

# **VIRGINIA DROUGHT MONITORING TASK FORCE**

## **Drought Status Report**

### **August 13, 2024**

#### **Summary**

On Tuesday August 13, 2024, the Virginia Drought Monitoring Task Force (DMTF) met to discuss the drought indicators identified by the Virginia Drought Assessment and Response Plan. Widespread statewide precipitation due to tropical storm Debby has provided significant improvements across the majority of Virginia, with much of the central portions of the Commonwealth receiving 2-8 inches over the past seven day period. Soil moisture within the 0-100cm range show widespread improvements occurring throughout all drought evaluation regions, with dry conditions still present within the Big Sandy. The 8-14 day outlook forecasts near normal temperatures and precipitation. The Task Force will continue closely monitoring drought indicators will meet next on August 28, 2024.

Due to recent precipitation events observed improvements in soil moisture, surface water flows, and reservoir levels, the Task Force recommends lifting drought advisories in the following regions:

- Northern Coastal Plain
- York-James
- Eastern Shore
- New River
- Upper James
- Roanoke
- Northern Piedmont
- Northern Virginia
- Middle James

Due to recent precipitation and improvements in drought indicators, the Task Force recommends lessening to a drought watch within the following region:

- Big Sandy

Due to continued below normal groundwater indicators and reported impacts to agriculture the Task Force recommends maintaining the Drought Warning in the following region:

- Shenandoah

The DMTF reviewed the status of drought monitoring and hydrologic conditions in the Commonwealth of Virginia. Precipitation over the past 7-14 day period show widespread rainfall occurring throughout Virginia with tropical storm Debby resulting in more than eight inches in some areas (reference Appendix B for more precipitation data). Precipitation percent of normal index maps over the 30-60 day period show widespread 200-400% of normal within the 30-day period, and limited areas of dryness in the Big Sandy and Shenandoah drought evaluation regions over the 60-day period.

Streamflow over the past 7-28 day period has shown improvements across the majority of the Commonwealth due to recent precipitation events. However, hydrologic drought remains within the portions of the Big Sandy drought evaluation region. Flows are currently below the 25<sup>th</sup> percentile within 2 of the 13 drought evaluation regions (no surface water flow indicators are present due to tidal influence within the Eastern Shore and Southeast Virginia regions). No drought evaluation regions are below the 10<sup>th</sup> percentile at this time. Continued precipitation events are required to support short and long-term improvements in streamflow conditions.

Groundwater levels for monitoring wells in the Climate Response Network remain below normal and require additional precipitation events to recover over the short and long-term period. Recent precipitation events have resulted in widespread improvements compared to the past 30-day period. Eight regions are currently below the 25<sup>th</sup> percentile including the Big Sandy, New River, Northern Coastal Plain, Roanoke, Northern Virginia, Northern Piedmont, Shenandoah, and York-James. Four regions are currently below the 10<sup>th</sup> percentile including the Big Sandy, New River, Shenandoah, and York-James. Three regions are currently below the 5<sup>th</sup> percentile including the Big Sandy, Shenandoah, and York-James.

Storage at major water supply reservoirs have recovered due to recent precipitation and are within normal ranges. All other major water supply reservoirs are normal at this time.

Please see [the DEQ website](#) for more information on drought indicators.

The most recent weekly [U.S. Drought Monitor \(USDM\)](#) web page map for Virginia (Appendix A, released August 15, 2024) showed abnormally dry (D0) conditions mapped across approximately 68% of the Commonwealth, moderate drought (D1) conditions mapped across approximately 45% of the Commonwealth, (D2) severe drought mapped across 24%, and (D3) extreme drought mapped across 11% of the Commonwealth. Appendix B includes a presentation from the National Weather Service and United States Geological Survey.

## **Virginia Department of Agriculture and Consumer Services**

Producers throughout the Commonwealth report that dry conditions have negatively affected crops over the growing season. Producers continue to expect and are observing reduced corn, soybean, cotton, and dairy production. Producers who have the ability to do so are supplementing by irrigating. Additionally, many livestock producers are feeding hay due to dry pastures. Recent precipitation events have provided some support to alleviate dry conditions.

Some farmers' markets throughout the Commonwealth have fewer produce vendors participating each week due to low production because of the dry conditions. Farm supply firms throughout the Commonwealth report low fertilizer sales because producers are not applying fertilizer due to the lack of rain.

VDACS has provided the following information regarding assistance programs due to widespread impacts to producers throughout the Commonwealth.

Information regarding the U.S. Department of Agriculture's Disaster Assistance Programs is available here: <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/index>.

Information regarding the federal disaster declaration process is available here: [https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/emergency\\_disaster\\_designation\\_declaration\\_process-factsheet.pdf](https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/emergency_disaster_designation_declaration_process-factsheet.pdf)

Contact information for each locality's USDA Farm Service Agency office can be found by clicking-through the map available here: <https://offices.sc.egov.usda.gov/locator/ap>

## **Virginia Department of Health**

The Virginia Department of Health drought restrictions report for August 13, 2024 includes an estimated population of 2,298,581 currently under drought restrictions. Voluntary restrictions are currently in place for twenty water suppliers, affecting an approximate population of 2,243,882. Eight systems are currently implementing mandatory restrictions, affecting an approximate population of 54,699. The full list of systems impacts is included in Appendix B.

## **Virginia Department of Environmental Quality**

The DEQ report presents a map of current conditions of DEQ Drought Indicators, and 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](#). Philpott Lake is currently at 970.10ft, and is approximately three feet below guide curve elevation. Pool elevation values referenced below are those observed on August 14, 2024.

[Smith Mountain Lake](#) on the Staunton River in the Roanoke drought evaluation region was observed at an adjusted elevation of 793.86 feet, which is 0.86 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 7-day inflows were above normal with 14, and 28-day inflows normal to below normal for this time of year.

[Lake Moomaw](#) at Gathright Dam on the Jackson River in the Upper James drought evaluation region was observed at an elevation of 1570.96 feet, which is 5.96 feet above Watch level (1565 ft). Recent 7-day inflows were normal to above normal, with 14 and 28-day average inflows below normal for this time of year. Gathright Dam continues to operate under normal operational conditions, and provided a downstream pulse release on July 17, 2024 to support water quality efforts downstream. Lake levels continue to decline as precipitation deficits continue in the region.

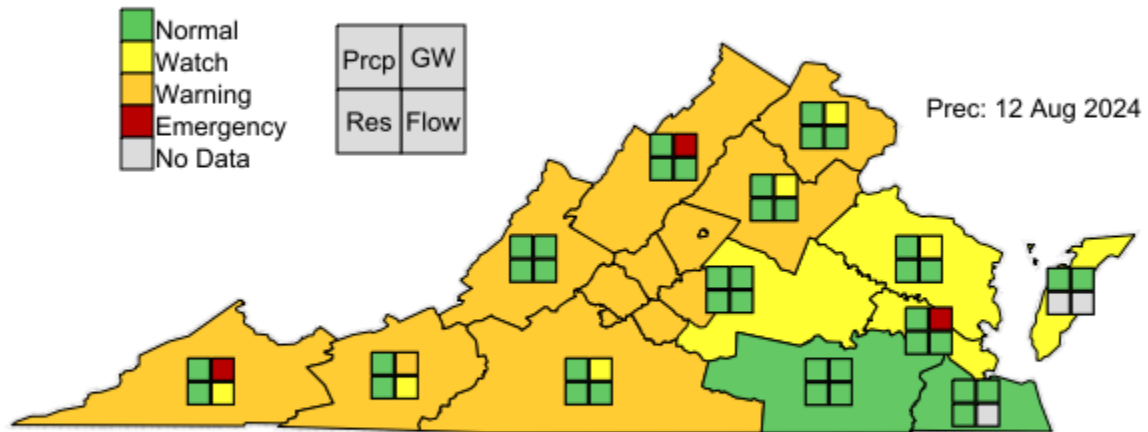
[Lake Anna](#) on the North Anna River in the Northern Piedmont drought evaluation region was observed at an elevation of 249.0ft, which is 1.0ft above Watch level (248 ft). Recent seven-day inflows were above normal with 14 and 28-day inflows normal to below normal for this time of year.

**J. H. Kerr Reservoir** on the Staunton River in the Roanoke drought evaluation region was observed at an elevation of 306.16ft, which is 6.58ft above the guide curve elevation for this time period (299.58 feet) and 9ft above the watch level (Watch level is 3 to 6 ft below guide curve). Recent seven-day inflows were much above normal with significant precipitation provided by tropical storm Debby.

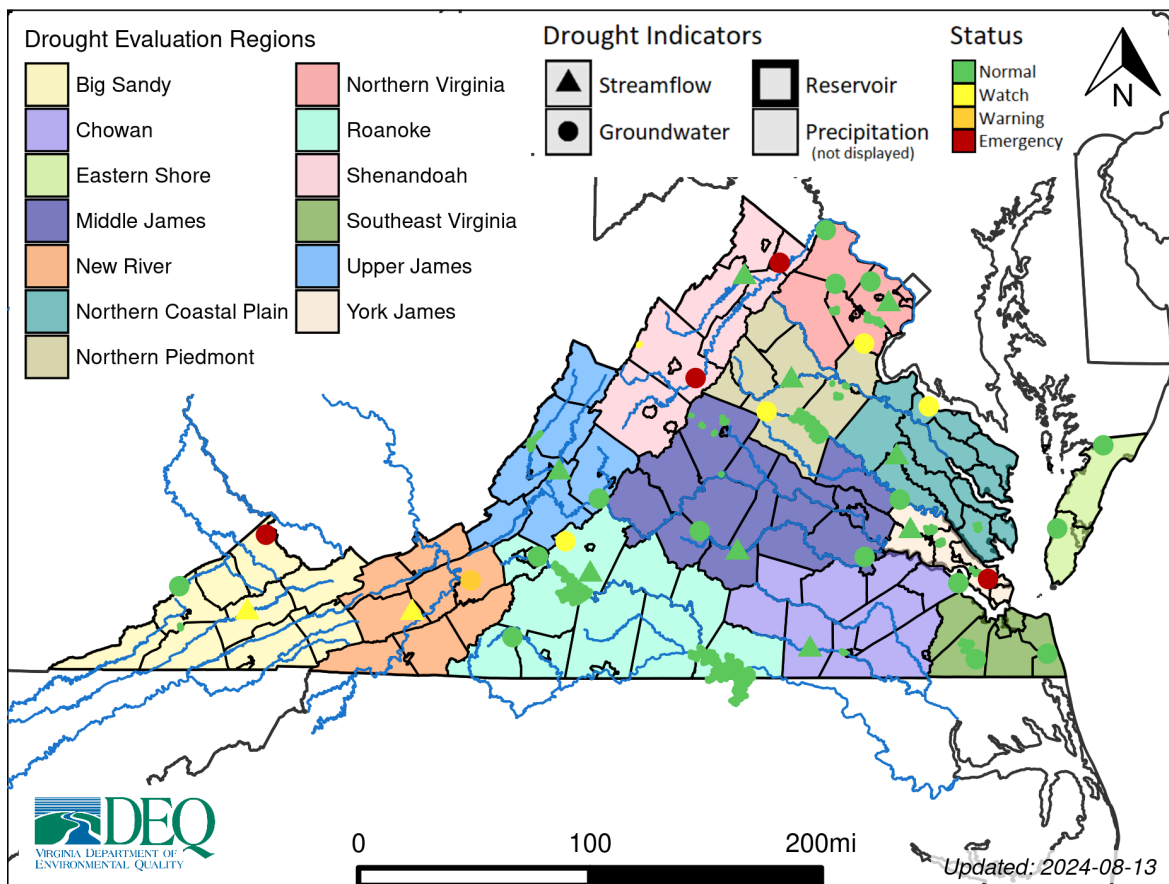


# DEQ Daily Drought Status Summary: 08/13/2024

## Drought Summary Map:



## Drought Indicator Map:



***Regional Drought Response:***

#	Region	Reduction Type	Target Reduction %
1	Eastern Shore	voluntary	none
2	Big Sandy	voluntary	none
3	Upper James	voluntary	none
4	Roanoke	voluntary	none
5	Southeast Virginia	voluntary	none
6	Northern Coastal Plain	voluntary	none
7	New River	voluntary	none
8	Middle James	voluntary	none
9	Chowan	voluntary	none
10	York James	voluntary	none
11	Northern Virginia	voluntary	none
12	Northern Piedmont	voluntary	none
13	Shenandoah	voluntary	none

***Precipitation Indicators:***

#	Region	Start Date	End Date	Water Year % of Normal	Status
1	Big Sandy	10/1/2023	8/12/2024	85.32	Normal
2	Eastern Shore	10/1/2023	8/12/2024	91.4	Normal
3	New River	10/1/2023	8/12/2024	94.95	Normal
4	Upper James	10/1/2023	8/12/2024	98.74	Normal
5	Northern Piedmont	10/1/2023	8/12/2024	101.71	Normal
6	Middle James	10/1/2023	8/12/2024	104.42	Normal
7	Roanoke	10/1/2023	8/12/2024	104.81	Normal
8	Shenandoah	10/1/2023	8/12/2024	105.52	Normal
9	Northern Virginia	10/1/2023	8/12/2024	106.05	Normal
10	Northern Coastal Plain	10/1/2023	8/12/2024	110.97	Normal
11	Southeast Virginia	10/1/2023	8/12/2024	120.01	Normal
12	York James	10/1/2023	8/12/2024	124.64	Normal
13	Chowan	10/1/2023	8/12/2024	129.34	Normal

***Surface Water Indicators:***

#	Region	Gage Name	Start Date	End Date	Percentile	Status
1	Big Sandy	CLINCH RIVER AT CLEVELAND, VA	8/6/2024	8/12/2024	18.3	Watch
2	New River	REED CREEK AT GRAHAMS FORGE, VA	8/6/2024	8/12/2024	22.72	Watch
3	Northern Coastal Plain	MATTAPONI RIVER NEAR BEULAHVILLE, VA	8/6/2024	8/12/2024	55.72	Normal
4	Roanoke	GOOSE CREEK NEAR HUDDLESTON, VA	8/6/2024	8/12/2024	80.37	Normal
5	York James	CHICKAHOMINY RIVER NEAR PROVIDENCE FORGE, VA	8/6/2024	8/12/2024	86.38	Normal
6	Northern Virginia	ACCOTINK CREEK NEAR ANNANDALE, VA	8/6/2024	8/12/2024	89.61	Normal
7	Upper James	COWPASTURE RIVER NEAR CLIFTON FORGE, VA	8/6/2024	8/12/2024	89.65	Normal
8	Northern Piedmont	RAPIDAN RIVER NEAR CULPEPER, VA	8/6/2024	8/12/2024	92.47	Normal
9	Shenandoah	N F SHENANDOAH RIVER NEAR STRASBURG, VA	8/6/2024	8/12/2024	95.15	Normal
10	Chowan	MEHERRIN RIVER NEAR LAWRENCEVILLE, VA	8/6/2024	8/12/2024	95.64	Normal
11	Middle James	APPOMATTOX RIVER AT FARMVILLE, VA	8/6/2024	8/12/2024	96.39	Normal

**Groundwater Indicators:**

#	Region	Well Name	Start Date	End Date	Percentile	Status
1	Shenandoah	McGaheysville USGS Observation Well (41Q 1)	8/6/2024	8/12/2024	0.25	Emergency
2	Big Sandy	Buchanan County USGS Observation Well (15G 19 SOW 222)	8/6/2024	8/12/2024	2.39	Emergency
3	Shenandoah	Blandy Farm USGS Observation Well (46W 175)	8/6/2024	8/12/2024	2.47	Emergency
4	York James	York County DEQ Observation Well (59F74 SOW 184C)	8/6/2024	8/12/2024	4.4	Emergency
5	New River	Christiansburg DEQ Observation Well (27F 2 SOW 019)	8/6/2024	8/12/2024	7.26	Warning
6	Roanoke	Bedford County USGS Observation Well (33G 1 SOW 224)	8/6/2024	8/12/2024	13.82	Watch
7	Northern Virginia	Prince William County USGS Observation Well (51S 7)	8/6/2024	8/12/2024	15.47	Watch
8	Northern Coastal Plain	George Washington Birthplace USGS Observation Well (55P 9)	8/6/2024	8/12/2024	16.63	Watch
9	Northern Piedmont	Gordonsville DEQ Observation Well (45P 1 SOW 030)	8/6/2024	8/12/2024	22.89	Watch
10	Northern Virginia	Fairfax County USGS Observation Well (52V 2D)	8/6/2024	8/12/2024	25.93	Normal
11	Eastern Shore	Withams DEQ Observation Well (66M 19 SOW 110S)	8/6/2024	8/12/2024	30.56	Normal
12	Northern Virginia	Prince William County USGS Observation Well (49V 1)	8/6/2024	8/12/2024	45.24	Normal
13	Middle James	Buckingham USGS Observation Well (41H 3)	8/6/2024	8/12/2024	45.61	Normal
14	Roanoke	Fairystone State Park USGS Observation Well (30C 1 SOW 010)	8/6/2024	8/12/2024	50.63	Normal
15	Eastern Shore	P. C. Kellam DEQ Observation Well (63H 6 SOW 103A)	8/6/2024	8/12/2024	65.0	Normal
16	Southeast Virginia	Pungo DEQ Observation Well (62B 1 SOW 098A)	8/6/2024	8/12/2024	66.2	Normal
17	Upper James	Glasgow DEQ Observation Well (35K 1 SOW 063)	8/6/2024	8/12/2024	75.1	Normal
18	Middle James	Colonial Heights USGS Observation Well (51G 1)	8/6/2024	8/12/2024	76.56	Normal
19	Roanoke	Roanoke-Nelson DEQ Observation Well (31G 1 SOW 008)	8/6/2024	8/12/2024	79.29	Normal
20	York James	Hanover County DEQ Observation Well (53K 19 SOW 080)	8/6/2024	8/12/2024	84.72	Normal
21	Chowan	Slade Farm DEQ Observation Well (57E 31 SOW 094C)	8/6/2024	8/12/2024	87.13	Normal
22	Big Sandy	U.S. Forest Service - SOW 223 Cane Patch Well	8/6/2024	8/12/2024	100.0	Normal
23	Northern Virginia	Harper's Ferry DEQ Observation Well (49Y 1 SOW 022)	8/6/2024	8/12/2024	100.0	Normal
24	Southeast Virginia	Brinkley USGS Observation Well (58B 13)	8/6/2024	8/12/2024	100.0	Normal

**Reservoir Indicators:**

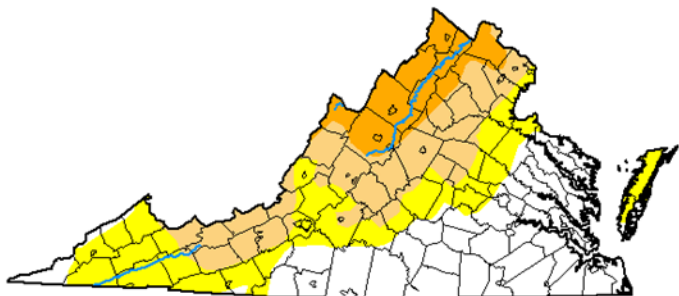
***Note, these reservoir statuses require manual review as they are NOT automated at this time***

#	Region	Reservoir	Date	Status
1	Big Sandy	Big Cherry Reservoir	08/13/2024	Normal
2	Chowan	Emporia Reservoir	08/13/2024	Normal
3	Middle James	Sugar Hollow	08/13/2024	Normal
4	Middle James	Beaver Creek Reservoir	08/13/2024	Normal
5	Middle James	Totier Creek Reservoir	08/13/2024	Normal
6	Middle James	Lake Moomaw	08/13/2024	Normal
7	Middle James	South Fork Rivanna River Reservoir	08/13/2024	Normal
8	Middle James	Ragged Mountain	08/13/2024	Normal
9	Northern Coastal Plain	Beverdam Reservoir	08/13/2024	Normal
10	Northern Piedmont	Hunting Run Reservoir	08/13/2024	Normal
11	Northern Piedmont	Ni River Reservoir	08/13/2024	Normal
12	Northern Piedmont	Motts Run Reservoir	08/13/2024	Normal
13	Northern Piedmont	Lake Anna	08/13/2024	Normal
14	Northern Virginia	Occoquan Reservoir	08/13/2024	Normal
15	Northern Virginia	Lake Manassas	08/13/2024	Normal
16	Roanoke	Smith Mountain Lake	08/13/2024	Normal
17	Roanoke	Kerr Reservoir	08/13/2024	Normal
18	Shenandoah	Skidmore Fork Lake (Switzer Lake)	08/13/2024	Normal
19	Southeast Virginia	Speights Run Reservoir	08/13/2024	Normal
20	Southeast Virginia	Lake Cohoon	08/13/2024	Normal
21	Southeast Virginia	Kerr Reservoir	08/13/2024	Normal
22	Southeast Virginia	Lake Meade	08/13/2024	Normal
23	Southeast Virginia	Lake Kilby	08/13/2024	Normal
24	Upper James	Lake Moomaw	08/13/2024	Normal
25	York James	Skiffes Creek Reservoir	08/13/2024	Normal
26	York James	Lee Hall - City Reservoir	08/13/2024	Normal
27	York James	Harwoods Mill Reservoir	08/13/2024	Normal
28	York James	Little Creek Reservoir	08/13/2024	Normal
29	York James	Diascund Creek Reservoir	08/13/2024	Normal

# Appendix A

## U.S. Drought Monitor Virginia

**August 13, 2024**  
(Released Thursday, Aug. 15, 2024)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	37.29	62.71	35.51	11.96	0.00	0.00
Last Week 08-06-2024	31.99	68.01	45.13	24.86	11.45	0.00
3 Months Ago 05-14-2024	64.05	35.95	0.00	0.00	0.00	0.00
Start of Calendar Year 01-02-2024	31.65	68.35	34.77	4.07	0.00	0.00
Start of Water Year 09-26-2023	51.40	48.60	24.99	6.12	0.00	0.00
One Year Ago 08-15-2023	85.10	14.90	4.81	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:

Curtis Riganti  
National Drought Mitigation Center



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

# Appendix B



# **VA Drought Monitoring Task Force**

Erik Taylor, Jeremy Geiger, Jon McGee, & Nick Fillo  
National Weather Service – Baltimore/Washington DC,  
Blacksburg, VA, Wakefield, VA  
August 13, 2024



# U.S. Drought Monitor

Map released: Thurs. August 8, 2024

Data valid: August 6, 2024 at 8 a.m. EDT

## Intensity



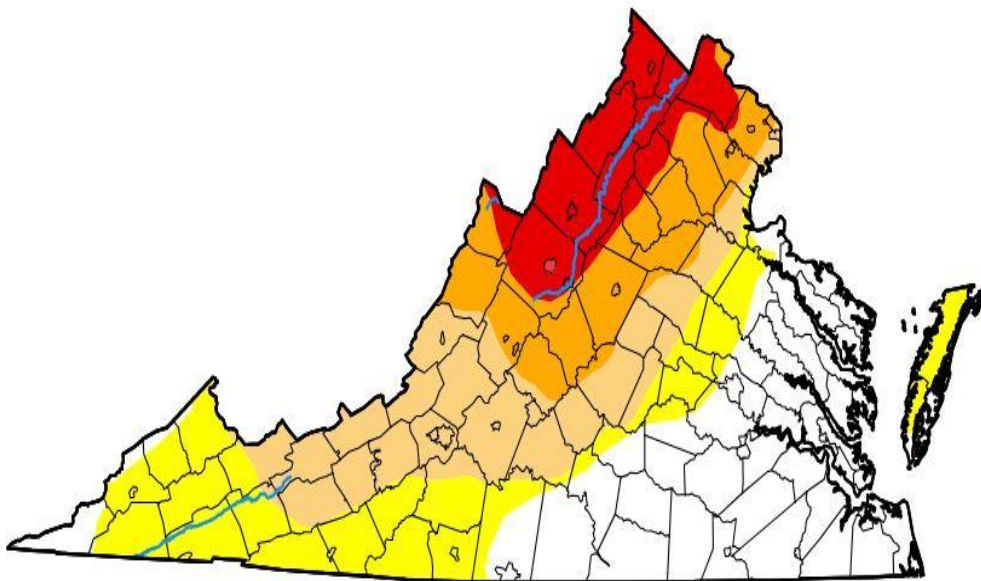
## Authors

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[David Simeral](#), Western Regional Climate Center

Pacific Islands and Virgin Islands Author(s):

