



Hurricane Florence response and recovery

Hurricane Florence made landfall in southeastern N.C. on September 14, impacting the central and southern regions of the coast. In fact, the eye of Hurricane Florence passed directly over our Masonboro Island and Zeke's Island Reserves. Every family, program, and business have their own Hurricane Florence experience, and they are varied. Here, we share some of ours.

In preparation for Hurricane Florence, all Reserve sites and offices closed before the storm approached the coast. Reserve sites were closed due to the threat of damage from the storm, and to protect public safety from the potential risk of downed trees, flooding and other hazards. Office closures were coordinated by the partner agencies that operate the office facilities.

Reserve sites and offices remained closed after the hurricane passed. During this time, staff worked to assess the sites, respond to information requests, and handle program logistics under challenging conditions to ensure that regular operations could resume as soon as possible.

The northern sites - Currituck Banks, Kitty Hawk Woods, Buxton Woods, and Buckridge Reserves - received little to no damage and offices reopened immediately following the storm.

The sites in the central and southern portions of the state were more impacted by the hurricane. Generally, increased wave action and water level caused erosion and shifting sand and mud on oceanfront and estuarine shorelines. Vessels were pushed onto the Rachel Carson and Masonboro Island Reserves. A large amount of marine debris including lumber, dock pieces, and a variety of plastics accumulated on the Rachel Carson, Masonboro Island, and Permuda Island Reserves. The Reserves also had many downed trees, particularly at the Bald Head Woods Reserve; missing signs; and damage to the boardwalk at the Rachel Carson Reserve.

Eight of the ten Reserve sites reopened on September 24 following site assessments; Permuda Island and Bald Head Woods Reserves remain closed to protect public safety. Offices at the NOAA Beaufort Lab and University of North Carolina at Wilmington's Center for Marine Science opened as repairs and power were restored.

Rebecca Ellin, Program Manager for the Reserve was impressed with the work of Reserve staff and partners. "I want to thank all of the Reserve staff who worked extremely hard preparing for and responding to, and continue to work on our recovery from Hurricane Florence," Ellin said.



The Masonboro Island Reserve shoreline after Hurricane Florence.

North Carolina Coastal Reserve & National Estuarine Research Reserve

“I also want to thank our partners and colleagues across the state and nation who provided support and sent well wishes during the storm, and to our partners and volunteers now helping with recovery. “

Reserve programming was impacted by Hurricane Florence. K-12 student field trips, teacher workshops, public education programming, and Coastal Training Program workshops were cancelled, postponed, and rescheduled. Research staff are measuring storm impacts on several current research projects including performance of marsh sills and living shorelines constructed of alternative substrates. Water quality monitoring equipment remained deployed at the Masonboro Island and Zeke’s Island Reserves during the storm and staff are evaluating those data – stay tuned for trends. Stewardship staff are addressing the site-related items described above.

The Reserve also contributed technical expertise to an emergency response operation to minimize environmental damage from over 350 vessels that were stranded along the N.C. coast. The operation was primarily funded by FEMA and led by the United States Coast Guard, N.C. Wildlife Resources Commission, and N.C. Department of Environmental Quality, under which the Reserve program is housed in the Division of Coastal Management. This effort partially addressed the vessels grounded on the Reserve sites and future efforts will address the remaining vessels.



Many boats washed onto the Rachel Carson Reserve after the hurricane.

safety and respect vessel owners’ personal property. Visitors should also avoid marine debris that accumulated on the sites.

Recovery work will continue, for some time. “I am encouraged by the progress,” Ellin says. “My thoughts are with our Reserve and coastal management family and our local communities as we all continue to recover from Hurricane Florence.”

The Division is working with the N.C. Coastal Federation to pursue federal funding assistance to address marine debris on state-owned properties, including Reserve sites.

Visitors should continue to exercise caution when visiting the sites and be aware of the risk of potentially hazardous conditions associated with storm damage. Visitors should refrain from disturbing the vessels that remain grounded to protect personal