

= Effects of Hurricane Isabel in Delaware =

The effects of Hurricane Isabel in Delaware resulted in one of only thirteen presidential disaster declarations for the state of Delaware . Hurricane Isabel formed from a tropical wave on September 6 , 2003 in the tropical Atlantic Ocean . It moved northwestward , and within an environment of light wind shear and warm waters it steadily strengthened to reach peak winds of 165 mph (265 km / h) on September 11 . After fluctuating in intensity for four days , Isabel gradually weakened and made landfall on the Outer Banks of North Carolina with winds of 105 mph (165 km / h) on September 18 . It quickly weakened over land and became extratropical over Pennsylvania the next day . The storm 's center remained to the south and west of Delaware , and was about 175 miles (280 km) from Delaware at its closest approach . At that time , Isabel was a strong tropical storm located in central Virginia .

The effects of the hurricane were compounded by flooding caused by the remnants of Tropical Storm Henri days before . Moderate winds of up to 62 mph (100 km / h) downed numerous trees , tree limbs , and power lines across the state , leaving at least 15 @, @ 300 without power . Numerous low @-@ lying areas were flooded due to high surf , strong storm surge , or run @-@ off from flooding further inland . The passage of Hurricane Isabel resulted in \$ 40 million in damage (2003 USD , (\$ 51 @. @ 5 million 2016 USD)) and no casualties in the state .

= Preparations =

On September 16 , 44 hours before Hurricane Isabel made landfall on the Outer Banks of North Carolina , the National Hurricane Center issued a tropical storm watch for the entire coastline of Delaware . The National Hurricane Center also briefly issued a hurricane watch for the coastline . On September 17 , 26 hours before Isabel made landfall , the watches were changed to tropical storm warnings . While over the western Atlantic Ocean as a Category 5 hurricane , forecasters predicted Isabel would move northwestward and within five days be at a position 155 miles (250 km) south @-@ southeast of Lewes as a 115 mph (185 km / h) major hurricane . Though located within the cone of uncertainty , all subsequent forecasts predicted a landfall on North Carolina with the hurricane passing to the west of the state .

Governor Ruth Ann Minner declared a state of emergency prior to the arrival of the hurricane . The declaration also included for the activation of the Delaware National Guard to assist in hurricane related duties . Minner mandated residents in 13 low @-@ lying areas of Sussex County to evacuate . In all , 787 people evacuated across the state to seven emergency shelters set up by the American Red Cross . Officials began recommending visitors to leave potentially affected areas by three days before Isabel made landfall . Governor Minner mandated all schools to be closed on the day of the hurricane 's landfall , and recommended all residents in mobile homes to evacuate and for businesses to close . The University of Delaware preemptively canceled classes . The Cape May @-@ Lewes Ferry closed for several days in anticipation of the storm . The Delaware Department of Transportation planned to place restrictions on state roads in the event strong wind gusts were recorded .

= Impact =

Strong swells from the hurricane produced a moderate storm surge which peaked at 8 @. @ 66 feet (2 @. @ 64 m) in Reedy Point . Tides were only slightly above normal , though high surf on top of the storm surge resulted in beach erosion , particularly in Sussex County . Waves of 17 feet (5 @. @ 18 m) in height were reported near the coastline . The high waters breached dunes south of Bethany Beach , and several locations along Delaware Route 1 were flooded . The large circulation of Isabel produced gusty winds across the state , including a maximum of 70 mph (113 km / h) in Delaware Pilot Tower in the Delaware Bay . Onshore , gusts peaked at 62 mph (100 km / h) in Lewes , where sustained winds of 53 mph (85 km / h) were also reported . Precipitation was heavy but sporadic , amounting to a maximum of 1 @. @ 88 inches (48 mm) in Greenwood . Heavy

rainfall further inland resulted in moderate to severe river flooding . The Christina River at Cooch 's Bridge crested at 2 @. @ 38 feet (0 @. @ 725 m) above flood stage , and the Red Clay Creek at Wooddale crested at roughly 4 inches (100 mm) above flood stage . Runoff from streams were slowed due to the approaching storm surge from the hurricane .

At the Delaware Breakwater East End Lighthouse in Lewes , strong waves destroyed the lower deck of the lighthouse , while powerful winds blew out the watchroom window . A group of eight volunteers quickly repaired the damage . Moderate wind gusts knocked down numerous trees , tree limbs , and power lines , causing widespread power outages in the state . Conectiv Energy reported the power outage associated with the hurricane as one of the worst in its history . At least 15 @, @ 300 were left without power during the worst of the hurricane , including 2 @, @ 500 in the capital city of Dover . Due to the power outages , only one traffic light north of the city of Wilmington was operational . The strong winds also resulted in the Delaware River and Bay Authority to reduce the speed limit on the Delaware Memorial Bridge to 40 mph (65 km / h) . 62 roads throughout the state were initially closed due to flooding , downed trees , or downed power lines . Eight roads , including U.S. Route 13A remained closed for several days , primarily due to flooding . Flooding affected the cities of Seaford , Blades , Bayview , and Augustine Beach , with residents in the latter two being forced to evacuate due to severe flooding conditions . Several state parks reported downed trees and damage . Damage in the state totaled \$ 40 million (2003 USD , \$ 44 million 2006 USD) , and there were no deaths in the state as a result of the storm .

= = Aftermath = =

On September 20 , two days after Hurricane Isabel passed the state , Governor Ruth Ann Minner made a formal request for a federal disaster declaration for the state . Later that day , President George W. Bush issued a federal disaster declaration for Delaware , one of twelve disaster declarations for the state . The declaration allowed for the use of federal disaster funds and emergency resources to help families and businesses recover from the effects of Hurricane Isabel . State and federal officials opened a disaster recovery center in Georgetown and Wilmington to assist individuals who suffered losses from Isabel and the remnants of Tropical Storm Henri just days before . 761 people visited the recovery centers before they closed . One week after the disaster declaration , residents began receiving checks for those who applied for aid . By about two months after the passage of Hurricane Isabel , 659 residents applied for assistance , with slightly over \$ 1 million (2003 USD , \$ 1 @. @ 1 million 2006 USD) being distributed to the victims . 141 loan applications were received , as well . FEMA distributed about \$ 2 @. @ 5 million (\$ 3 @. @ 22 million 2016 USD) in Small Business Administration loans , and also received 183 public assistance loans for repair or replacement of public facilities .

A total of 35 power crews , along with outside contractors , worked to restore power . By two days after the storm , 2 @, @ 000 remained without power in scattered areas . Various locations in the city of Dover were without power for about 30 hours . There , the removal of debris exceeded the capacity of the local landfill , resulting in officials temporarily storing it elsewhere . Over 200 volunteers donated time , food and money to provide hot meals for individuals and families affected by the storm . Support teams provided by county officials transported over 300 tons of ruined accessories from the storm , such as appliances , carpets , and drywall , to local landfills . Qualifying for two NASCAR races in Dover were cancelled due to the hurricane , although the races went on as scheduled .