

# THE FLOODS OF HURRICANE CONNIE AND DIANE

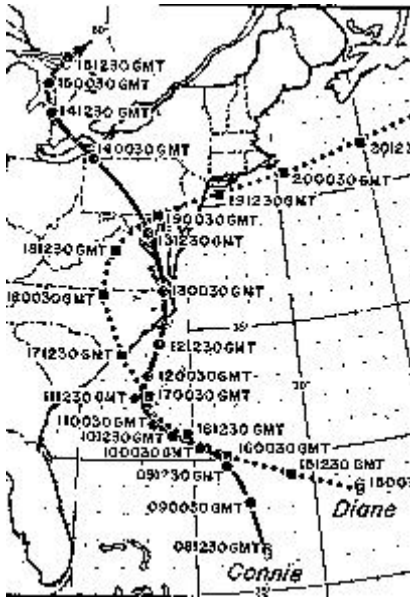
## AUGUST 1955



*Winsted, Connecticut after the flood*

In little over a week, two hurricanes passed by Southern New England in August 1955 producing major flooding over much of the region. Hurricane Connie produced generally 4-6 inches of rainfall over southern New England on August 11 and 12. The result of this was to saturate the ground and bring river and reservoir levels to above normal levels.

Hurricane Diane came a week later and dealt a massive punch to New England. Rainfall totals from Diane ranged up to nearly 20 inches over a two-day period. The headwaters of the Farmington River in Connecticut recorded 18 inches in a 24-hour period. Both of these accumulations exceeded records for New England. The same is true of much of the flooding that resulted from these massive rainfall amounts.



*Path of Hurricanes Connie and Diane*

With the strong intensity rainfall on saturated soil, the rise of the rivers was very rapid. Even the coastal regions of Eastern Massachusetts -- the Charles, Taunton, and Neponset Rivers -- experienced dramatic and rapid rises. On the Blackstone River, dam breaks caused significant flooding and destruction in Woonsocket RI. The entire reach of the Quinebaug River set new flow records.

In the Connecticut River valley, the most significant flows were experienced on the Chicopee, Westfield, and Farmington Rivers. However, on the mainstem, since the heaviest rainfalls did not reach far to the north and did not result in significant flows into Massachusetts, flooding, although significant, did not reach the record-breaking volumes that occurred on the tributaries. In Westfield MA, the Westfield River exceeded its previous record stage by nearly 5 feet.

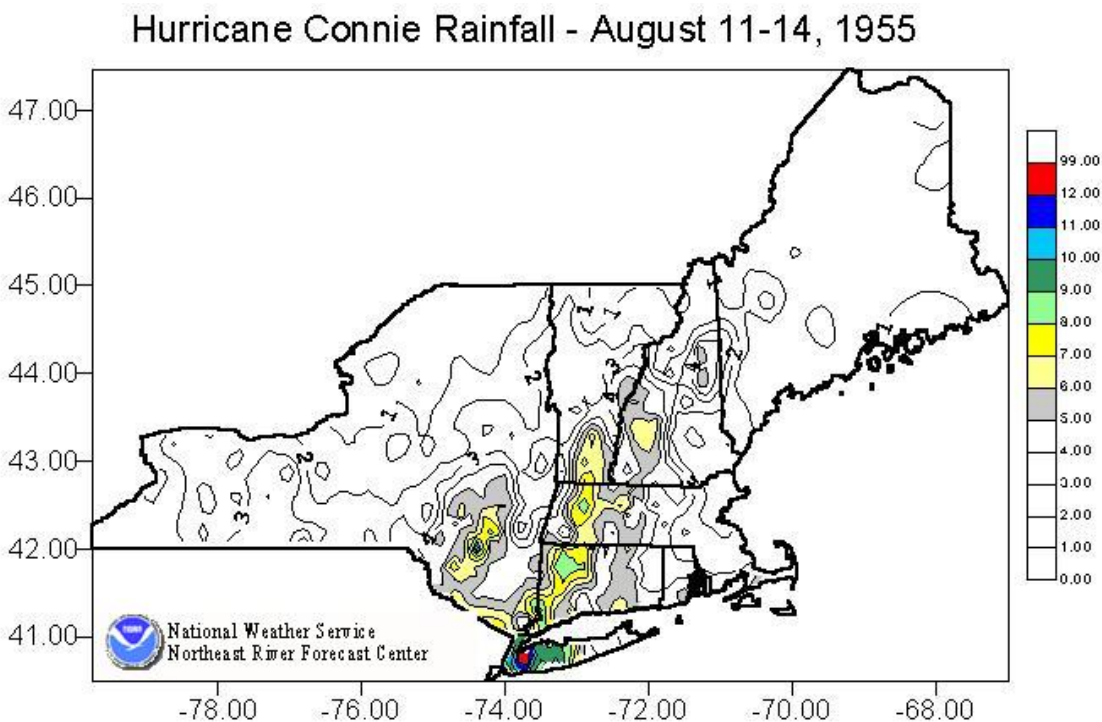
The Housatonic, Naugatuck, and Quinebaug Rivers also saw record or near-record flows. In New York, while the Hudson and Mohawk Rivers did not experience flooding, in southeastern New York, Rondout Creek and the Wallkill River did see record-breaking flooding.

