

Flood Event of 9/6/2011 - 9/15/2011

Brandywine

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Chadds Ford	9.00	9/7/2011	10.14	7,820	Minor	Christina	Brandywine Creek	Delaware	Delaware
Chadds Ford	9.00	9/8/2011	11.70	11,100	Moderate	Christina	Brandywine Creek	Delaware	Delaware
Wilmington	16.50	9/8/2011	16.70	12,900	Minor	Christina	Brandywine Creek	New Castle	New Castle

Chemung

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Mansfield	12.00	9/8/2011	13.08	15,800	Moderate	Chemung	Tioga River	Tioga	Tioga

Delaware

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Bridgeville	13.00	9/7/2011	14.05	9,250	Minor	Delaware	Neversink River	Sullivan	Sullivan
Cooks Falls	10.00	9/8/2011	11.39	13,700	Minor	Delaware	Beaver Kill	Delaware	Delaware
Cooks Falls	10.00	9/7/2011	13.64	21,500	Minor	Delaware	Beaver Kill	Delaware	Delaware
Fishs Eddy	13.00	9/8/2011	15.79	43,100	Minor	Delaware	Delaware River	Delaware	Delaware
Harvard	10.00	9/7/2011	14.73	17,100	Moderate	Delaware	East Branch Delaware River	Delaware	Delaware
Hawley	11.00	9/7/2011	11.30	10,800	Minor	Lackawaxen	Lackawaxen River	Wayne	Wayne
Minisink Hills	10.00	9/9/2011	12.46	20,600	Moderate	Brodhead	Brodhead Creek	Monroe	Monroe

Shoemakers	6.00	9/8/2011	6.16	3,950	Minor	Bush Kill	Bush Kill	Monroe	Cambria
Trenton	8.50	9/8/2011	9.28	2,410	Minor	Delaware	Assunpink Creek	Mercer	Mercer
Walton	9.50	9/8/2011	14.40	18,500	Moderate	Delaware	West Branch Delaware River	Delaware	Delaware

Juniata

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Shirleysburg	10.00	9/7/2011	14.80	15,800	Moderate	Juniata	Aughwick Creek	Huntingdon	Huntingdon
Williamsburg	12.00	9/10/2011	12.16	7,360	Minor	Juniata	Frankstown Branch Juniata River	Blair	Blair
Williamsburg	12.00	9/7/2011	14.03	9,810	Moderate	Juniata	Frankstown Branch Juniata River	Blair	Blair

Lehigh

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Walnutport	8.00	9/7/2011	8.01	18,000	Minor	Lehigh	Lehigh River	Northampton	Northampton

Main Stem Delaware

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Barryville	17.00	9/8/2011	18.61	73,600	Minor	Main Stem Delaware	Delaware River	Sullivan	Sullivan
Barryville	17.00	9/7/2011	17.05	63,500	Minor	Main Stem Delaware	Delaware River	Sullivan	Sullivan
Callicoon	12.00	9/7/2011	12.87	61,700	Minor	Main Stem Delaware	Delaware River	Wayne	Sullivan
Callicoon	12.00	9/8/2011	14.34	76,000	Moderate	Main Stem Delaware	Delaware River	Wayne	Sullivan
Delaware Water Gap	21.00	9/9/2011	24.94	128,000	Moderate	Main Stem Delaware	Delaware River	Warren	Monroe

Easton (Phillipsburg, NJ)	22.00	9/9/2011	29.23	-9,999	Moderate	Main Stem Delaware	Delaware River	Warren	Northampton
Frenchtown	16.00	9/9/2011	19.02	-9,999	Moderate	Main Stem Delaware	Delaware River	Hunterdon	Hunterdon
Hale Eddy	11.00	9/8/2011	14.71	22,600	Moderate	Main Stem Delaware	West Branch Delaware River	Delaware	Delaware
New Hope (Lambertville, NJ)	13.00	9/8/2011	16.14	-9,999	Major	Main Stem Delaware	Delaware River	Hunterdon	Bucks
Riegelsville	22.00	9/9/2011	28.06	175,000	Moderate	Main Stem Delaware	Delaware River	Warren	Bucks
Stockton	18.00	9/8/2011	21.76	-9,999	Moderate	Main Stem Delaware	Delaware River	Hunterdon	Hunterdon
Trenton	20.00	9/8/2011	23.11	195,000	Moderate	Main Stem Delaware	Delaware River	Mercer	Mercer
Washington Crossing	16.00	9/8/2011	20.40	-9,999	Moderate	Main Stem Delaware	Delaware River	Mercer	Bucks

