Flood Event of 12/26/2009 - 12/30/2009

James

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Richmond	12.00	12/27/2009	13.31	51,900	Minor	James	James River	Henrico	Independent City

Main Stem Delaware

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Pemberton	2.50	12/28/2009	3.06	1,040	Minor	Delaware	North Branch Rancocas Creek	Burlington	Burlington

Passaic

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Boonton above Reservoir (Old Site)	5.00	12/27/2009	5.13	2,140	Minor	Passaic	Rockaway River	Morris	Morris
Boonton below Reservoir	5.00	12/27/2009	6.12	2,210	Minor	Passaic	Rockaway River	Morris	Morris
Lodi	6.00	12/27/2009	6.16	1,890	Minor	Passaic	Saddle River	Bergen	Bergen
Pine Brook	19.00	12/29/2009	19.13	2,760	Minor	Passaic	Passaic River	Morris	Morris

Potomac

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Dawsonville	7.50	12/26/2009	7.98	2,930	Minor	Potomac	Seneca Creek	Montgomery	Montgomery
Frederick	15.00	12/27/2009	18.12	20,300	Moderate	Potomac	Monocacy River at Jug Bridge	Frederick	Frederick

Raritan

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Blackwells Mills	9.00	12/27/2009	11.40	6,180	Moderate	Raritan	Millstone River	Somerset	Somerset
Bound Brook	28.00	12/27/2009	28.54	19,200	Minor	Raritan	Raritan River below Calco Dam	Somerset	Somerset
Manville	14.00	12/27/2009	14.53	14,200	Minor	Raritan	Raritan River	Somerset	Somerset

Southeastern Pennsylvania

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Chadds Ford	9.00	12/27/2009	9.72	7,140	Minor	Delaware	Brandywine Creek	Delaware	Delaware
Langhorne	9.00	12/27/2009	-9999.00	-9,999	Missing	Neshaminy	Neshaminy Creek	Bucks	Bucks

Weather Summary

One to two and a half feet of snow blanketed our southern and eastern basins from a big snow storm on December 19-20, 2009. A strong low over the Midwest on December 25 pushed a warm front slowly northward. A 30 - 35 kt southerly low level jet spread a plume of deep moisture southwest to northeast into Pennsylvania and New Jersey. The precipitation started as freezing rain in our western basins due to weak cold air damming. A strong 1038 mb high over Quebec supplied enough cold air to keep surface temperatures below freezing early except our far eastern basins. The precipitation changed to rain quickly except parts of interior New York, northwest New Jersey, north central and northeast Pennsylvania where the freezing rain lingered until December 26th. Over 1 inch of liquid was a common amount from southern Pennsylvania/New Jersey southward. Increasing upper-level divergence “jumped" the approaching occlusion with a spin-up wave of low pressure developing along the DELMARVA Coast where the best baroclinicity resided. The low moved northward across eastern Pennsylvania and New Jersey and brought more rain to this area on the 26th. An easterly low-level jet combined with increased deep layer upward vertical velocities enhanced the rate of the rainfall in this area. Once again over 1 inch of liquid was a common amount from southern Pennsylvania/New Jersey southward. Temperatures and dew points in our eastern basins rose from the mid-30s on the 25th into the 50s on the 27th The combination of 1 to 3 inches of rain and melting snow produced enough run off to cause several stream stages to exceed their banks.

Crest Statistics and Flood Information

Third flood of 3 that occured in Dec, 2009

Seventeenth flood of 17 that occured in 2009

Number of Floods at MARFC Forecast Points - 13

Number of Floods Cresting in Minor Range - 10

Number of Floods Cresting in Moderate Range - 2

Number of Floods Cresting in Major Range - 0

Number of Floods Cresting in Missing Range - 1