[Anthony Artusa](#), NOAA/NWS/NCEP/CPC

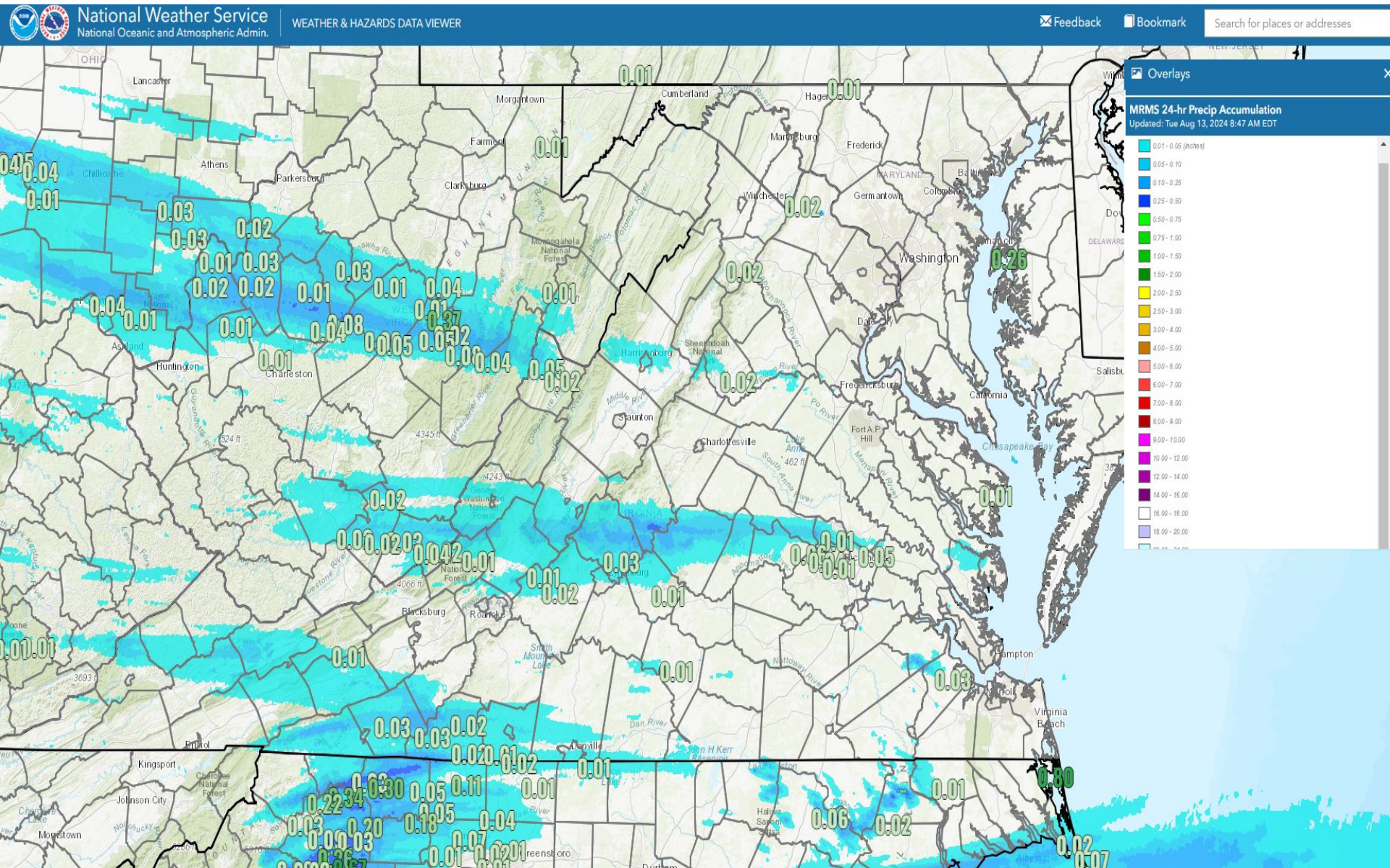




# National Weather Service

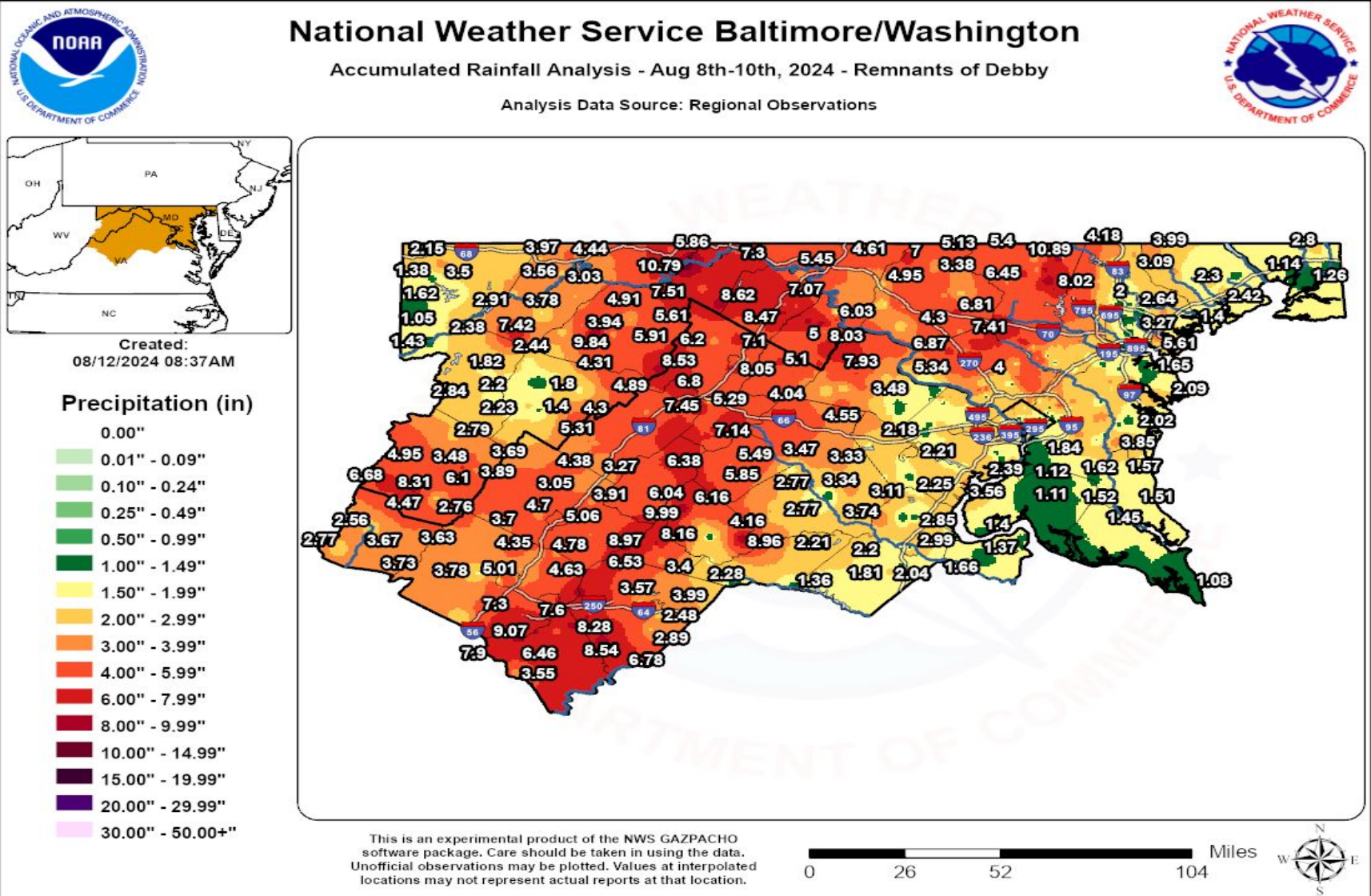


## Past 24 Hours



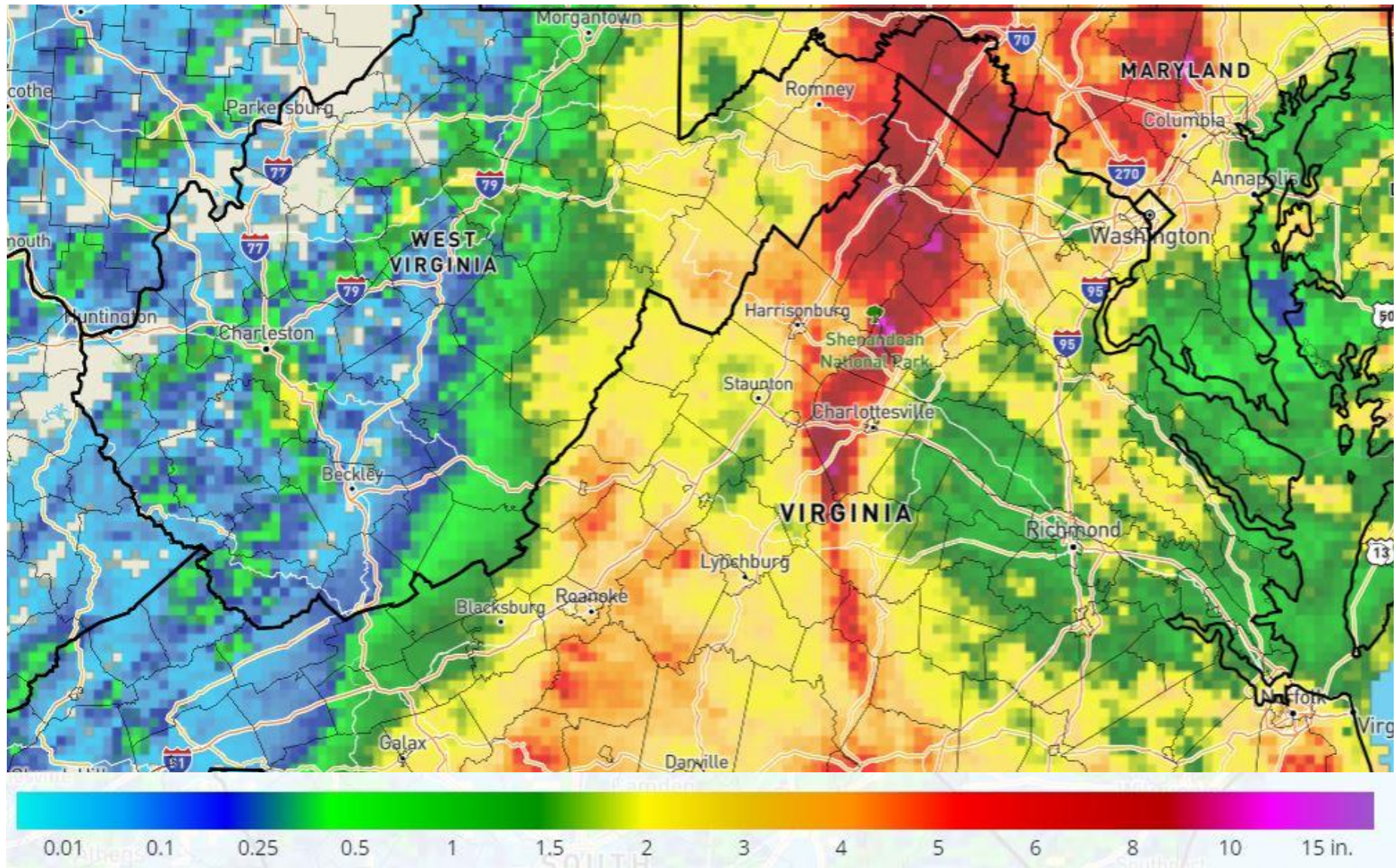


## Observed Rainfall Analysis Remnants of Debby (August 8-9th, 2024)



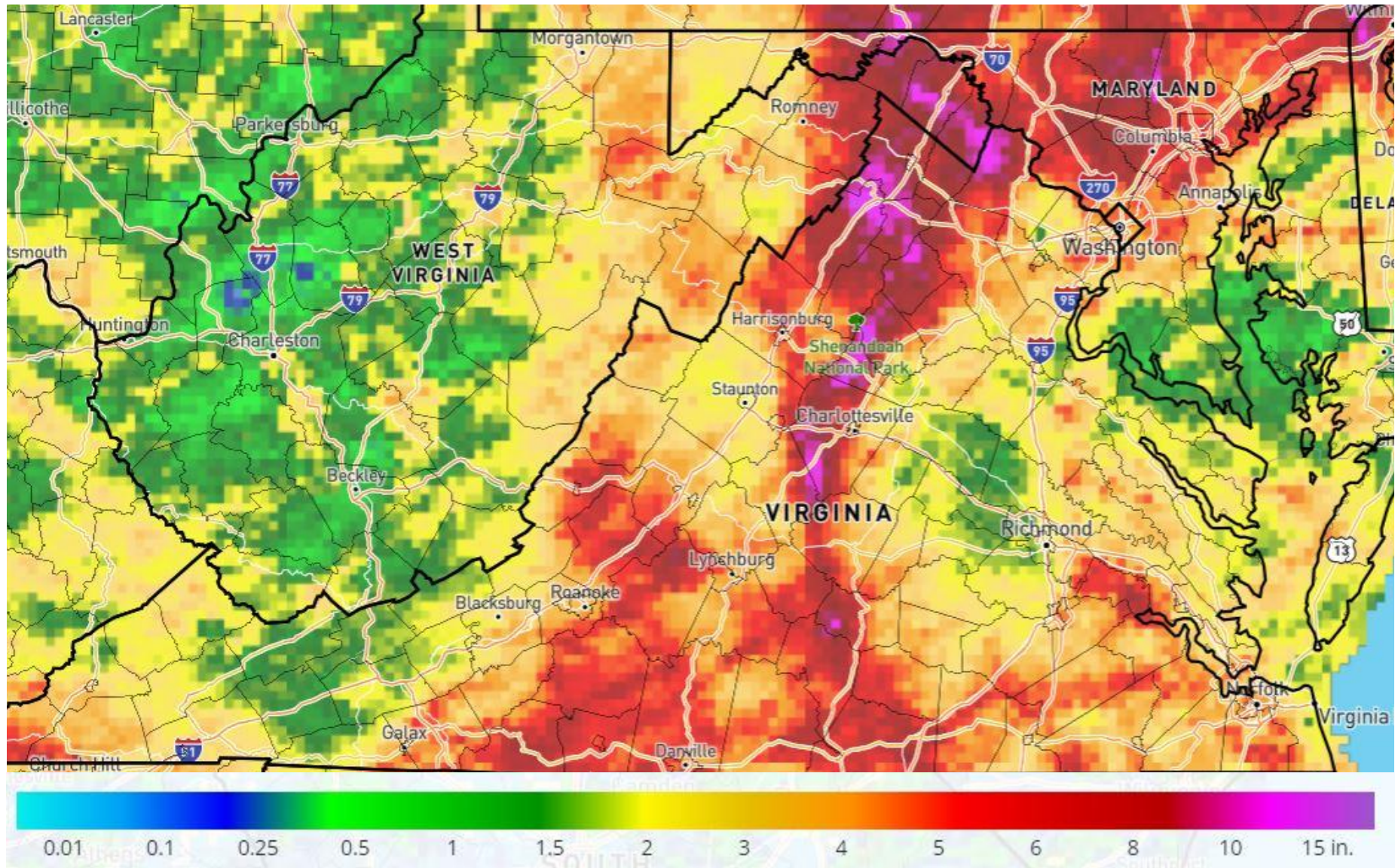


# 7-Day Observed Precipitation



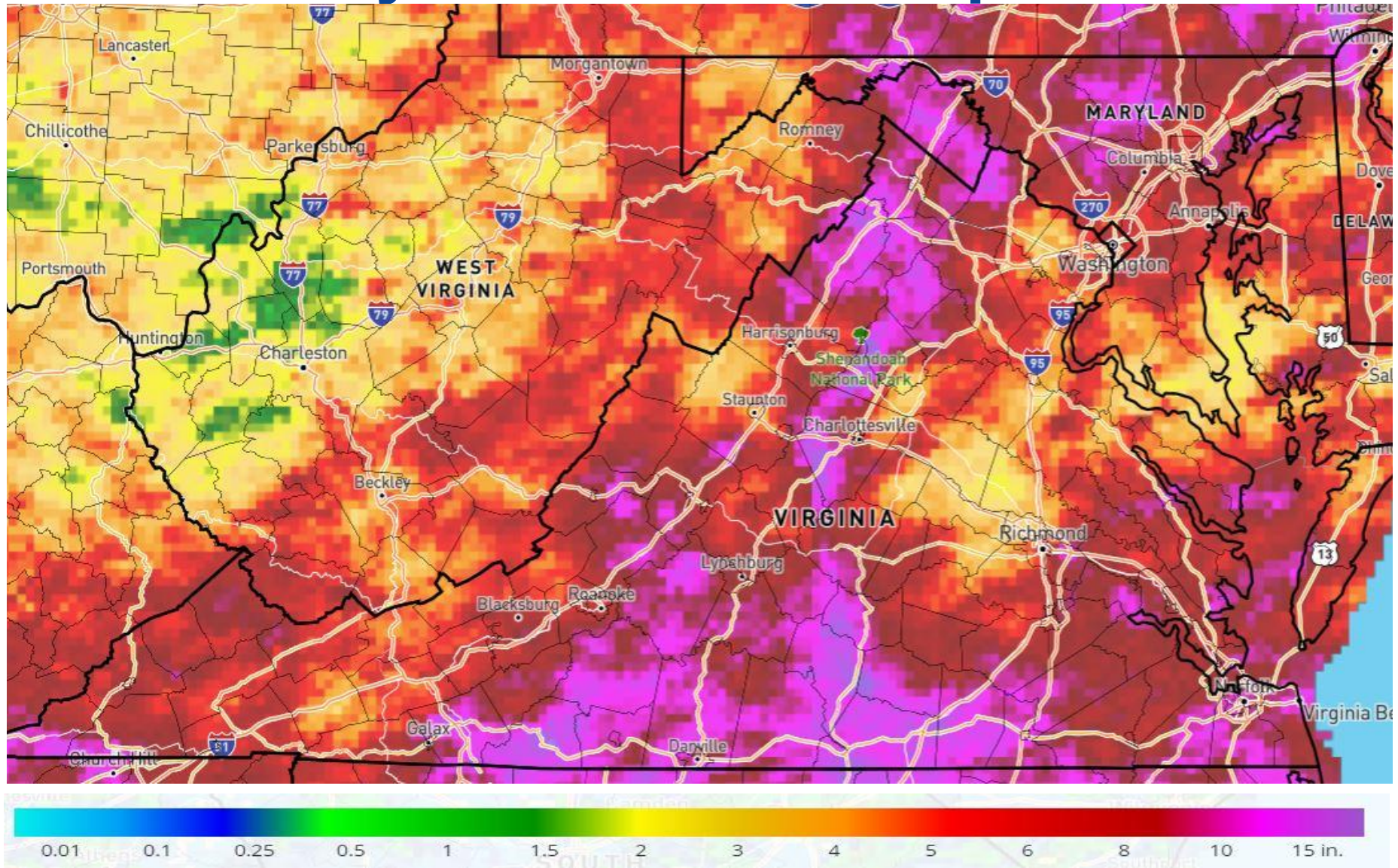


# 14-Day Observed Precipitation



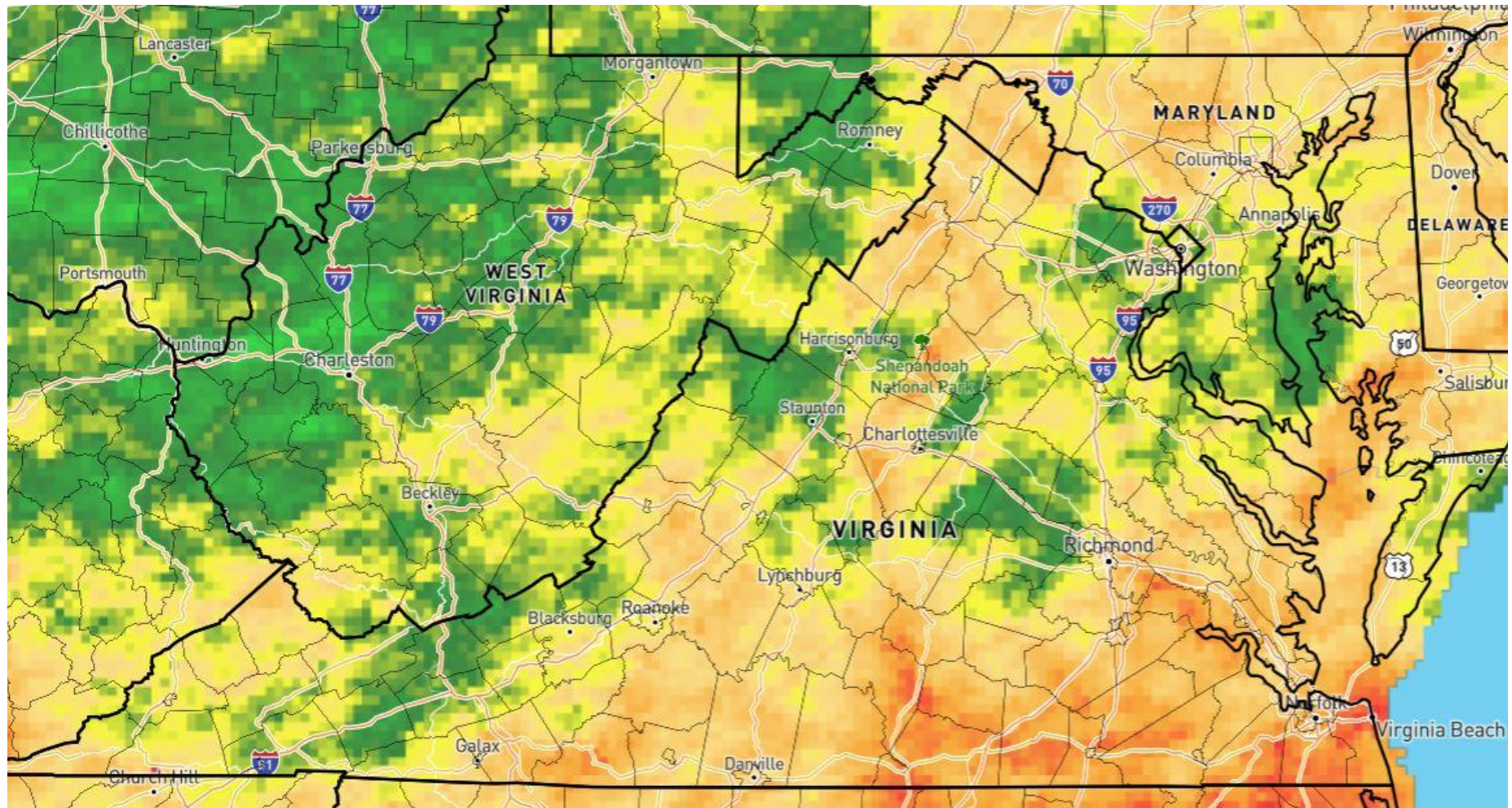


# 30-Day Observed Precipitation



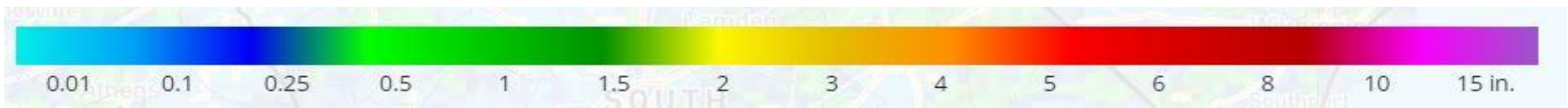
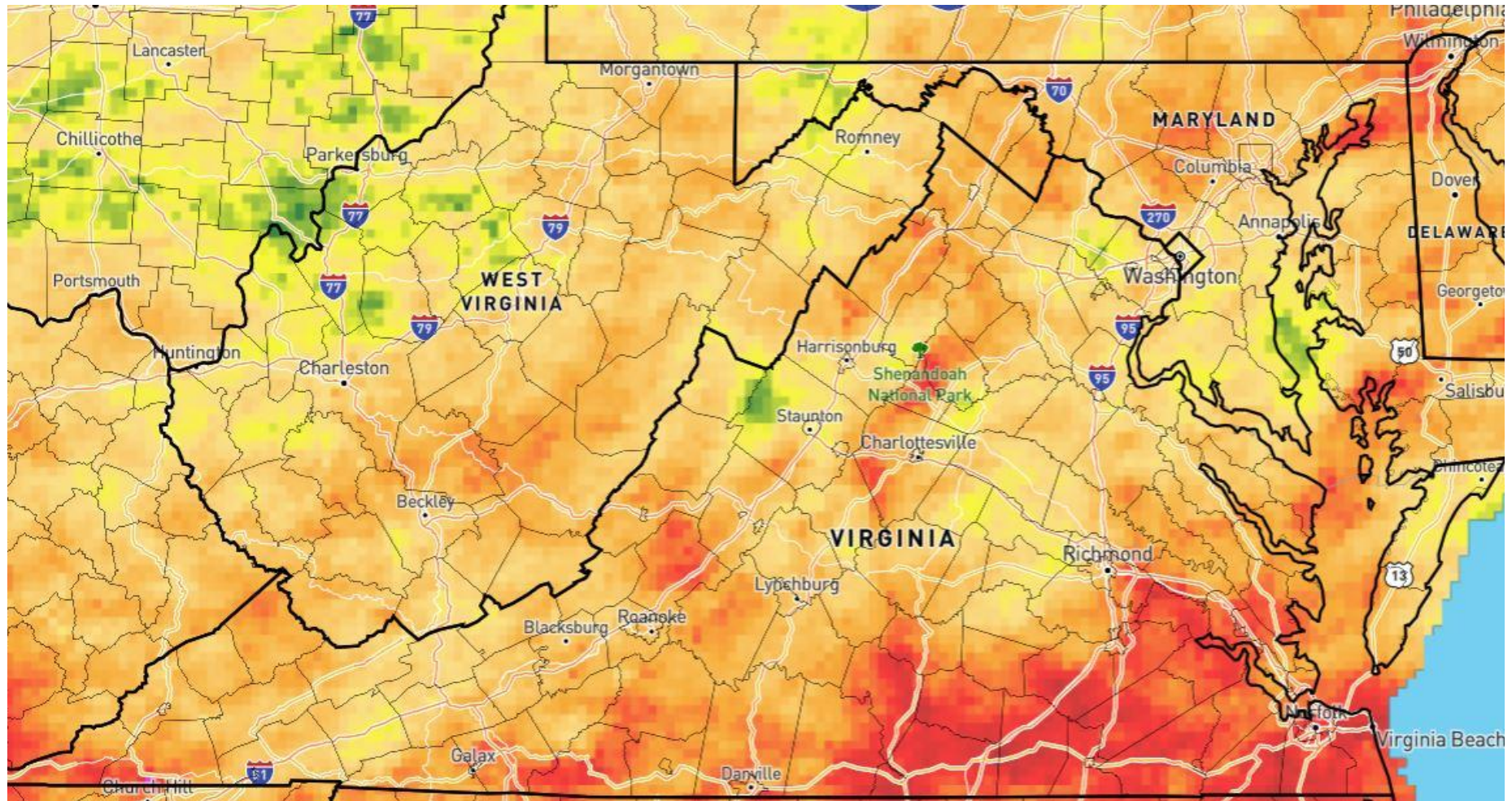