There were only 9 of now current 31 Corps of Engineers flood control dams constructed prior to this flood event. Of the 9 dams, there were 5 in the Connecticut River Basin; 3 in the Merrimack River Basin; and only 1 in the Thames River Basin. Only Mansfield Hollow Dam in the Thames River basin, and Knightville Dam in the Connecticut River basin were tasked during this event utilizing about 65% and 58% of flood control storage, respectively. If the August 1955 flood were to occur today with all Corps of Engineers dams constructed the effect would be as follows:

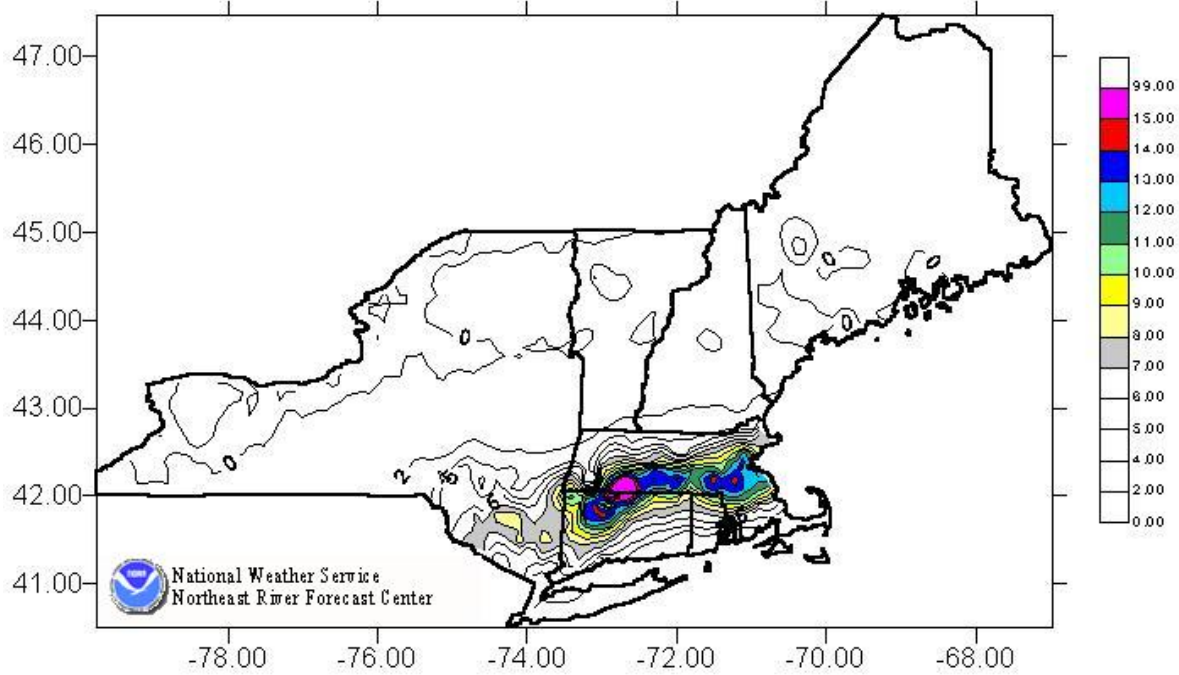
Location	Peak Observed (cfs)	Modified Peak (with Corps Dams)
Westfield River at Westfield, MA	70,300	62,500
Quinebaug River at Jewett City, CT	40,700	17,500

While these hurricanes affected the entire Atlantic coast from North Carolina through Massachusetts, the state of Connecticut suffered the most damage. Of the 180 lives that were lost, 77 were in Connecticut. Of the 680 million dollars in property damage, over 350 million dollars occurred in Connecticut. Over 200 dams in New England suffered partial to total failure. Many of these were in the area immediately south of Worcester, in the Thames and Blackstone headwaters.

