

## September 26 - October 6, 2024 (Helene) Preliminary Flood Summary

Appomattox	Above FS (ft)	Crest (ft)	Streamflow (cfs)	Below FS (ft)	Category (ft)	Record (ft) - (cfs)
<a href="#"><u>Farmville, Virginia - (FRMV2)</u></a>	Flood = 16.0	<b>18.94</b>	<b>7,680</b>	Flood = 16.0	16.0 (minor)	29.70
Appomattox River - (WFO AKQ)	10/1/2024	<b>October 1, 2024</b>		10/2/2024	20.0 (moderate)	33,100
Gage/Cumberland Co - Town/Prince Edward Co	7:10	<b>17:05 EDT</b>		15:35	25.0 (major)	June 22, 1972
<a href="#"><u>Mattoax, Virginia - (MTXV2)</u></a>	Flood = 21.0	<b>21.82</b>	<b>4,930</b>	Flood = 21.0	21.0 (minor)	35.30
Appomattox River - (WFO AKQ)	10/4/2024	<b>October 5, 2024</b>		10/6/2024	25.0 (moderate)	35,000
Gage & Town/Amelia Co	19:00	<b>07:30 EDT</b>		0:30	28.0 (major)	August 18, 1940
James	Above FS (ft)	Crest (ft)	Streamflow (cfs)	Below FS (ft)	Category (ft)	Record (ft) - (cfs)
<a href="#"><u>Palmyra, Virginia - (PYAV2)</u></a>	Flood = 17.0	<b>19.77</b>	<b>14,000</b>	Flood = 17.0	17.0 (minor)	39.85
Rivanna River - (WFO AKQ)	9/26/2024	<b>September 27, 2024</b>		9/27/2024	25.0 (moderate)	86,000
Gage & Town/Fluvanna County	16:10	<b>01:10 EDT</b>		4:50	32.0 (major)	August 20, 1969
<a href="#"><u>Palmyra, Virginia - (PYAV2)</u></a>	Flood = 17.0	<b>23.29</b>	<b>21,300</b>	Flood = 17.0	17.0 (minor)	39.85
Rivanna River - (WFO AKQ)	9/30/2024	<b>October 1, 2024</b>		10/2/2024	25.0 (moderate)	86,000
Gage & Town/Fluvanna County	16:30	<b>11:10 EDT</b>		2:30	32.0 (major)	August 20, 1969
<a href="#"><u>Richmond, Virginia - (RMDV2)</u></a>	Flood = 12.0	<b>12.54</b>	<b>46,000</b>	Flood = 12.0	12.0 (minor)	28.62
James River - (WFO AKQ)	9/29/2024	<b>September 29, 2024</b>		9/30/2024	15.0 (moderate)	313,000
Gage & Town/Independent City/Henrico County	0:15	<b>16:00 EDT</b>		2:00	22.0 (major)	June 23, 1972
<a href="#"><u>Richmond, Virginia - (RMDV2)</u></a>	Flood = 12.0	<b>14.20</b>	<b>59,100</b>	Flood = 12.0	12.0 (minor)	28.62
James River - (WFO AKQ)	9/30/2024	<b>October 2, 2024</b>		10/3/2024	15.0 (moderate)	313,000
Gage & Town/Independent City/Henrico County	21:30	<b>04:45 EDT</b>		2:30	22.0 (major)	June 23, 1972
<a href="#"><u>Richmond City Locks, Virginia - (RICV2)</u></a>	Flood = 8.0	<b>10.64</b>	<b>M</b>	Flood = 8.0	8.0 (minor)	36.50
James River - (WFO AKQ)	10/1/2024	<b>October 2, 2024</b>		10/3/2024	19.0 (moderate)	not available
Gage & Town/Independent City/Henrico County	2:18	<b>07:24 EDT</b>		0:48	28.0 (major)	June 23, 1972