# 60-Day Observed Precipitation



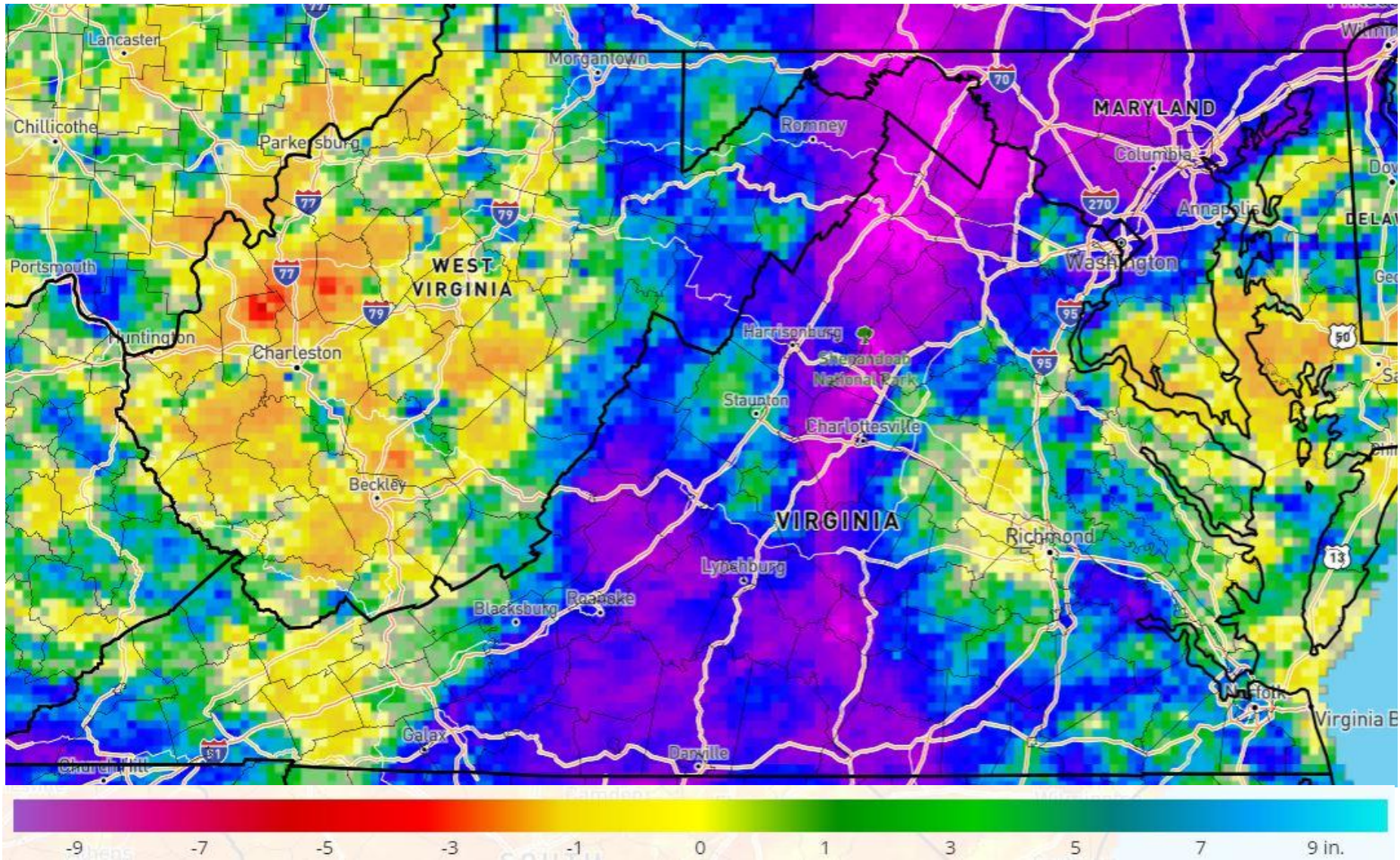


# 90-Day Observed Precipitation



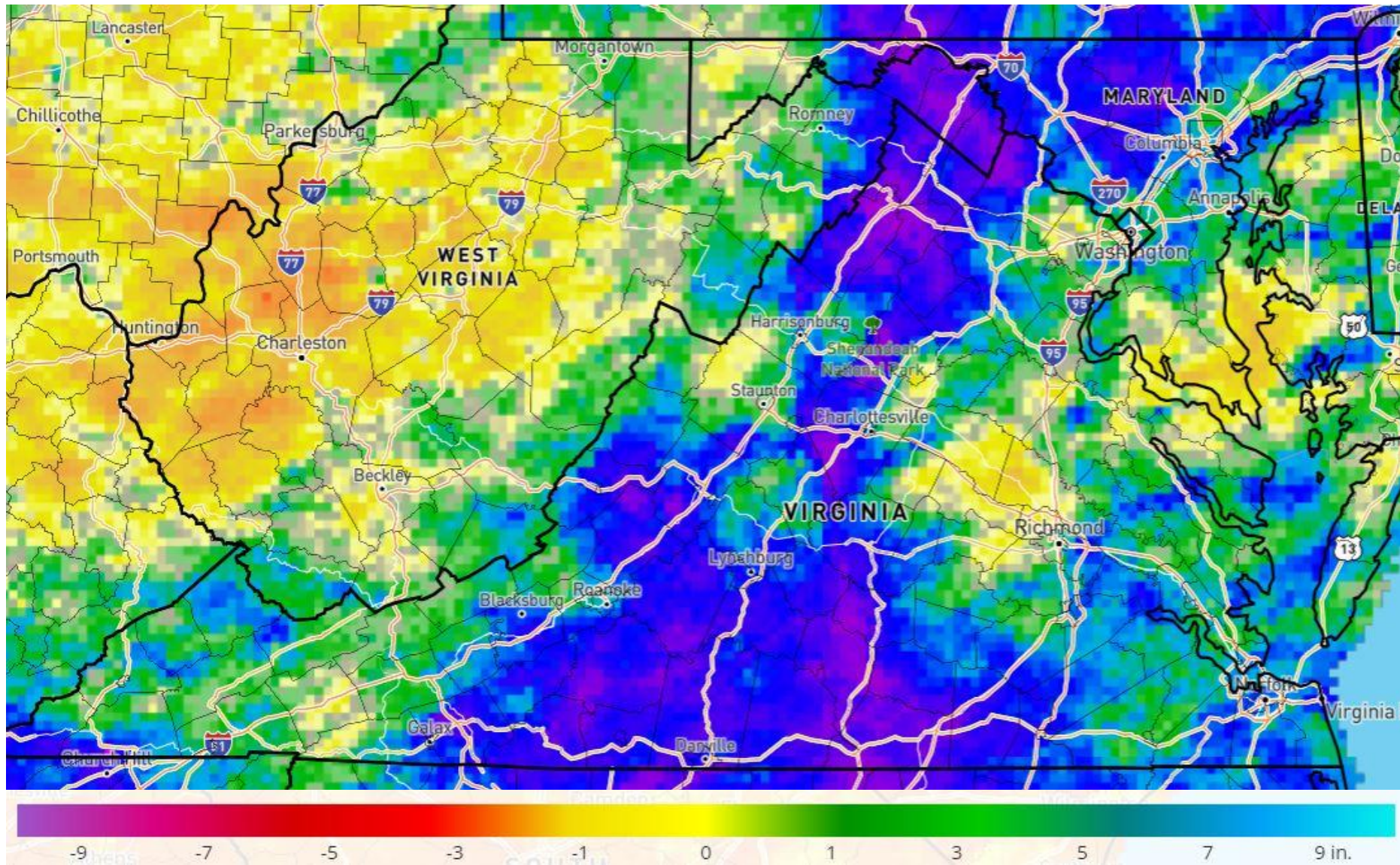


# 14-Day Percent of Normal Precipitation



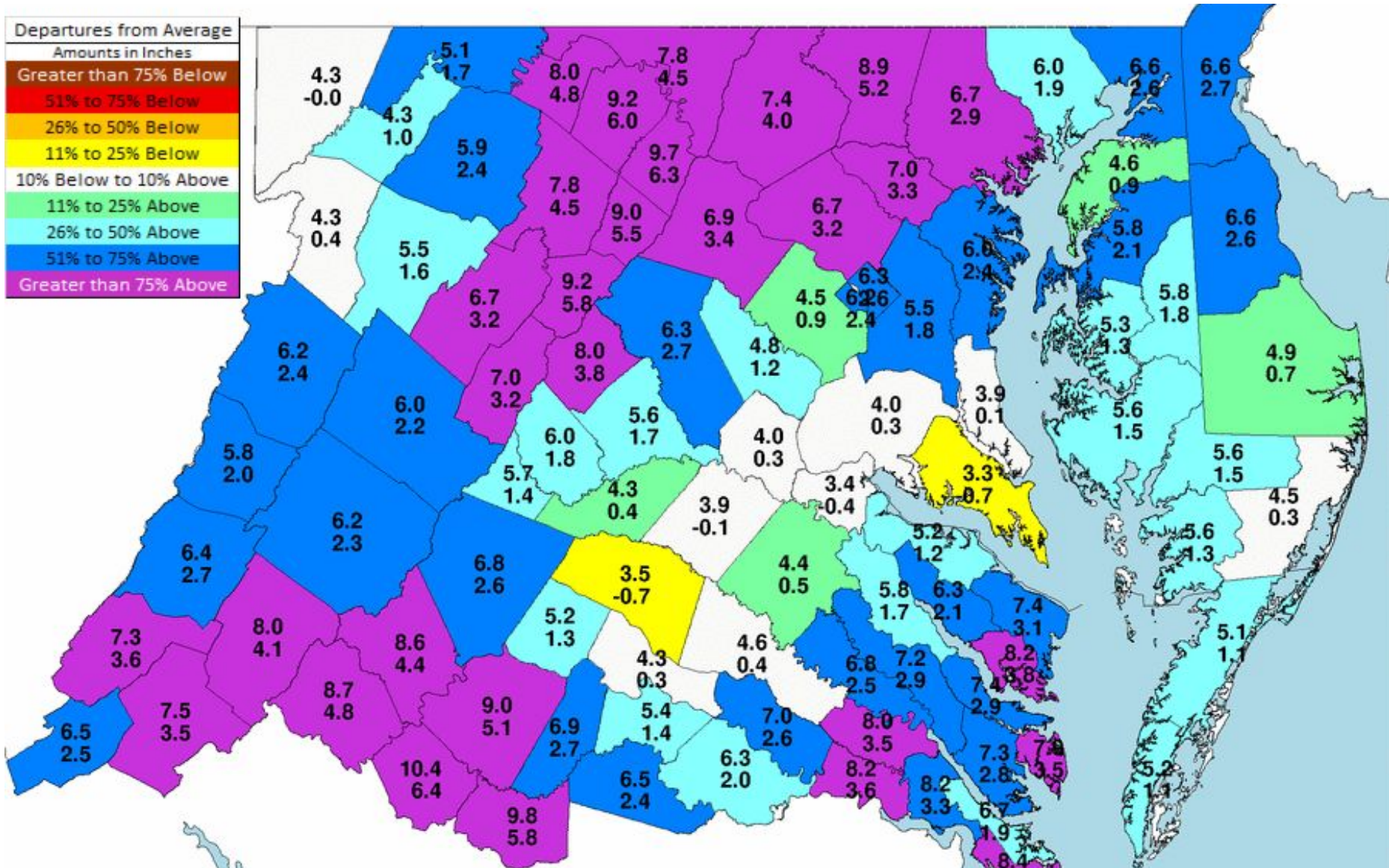


# 30-Day Percent of Normal Precipitation



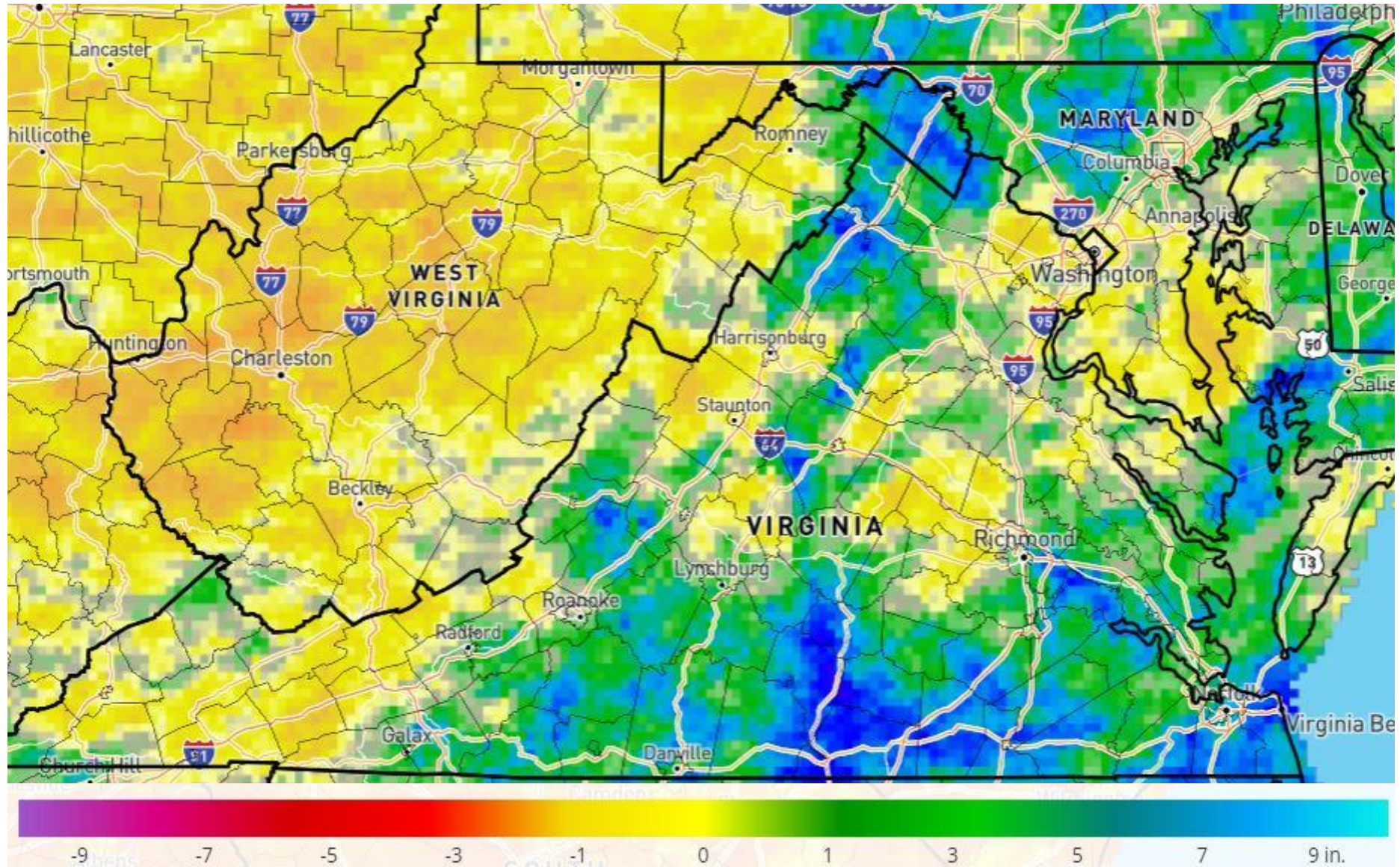


## 30-Day Departure Of Precipitation





# 60-Day Percent of Normal Precipitation





Departures from Average

Amounts in Inches

Greater than 75% Below

51% to 75% Below

26% to 50% Below

11% to 25% Below

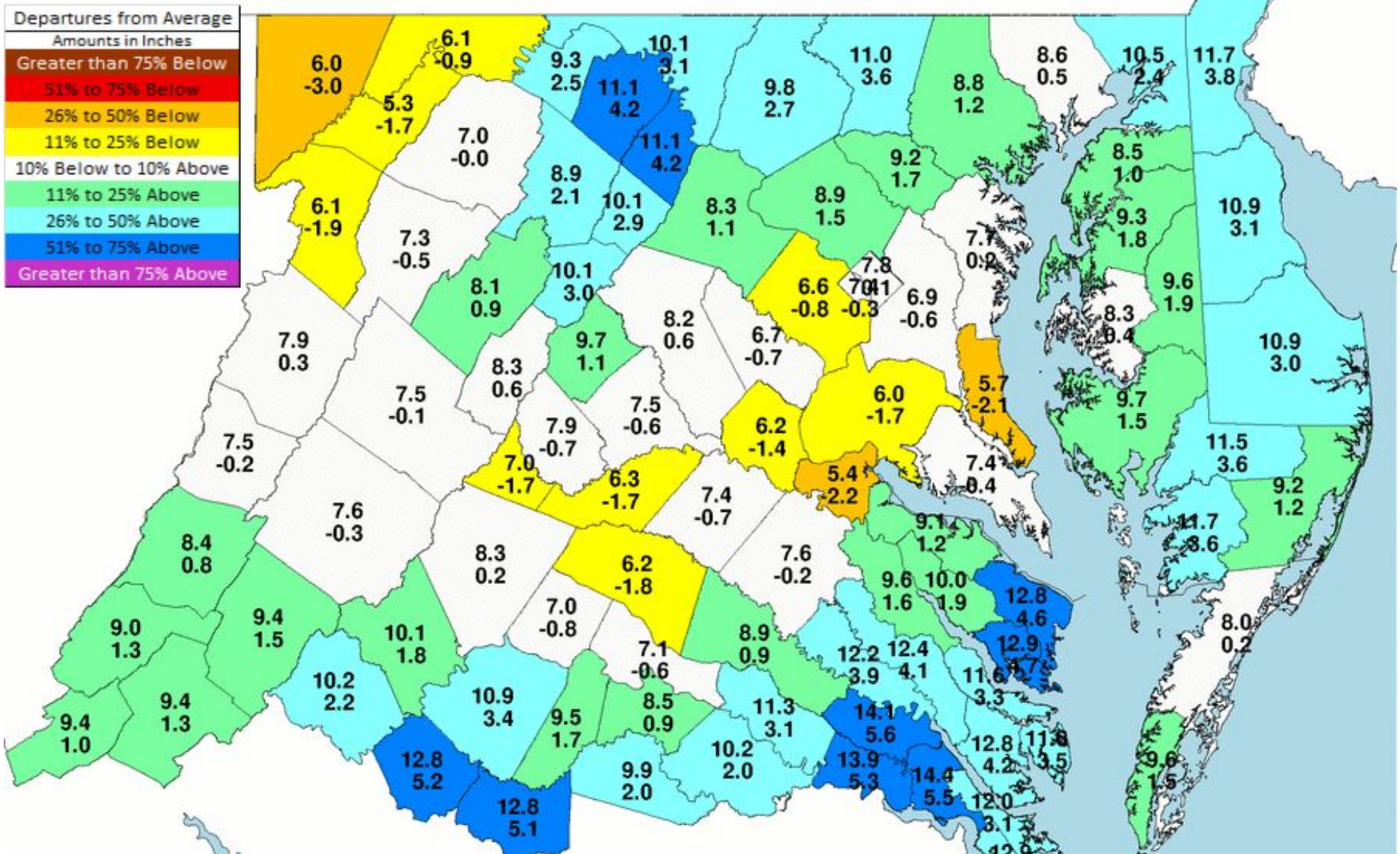
10% Below to 10% Above

11% to 25% Above

26% to 50% Above

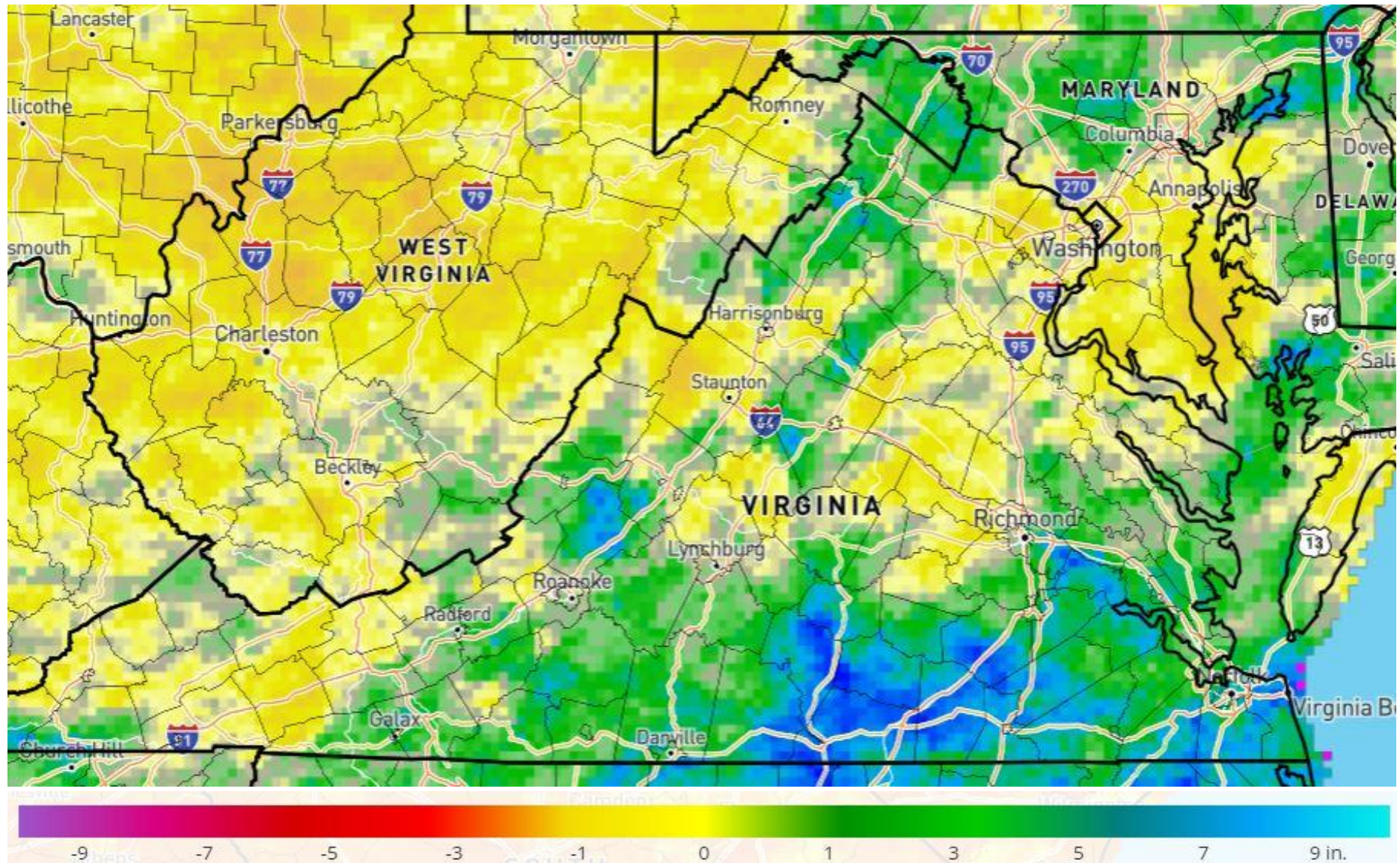
51% to 75% Above

Greater than 75% Above

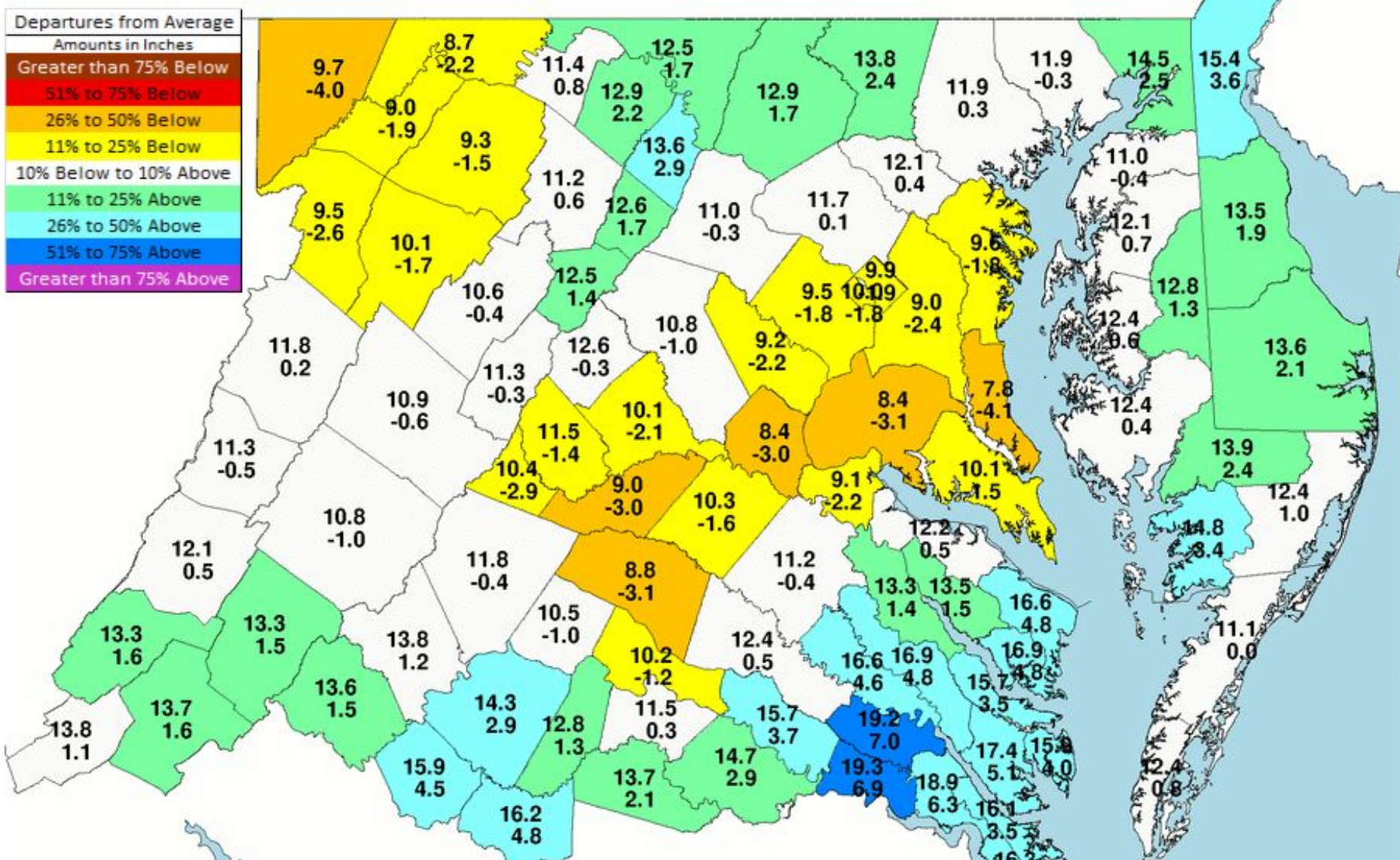




# 90-Day Percent of Normal Precipitation

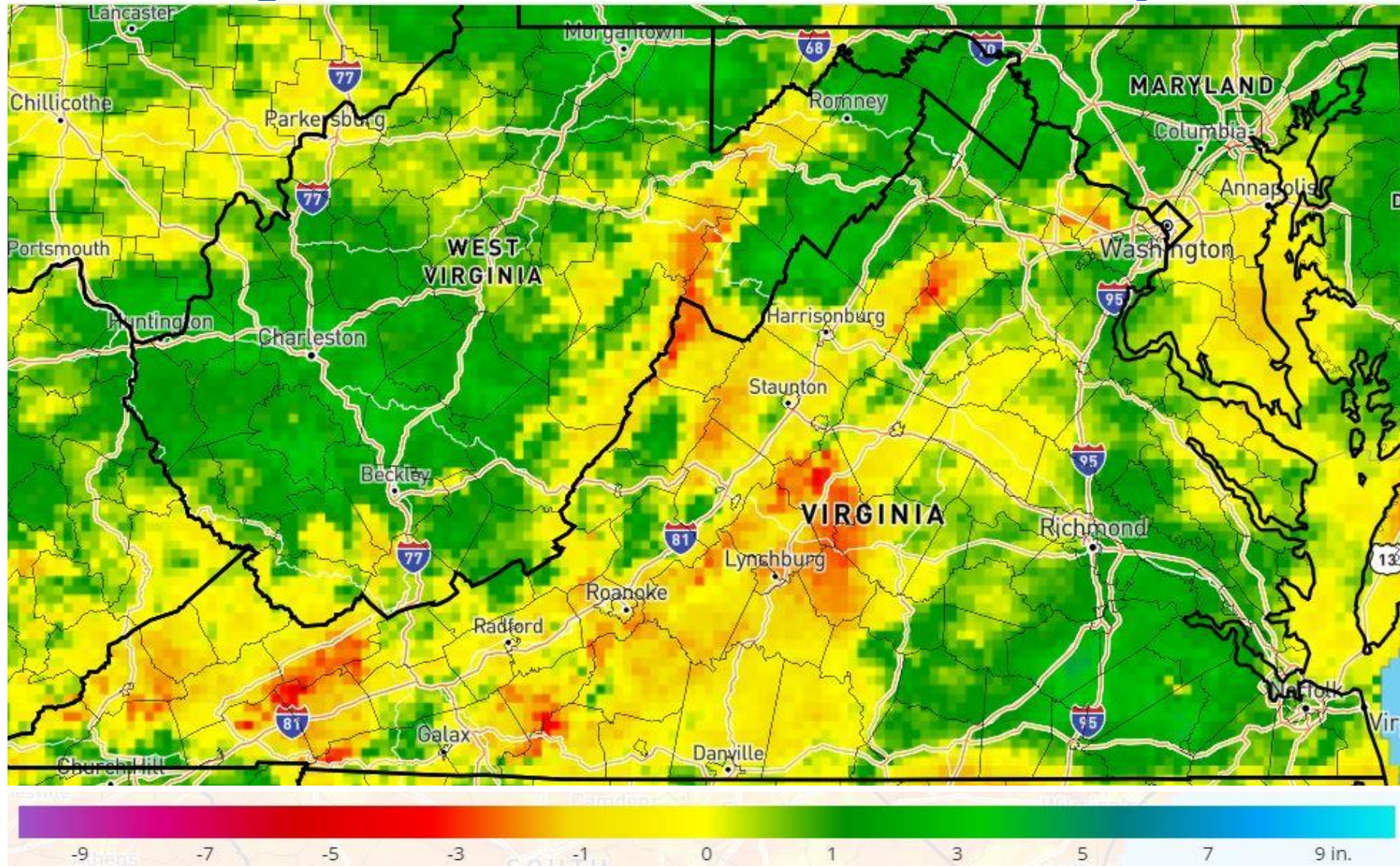








