

# NEWS RELEASE

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## **Researchers share results from study to evaluate how erosion may impact transportation systems on Ocracoke Island**

*Information session at Ocracoke Community Center scheduled for Sept. 10, 2025.*

CHAPEL HILL, N.C. — Researchers at the University of North Carolina at Chapel Hill recently completed a study conducted through a cooperative agreement with the Cape Hatteras National Seashore (Seashore) to evaluate the effects of several adaptation strategies related to transportation and resource management challenges on Ocracoke Island. Researchers from North Carolina State University, Duke University, East Carolina University and representatives from the North Carolina Department of Transportation, Hyde County and Tideland Electric Membership Corporation also participated in the multi-year study.

The evolution of Ocracoke's dynamic barrier island, in response to storm events and sea level rise, presents challenges to the maintenance of the transportation corridor that spans the length of Ocracoke Island. The chronic effects of storms, sea level rise, and coastal processes may worsen shoreline erosion, loss of island area, and high-tide flooding in the future.

Transportation strategies that have been used for decades to maintain N.C. Highway 12 and the South Dock Ferry Terminal can impact Seashore lands and may have inadvertently contributed to the low elevations and narrow island widths that currently make transportation susceptible to disruption from multiple sources including ocean overwash, soundside flooding and heavy precipitation events.

The multi-year study sought to explore the impact of different transportation options on the width, elevation, and persistence of a national seashore barrier island along a historically vulnerable portion of shoreline. Model scenarios simulated the effects of using a status-quo management approach (e.g. continuing to maintain the existing location of the highway), conducting beach nourishment project(s), and exploring how the barrier island would migrate in response to other transportation alternatives.

**An information session to provide an overview of the project, review the modeling results and solicit feedback from the public is scheduled from 1-2:30 p.m. Sept. 10, 2025, at the Ocracoke Community Center.**

To learn more about the study, including additional opportunities to provide feedback, visit <https://c-coast.org/ocracoke-adaptation-study>.



Aerial photo of State Highway NC 12 and exposed sand bags on the north end of Ocracoke Island on July 16, 2025.