Main Stem Susquehanna

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Bloomsburg	19.00	9/9/2011	32.75	-9,999	Major	Upper Main Stem Susquehanna	Susquehanna River	Columbia	Columbia
Camp Hill	7.00	9/8/2011	9.60	4,310	Moderate	Yellow Breeches	Yellow Breeches Creek	Cumberland	Cumberland
Conowingo	23.50	9/9/2011	32.41	778,000	Major	Lower Main Stem Susquehanna	Susquehanna River	Harford	Cecil
Danville	20.00	9/9/2011	31.55	311,000	Major	Upper Main Stem Susquehanna	Susquehanna River	Montour	Montour
Harper Tavern	9.00	9/8/2011	24.46	74,800	Major	Swatara	Swatara Creek	Lebanon	Lebanon
Harrisburg	17.00	9/9/2011	25.17	590,000	Major	Lower Main Stem Susquehanna	Susquehanna River	Dauphin	Dauphin
Hershey	7.00	9/8/2011	27.22	96,900	Major	Swatara	Swatara Creek	Dauphin	Dauphin
Hogestown	8.00	9/8/2011	10.53	10,600	Moderate	Conodoguinet	Conodoguinet Creek	Cumberland	Cumberland

Lancaster	11.00	9/8/2011	21.30	30,200	Major	Conestoga	Conestoga River	Lancaster	Lancaster
Marietta	49.00	9/9/2011	58.16	665,000	Major	Lower Main Stem Susquehanna	Susquehanna River	Lancaster	Lancaster
Meshoppen	27.00	9/8/2011	44.48	293,000	Major	Upper Main Stem Susquehanna	Susquehanna River	Wyoming	Wyoming
Middletown (Old Site)	11.00	9/9/2011	23.23	-9,999	Major	Lower Main Stem Susquehanna	Swatara Creek	Dauphin	Dauphin
Monroeton	15.50	9/8/2011	20.97	64,200	Major	Upper Main Stem Susquehanna	Towanda Creek	Bradford	Bradford
Penns Creek	8.00	9/8/2011	8.88	7,000	Minor	Penns Creek	Penns Creek	Snyder	Snyder
Shermans Dale	9.00	9/10/2011	10.21	9,900	Minor	Lower Main Stem Susquehanna	Sherman Creek	Perry	Perry
Shermans Dale	9.00	9/7/2011	11.04	11,500	Moderate	Lower Main Stem Susquehanna	Sherman Creek	Perry	Perry
Sunbury	24.00	9/8/2011	31.66	463,000	Moderate	Lower Main Stem Susquehanna	Susquehanna River	Snyder	Northumberland
Towanda	16.00	9/8/2011	30.52	250,000	Major	Upper Main Stem Susquehanna	Susquehanna River	Bradford	Bradford
Tunkhannock	11.00	9/8/2011	13.72	20,100	Minor	Upper Main Stem Susquehanna	Tunkhannock Creek	Wyoming	Wyoming
Wilkes-Barre	22.00	9/9/2011	42.66	310,000	Major	Upper Main Stem Susquehanna	Susquehanna River	Luzerne	Luzerne

Neshaminy

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Langhorne	9.00	9/8/2011	18.09	20,400	Major	Neshaminy	Neshaminy Creek	Bucks	Bucks
Langhorne	9.00	9/6/2011	10.27	8,390	Moderate	Neshaminy	Neshaminy Creek	Bucks	Bucks
Langhorne	9.00	9/7/2011	10.70	8,950	Moderate	Neshaminy	Neshaminy Creek	Bucks	Bucks

North Branch Potomac

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Kitzmiller	9.00	9/6/2011	9.23	11,800	Minor	North Branch Potomac	Potomac River	Garret	Garret

