

NCDOT's Flood Warning System Earns National Award

RALEIGH – The N.C. Department of Transportation has won a 2024 Environmental Excellence Award for its flood warning system that allows the agency to better respond to hurricanes and other storms.

The NCDOT began developing the advance-detection system after Hurricane Florence caused more than 2,500 roads to close in 2018. The system allows NCDOT and its partners to deploy resources more efficiently before a storm, recover more rapidly after it and adapt to changing climate conditions.

The department was one of 14 recipients from across the country that were notified this week they had won the award presented by the Federal Highway Administration. The award recognizes transportation projects, programs or organizations that incorporate environmental stewardship and partnerships with other agencies. Specifically, NCDOT and its partners were recognized for the innovative approach to flood resilience through real-time monitoring and predictive monitoring.

"This innovative system not only helps keep our transportation network more resilient against future flooding, but it also has the potential to save lives," said Matt Lauffer, NCDOT's state hydraulics engineer. "We can use this information to better inform our emergency partners and the public about potential flooding problems."

NCDOT's system is a partnership with the N.C. Department of Public Safety, the U.S. Department of Homeland Security's Coastal Center of Excellence at the University of North Carolina-Chapel Hill, and other consulting partners.

The system uses computer modeling programs that receive various kinds of data, such as rainfall totals and river forecasts. It also relies on a network of stream gauges that monitor

2,200 miles of state roads and almost 16,000 bridges and culverts across the state. During a storm, the system automatically generates email or text alerts to warn NCDOT maintenance and bridge crews of potential problems.

Last year, the flood-warning system was named a top-12 finalist for two prizes in the America's Transportation Awards competition. People can learn more about the system on [this NCDOT webpage](#).

