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NOAA's Carteret County investments, Beaufort lab delivers millions in value

KATHLEEN HOPKINS, NEWS-TIMES | Jul. 17, 2025, Updated Jul 18, 2025 | 1

Carteret day special crew of Pivers Island, home to Beaufort Laboratory facility. Credit: NOAA.

CARTERET COUNTY – The nation's second oldest marine science laboratory, the National Oceanic and Atmospheric Administration (NOAA) Beaufort Lab, is slated to close, as outlined by NOAA's proposed Fiscal Year 2026 budget. Former NOAA employee Ruth Kelly revealed the lab already lost 11 people from its roughly 50-person staff to federal layoffs enacted by the Department of Government Efficiency, ultimately hinding that, increasing the lab's efficiency.

The Trump administration's recently passed budget reconciliation bill, called the "Big Beautiful Bill," also rescinds portions of NOAA funding appropriated through the Inflation Reduction Act.

Are you a NOAA/NMFS employee or affiliated contractor in Carteret County who was part of federal layoffs? We'd like to hear from you.

You can reach Katherine Hopkins at kathleenhopkins@carteret.com or, securely, via Signal (Username: kah.10) on a non-work device.

You are also invited to use the below QR code to fill out our secure form on a non-work device (all data collected is confidential, encrypted in transit and stored securely).

Ocean Kills in 5th Lost Autumn. Credit: NOAA.

According to Kelly, "This will have a significant impact on our work to keep communities safe from sea level rise and extreme weather events on the coasts. It also stops progress on the development and expansion of new technologies to address these coastal hazards."

Since the Gilded Age, Carteret County has reaped increasing benefits from the Beaufort lab's presence, making its proposed closure at the more daunting for the area's environmental, economic and cultural survival.

National Centers for Coastal Ocean Science (NCCO)

Originally a fisheries lab, the Beaufort lab is owned and operated by NOAA's National Centers for Coastal Ocean Science (NCCOS) since 1999. According to Kelly, about 45 of the 150 Beaufort Lab employees are designated NCCOS staff, and NCCOS scientists in Beaufort make up about half of those who regularly monitor, analyze and forecast Harmful Algal Blooms (HABs) nationwide, protecting fishermen and bargainers from Florida to Alaska from the toxins produced by blooms.

Locally, NCCOS scientists supported national defense by restoring salt marshes on Marine Corps Base Camp Lejeune (2016); they supported flood mitigation in Bogue Sound and Cape Lookout by developing and implementing an instrument that models shoreline changes after storms (2015) and they've also learned to use oysters as shields against floods and erosion (2015).

It was due to the group's use of marshes, or living shorelines, as protection from flooding that Pivers Island withstood Hurricane Florence's inundating storm surges in 2018.

The entire NCCOS budget, including $17.7 million allocated to Beaufort, will be terminated. The proposed budget will provide $4.3 million for HABs forecasts, to be carried out by other National Ocean Service programs — underlining the importance of NCCOS' work in the Beaufort lab.

With the cuts, NCCOS would no longer be able to operate the Beaufort lab, leaving the costs to National Marine Fisheries Service (NMFS) or other NOAA offices. Moreover, it is cheaper for NMFS to take over the Beaufort lab in NCCOS' absence, but, "NMFS doesn't have the money to own the lab."

NCCOS Beaufort Lab Function	NCCOS Beaufort Lab Specific Activities	Funding for Beaufort Lab function, FY 2024
Climate Resilience	Minimize shoreline erosion; restore oyster reefs; reduce nuisance flooding at Battleship North Carolina Park with nature-based solutions	About $1 million
Harmful Algal Bloom Detection & Forecasting	Develop and deliver Harmful Algal Bloom forecasts; study algae species; conduct water sampling and analyses to understand algal bloom habits; develop prevention efforts	About $1.7 million
Siting for Offshore Wind Development	Partnership between NCCOS, Bureau of Ocean Energy Management (BOEM), stakeholders and indigenous communities to identify locations for offshore wind harvesting	About $6.4 million
Habitat Mapping & Characterization	Provide climate-controlled storage for 'uncrewed systems' like drones, underwater vehicles that map seafloor; develop and study seafloor maps using uncrewed systems; data guide decision-making to protect or manage locations using sea floor maps	About $2.8 million
Coral Restoration	Conduct National Coral Reef Monitoring Program survey; support Mission: Iconic Reefs in Florida Keys; analyze large images of sea floor using AI and machine learning to identify areas in need of restoration	About $1.8 million
Deep Coral Restoration	Lead research cruises and habitat mapping in Gulf of Mexico; support studies on ecosystems impacted by 2010 About $4 Million Deepwater Horizon Oil Spill	

National Marine Fisheries Service (NMFS)

NMFS, founder of the Beaufort lab, is a NOAA line office tasked with sustainable fisheries management. The Beaufort Lab contains multiple NMFS functions: the Southeast Fisheries Science Center (SEFSC), Southeast Regional Office and Habitat Conservation Field Office. Approximate 45 Beaufort Lab staff are under NMFS, according to Kelly.