North Branch Susquehanna

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Bainbridge	15.00	9/8/2011	26.20	51,700	Major	North Branch Susquehanna	North Branch Susquehanna River	Chenango	Chenango
Binghamton	14.00	9/8/2011	25.73	-9,999	Major	North Branch Susquehanna	North Branch Susquehanna River	Broome	Broome
Chenango Forks	10.00	9/8/2011	14.93	49,500	Moderate	North Branch Susquehanna	Chenango River	Broome	Broome
Cincinnatus	9.00	9/8/2011	9.63	7,460	Minor	North Branch Susquehanna	Otselic River	Cortland	Cortland
Conklin	12.00	9/8/2011	23.94	72,100	Major	North Branch Susquehanna	North Branch Susquehanna River	Broome	Broome
Cortland	8.00	9/8/2011	9.88	5,970	Minor	North Branch Susquehanna	Tioughnioga River	Cortland	Cortland
Greene	13.00	9/8/2011	21.09	26,900	Moderate	North Branch Susquehanna	Chenango River	Chenango	Chenango
Owego	30.00	9/8/2011	39.62	159,000	Major	North Branch Susquehanna	North Branch Susquehanna River	Tioga	Tioga
Rockdale	11.00	9/8/2011	14.22	21,100	Major	North Branch Susquehanna	Unadilla River	Chenango	Chenango
Sherburne	8.50	9/8/2011	11.64	10,900	Major	North Branch Susquehanna	Chenango River	Chenango	Chenango
Unadilla	11.00	9/8/2011	16.34	29,700	Major	North Branch Susquehanna	North Branch Susquehanna River	Otsego	Otsego
Vestal	18.00	9/8/2011	35.26	129,000	Major	North Branch Susquehanna	North Branch Susquehanna River	Broome	Broome
Waverly	11.00	9/8/2011	26.67	167,000	Major	North Branch Susquehanna	North Branch Susquehanna River	Bradford	Tioga

Windsor	17.00	9/8/2011	24.21	55,400	Major	North Branch Susquehanna	North Branch Susquehanna River	Broome	Broome
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Passaic

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Boonton above Reservoir (Old Site)	5.00	9/7/2011	5.13	2,140	Minor	Passaic	Rockaway River	Morris	Morris
Boonton above Reservoir (Old Site)	5.00	9/8/2011	5.49	2,550	Minor	Passaic	Rockaway River	Morris	Morris
Boonton below Reservoir	5.00	9/9/2011	7.23	3,250	Moderate	Passaic	Rockaway River	Morris	Morris
Chatham	6.00	9/9/2011	6.25	1,510	Minor	Passaic	Passaic River	Morris	Morris
Little Falls	7.00	9/9/2011	11.05	14,000	Major	Passaic	Passaic River	Passaic	Passaic
Lodi	6.00	9/8/2011	8.50	3,000	Major	Passaic	Saddle River	Bergen	Bergen
Macopin Intake Dam	5.50	9/8/2011	6.07	1,730	Minor	Passaic	Pequannock River	Passaic	Passaic
Mahwah	8.00	9/8/2011	9.54	5,040	Moderate	Passaic	Ramapo River	Bergen	Bergen
Millington	8.00	9/8/2011	8.04	1,040	Minor	Passaic	Passaic River	Somerset	Morris
Pine Brook	19.00	9/9/2011	21.73	6,140	Major	Passaic	Passaic River	Morris	Morris
Pompton Lakes	11.50	9/8/2011	14.33	7,090	Moderate	Passaic	Ramapo River	Passaic	Passaic
Pompton Plains	16.00	9/8/2011	20.33	14,300	Major	Passaic	Pompton River	Passaic	Morris
Wanaque	5.00	9/8/2011	7.51	3,080	Moderate	Passaic	Wanaque River	Passaic	Passaic

Potomac

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
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Dawsonville	7.50	9/8/2011	15.78	24,400	Moderate	Potomac	Seneca Creek	Montgomery	Montgomery
Fairview	10.00	9/10/2011	11.55	10,000	Minor	Potomac	Conococheague Creek	Washington	Washington
Frederick	15.00	9/9/2011	17.04	18,000	Moderate	Potomac	Monocacy River at Jug Bridge	Frederick	Frederick
Wisconsin Ave, Washington, DC	6.00	9/9/2011	7.11	-9,999	Moderate	Potomac	Potomac River	Dist. of Columbia	Dist. of Columbia

Raritan

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Blackwells Mills	9.00	9/8/2011	13.77	10,100	Moderate	Raritan	Millstone River	Somerset	Somerset
Bound Brook	28.00	9/7/2011	29.04	20,500	Minor	Raritan	Raritan River below Calco Dam	Somerset	Somerset
Bound Brook	28.00	9/8/2011	33.14	33,900	Major	Raritan	Raritan River below Calco Dam	Somerset	Somerset
Manville	14.00	9/8/2011	19.18	26,500	Moderate	Raritan	Raritan River	Somerset	Somerset
Manville	14.00	9/7/2011	15.61	17,200	Minor	Raritan	Raritan River	Somerset	Somerset
Raritan	10.00	9/7/2011	10.11	8,240	Minor	Raritan	North Branch Raritan River	Somerset	Somerset
Raritan	10.00	9/8/2011	12.72	17,500	Moderate	Raritan	North Branch Raritan River	Somerset	Somerset
Stanton	8.00	9/8/2011	11.98	10,600	Moderate	Raritan	South Branch Raritan River	Hunterdon	Hunterdon
Stanton	8.00	9/7/2011	9.25	5,590	Minor	Raritan	South Branch Raritan River	Hunterdon	Hunterdon

