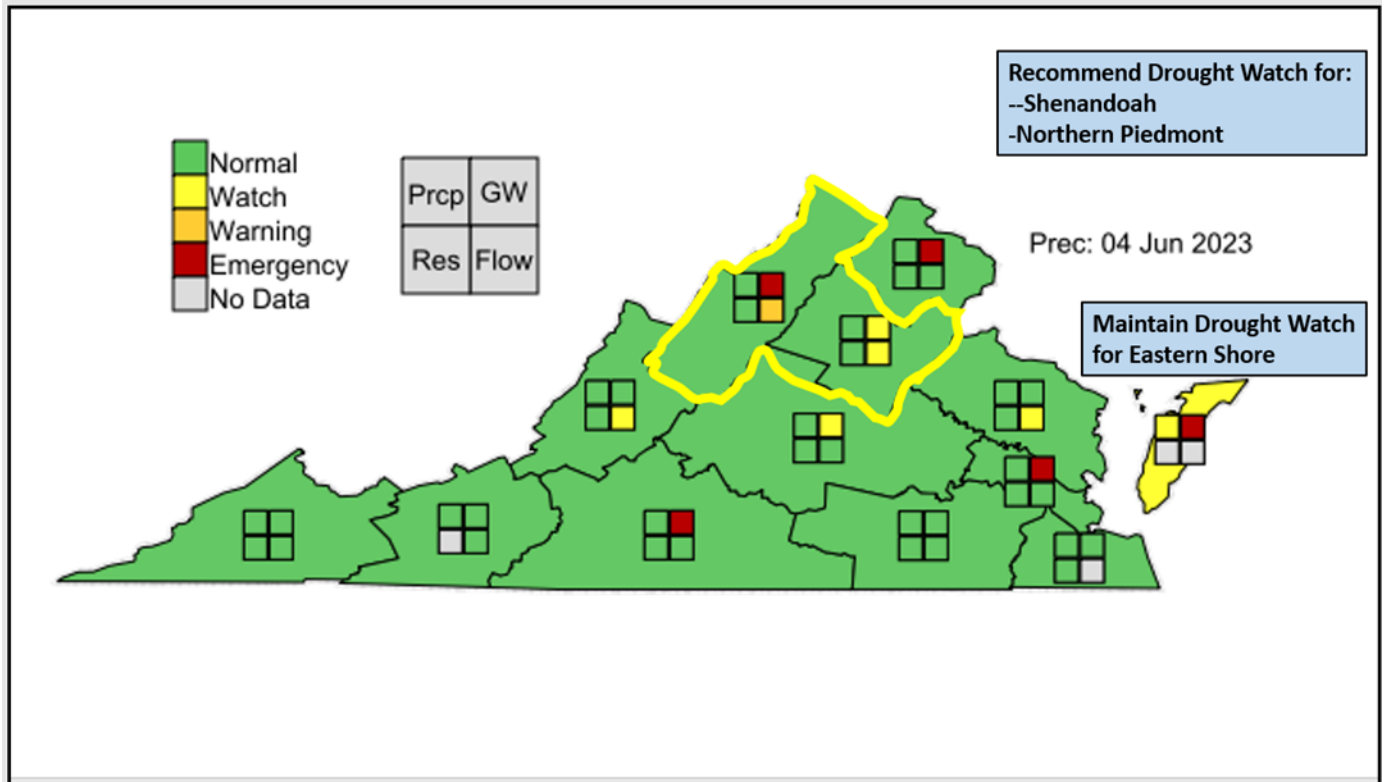
Drought Report June 1, 2023:

Producers throughout the Valley as well as Southwest Virginia report that dry conditions have negatively impacted the height of their first hay crop. Additionally, producers in the Northern Valley report that river and stream levels are low for this time of year.

Producers on the Eastern Shore report that retention ponds used for vegetable crop irrigation are low.

Virginia Department of Environmental Quality

Conditions of DEQ Drought Indicators & DMTF Recommendation: June 5, 2023



Conditions of Major Drought Indicator Reservoirs June 1, 2023

Four large multi-purpose reservoirs are identified as drought indicators in the Virginia Drought Assessment and Response Plan. Below is a snapshot of reported conditions at these reservoirs:

Smith Mountain Lake on the Staunton River in the Roanoke drought evaluation region was at an adjusted elevation of 794.74 feet, which is 1.74 feet above Watch level (793 ft). The adjusted elevation is the level the lake would be if the water currently held in the lower Leesville Lake for reuse were pumped back into Smith Mountain Lake. Recent 14-day and 28-day inflows were normal, with 7-day average inflows above normal for this time of year.

Lake Moomaw at Gathright Dam on the Jackson River in the Upper James drought evaluation region was at 1581.14 feet, which is 17 feet above Watch level (1565 ft). Recent 7-day, 14-day and 28-day average inflows were below normal for this time of year.

Lake Anna on the North Anna River in the Northern Piedmont drought evaluation region was reported at elevation 250 feet, which is 2 feet above Watch level (248 ft). 7, 14, and 28 day inflows were below normal for this time of year.

J. H. Kerr Reservoir on the Staunton River in the Roanoke drought evaluation region was at 301.67 feet, which was 0.23 feet above the guide curve elevation for this time period (302.00 feet) and 3.2 feet above

the Watch level (Watch level is 3 to 6 ft below guide curve). Recent 7-day inflows were above normal, 14-day and 28-day average inflows were normal for this time of year.

(Elevations are in feet above mean sea level.)

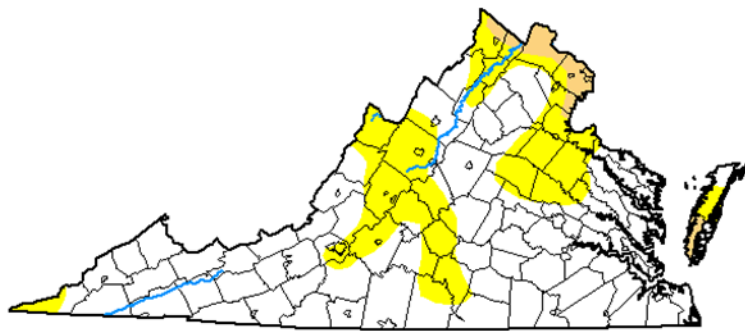
APPENDIX A

U.S. Drought Monitor Virginia

May 30, 2023
(Released Thursday, Jun. 1, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	71.95	28.05	3.08	0.00	0.00	0.00
Last Week <small>05-23-2023</small>	66.10	33.90	0.83	0.00	0.00	0.00
3 Months Ago <small>02-28-2023</small>	94.34	5.66	0.80	0.00	0.00	0.00
Start of Calendar Year <small>01-03-2023</small>	89.75	10.25	0.80	0.00	0.00	0.00
Start of Water Year <small>09-27-2022</small>	49.02	50.98	16.86	1.52	0.00	0.00
One Year Ago <small>05-31-2022</small>	84.42	15.58	0.00	0.00	0.00	0.00



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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APPENDIX B – NATIONAL WEATHER SERVICE BRIEFING