# 180-Day Percent of Normal Precipitation





Departures from Average

Amounts in Inches

Greater than 75% Below

51% to 75% Below

26% to 50% Below

11% to 25% Below

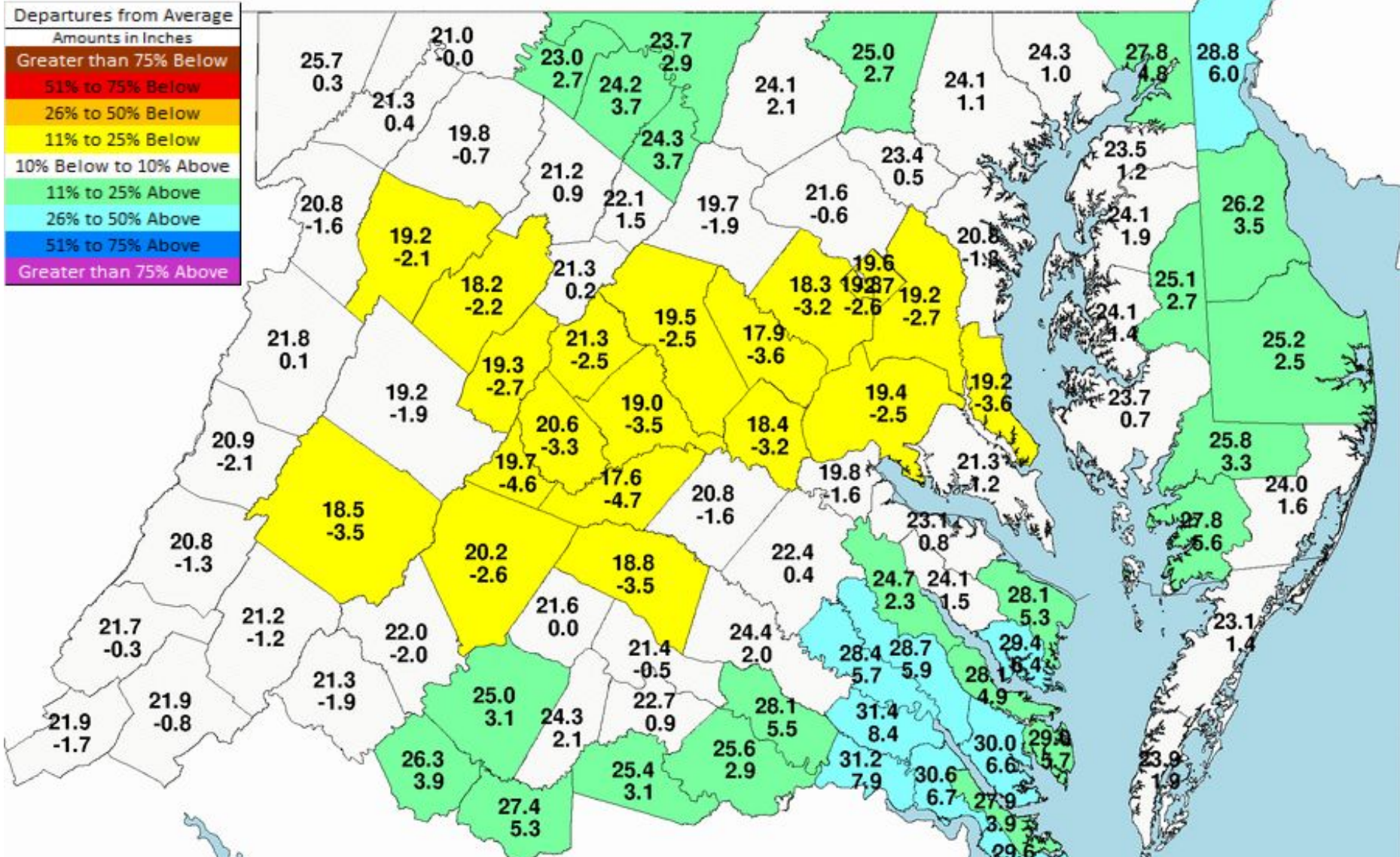
10% Below to 10% Above

11% to 25% Above

26% to 50% Above

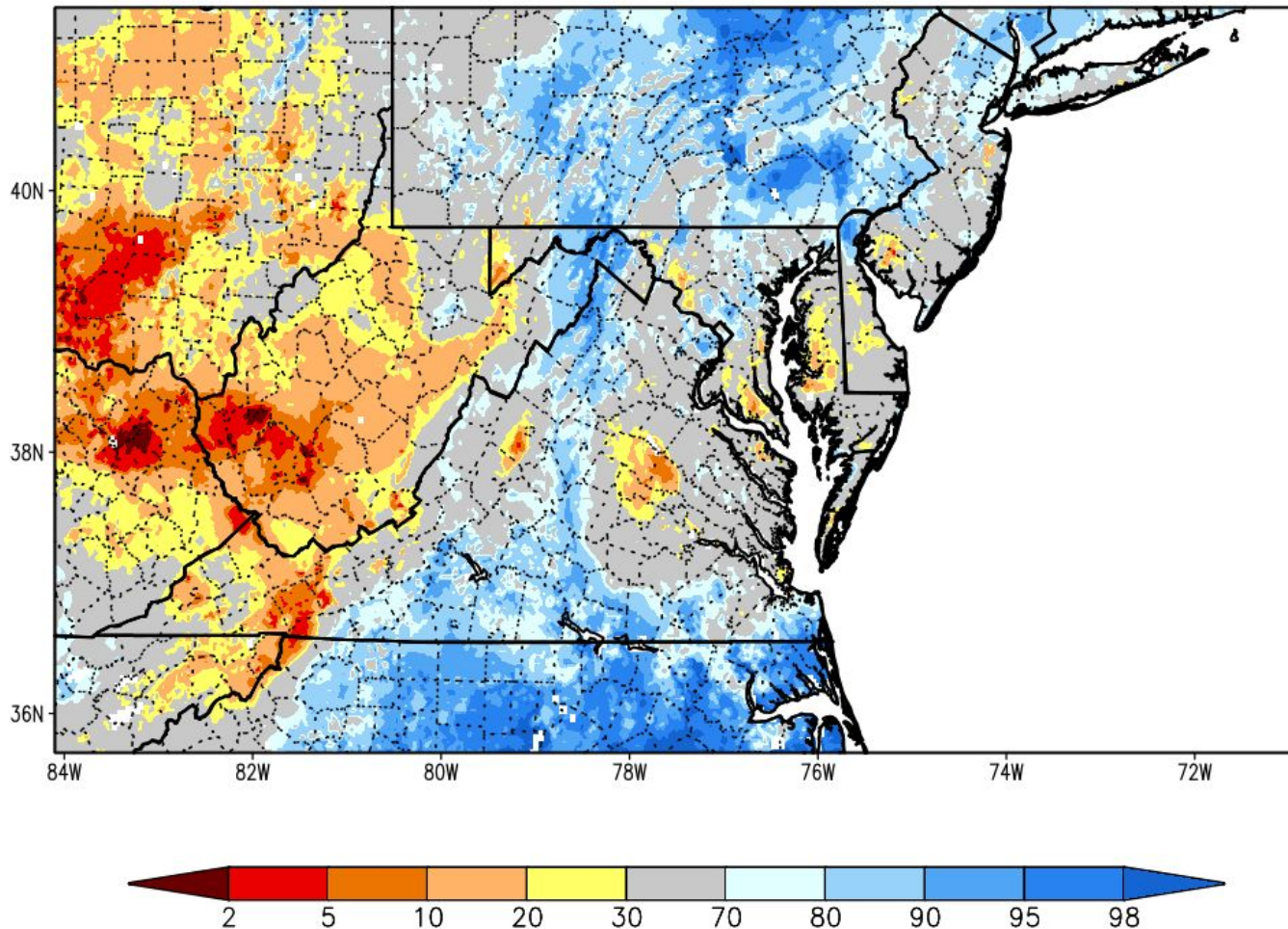
51% to 75% Above

Greater than 75% Above



# NASA SPoRT LIS Soil Moisture

SPoRT-LIS 0–100 cm Soil Moisture percentile valid 13 Aug 2024

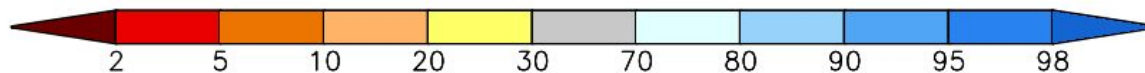
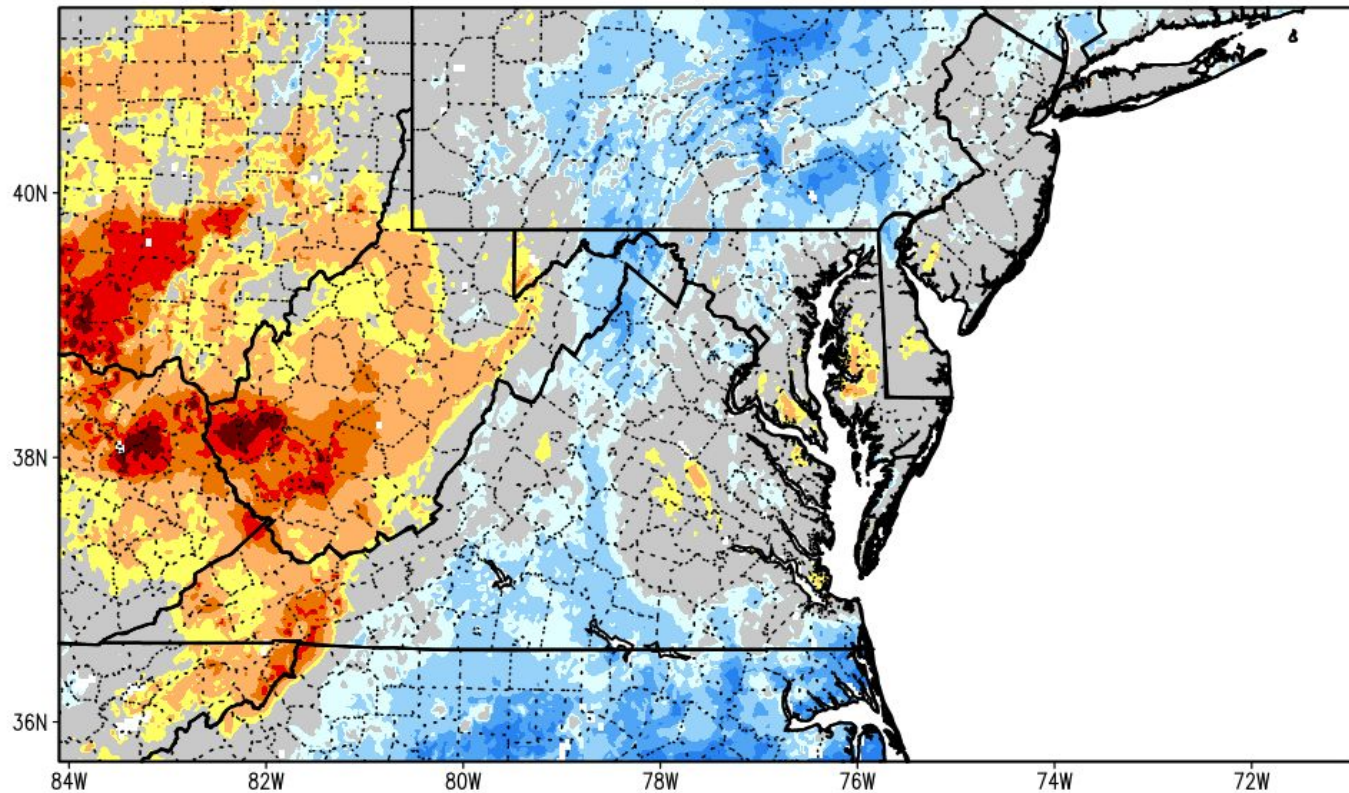


**\*\*NOTE\*\***  
**\*\*Experimental\*\***



# NASA SPoRT LIS Soil Moisture

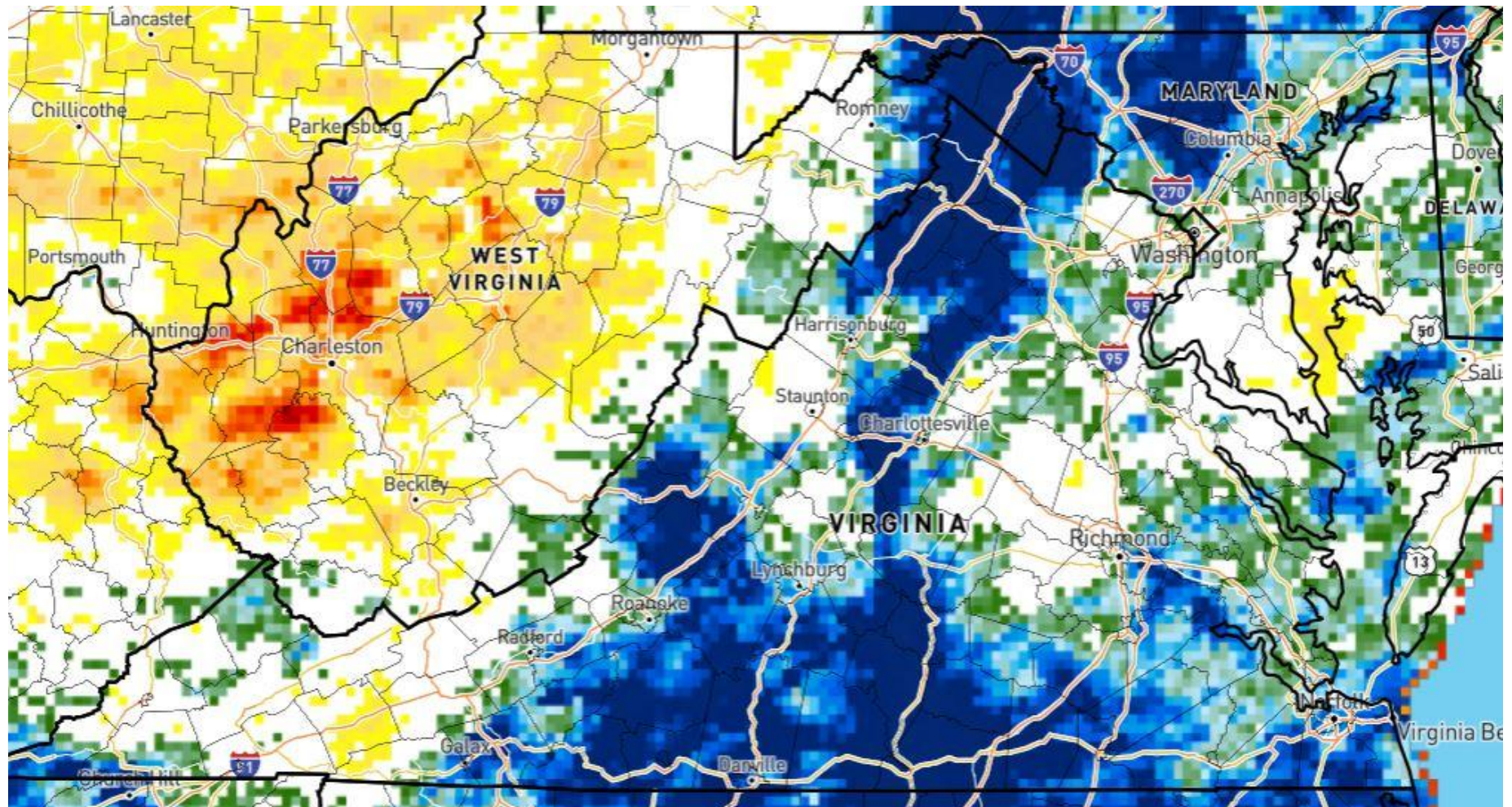
SPoRT-LIS 0-40 cm Soil Moisture percentile valid 13 Aug 2024



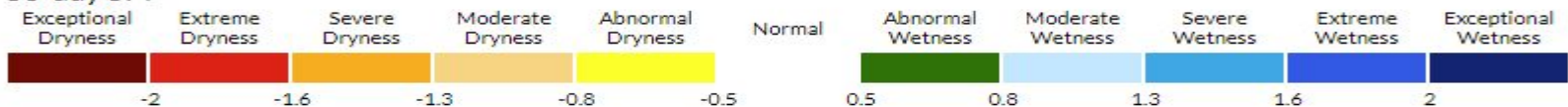
**\*\*NOTE\*\***  
**\*\*Experimental\*\***