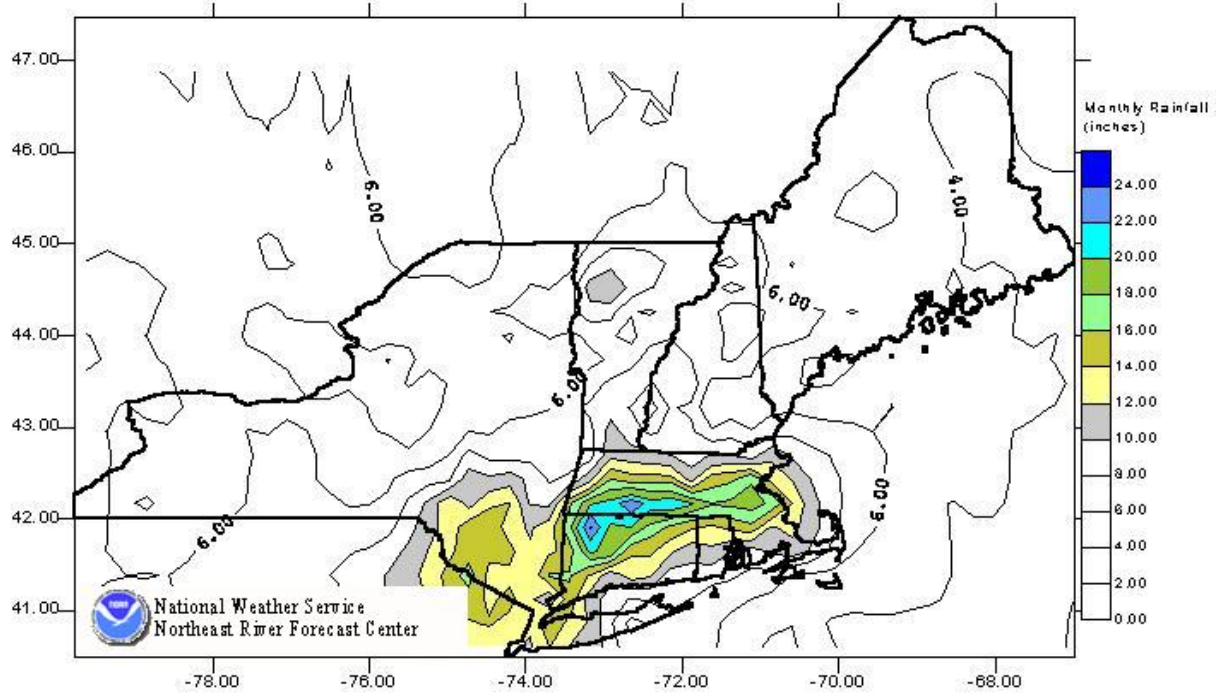
If August was not bad enough, two months later, a four-day storm dumped an additional 12-14 inches of rain in southwest New England. This event was not as widespread as the August storms; however, record flood levels were achieved in some locations of the Housatonic and Hudson River basins.



### Hurricane Diane Rainfall - August 17-20, 1955



### August 1955 Rainfall Accumulation



## Streamgage Data

River	Location	Flow	cfs/sq mi	Stage
Quinebaug	Quinebaug	49300 cfs	318 csm	19.0 ft *
Connecticut	Hartford	198,000 cfs	19 csm	30.6 ft
Housatonic	Gaylordsville	51,800 cfs	52 csm	18.6 ft *
Pomeraug	Southbury	29,400 cfs	392 csm	21.8 ft *
Naugatuck	Beacon Falls	106,000 cfs	408 csm	25.7 ft *
Charles	Dover	3220 cfs	17 csm	9.2 ft *
Blackstone	Woonsocket	32,900 cfs	79 csm	21.8 ft *
Westfield	Westfield	70,300 cfs	141 csm	34.2 ft *
W Br Farmington	New Boston	34,300 cfs	374 csm	14.1 ft *
Rondout Cr	Rosendale	30,900 cfs	80.7 csm	23.9 ft
Wallkill	Gardiner	30,600 cfs	44 csm	19.8 ft

\* represents flood of record