<b>Shenandoah</b>	<b>Above FS (ft)</b>	<b>Crest (ft)</b>	<b>Streamflow (cfs)</b>	<b>Below FS (ft)</b>	<b>Category (ft)</b>	<b>Record (ft) - (cfs)</b>
<a href="#"><u>Front Royal, Virginia - (FROV2)</u></a>	Flood = 12.0	<b>12.35</b>	<b>27,500</b>	Flood = 12.0	12.0 (minor)	34.80
South Fork Shenandoah River - (WFO LWX)	9/29/2024	<b>September 29, 2024</b>		9/29/2024	14.0 (moderate)	130,000
Gage & Town/Warren County	5:15	<b>08:45 EDT</b>		13:00	18.0 (major)	October 16, 1942
<a href="#"><u>Front Royal, Virginia - (FROV2)</u></a>	Flood = 12.0	<b>12.40</b>	<b>27,700</b>	Flood = 12.0	12.0 (minor)	34.80
South Fork Shenandoah River - (WFO LWX)	10/1/2024	<b>October 1, 2024</b>		10/1/2024	14.0 (moderate)	130,000
Gage & Town/Warren County	11:45	<b>16:00 EDT</b>		20:00	18.0 (major)	October 16, 1942
<a href="#"><u>Luray, VA - (SFSV2)</u></a>	Flood = 14.0	<b>15.59</b>	<b>29,100</b>	Flood = 14.0	14.0 (minor)	26.95
South Fork Shenandoah River - (WFO LWX)	9/28/2024	<b>September 28, 2024</b>		9/29/2024	20.0 (moderate)	112,000
Gage & Town/Page County	13:30	<b>22:45 EDT</b>		5:00	25.0 (major)	September 7, 1996
<a href="#"><u>Luray, VA - (SFSV2)</u></a>	Flood = 14.0	<b>15.41</b>	<b>28,200</b>	Flood = 14.0	14.0 (minor)	26.95
South Fork Shenandoah River - (WFO LWX)	9/30/2024	<b>October 1, 2024</b>		10/1/2024	20.0 (moderate)	112,000
Gage & Town/Page County	21:30	<b>05:30 EDT</b>		11:30	25.0 (major)	September 7, 1996
<a href="#"><u>Lynnwood, Virginia - (LYWV2)</u></a>	Flood = 16.0	<b>17.65</b>	<b>25,500</b>	Flood = 16.0	16.0 (minor)	30.84
South Fork Shenandoah River - (WFO LWX)	9/28/2024	<b>September 28, 2024</b>		9/28/2024	17.0 (moderate)	107,000
Gage & Town/Rockingham County	6:30	<b>14:30 EDT</b>		20:15	20.0 (major)	September 7, 1996
<a href="#"><u>Lynnwood, Virginia - (LYWV2)</u></a>	Flood = 16.0	<b>16.71</b>	<b>22,000</b>	Flood = 16.0	16.0 (minor)	30.84
South Fork Shenandoah River - (WFO LWX)	9/30/2024	<b>September 30, 2024</b>		9/30/2024	17.0 (moderate)	107,000
Gage & Town/Rockingham County	14:30	<b>19:00 EDT</b>		23:00	20.0 (major)	September 7, 1996
<a href="#"><u>Millville, West Virginia - (MILW2)</u></a>	Flood = 10.0	<b>11.16</b>	<b>27,300</b>	Flood = 10.0	10.0 (minor)	32.40
Shenandoah River - (WFO LWX)	9/29/2024	<b>September 29, 2024</b>		9/30/2024	14.0 (moderate)	230,000
Gage & Town/Jefferson County	11:00	<b>17:45 EDT</b>		3:00	17.0 (major)	October 16, 1942
<a href="#"><u>Millville, West Virginia - (MILW2)</u></a>	Flood = 10.0	<b>12.05</b>	<b>31,800</b>	Flood = 10.0	10.0 (minor)	32.40
Shenandoah River - (WFO LWX)	10/1/2024	<b>October 2, 2024</b>		10/3/2024	14.0 (moderate)	230,000
Gage & Town/Jefferson County	15:15	<b>02:30 EDT</b>		6:00	17.0 (major)	October 16, 1942
<a href="#"><u>Waynesboro, Virginia - (WAYV2)</u></a>	Flood = 9.5	<b>12.20</b>	<b>9,500</b>	Flood = 9.5	9.5 (minor)	15.30
South River - (WFO LWX)	9/27/2024	<b>September 27, 2024</b>		9/28/2024	11.0 (moderate)	17,500
Gage/Independent City/Augusta County	16:30	<b>7:15 PM</b>		14:30	13.0 (major)	November 4, 1985