## 30-Day SPI

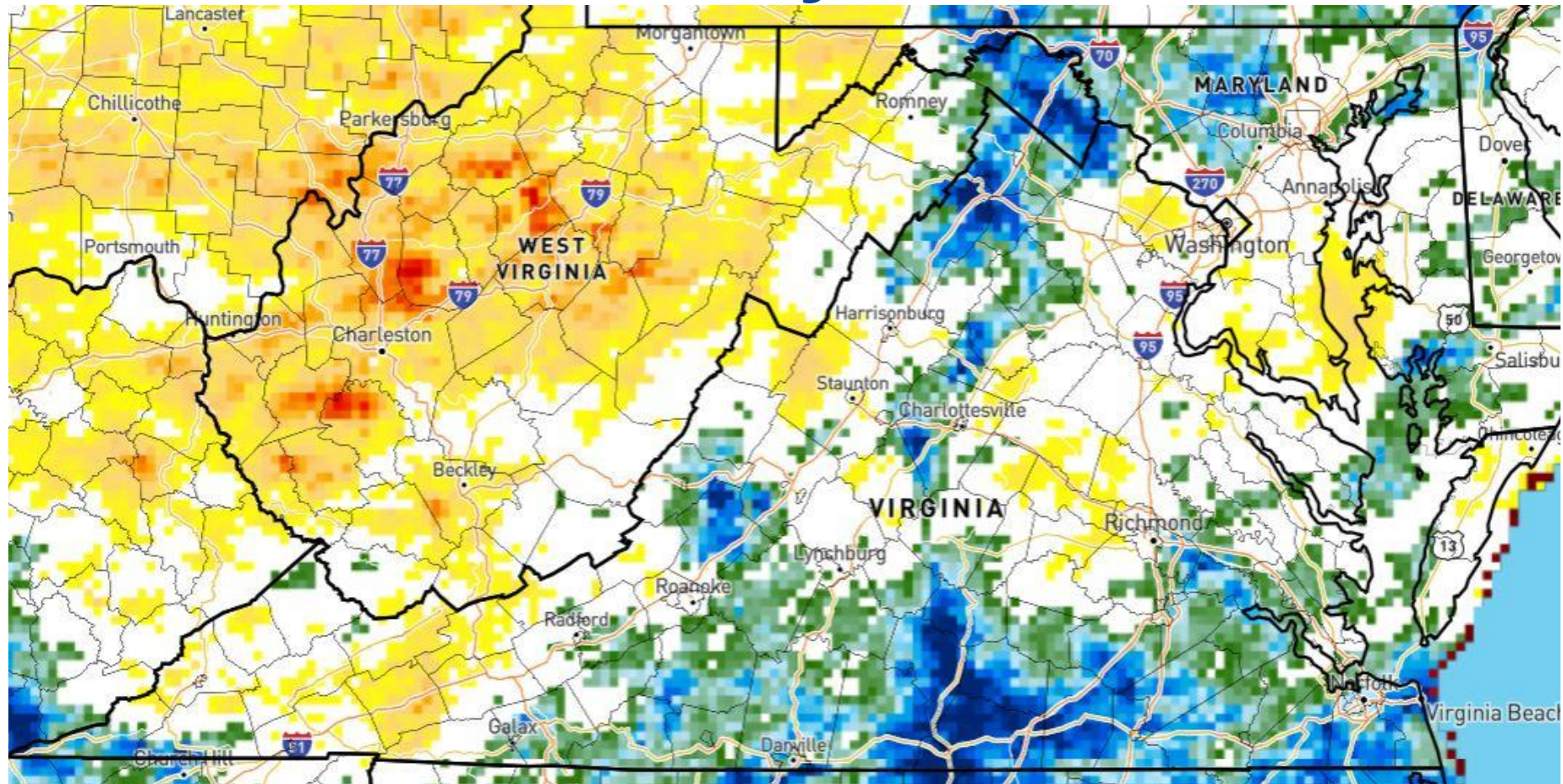


30-day SPI

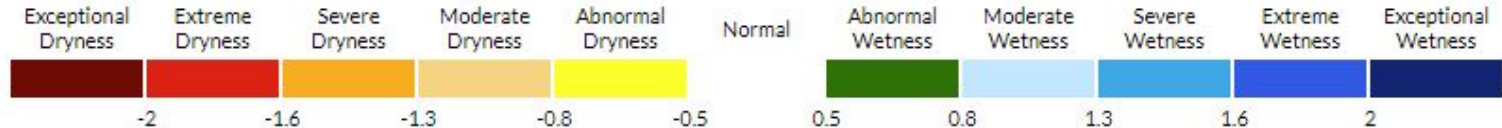




## 60-Day SPI

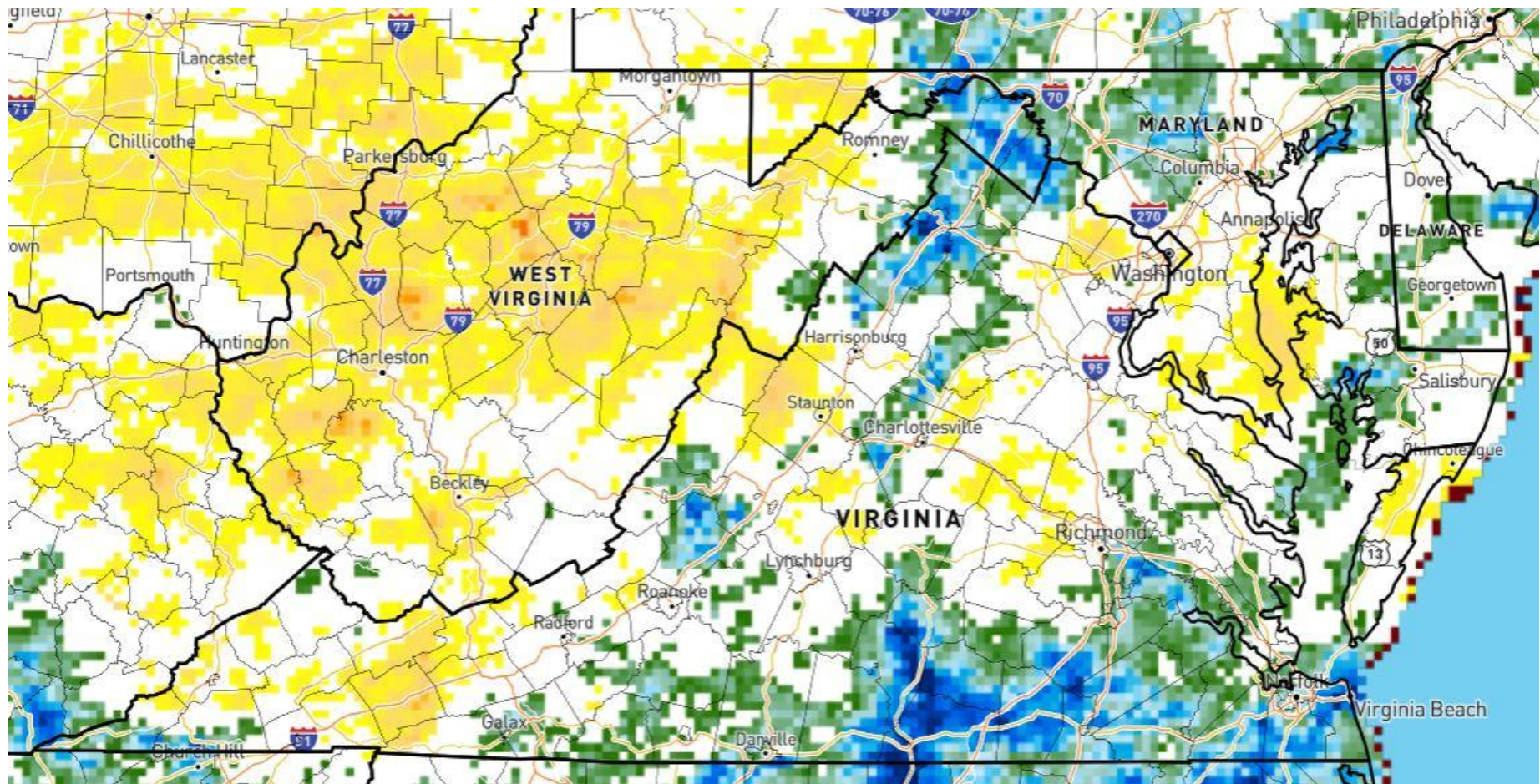


60-day SPI

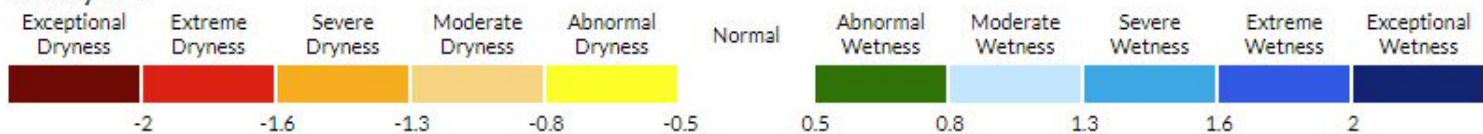




## 90-Day SPI

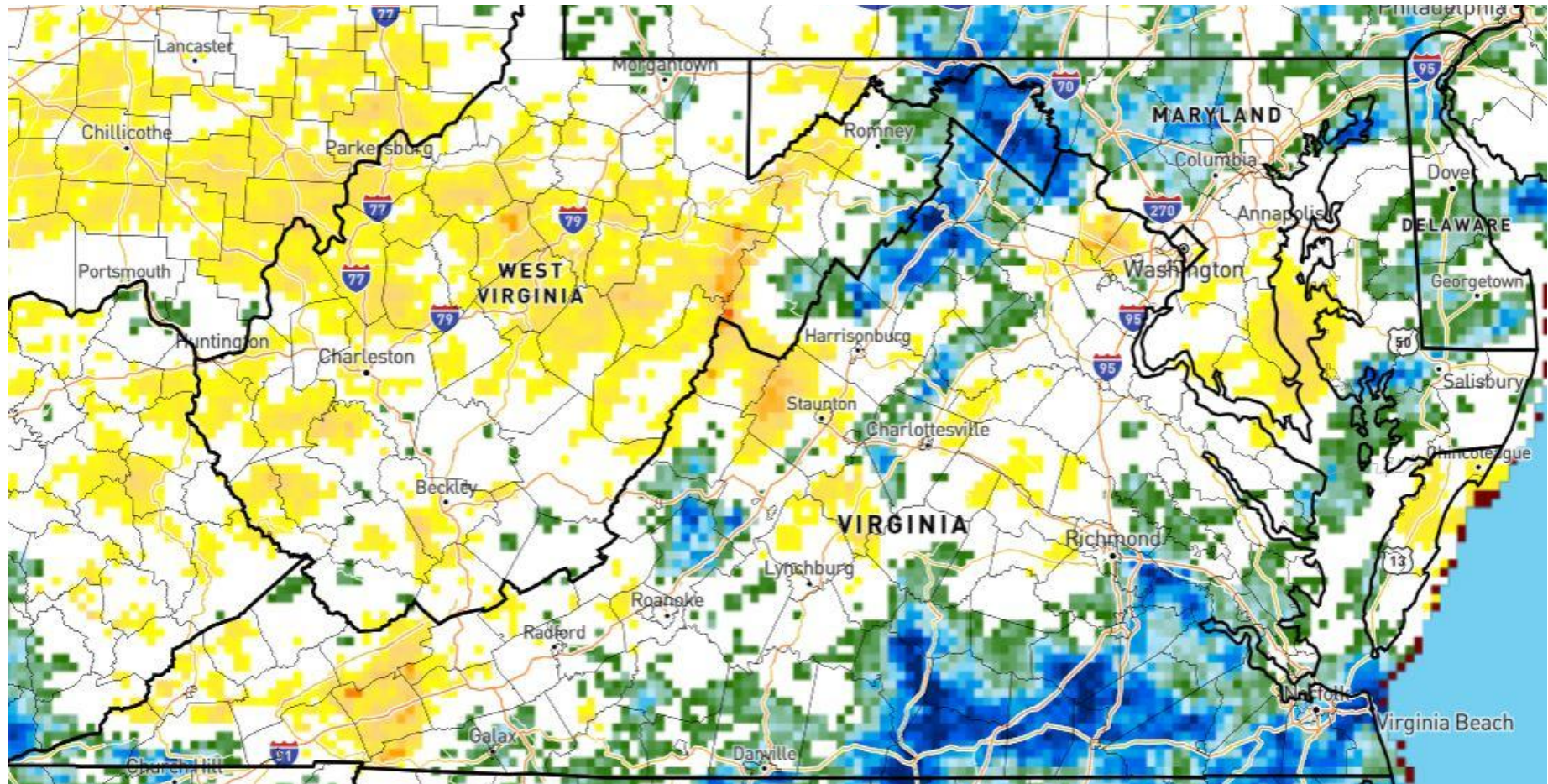


90-day SPI

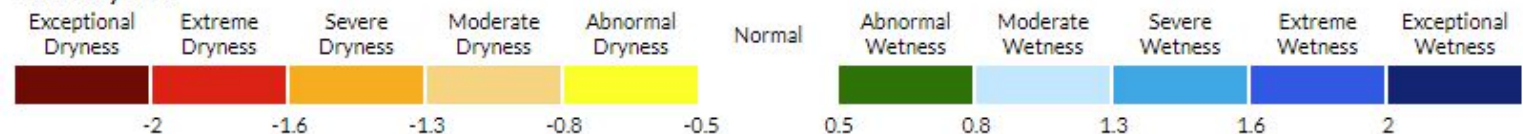




## 120-Day SPI

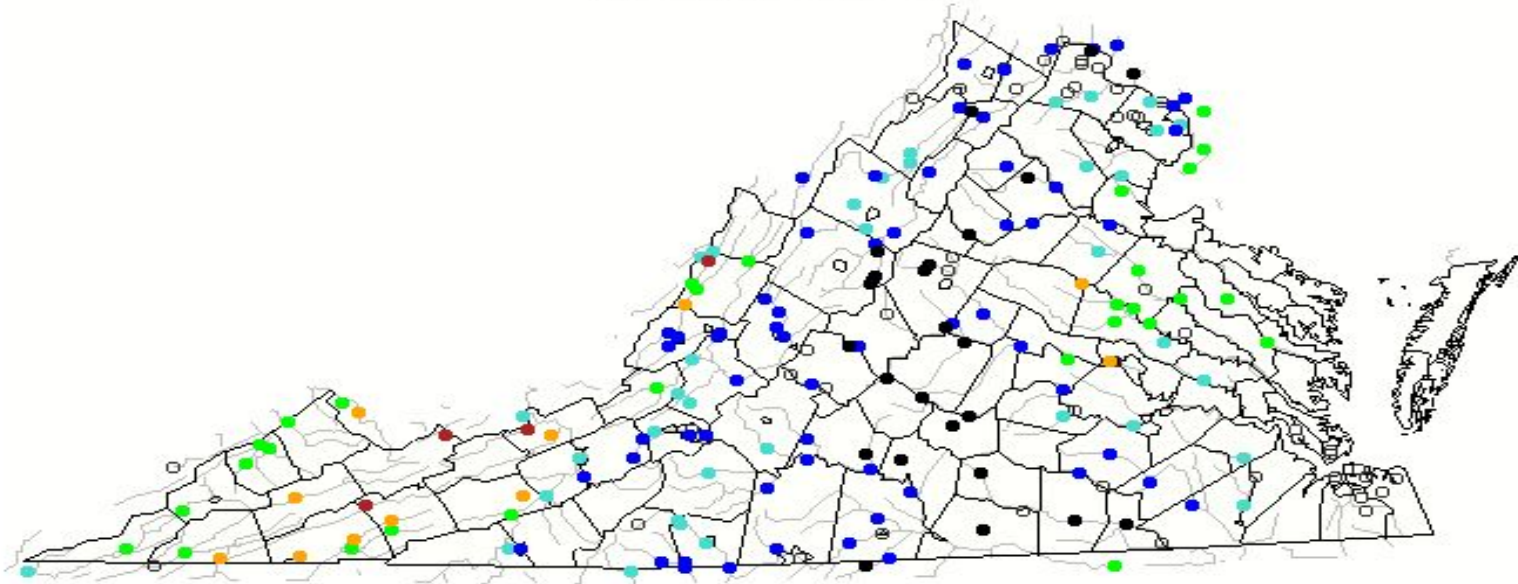


120-day SPI



## 7 Day Streamflows









Monday, August 12, 2024



Search USGS streamgage 

Choose a data retrieval option and select a location on the map

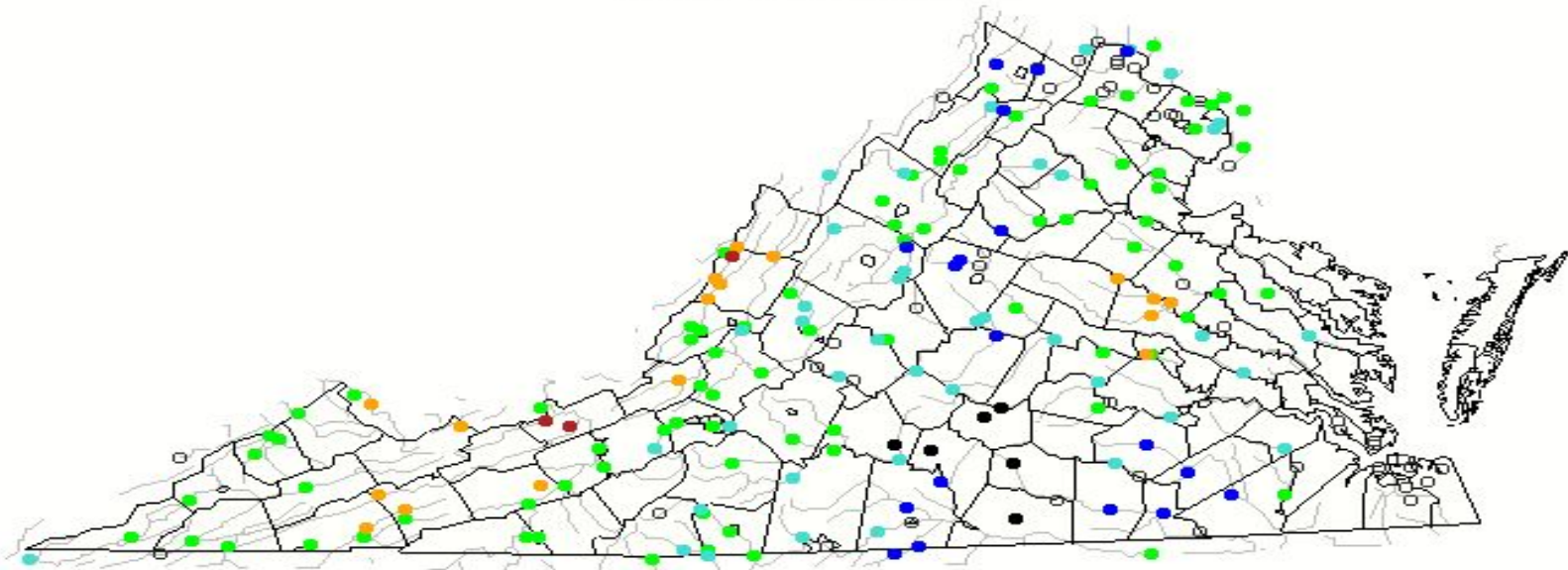
☐ List of all stations ☒ Single station ☐ Nearest stations

Explanation - Percentile classes							
							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked



## 28 Day Streamflows









Monday, August 12, 2024



Search USGS streamgage 

Choose a data retrieval option and select a location on the map

☐ List of all stations ☒ Single station ☐ Nearest stations

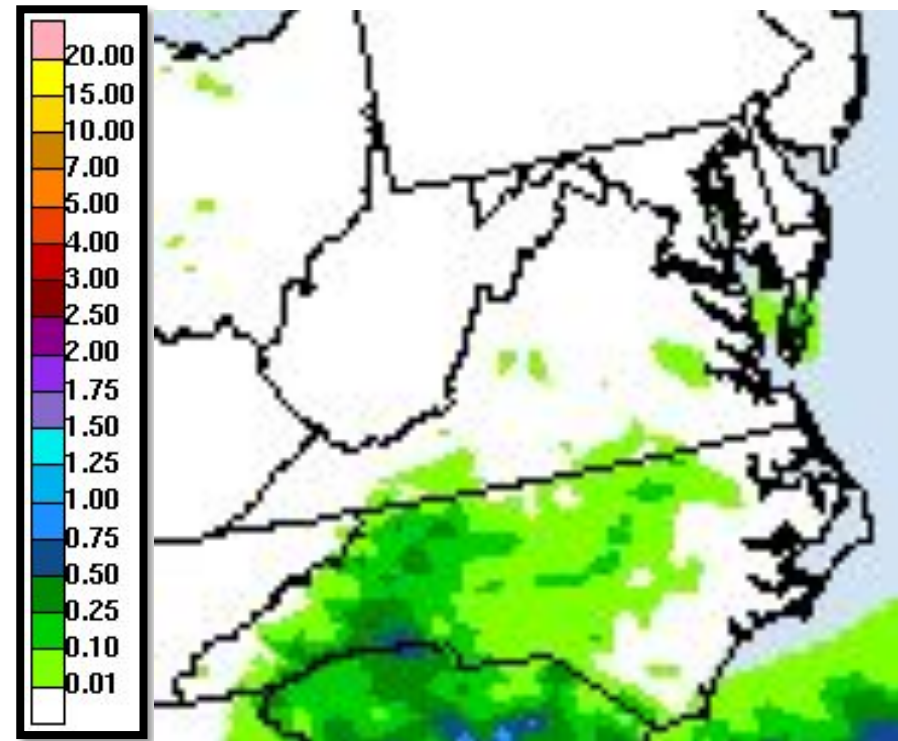
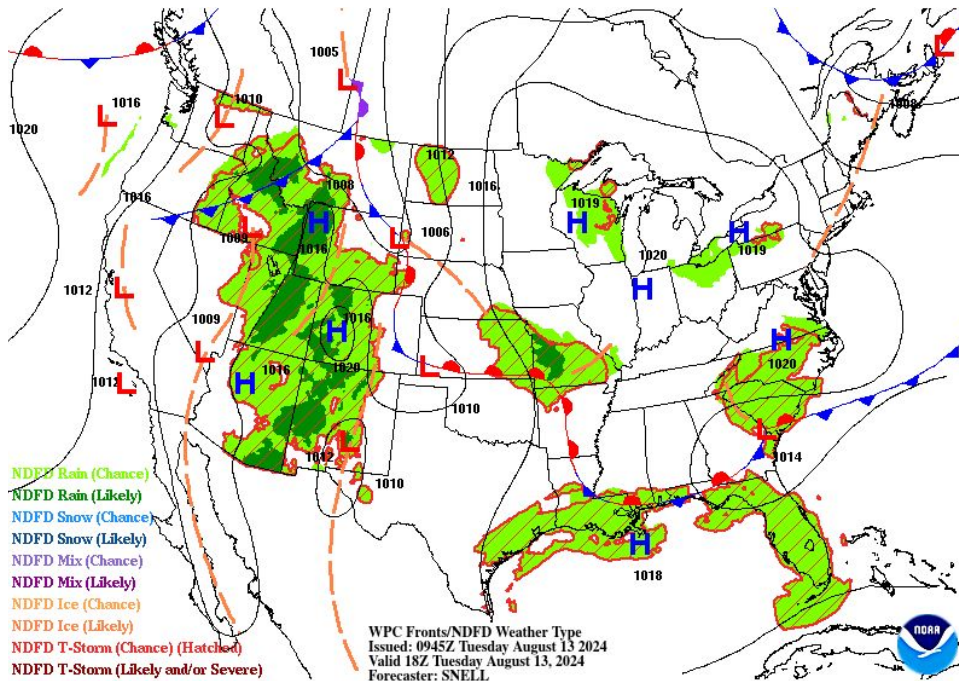
Explanation - Percentile classes							
							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

## Upcoming Weather Pattern

Today

Fronts and Weather

Accumulated Precipitation  
Forecasts

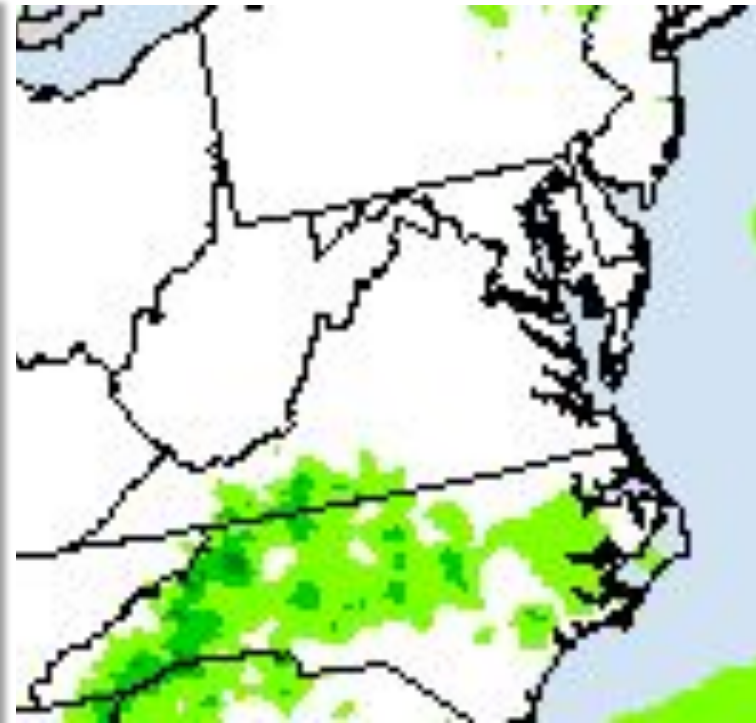
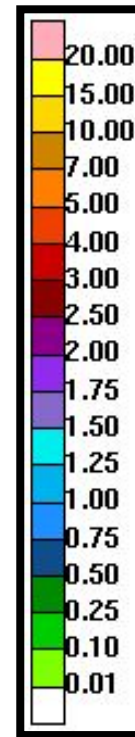
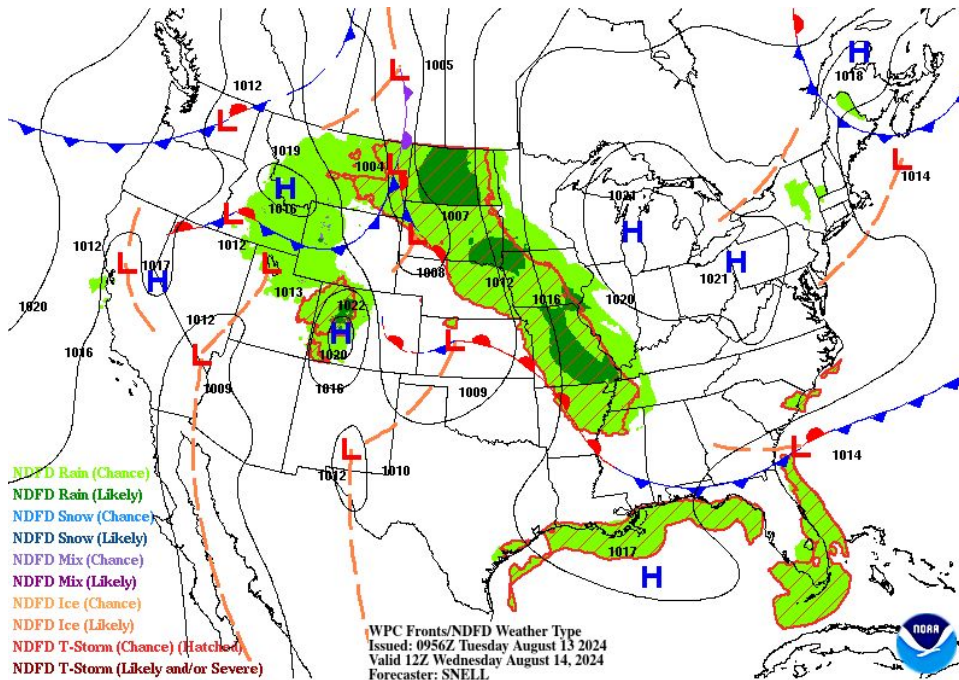