Schuylkill

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Berne	12.00	9/8/2011	15.45	23,900	Moderate	Schuylkill	Schuylkill River	Berks	Berks

Graterford	11.00	9/7/2011	13.93	24,600	Moderate	Schuylkill	Perkiomen Creek	Montgomery	Montgomery
Norristown	13.00	9/7/2011	16.06	55,000	Minor	Schuylkill	Schuylkill River	Montgomery	Montgomery
Philadelphia	11.00	9/8/2011	12.52	68,200	Minor	Schuylkill	Schuylkill River	Philadelphia	Philadelphia
Philadelphia	11.00	9/7/2011	12.01	60,600	Minor	Schuylkill	Schuylkill River	Philadelphia	Philadelphia
Pottstown	12.50	9/9/2011	18.27	42,100	Moderate	Schuylkill	Schuylkill River	Montgomery	Montgomery
Reading	15.50	9/8/2011	20.41	42,900	Moderate	Schuylkill	Schuylkill River	Berks	Berks

West Branch Susquehanna

Site	Flood Stage	Date	Crest	Flow	Category	Basin	Stream	County of Gage	County of Forecast Point
Beech Creek Station	11.00	9/7/2011	11.66	5,340	Minor	West Branch Susquehanna	Bald Eagle Creek	Clinton	Clinton
Lewisburg	18.00	9/8/2011	25.75	168,000	Moderate	West Branch Susquehanna	West Branch Susquehanna River	Northumberland	Union
Loyalsockville	12.00	9/7/2011	19.78	69,100	Major	West Branch Susquehanna	Loyalsock Creek	Lycoming	Lycoming
Milton	19.00	9/8/2011	26.60	-9,999	Major	West Branch Susquehanna	West Branch Susquehanna River	Union	Northumberland
Montgomery	20.00	9/8/2011	26.70	-9,999	Moderate	West Branch Susquehanna	West Branch Susquehanna River	Lycoming	Lycoming
Muncy	20.00	9/8/2011	26.70	-9,999	Moderate	West Branch Susquehanna	West Branch Susquehanna River	Lycoming	Lycoming
Watsonstown	23.00	9/8/2011	26.70	-9,999	Moderate	West Branch Susquehanna	West Branch Susquehanna River	Northumberland	Northumberland

Weather Summary

The remnants of tropical storm (TS) Lee lumbered up the Appalachian Mountains and interacted with a quasi-stationary east-west frontal boundary producing extremely heavy rainfall over central Pennsylvania and New York State. The initial the rain fell in a quasi-east-west band from 5-7 September. As the remnant circulation associated with TS Lee approached more vigorous north-south oriented bands of rain developed producing a distinct north-south rainfall maximum. In the Mid-Atlantic region the initial rain was focused along stalled east-west frontal boundary. The axis of heavy rain was oriented in a west-southwest to east-northeast direction across central Pennsylvania. As Lee approached the region the orientation of the rain bands become more south-to-north, nearly orthogonal to the earlier rainfall axis. The data shown here imply that a 250 hPa Pacific jet and a strong short-wave with unseasonably cold air were critical in transporting the moisture associated with TS Lee up the East Coast which produced the synoptic type rain event on 7-8 September 2011. The rainfall event was the result of the convergence of several systems. This produced long duration frontal rain event over New York and Pennsylvania which transitioned to a synoptic event with periods of extremely heavy rainfall. The resulting multi-day rainfall event produced a broad area where in excess of 150 mm of rain was observed. Locally rainfall maximums in excess of 300 mm were reported by several observers. The north-south axis of heavy rainfall affected most of the Susquehanna Valley, this combined with heavy rainfall over portions of the same area from tropical storm Irene 8 days earlier produced near historic flooding at many points in the Susquehanna River Valley. Portions taken from Rich Grumm NWS WFO-CTP. <http://nws.met.psu.edu/sref/severe/2011/28Aug2011.pdf>

Source: Grumm NWS WFO CTP

Crest Statistics and Flood Information

First flood of 3 that occurred in Sep, 2011

Thirteenth flood of 18 that occurred in 2011

Number of Floods at MARFC Forecast Points - 109

Number of Floods Cresting in Minor Range - 34

Number of Floods Cresting in Moderate Range - 43

Number of Floods Cresting in Major Range - 32

Number of Floods Cresting in Missing Range - 0