The Beaufort lab's SEFSC staff conduct critical surveys like the Southeast Fishery Independent Survey (SEFIS) Program, assessing spreads and abundance of snapper groups fish, as well as the 1973-originated Southeast Region Headboat Survey, the Southeast Atlantic's longest running saltwater recreational fishing survey.

Those in the Beaufort lab's Southeast Regional Office implement national habitat protection programs in North Carolina and nearby stretches of the Atlantic Ocean, which ultimately support fishermen's livelihoods for the long term. They also collaborate with state and federal development projects to protect fish, like N.C. Department of Transportation's infrastructural planning, port expansions and Federal Energy Regulatory Commission's fish habitat restorations near dams.

North Carolina Fisheries Association Executive Director Glenn Skinner helped clarify NMFS' importance to the Crystal Coast, "NOAA is a broad agency, but [NMFS] plays a huge role in National Fishery stock assessments," Skinner continues, "We appreciate them, I think sometimes we question their stock assessments, I don't know how you'd do it without them."

"If you did away with [NMFS], what would replace it?" Skinner asked.

"Fisheries management isn't where it needs to be. In every stock assessment, something's missing," Skinner continued. "NMFS' stock assessments are already slow, and they just make them slower." Overall, Skinner emphasized, "We don't wanna see folks lose their jobs and we don't wanna lose the research they do," underlying NMFS' necessity in the area.

Per the proposed budget, NMFS will lose 33% of its funding, leaving most of the main functions of NMFS in the Beaufort Lab largely unscathed, it targets NMFS' Marine Conservation, species recovery and interjurisdictional grants for total elimination. NMFS Habitat Conservation projects have, from 2000 to 2019, effectively restored 584,619 acres of oyster reef, tidal and freshwater wetlands, maritime forests and other habitats in Carteret County, alone, and have brought in upwards of $1.2 million to the local economy from tourist funds. Without the Beaufort Lab's habitat restoration, coastal erosion will go unmitigated and fisheries habitats will continue to degrade.

NMFS Beaufort Lab Function	NMFS Beaufort Lab Specific Activities	Beaufort Lab funding for function, FY 2024
Fish Aging and Life-history studies	Receive ~35,000 fish samples, process ~22,000 per year; estimate number of fish, study how populations sustain About $8.8 million themselves	
Fishery Independent Surveys, Advanced Survey Technology and Analytical Automation	Support South Atlantic stock assessments for ~15-20 species; conduct South Atlantic Deepwater Longline and Southeast Fishery Independent Survey; develop and deploy Beaufort Bridgenet VirtNystagmiation Sensing Program; develop underwater vehicles & aerial drones for surveys	About $3.5 million
Marine Mammal & Turtle Conservation	Study behaviors & populations of sea turtles; support turtle habitat reduction projects; collaborate with universities	About $0.6 million
Stock Assessments	Conduct stock assessments of federally regulated species in South Atlantic, including red snapper, black sea bass, Atlantic menhaden and dwarfpygmy grouper	Data not available
Fishery Dependent Surveys	Conduct Southeast Region Headboat Survey since 1972; add to Southeast Data, Assessment, and Review	Data not available
Menhaden Program	Support monitoring and sampling of commercial fisheries for Menhaden	Data not available

North Carolina Coastal Reserve/National Estuarine Research Reserves (NCCR/NERR)

The North Carolina Coastal Reserve/National Estuarine Research Reserves (NCCR/NERR) is also held in the Beaufort Lab, with about 10 employees from North Carolina's Department of Environmental Quality. NCNERR is a federal-state partnership program between NOAA's Office for Coastal Management (OCM) and N.C.'s Division of Coastal Management, while NCCR is the State's own reserve network, both of these networks oversee and protect estuarine reserves nation- and statewide.

NCCR/NERRS, locally, serve the main functions of:

1. Stewardship, or protection of natural resources and monitoring of conditions to ensure safe public access of sites.

2. Education, or offering field trips and summer camps with the NC Maritime Museum for K-12 student, as well as, continuing education credits for educators.

3. Training, or leading workshops and programs for coastal decision-makers in Carteret and 20 other Coastal Area Management Act counties.

4. Research, or using reserve sites as 'living laboratories,' for consistent monitoring and data collection to inform decision-making.

The Reserves they protect, namely the Rachel Carson Reserve, also provide a slew of benefits to the Crystal Coast.

Rebecca Ellin, NC DCM's Coastal Reserve Program Manager at the Beaufort Lab, revealed that 18 commercial businesses and institutions brought $1.477 million to those NC reserve sites in 2024, yielding an estimated minimum profit of $847,023 for those activities—16 of those businesses, Ellin shared, "depend directly on the Reserve sites for income."