## Upcoming Weather Pattern

Wednesday

Fronts and Weather

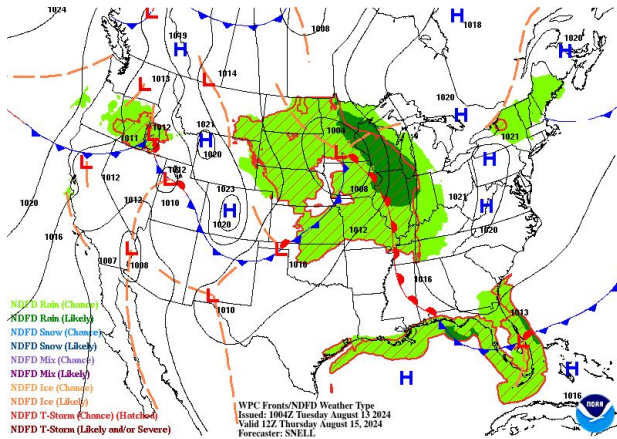
Accumulated  
Precipitation Forecasts



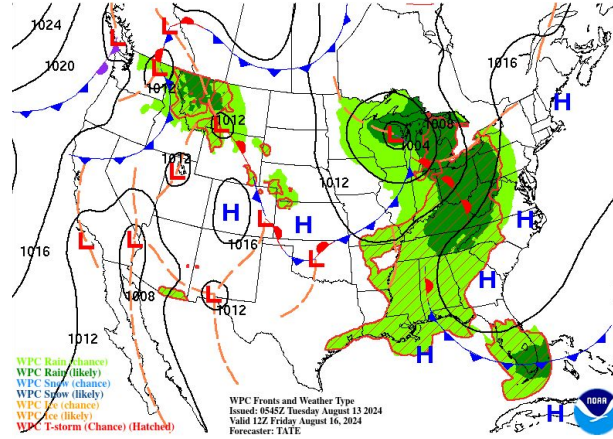


## Upcoming Weather Pattern

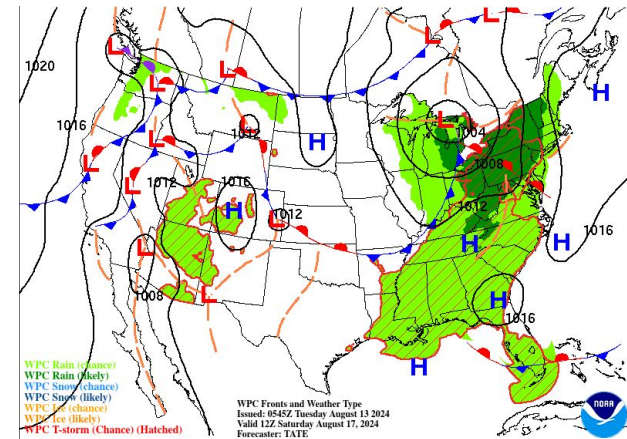
Thursday



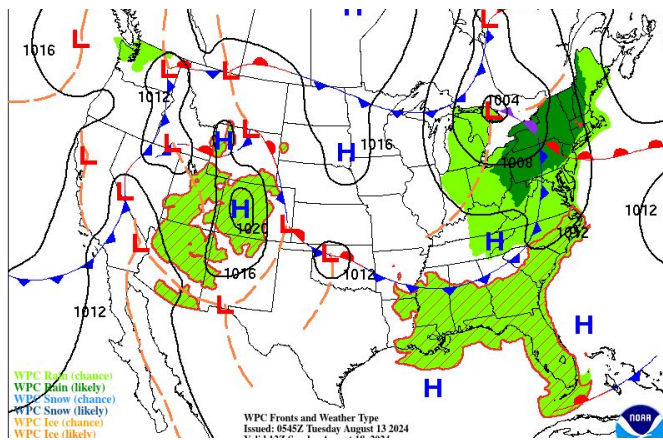
Friday



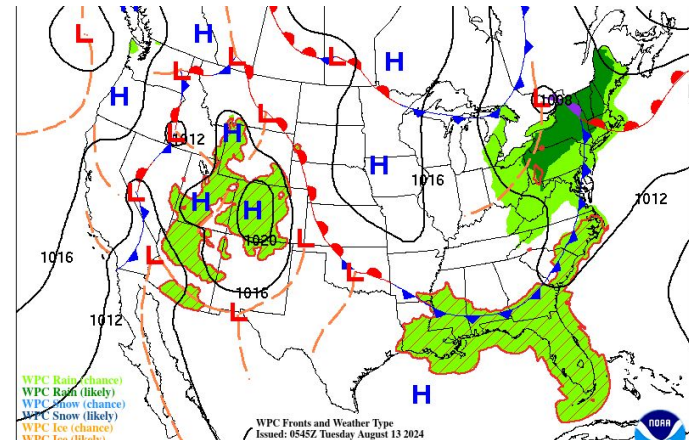
Saturday



Sunday



Monday

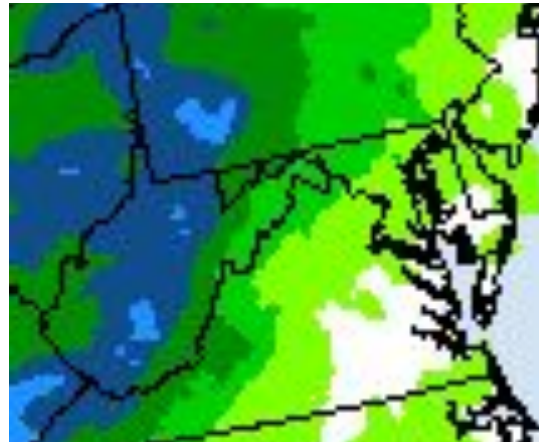


## Precipitation Forecasts

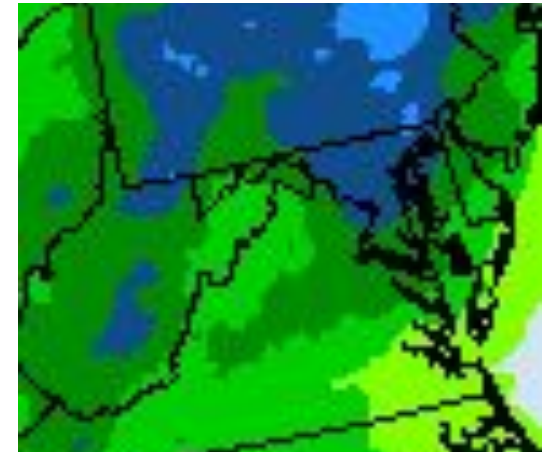
Thursday



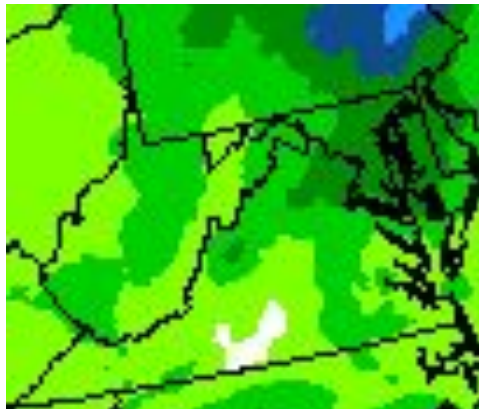
Friday



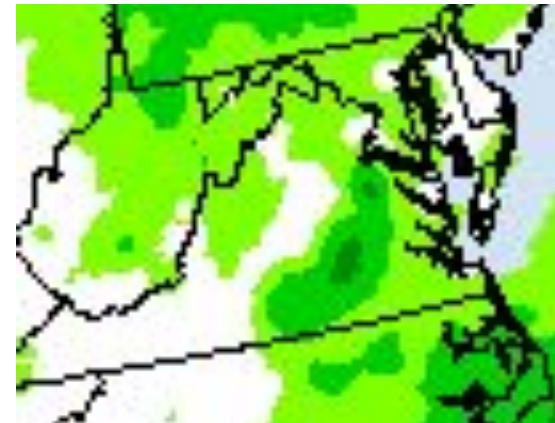
Saturday



Sunday



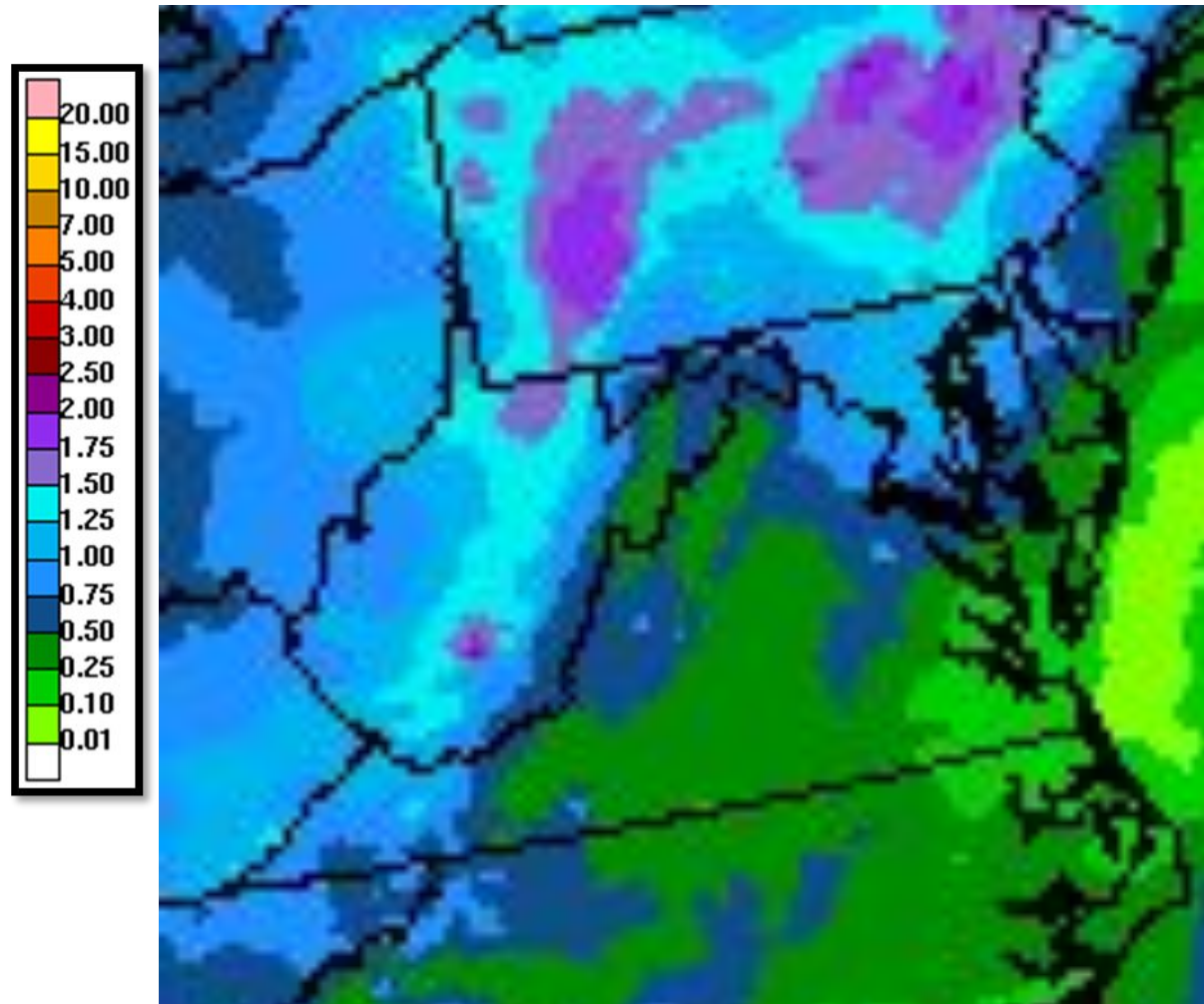
Monday



Courtesy of the Weather Prediction Center ([www.wpc.ncep.noaa.gov](http://www.wpc.ncep.noaa.gov))



## Seven-Day Total Precipitation Forecast

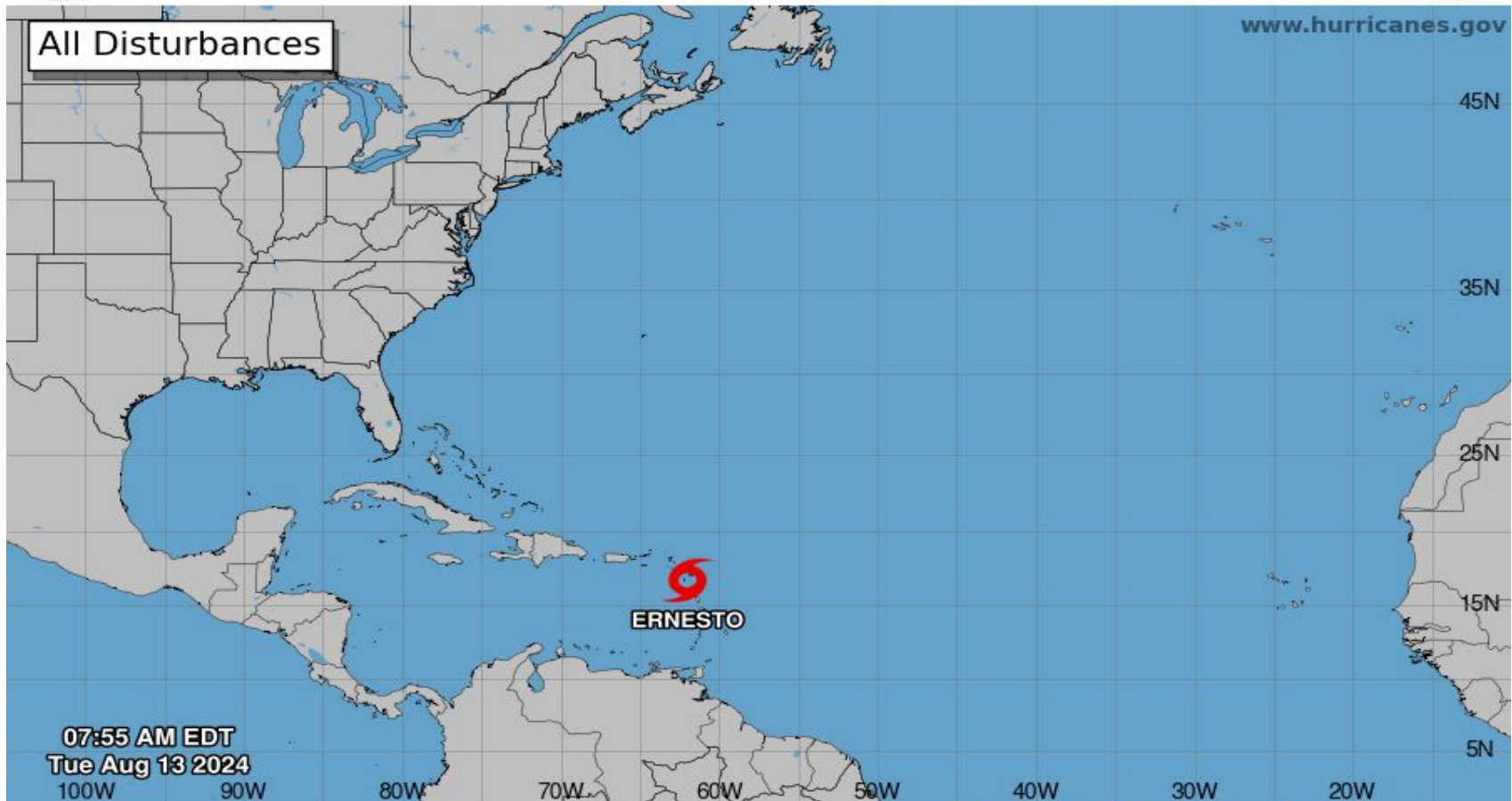


## Tropical Outlook



### Seven-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



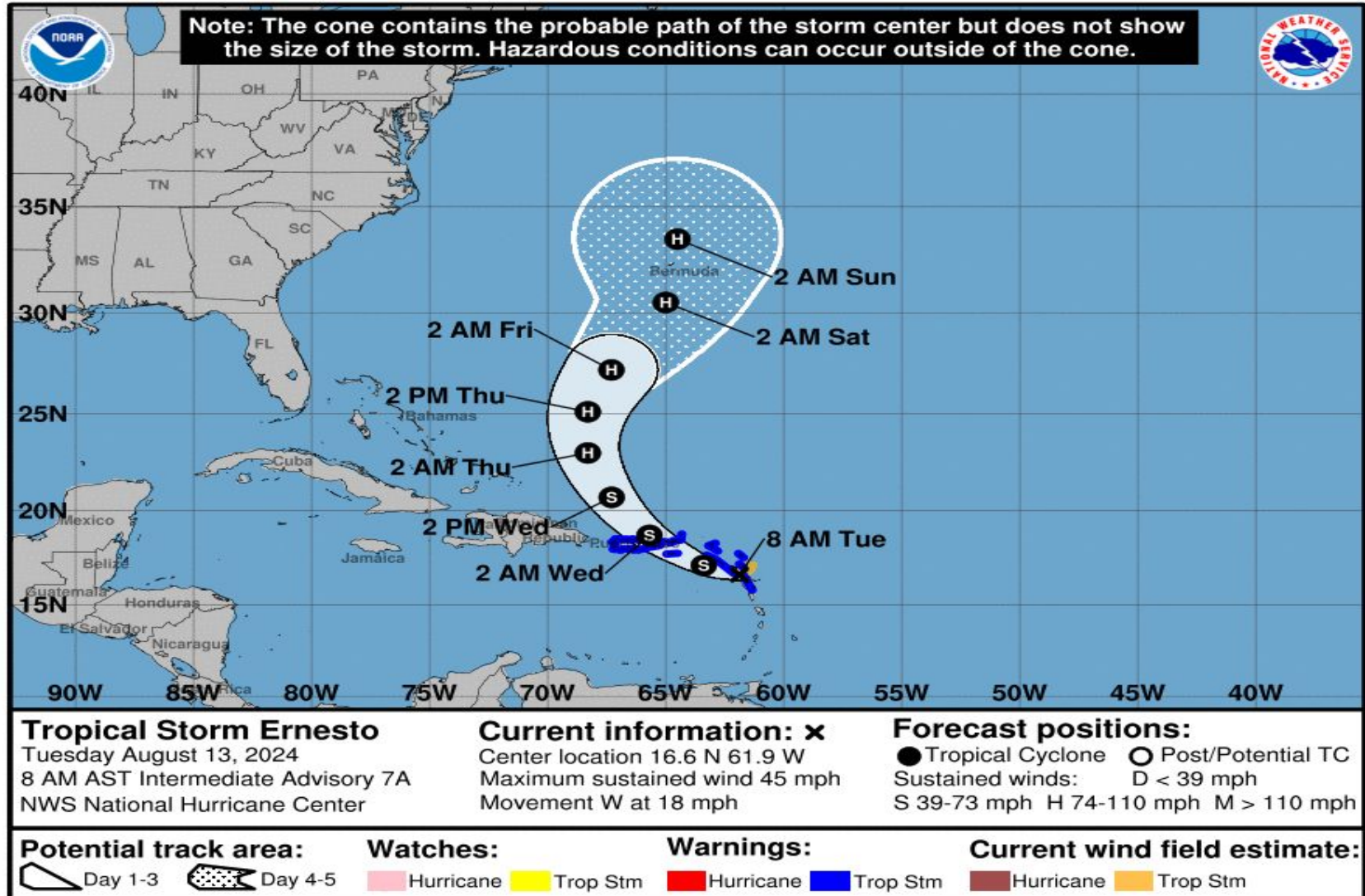
Current Disturbances and Seven-Day Cyclone Formation Chance:  < 40%  40-60%  > 60%

Tropical or Sub-Tropical Cyclone:  Depression  Storm  Hurricane

 Post-Tropical Cyclone or Remnants

Courtesy of the National Hurricane Center ([www.nhc.noaa.gov](http://www.nhc.noaa.gov))

## Tropical Outlook

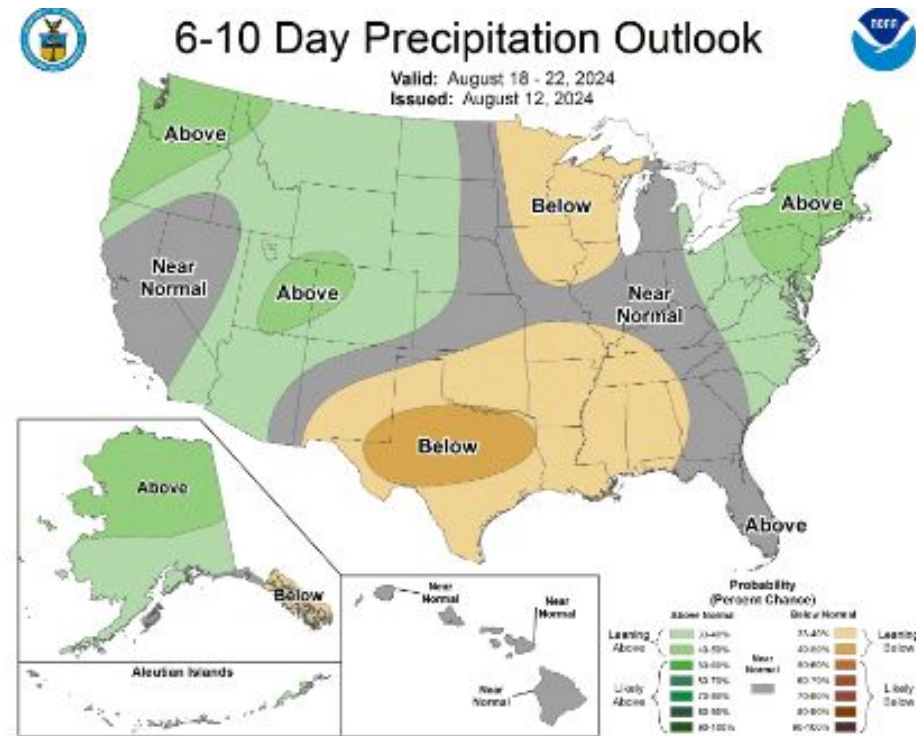
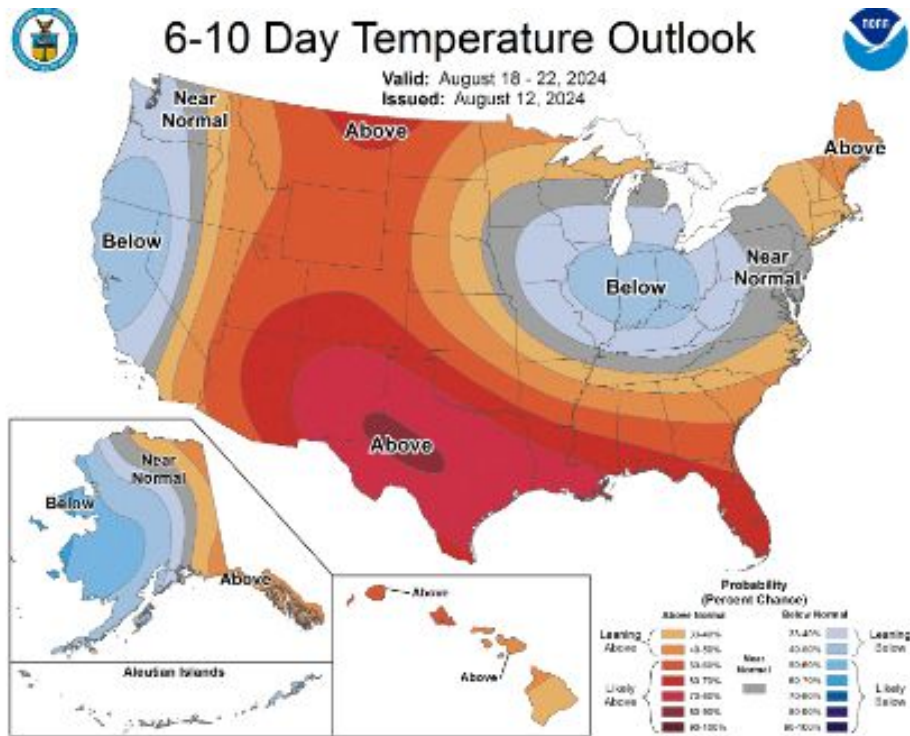