### Crest Statistics

Flooding: 9/26/2024 - 10/6/2024  
 Crests: 9/27/2024 - 10/02/2024; 10/05/2024  
 First flood of 1 - September, 2024  
 Ninth flood in 2024  
 Number of MARFC Forecast Points Flooding - **16 (incl. 6 multi-crest points)**  
 Number of Floods Cresting in **Minor** Range - **14**  
 Number of Floods Cresting in **Moderate** Range - **2**  
 Number of Floods Cresting in **Major** Range - **0**  
 Number of Floods Cresting in **Missing** Range - **0**  
**MARFC Power Ranking - 24** (Minor = 1 - Moderate = 5 - Major = 10 - Missing =1)  
 Number of MARFC records - **0**  
 E = Estimated

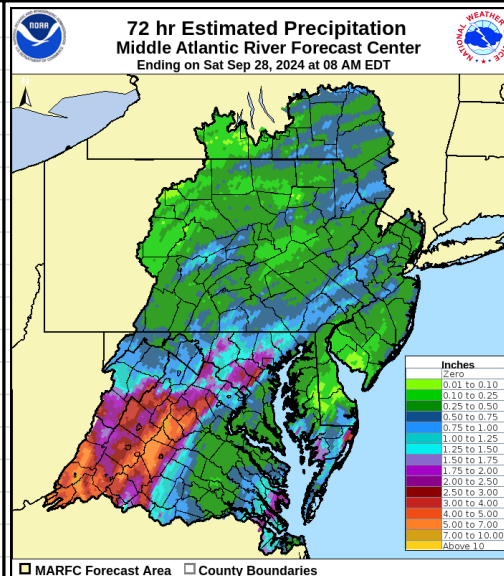
### Weather Summary

Heavy rainfall along a stationary boundary in the Mid-Atlantic, boosted by upslope flow and ample moisture from landfalling Hurricane Helene, led to river flooding at multiple locations in the Appomattox, James, and Shenandoah River basins, where 4 to 6+ inches of rain fell. Following landfall, the remnants of Helene merged with an upper low over the Mississippi Valley, which then slowly translated back east across the Mid-Atlantic a few days later. Additional rain of 2 to 4 inches, locally 6"+, fell upon saturated soils in VA, resulting in renewed river flooding. In total, 7-day rainfall exceeded 10 to 12 inches in spots, particularly near Charlottesville, VA. Elsewhere, disastrous rainfall of 20 to 30+ inches in the southern Appalachians led to historic flooding, tragically resulting in hundreds of fatalities.

### TOP 72-HOUR PRECIPITATION AMOUNTS (Liquid Equivalent and in inches)

**9/25/2024 (12 Z) - 9/28/2024 (12 Z)**  
**Amount Location State County**

6.82	Afton, VA	Albemarle	
6.00	Covington, VA	Alleghany	
5.69	Waynesboro, VA	City of Waynesboro	
5.23	New Castle, VA	Craig	
5.14	Staunton, VA	Augusta	
5.14	Massanutten, VA	Rockingham	
4.87	Roanoke, VA	Roanoke	
4.75	Buena Vista, VA	Rockbridge	
4.71	Moneta, VA	Bedford	
4.67	Roanoke, VA	Roanoke	
4.38	Craigsville, VA	Augusta	
4.25	Lewisburg, WV	Greenbrier	
4.06	Swoope, VA	Augusta	
3.76	Charlottesville, VA	Albemarle	
3.60	Lexington, VA	Rockbridge	