380 real estate professionals also received continuing education credits, Ellin explained, "through free NC National Estuarine Research Reserve Training Program workshops on barrier islands and being shoreline," equating to "$13,000 in cost-savings delivered to North Carolinians."

She added, "More research permits have been issued for projects conducted at the Rachel Carson Reserve than at any other reserve site," drawing even more money into the area from researchers who conduct studies locally.

Ecologically, the Rachel Carson Reserve, "provides [...] benefits that support health and well-being, water quality, and recreational, commercial, and subsistence fishing" and the Reserve's being both an estuary and barrier island makes it a "a physical buffer for the Town of Beaufort and Pivers Island from Beaufort inlet waves, which is particularly important during storms and hurricanes," according to Ellin.

Ellin disclosed that $880,967 of NCCR/NERRS funding comes from NOAA's NERRS budget to cover research, education and training at four NC sites, including the Rachel Carson Reserve.

NCCR/NERRS in Beaufort received an additional $70,426 from NOAA Coastal Zone Management Grants to support NC's six other state reserve sites. When the reserve matches federal funds to an extent, the vast majority of funds that keep reserve sites, like the Rachel Carson Reserve, functional, habitable and profitable come from NOAA.

Both NOAA NERRS and Coastal Zone Management Grant budgets are terminated in NOAA's proposed FY 2026 budget, jeopardizing the continued preservation of these sites and, consequently, the economic, environmental and educational benefits they deliver locally.

NC Sea Grant

North Carolina Sea Grant, one of 34 state-federal partnerships between NOAA's National Sea Grant and coastal states, funds researchers "who monitor our coastal systems and solve difficult problems," says Rebecca Jones Deaton, NC Sea Grant's Communications Director.

While NC Sea Grant administrators did not provide values of their federal funding, nor their budget, they did explain that NC Sea Grant managed to bring in $4 million of investments to North Carolina last year, leveraging "3 dollars for every 1 dollar in federal funding," according to Jones. She explained NC Sea Grant "partnered with 84 communities to help them solve coastal issues such as flooding or harmful algal blooms and about 4,500 people attended our trainings or workshops on everything from how to be a commercial fisherman to organic farming practices to living shoreline landscaping," illustrating the breadth of the work done through Sea Grant funding that ultimately benefits coastal NC.

NC Sea Grant holds a particular prevalence in Carteret County, "where there is a concentration of stewards and researchers, NC Sea Grant funds and partners with all of the university marine labs located in Carteret County," according to Jones. At least 15 of NC Sea Grant's 39 core funded research projects, from 2010 to 2024 funding cycles, were completed by researchers who work from the Duke University Marine Lab, UNC Institute of Marine Sciences, NC State's CMAST and Carteret Community College.

Even more Sea Grant-funded studies are conducted in or around Carteret County. One such was, Katherine Anarella, NC State Professor, and Myuki Hinzs, UNC Assistant Professor, recent project that improved accuracy of flood measurements by deploying land-based sensors across N.C.'s coast, including in Beaufort and Sea Level. It is studies like these that keep already vulnerable Carteret County from enduring further environmental and economic degradation.

The National Sea Grant funding is also eliminated in NOAA's proposed budget. However, Jones affirmed, "Thanks to our supporters, Congress restored our funding with bipartisan support during a similar situation in the first Trump administration." She notes that Congress created the Sea Grant program, therefore, "Elimination of the budget does not mean elimination of the program," said Jones, offering hope for the continuation of research funding.

Between NCCOS, NMFS and NCCR/NERRS, Carteret County has received at least $24.7 million in direct investments and lab budgets — not accounting for the added revenue of researchers' and scientists' presence in the area, nor the revenue created as a result of the value added by NOAA's local interventions.

Though their investments may not be immediately visible at first glance, one can find the value of NOAA's work in the health of our waters, the healthy of our coastline and the abundance of our fisheries. For over a century, this area has enjoyed the benefits of NOAA's presence, making it nearly impossible to imagine a Carteret County without the Beaufort Lab.

Tags

Beaufort Laboratory | Beaufort Lab | Carteret County | Carteret County Commissioners | Carteret County Economy | Carteret County Government | Carteret County Tourism | Carteret County Visitors Bureau | Climate Change | Climate Resilience | Coastal Research | Coastal Resilience | Coastal Tourism | Crystal Coast | Dr. Katherine Hopkins | Fishery Independent Survey | Fishery Dependent Survey | Fishing | Fishing Industry | Fishing Tourism | Fishing Visitors | Fishing Visitors Bureau | Fishing Visitors Bureau Tourism | Fishing Visitors Bureau Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism Tourism | Fishing Visitors Bureau Tourism | Fishing Visitors Bureau Tourism | Fishing Visitors Bureau Tourism | Fishing Visitors Bureau Tourism | Fishing Visitors Bureau Tourism | Fishing Visitors Bureau Tourism