## 6-10 Day Outlook

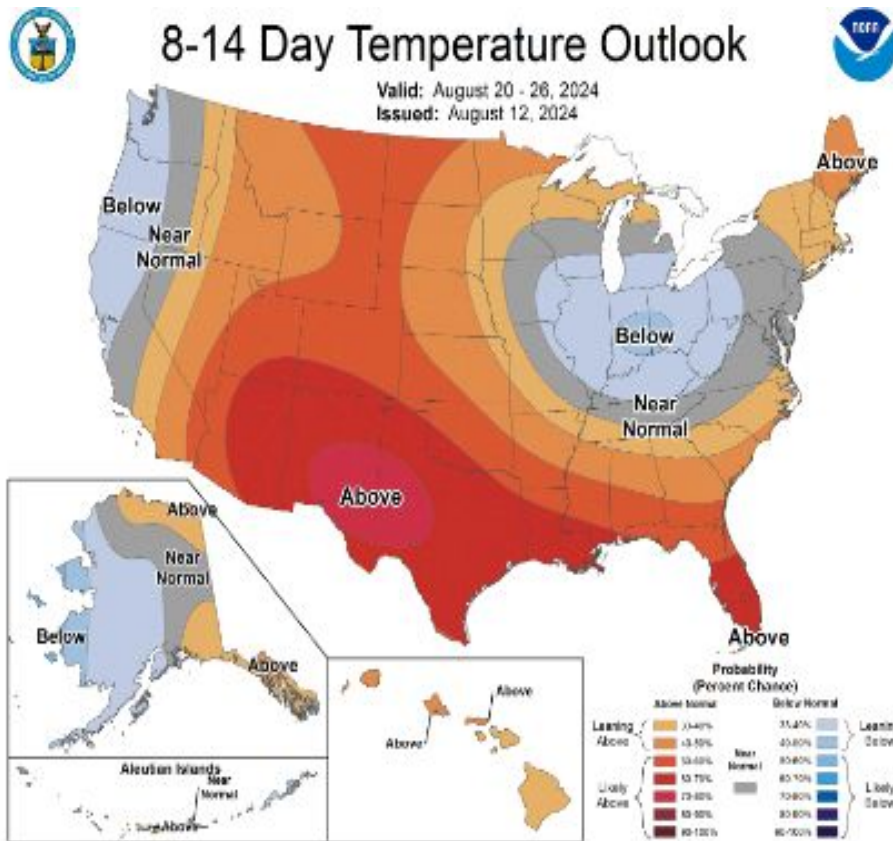
### Temperature

### Precipitation

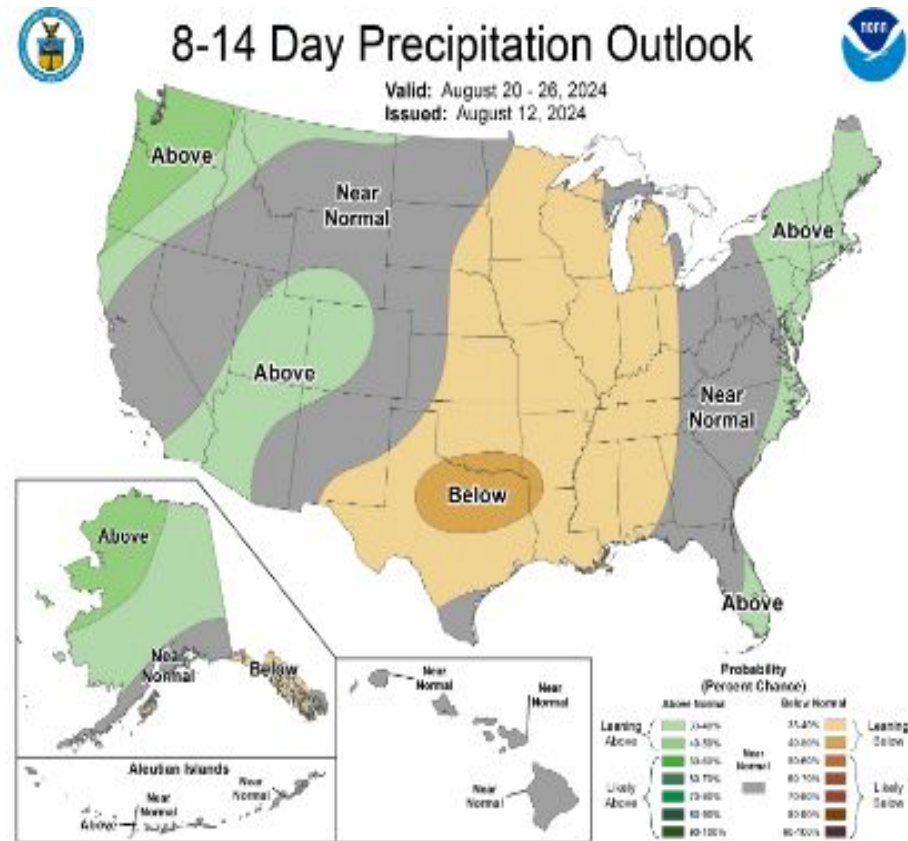


## 8-14 Day Outlook

### Temperature



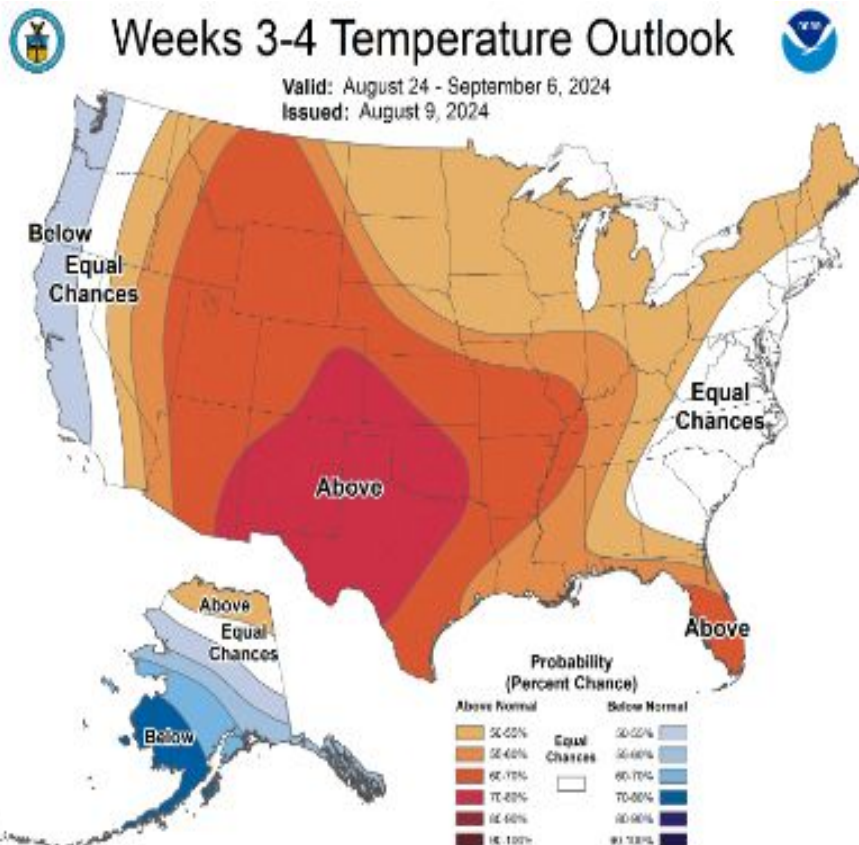
### Precipitation



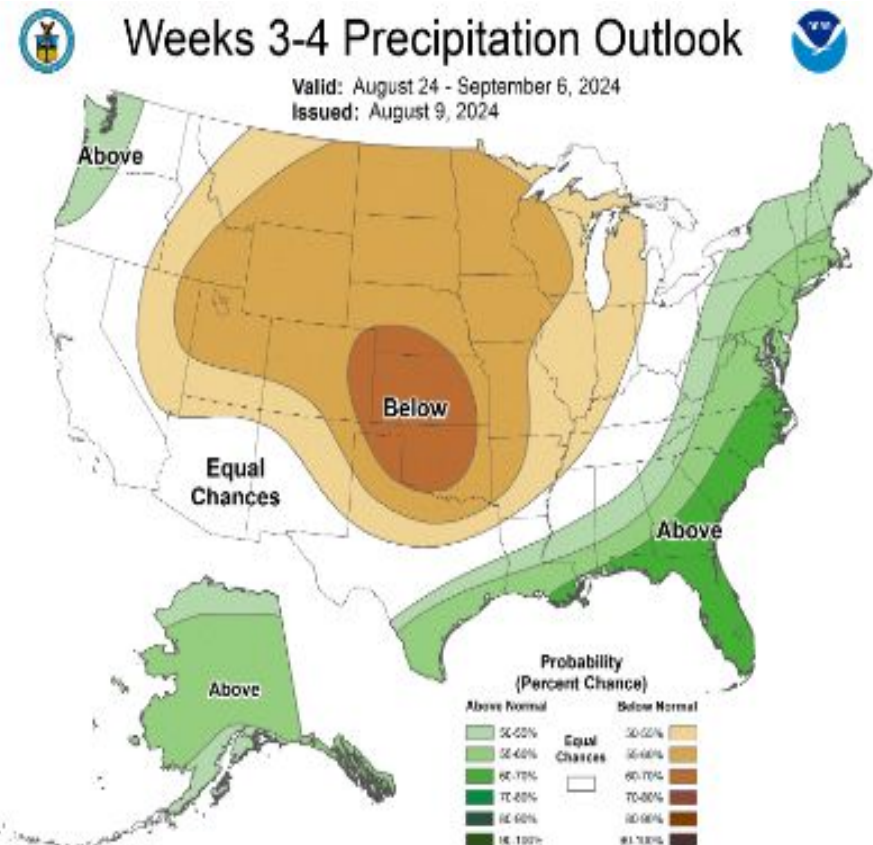


## 3-4 Week Outlook

### Temperature



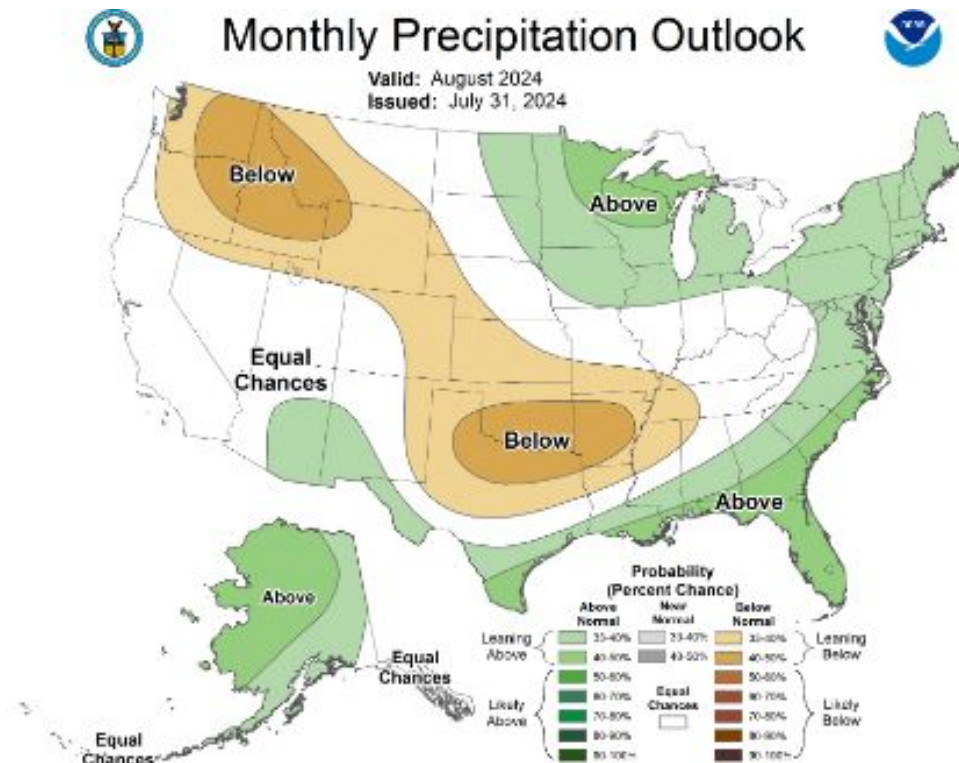
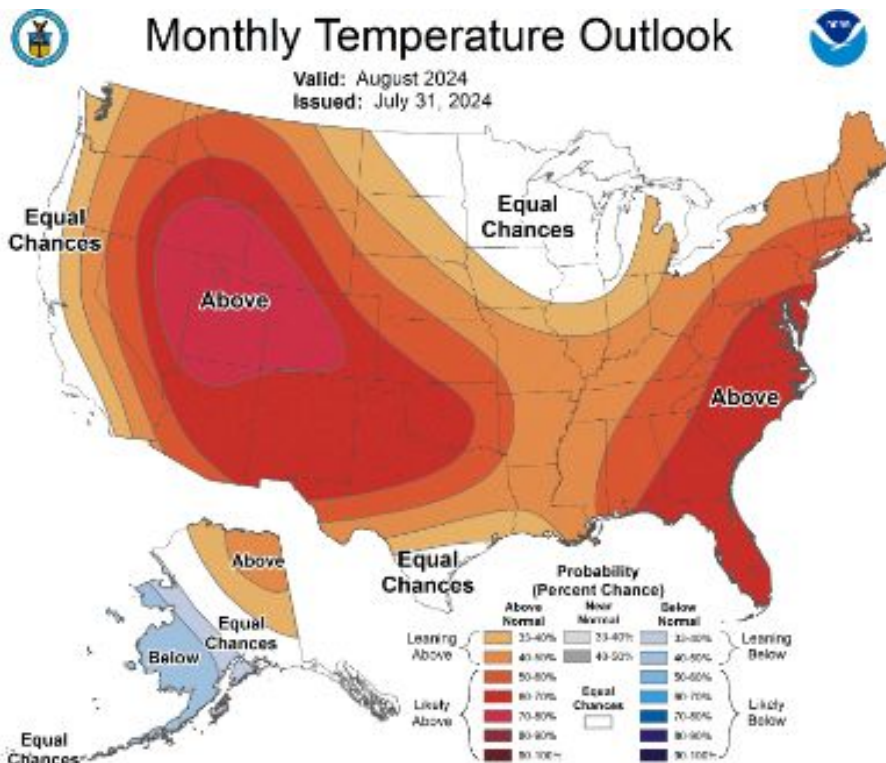
### Precipitation



## One-Month Outlook: August 2024

### Temperature

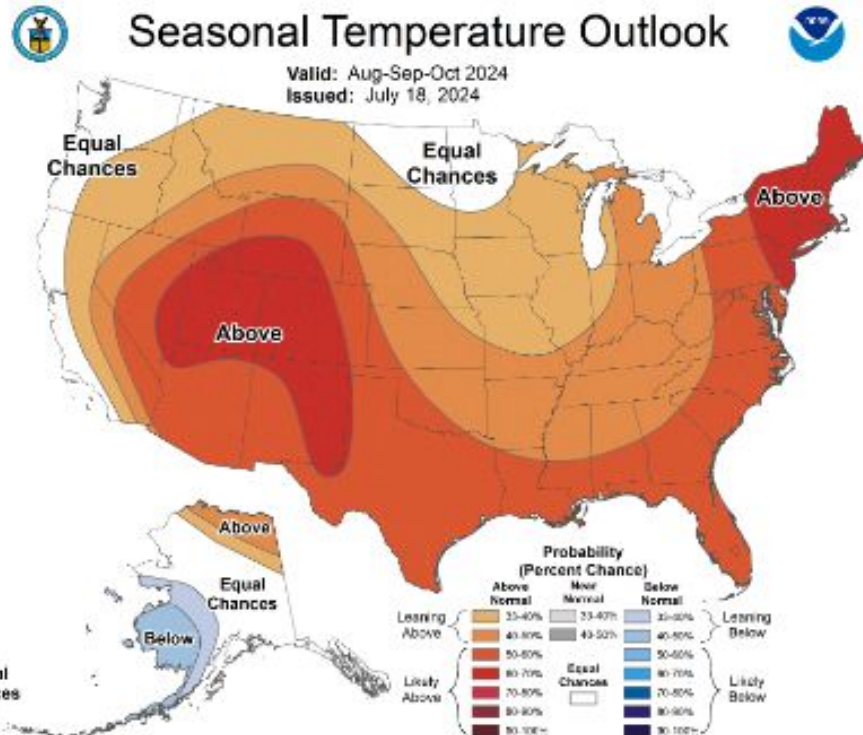
### Precipitation



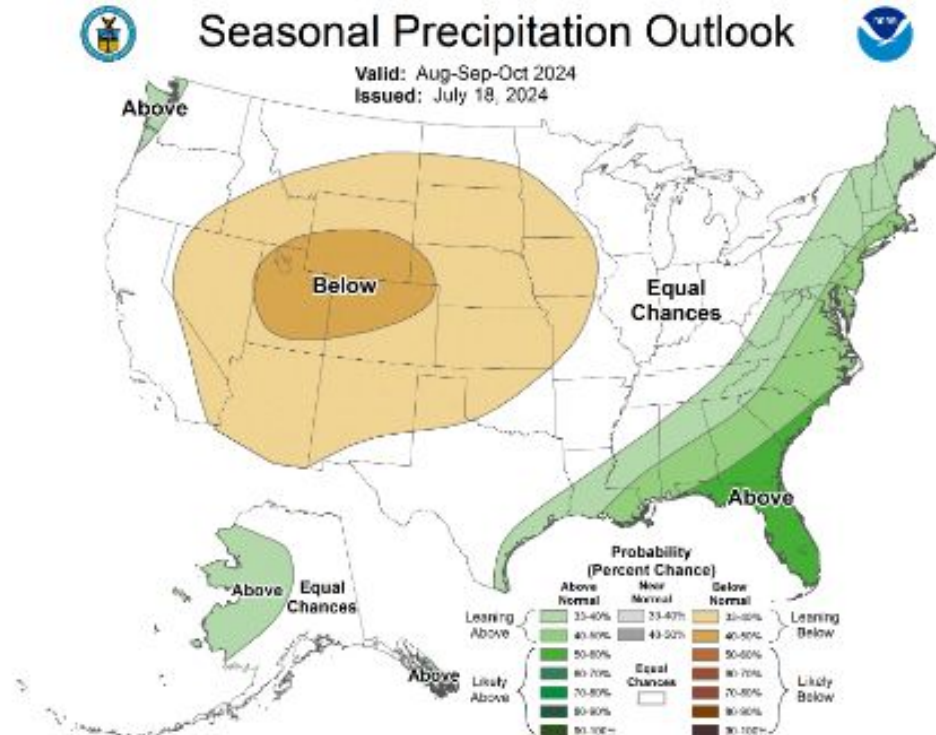


## Three-Month Outlook: Aug-Sep-Oct 2024

### Temperature



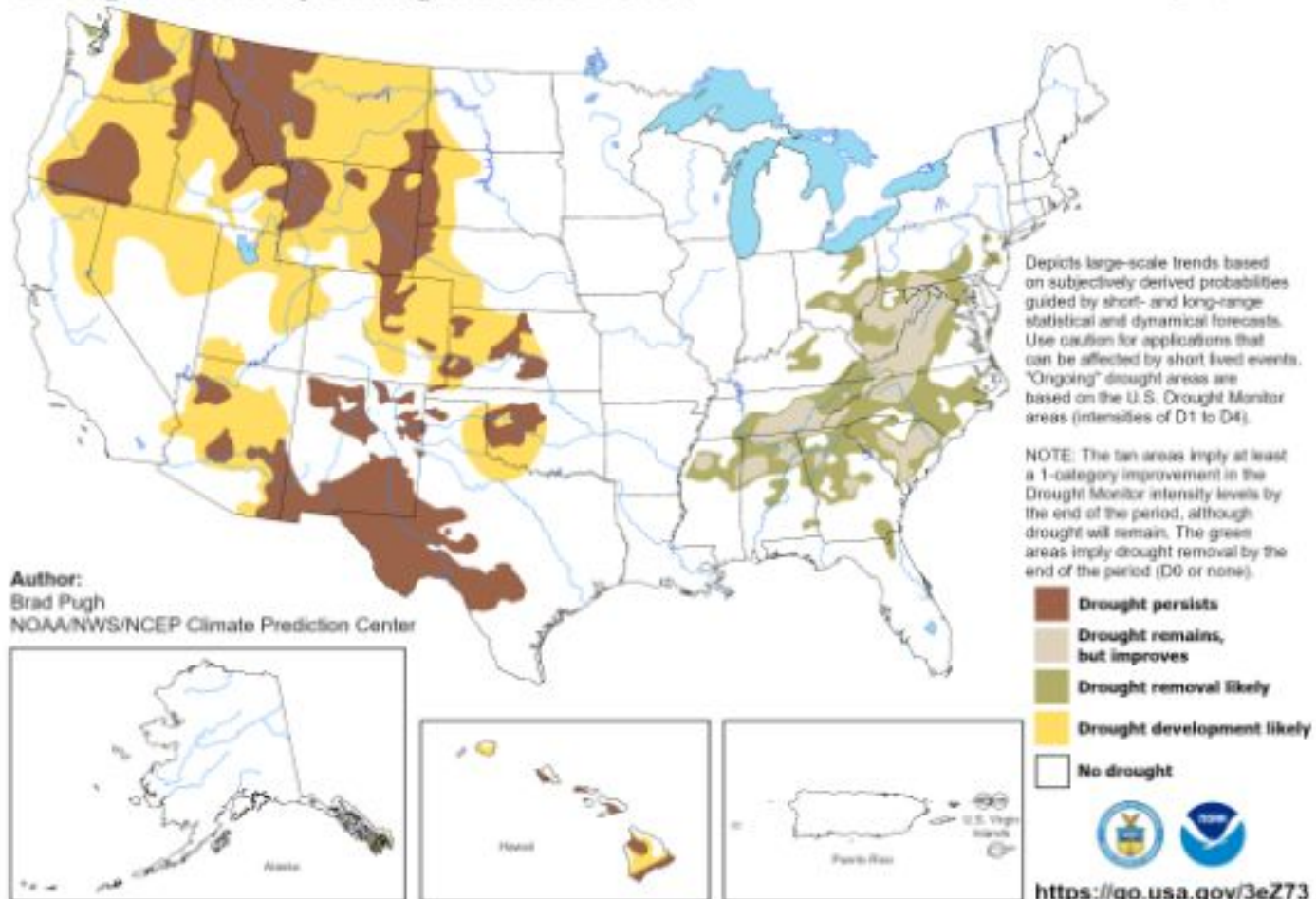
### Precipitation



## Monthly Drought Outlook: Aug/Sep/Oct 2024

### U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for July 18 - October 31, 2024  
Released July 18, 2024







# USGS Drought Status Summary

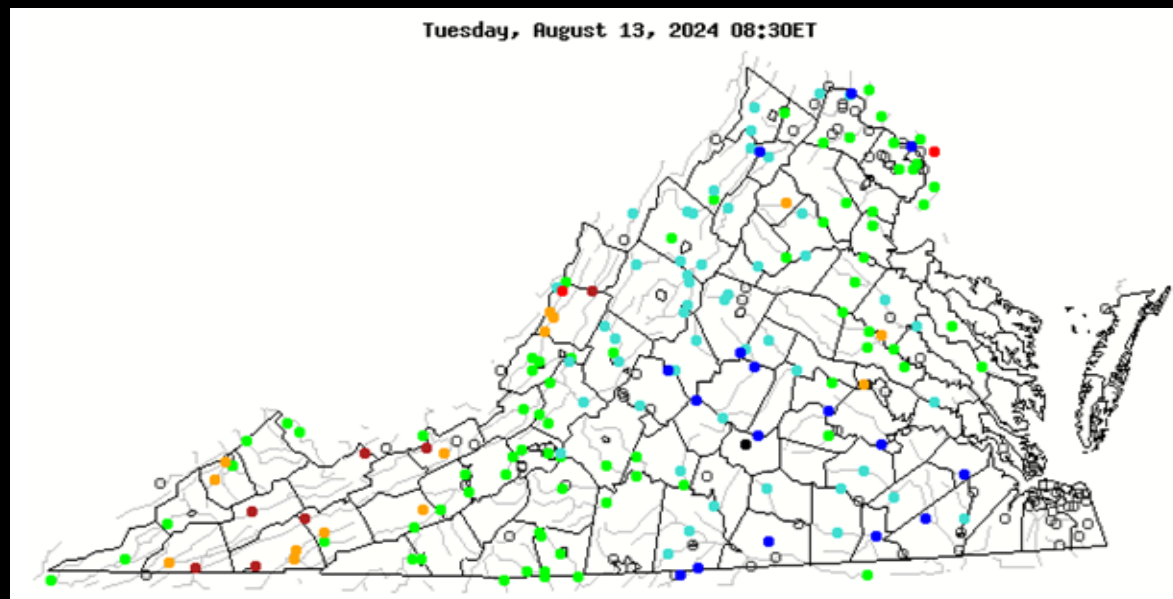
## Streamflow and Groundwater Levels in Virginia

**Virginia Drought Monitoring Task Force**

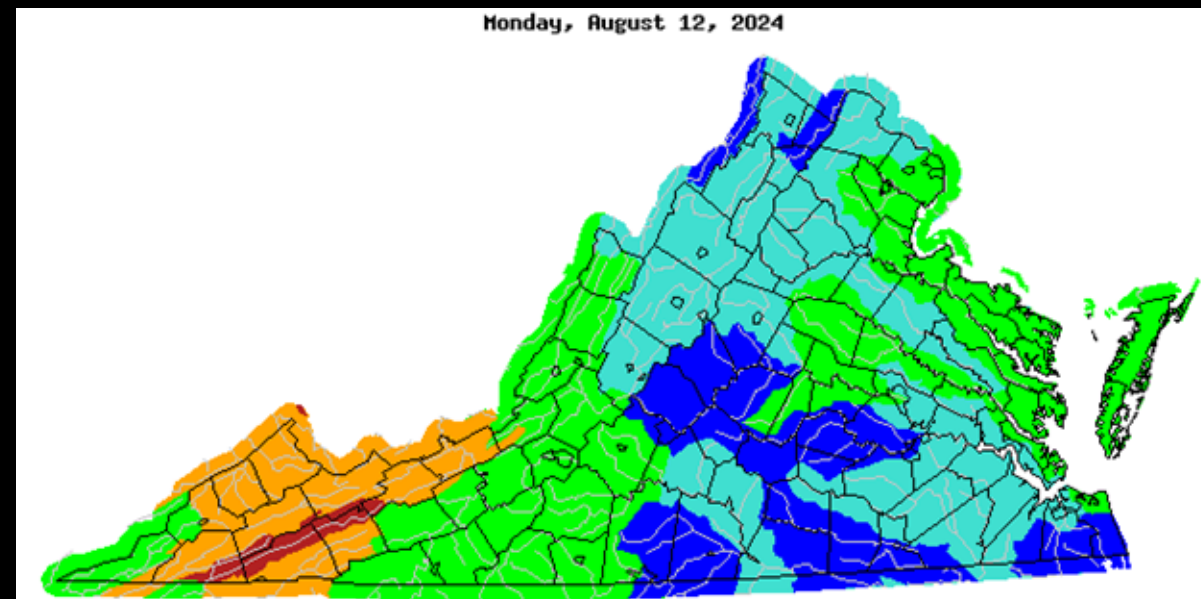
August 13, 2024

U.S. Department of the Interior  
U.S. Geological Survey

# Current Streamflow Conditions



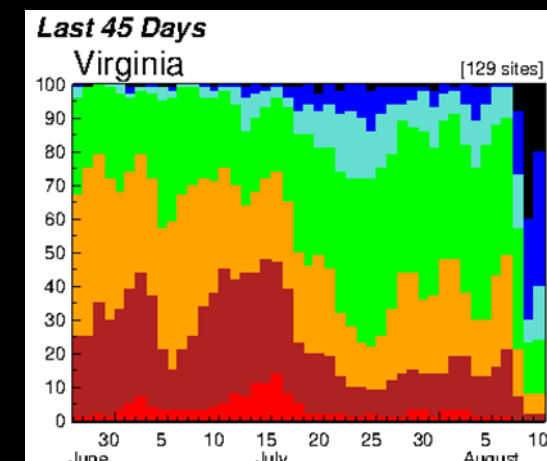
Realtime USGS Streamgages



Daily Flow HUC 8s

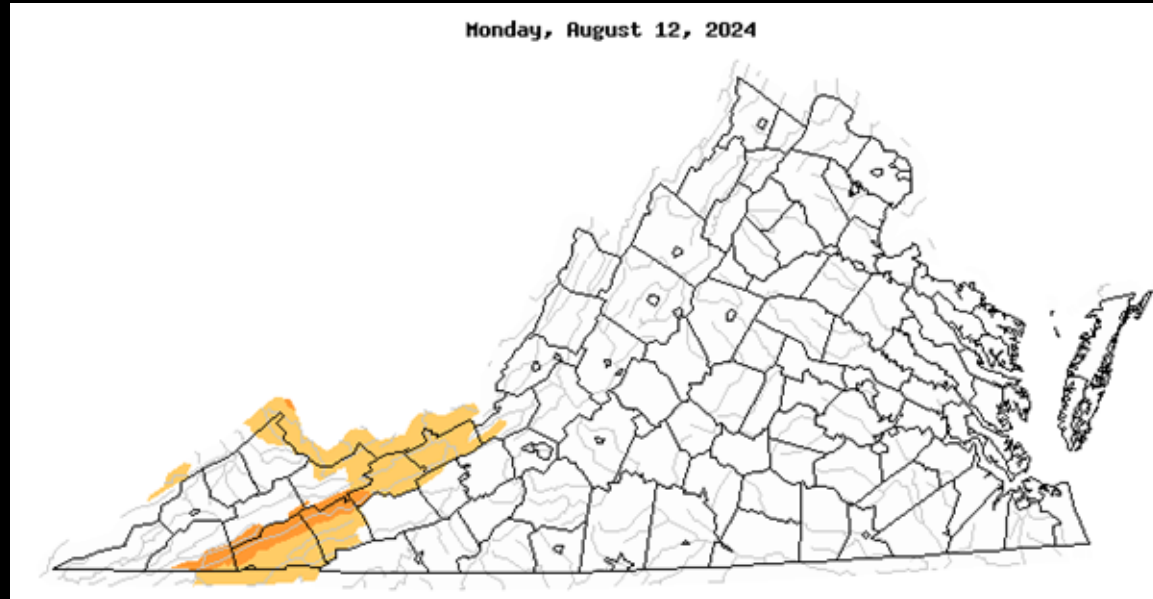
- Data from 08/13/2024
- Significant streamflow improvements in the north and east. Below normal flows continue in west

Explanation - Percentile classes							
	●	●	●	●	●	●	○
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

