## = Effects of Hurricane Floyd in New York =

The effects of Hurricane Floyd in New York included two deaths and millions of dollars in damage . Hurricane Floyd , once a large and powerful Category 4 hurricane , made landfall in North Carolina and moved northward along the East Coast , making landfall on Long Island as a tropical storm . The threat of the hurricane prompted schools in New York City to close for the first time since 1996 , and 20 shelters were opened . Floyd produced flooding rainfall and gusty winds throughout the state , from the southern Hudson Valley to the Lake Champlain area . The flood waters damaged multiple roads and forced residents to evacuate from certain locations . Strong winds left as many as 100 @,@ 000 people without power and brought down a high number of trees due to the saturated ground . In the aftermath of the storm , 15 counties in eastern New York were declared eligible for state or federal assistance .

## = = Background and preparations = =

Floyd 's origins are traced back to a westward @-@ moving tropical wave that developed into a tropical depression on September 7 , 1999 , while centered 1 @,@ 000 mi ( 1 @,@ 600 km ) east of the Lesser Antilles . The system moved west @-@ northwestward , and intensified into a tropical storm on September 8 . Continuing to intensify , Floyd attained hurricane strength on September 10 . The hurricane ultimately peaked as a Category 4 hurricane on the Saffir ? Simpson Hurricane Scale as it struck the Bahamas . The storm turned northwestward and soon northward , brushing the coast of Florida and the southeast United States . On September 16 , Floyd made landfall as a Category 2 hurricane in North Carolina , and moved northeastward along the Eastern Seaboard . It passed through the Mid @-@ Atlantic States as it deteriorated into a tropical storm , and lost its tropical identity over southern Maine .

In advance of the storm , starting on September 15 , tropical cyclone watches and warnings were issued for much of the Eastern Seaboard , including portions of New York . These warnings were discontinued by September 19 . New York City Mayor Rudolph Giuliani urged private businesses to close early and ordered non @-@ emergency city workers to return home between 12 pm and 3 pm on September 17 . For the first time since 1996 , in an "almost unprecedented "decision , schools in the city were closed due to the hurricane 's threat . On September 16 , 20 shelters were opened , able to accommodate as many as 70 @,@ 000 people . Lawrence Reuter , president of New York City Transit , reported that in an effort to prevent flooding , storm drains were cleared and other precautions were taken . People were urged to remove loose objects that could be blown around by high winds . By September 16 , city officials had distributed 50 @,@ 000 brochures on preparing for the storm . Suffolk County Executive Robert J. Gaffney advised residents of Fire Island to evacuate before the storm made leaving by ferry impossible , and in Long Beach , officials readied emergency vehicles . Also , 4 @,@ 000 sandbags were given out there in anticipation of high storm tides .

## = = Impact = =

Tropical Storm Floyd made landfall on western Long Island as it moved northward . The heaviest rainfall associated with the storm was concentrated in the southeastern section of the state . Several meteorological elements worked to enhance the moisture from the cyclone . Rainfall totals exceeding 6 in ( 150~mm ) were common , with as much as 12 in ( 300~mm ) reported locally in the Catskills . At Cairo , 12~@.@ 21 in ( 310~mm ) of rain fell . The precipitation , combined with that of Hurricane Dennis earlier in the month , helped to alleviate persistent drought conditions . Floyd also produced gusty winds , reaching 54 mph ( 87~km / h ) at Stewart International Airport , worsened by a pressure gradient between the storm and an area of high pressure over the Ohio Valley .

Floyd 's rainfall resulted in deadly and extensive flooding that killed two people in New York . Heavy flooding was reported along numerous creeks , including the Esopus , Catskill , and Schoharie . In the Albany area , the Normanskill rose to extremely high levels , and the resultant flood waters damaged nearby buildings . The Coeymans Creek in Selkirk overflowed and forced 20 families to

leave their homes . The main rivers typically remained within their banks . Many roads , including U.S. Route 20 in Guilderland , were flooded or washed out , and seven families had to be evacuated along NY 32 in Menands . Further south , the Saw Mill and Bronx rivers both overflowed , and caused urban flooding . A dam on a mill pond broke near Lake Placid , leading to flooding along the Chubb River .

The strong winds , combined with saturated ground from the rainfall , brought down trees in widespread areas of the Hudson Valley and Capital District . Many of the trees would not have otherwise fallen in drier conditions . Some of the downed trees fell on structures . In a narrow swath in the Wolf Pond Valley of Warren County , where wind gusts are estimated to have reached 80 mph ( 130 km / h ) , hundreds of trees were blown down . At the storm 's worst , power outages affected over 100 @,@ 000 people region @-@ wide , and some individuals remained without power for a week . At the Albany International Airport , the storm forced the cancellation of flights , and throughout the region schools were closed . Several boats sustained damage along the shore of Lake Champlain . Throughout Orange , Putnam , Rockland , and Westchester counties , initial cost estimates were \$ 14 @.@ 6 million , although that figure represents only a portion of the actual monetary damage . The storm also caused about \$ 2 million in property damage in Essex County .

## = = Aftermath = =

Following the storm , three New York counties were declared eligible for individual assistance , eight for individual and public assistance , and four for public assistance . The initial deadline to apply for state or federal assistance was set for November 17 , although it was extended a month due to a steady flow of applications . Three disaster recovery centers were opened to provide information to residents affected by the storm . The three centers , located in Rockland , Putnam , and Westchester counties , closed in late October .