

Flood Event of 5/16/2014 - 5/21/2014

Appomattox

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Farmville	16.00	5/17/2014	19.81	10,200	Minor	Appomattox	Appomattox River	Cumberland	Prince Edward
Mattoax	21.00	5/20/2014	25.09	10,200	Moderate	Appomattox	Appomattox River	Amelia	Amelia

Chemung

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Campbell	8.00	5/16/2014	8.02	11,900	Minor	Chemung	Cohocton River	Steuben	Steuben
Elmira	12.00	5/16/2014	12.16	37,900	Minor	Chemung	Chemung River	Chemung	Chemung

James

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Bremo Bluff	19.00	5/17/2014	23.60	-9,999	Moderate	James	James River	Fluvanna	Fluvanna
Cartersville	20.00	5/16/2014	20.50	73,500	Minor	James	James River	Goochland	Cumberland
Palmyra	17.00	5/16/2014	24.72	26,500	Minor	James	Rivanna River	Fluvanna	Fluvanna
Richmond	12.00	5/17/2014	15.36	70,500	Moderate	James	James River	Henrico	Independent City

Juniata

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Shirleysburg	10.00	5/16/2014	12.42	9,340	Moderate	Juniata	Aughwick Creek	Huntingdon	Huntingdon

Main Stem Susquehanna

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Camp Hill	7.00	5/16/2014	7.59	2,710	Minor	Yellow Breeches	Yellow Breeches Creek	Cumberland	Cumberland
Camp Hill	7.00	5/17/2014	7.24	2,530	Minor	Yellow Breeches	Yellow Breeches Creek	Cumberland	Cumberland
Hogestown	8.00	5/17/2014	9.31	7,870	Minor	Conodoguinet	Conodoguinet Creek	Cumberland	Cumberland
Penns Creek	8.00	5/16/2014	9.87	8,730	Minor	Penns Creek	Penns Creek	Snyder	Snyder
Shermans Dale	9.00	5/16/2014	13.41	16,400	Moderate	Lower Main Stem Susquehanna	Sherman Creek	Perry	Perry

North Branch Susquehanna

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Bainbridge	15.00	5/17/2014	15.08	21,600	Minor	North Branch Susquehanna	North Branch Susquehanna River	Chenango	Chenango
Conklin	12.00	5/17/2014	12.36	24,300	Minor	North Branch Susquehanna	North Branch Susquehanna River	Broome	Broome

Potomac

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Dawsonville	7.50	5/16/2014	10.94	7,040	Minor	Potomac	Seneca Creek	Montgomery	Montgomery
Edwards Ferry	15.00	5/17/2014	21.09	-9,999	Moderate	Potomac	Potomac River	Montgomery	Montgomery
Fairview	10.00	5/17/2014	10.74	8,000	Minor	Potomac	Conococheague Creek	Washington	Washington
Frederick	15.00	5/17/2014	18.65	22,200	Moderate	Potomac	Monocacy River at Jug Bridge	Frederick	Frederick
Great Cacapon	9.00	5/16/2014	14.54	19,000	Minor	Potomac	Cacapon River	Morgan	Morgan

Leesburg	12.00	5/16/2014	15.58	11,000	Moderate	Potomac	Goose Creek	Loudoun	Loudoun
Little Falls (Washington DC)	10.00	5/17/2014	11.70	162,000	Minor	Potomac	Potomac River	Montgomery	Montgomery
Martinsburg	10.00	5/17/2014	15.21	9,980	Major	Potomac	Opequon Creek	Berkeley	Berkeley
Point of Rocks	16.00	5/17/2014	22.62	14,500	Moderate	Potomac	Potomac River	Frederick	Frederick
Sharpsburg	8.00	5/16/2014	10.21	5,140	Moderate	Potomac	Antietam Creek	Washington	Washington
Shepherdstown	15.00	5/17/2014	20.50	-9,999	Moderate	Potomac	Potomac River	Jefferson	Jefferson
Wisconsin Ave, Washington, DC	6.00	5/17/2014	8.80	-9,999	Moderate	Potomac	Potomac River	Dist. of Columbia	Dist. of Columbia

Rappahannock

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Culpeper	13.00	5/16/2014	17.16	18,700	Moderate	Rappahannock	Rapidan River	Culpeper	Culpeper
Fredericksburg (New site)	13.00	5/17/2014	13.32	45,000	Minor	Rappahannock	Rappahannock River	Spotsylvania	Independent City
Remington	15.00	5/16/2014	19.36	20,800	Minor	Rappahannock	Rappahannock River	Fauquier	Fauquier

Shenandoah

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Front Royal	12.00	5/16/2014	12.07	25,700	Minor	Shenandoah	Shenandoah River	Warren	Warren
Millville	10.00	5/17/2014	14.57	47,200	Moderate	Shenandoah	Shenandoah River	Jefferson	Jefferson

South Branch Potomac

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
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Franklin	7.00	5/16/2014	8.24	7,610	Minor	South Branch Potomac	South Branch Potomac River	Pendleton	Pendleton
Petersburg	14.00	5/16/2014	14.38	23,000	Minor	South Branch Potomac	South Branch Potomac River	Grant	Grant
Springfield	15.00	5/17/2014	18.57	30,400	Minor	South Branch Potomac	South Branch Potomac River	Hampshire	Hampshire

Weather Summary

A warm front moved through the region on May 12 and produced scattered showers and thunderstorms. - A deep 500 hPa trough with -4s height anomalies over the central United States combined with a strong ridge with +2s height anomalies over eastern Canada, produced strong southerly flow. The deep southerly flow brought a plume of high precipitable water air into the region along with strong 850 hPa southerly flow resulting in heavy rainfall and isolated severe weather. The heavy rainfall produced flooding in the Mid-Atlantic region from Virginia northward into New York State. The large scale pattern showed a deep trough to the west and a strong ridge to the east. The resulting deep southerly flow allowed a surge of deep moisture and strong southerly flow into the eastern United States. A nearly textbook Maddox Synoptic rainfall event type. There was some shallow cold air damming and easterly flow which likely enhanced the lift over the frontal boundary in the Mid-Atlantic region contributing to the rainfall amounts in some areas in excess of 5 inches. The surface pattern indicated a strong surface anticyclone off the East Coast and a large anticyclone over the central United States. Several relatively weak cyclones developed in the trough between the two anticyclones. Though not clearly indicated, the strong easterly flow at low-levels pushed a marine layer into central Pennsylvania on 14 May creating an enhanced frontal boundary over which the deep southerly flow moved over. It is beyond the scope of this study to show these mesoscale details. Portions taken from Rich Grumm NWS WFO-CTP. [Http://cms.met.psu.edu/sref/severe/2014/16May2014.pdf](http://cms.met.psu.edu/sref/severe/2014/16May2014.pdf)

Source: Rich Grumm NWS WFO-CTP

Crest Statistics and Flood Information

First flood of 1 that occurred in May, 2014

Seventh flood of 8 that occurred in 2014

Number of Floods at MARFC Forecast Points - 36

Number of Floods Cresting in Minor Range - 21

Number of Floods Cresting in Moderate Range - 14

Number of Floods Cresting in Major Range - 1

Number of Floods Cresting in Missing Range - 0