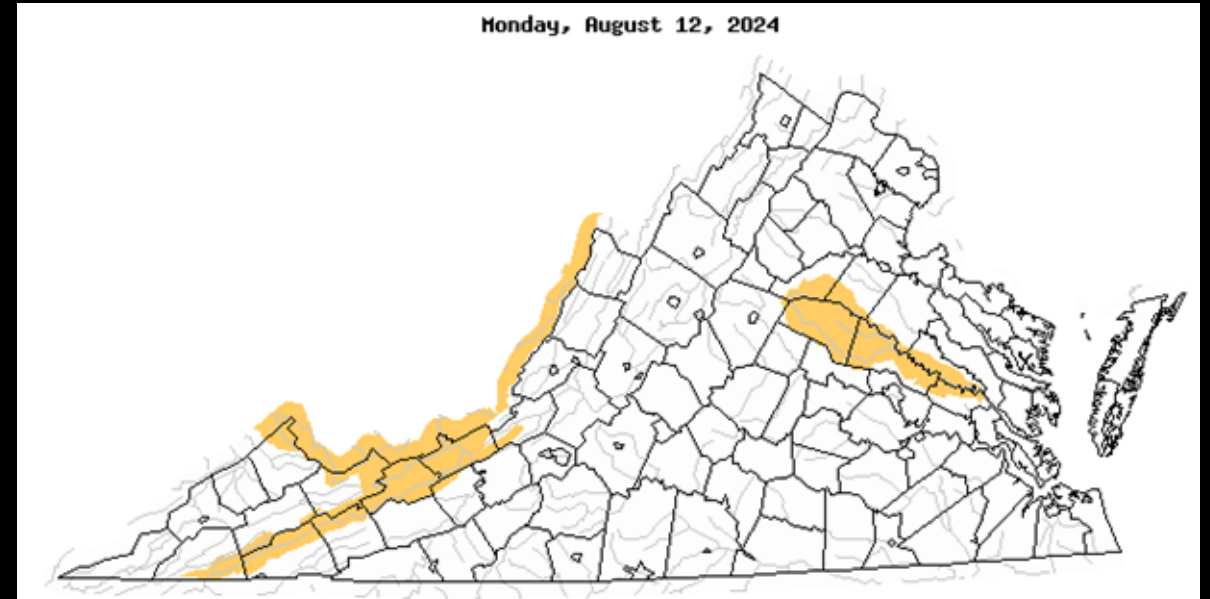




# Below-Normal Streamflow Conditions



7-Day

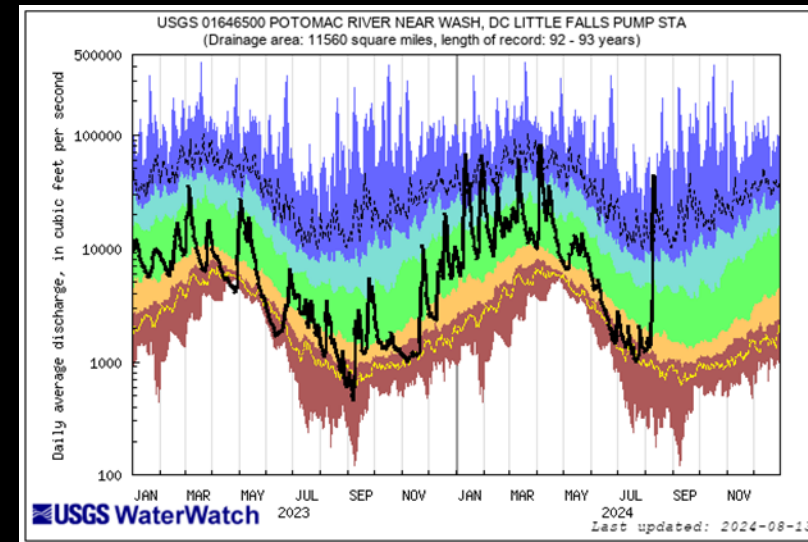
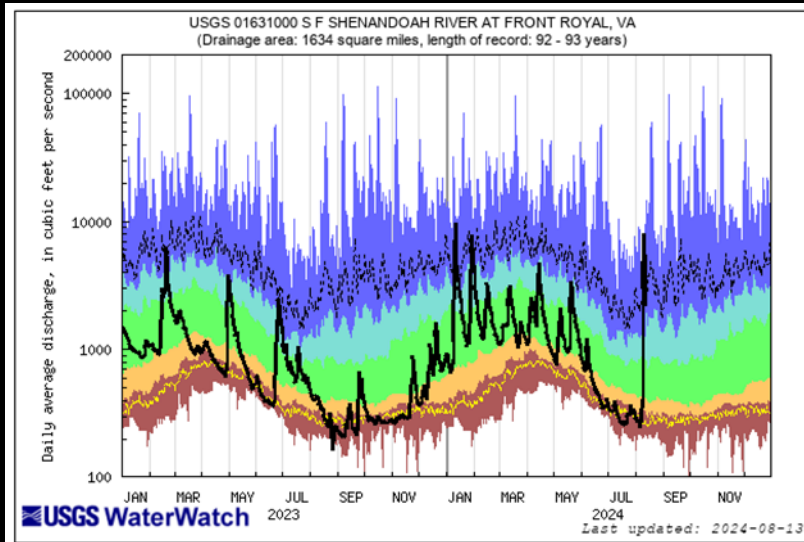
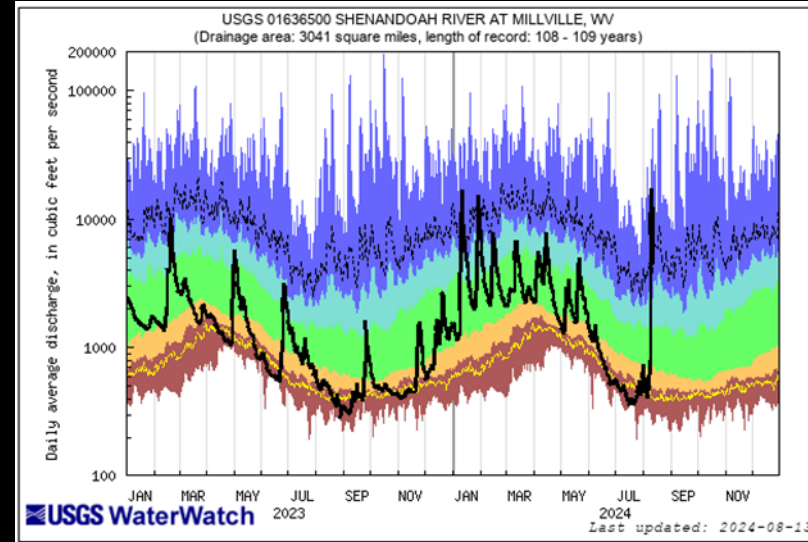
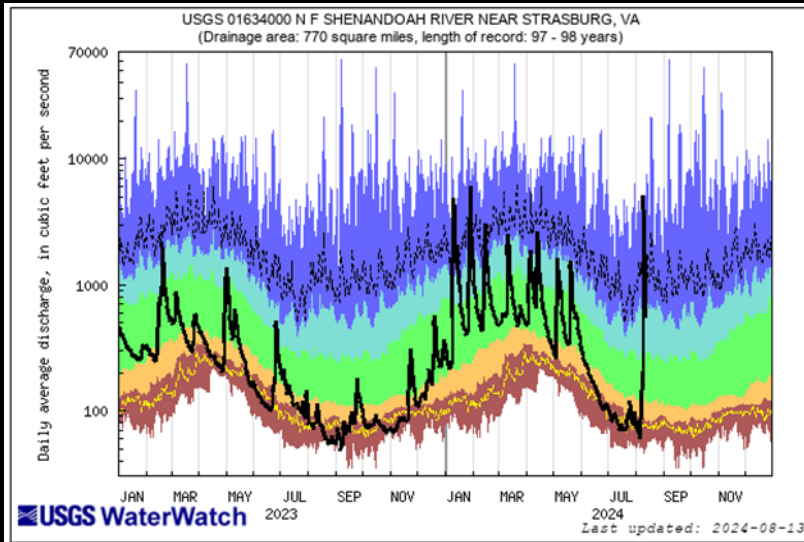


28-Day

- Statewide drought signal abates with the exception of moderate drought in Holston River

Explanation - Percentile classes			
Low	<=5	6-9	10-24
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal

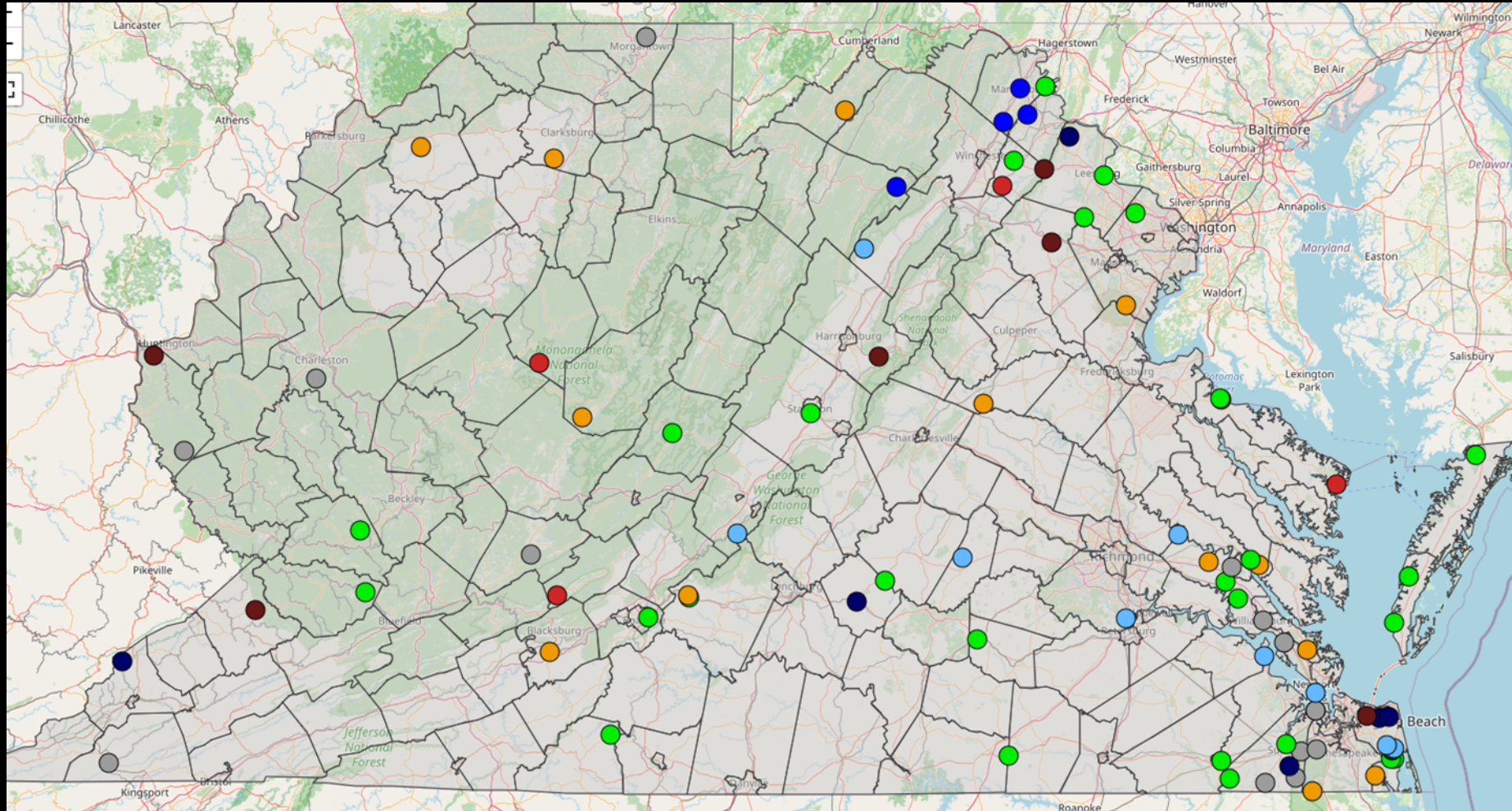
# Site Duration Hydrographs



Explanation - Percentile classes	
lowest-10th percentile	5
Much below Normal	Below normal
Below normal	10-24
Normal	25-75
Above normal	76-90
Much above normal	95
90th percentile-highest	95
Flow	

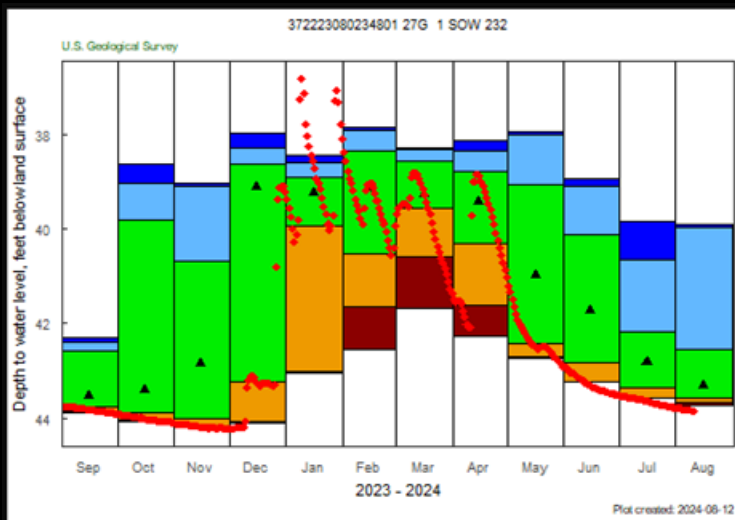
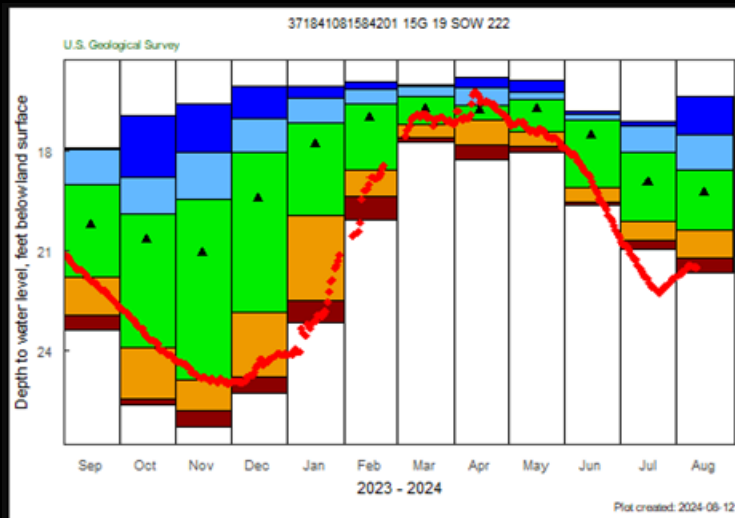


# Groundwater Levels – USGS Wells

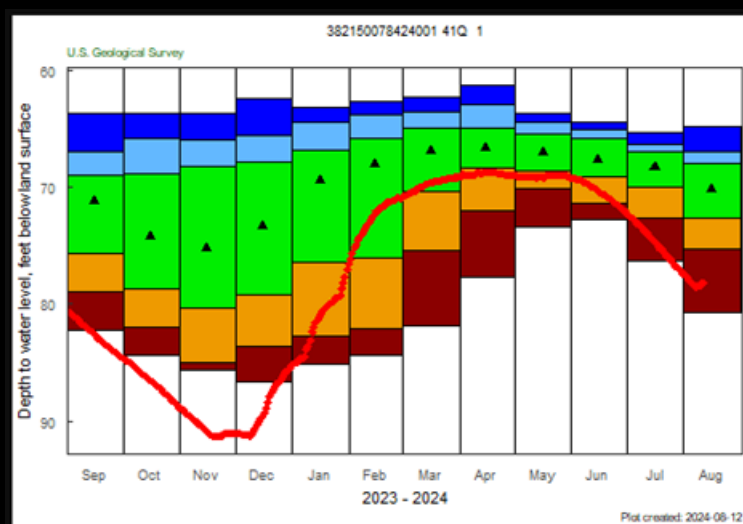
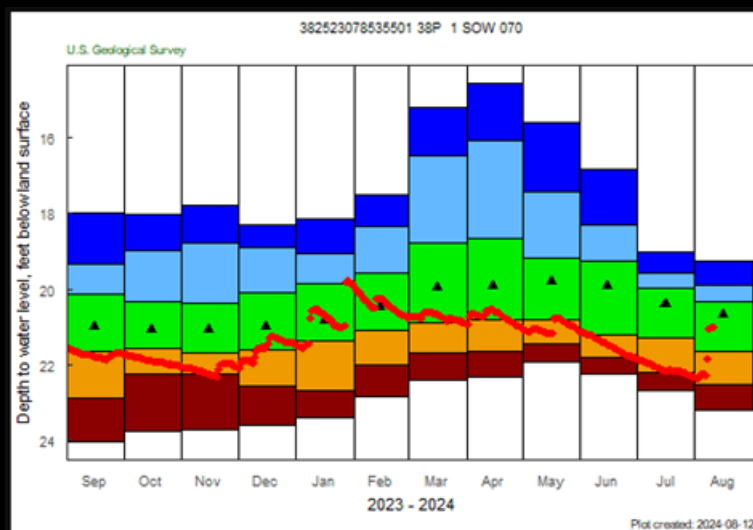


- Karst wells recover from recent rains.

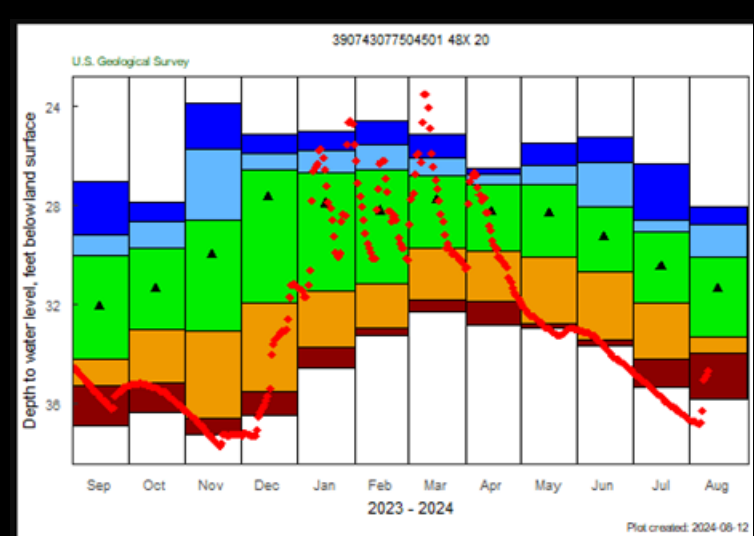
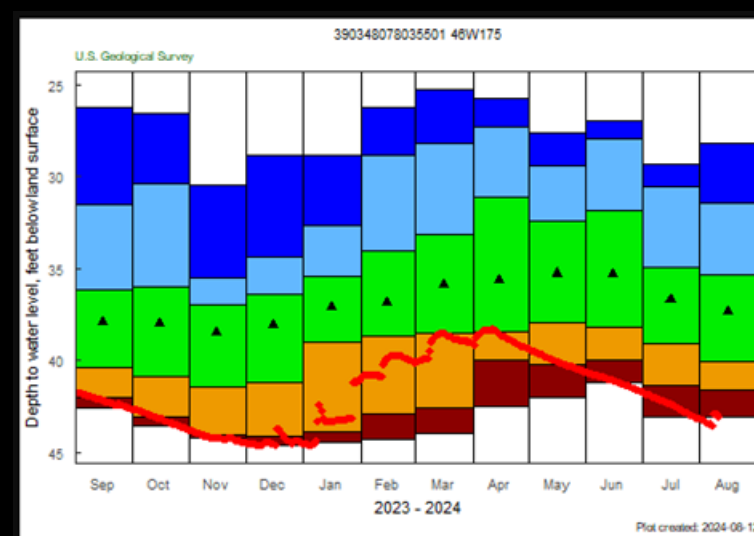
## Western Mountains



## Upper Shenandoah

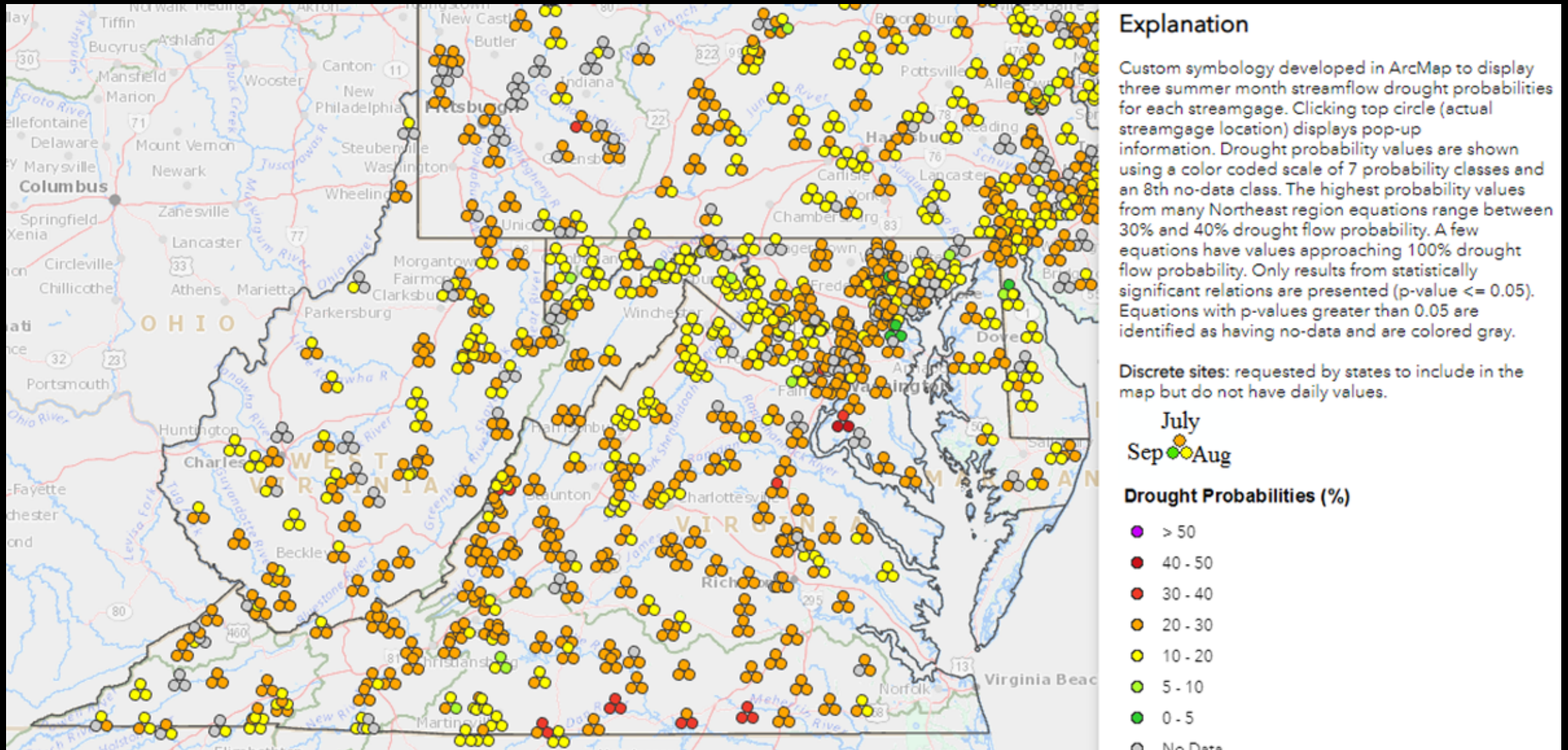


## Northern VA





# USGS NE Drought Streamflow Probabilities



# ODW Drought Restrictions Report - Summary for 8/13/24



Restriction Type	Number of Restrictions	Impacted Population
Mandatory	8	54,699
Voluntary	20	2,243,882
<b>Total</b>	<b>28</b>	<b>2,298,581</b>

Southeast  
Abingdon  
Culpeper  
Danville  
Lexington  
Richmond

DETAILS						
PWSID	Locality Name	Waterworks Name	Source Name	Restriction Type	Comments/Situation	Population Served
2109510	Louisa County	Louisa County Water Authority	Northeast Creek Reservoir, 1 well	Mandatory	Issued July 10, 2024- no watering lawns, no car washing, restaurants only serve water upon request. Getting pressure to lift restrictions, may be lifting in the next few days. Concern more with groundwater levels than reservoir.	4,254
6033085	Caroline County	Caroline Utility System	WL004, 005, 006, 008, 010, 011, 013, 014, 015	Mandatory	Level 3- Watering of lawns allowed on alternating days, handheld hose only, no automatic watering. Car wash by bucket only. no hose.	4,235
Various	Fauquier County	Fauquier County Water and Sanitation Authority	GUDI and Groundwater Wells	Mandatory	FCWSA operates 17 waterworks utilizing a total of 44 groundwater and 2 GUDI wells.	15,000
6107450	Loudoun County	Middleburg, Town of	Groundwater wells	Mandatory		800
6107650	Loudoun County	Round Hill, Town of	Groundwater wells	Mandatory		5,000
6107400	Loudoun County	Lovettsville, Town of	Groundwater wells	Mandatory		3,000
2187406	Warren County	Front Royal, Town of	South Fork Shenandoah River	Mandatory		15,000
Various	Wythe County	Wythe County East, Wythe County West, Town of Wytheville, Town of Rural Retreat	New River Regional Water Authority (New River), Reed Creek, Phillippi Well, Phillippi Spring	Voluntary	<a href="https://www.wdbj7.com/2024/07/">https://www.wdbj7.com/2024/07/</a>	16,375
2043250	Clarke County	Clarke County Sanitary Authority	GUDI Spring	Voluntary		1,300
2069250	Frederick County	Frederick Water	Quarries	Voluntary		46,000
6107600	Loudoun County	Purcellville, Town of	JT Hirst Reservoir (North Fork Catoctin Creek) and 9 Groundwater Wells	Voluntary		9,000
6107300	Loudoun County	Leesburg, Town of	Potomac River	Voluntary		65,000
6061600	Town of Warrenton	Warrenton, Town of	Warrenton Reservoir (Cedar Run) and 3 Groundwater Wells	Voluntary		11,800
6107600	Town of Purcellville	Purcellville, Town of	JT Hirst Reservoir (North Fork Catoctin Creek) and 9 Groundwater Wells	Voluntary		9,000
6059501	Washington Aqueduct	includes Fairfax, Arlington, Loudoun Etc.	Potomac River	Voluntary	MWCOG Drought Watch	2,000,000
2171750	Shenandoah County	Strasburg, Town of	North Fork Shenandoah River	Mandatory	<a href="https://www.nvdaily.com/nvdaily/">https://www.nvdaily.com/nvdaily/</a>	7,410
6107600	Town of Purcellville	Purcellville, Town of	JT Hirst Reservoir (North Fork Catoctin Creek) and 9 Groundwater Wells	Voluntary		9,000
2165330	Rockingham County	Town of Grottoes	Two wells	Voluntary	<a href="#">6696da7cbf0eebef88b99838 Droug</a>	3,148
2165210	Rockingham County	Town of Dayton	Three wells and Silver Lake	Voluntary	<a href="#">Drought Warning Advisory   Dayton</a>	1,700
2165060	Rockingham County	Town of Broadway	North Fork Shenandoah River & Linville Creek	Voluntary	<a href="#">Drought Warning Advisory - Town</a>	4,015
2165720	Rockingham County	Town of Timberville	Two wells and One spring	Voluntary	<a href="#">Timberville, VA (townoftimberville,</a>	2,100
2660345	City of Harrisonburg	City of Harrisonburg	North River, Dry River, Silver Lake	Voluntary	<a href="#">Public Utilities Conservation Efforts</a>	53,016
2139825	Page County	Town of Shenandoah	Three wells	Voluntary	<a href="#">Voluntary Water Conservation   Sh</a>	2,378
2171800	Shenandoah County	Toms Brook - Mauertown Sanitary District	Two wells	Voluntary	<a href="https://shenandoahcountyyva.gov/C">https://shenandoahcountyyva.gov/C</a>	1,520
2171250	Shenandoah County	Stoney Creek Sanitary District	Seven wells	Voluntary	<a href="https://shenandoahcountyyva.gov/C">https://shenandoahcountyyva.gov/C</a>	2,484
2171400	Shenandoah County	Town of Edinburg	Two wells	Voluntary	<a href="townofedinburg.com/html/welcom">townofedinburg.com/html/welcom</a>	1,908
2171575	Shenandoah County	Town of Mount Jackson	Five wells	Voluntary	<a href="#">Drought.pdf (mountjackson.com)</a>	1,864
2171600	Shenandoah County	Town of New Market	Five wells	Voluntary	<a href="#">Drought Warning Advisory   New M</a>	2,274
New this week						