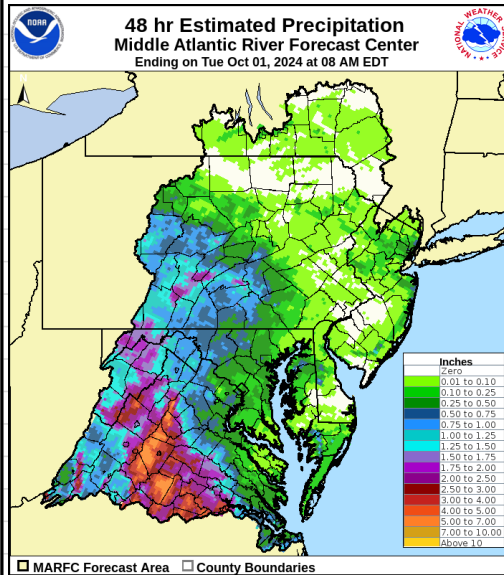


**TOP 48-HOUR PRECIPITATION AMOUNTS (Liquid Equivalent and in inches)**

**9/29/2024 (12 Z) - 10/01/2024 (12 Z)**

**Amount Location State County**

- 7.78 Charlottesville 11.1 SW, VA Albemarle
- 6.40 Charlottesville 8.4W, VA Albemarle
- 5.96 Afton, VA Albemarle
- 5.04 Palmyra, VA Fluvanna
- 4.43 Charlottesville (DCP), VA Albemarle
- 4.32 Madison, VA Madison
- 3.43 Somerset, VA Orange
- 3.17 Shenandoah Mtn, WV Pendleton
- 2.94 Charlottesville, VA (Airport) Albemarle
- 2.92 Kile Knob, WV Pendleton
- 2.88 Massanutten, VA Rockingham
- 2.64 Winterpock, VA Chesterfield
- 2.64 Chesterfield, VA Chesterfield
- 2.59 Red Creek, WV Grant
- 2.47 Short Gap, WV Mineral



**Floods by MARFC Basins**

MARFC Basins	Fcst Points	Minor	Moderate	Major	Unknown	Mod & Major
Appomattox	2	2	0	0	0	0
Chemung	0	0	0	0	0	0
Delaware	0	0	0	0	0	0
James	5	5	0	0	0	0
Juniata	0	0	0	0	0	0
Lehigh	0	0	0	0	0	0
Lower Main Stem Susquehanna	0	0	0	0	0	0
North Branch Susquehanna	0	0	0	0	0	0
Passaic	0	0	0	0	0	0
Potomac	0	0	0	0	0	0
Rappahannock	0	0	0	0	0	0
Raritan	0	0	0	0	0	0
SE PA and Delaware (state)	0	0	0	0	0	0
Shenandoah	9	7	2	0	0	2
Upper Main Stem Susquehanna	0	0	0	0	0	0
West Branch Susquehanna	0	0	0	0	0	0

**Floods by NWS Weather Forecast Offices**

<b>Forecast Office</b>	<b>Fcst Points</b>	<b>Minor</b>	<b>Moderate</b>	<b>Major</b>	<b>Unknown</b>	<b>Mod &amp; Major</b>
Blacksburg, VA (RNK)	0	0	0	0	0	0
Binghamton, NY (BGM)	0	0	0	0	0	0
Brookhaven, NY (OKX)	0	0	0	0	0	0
Philadelphia, PA (PHI)	0	0	0	0	0	0
State College, PA (CTP)	0	0	0	0	0	0
Sterling, VA (LWX)	9	7	2	0	0	2
Wakefield, VA (AKQ)	7	7	0	0	0	0

