

OUR COAST



North Carolina
Coastal Federation
Working Together for a Healthy Coast

OUR GOALS FOR A
HEALTHIER COAST IN 2025

Dear Friends and Supporters,

It's hard to believe that February marks my one-year anniversary with the Coastal Federation. If I had to pick one thing that has impressed me the most over this short time, it would be the incredible number of people engaged from across the coast and beyond in our work. From volunteers to supporters, partner organizations, government agencies and the contractors working with us on our oyster, water quality, salt marsh and marine debris projects, the Coastal Federation is far larger than our staff. It is an extensive network of enthusiastic people working together to protect the coast.

Due to the sheer size of this network, the biggest challenge in my first year has been meeting and spending quality time with all of the people and partners who contribute to the Federation's success. I've had numerous one-on-one meetings with people across the coast, in Raleigh and beyond. We also hosted a number of special events this year so that I could meet as many of our supporters and volunteers as possible. And I made several site visits to meet with key partners involved in our large-scale restoration projects. I've been so impressed with the energy that our partners and supporters bring to our work. That positive energy is contagious and makes us all feel a little more connected.

Now that I'm a little more settled in, I'm looking forward to spending even more time out in the field in 2025 and getting more involved with our large-scale restoration projects, marine debris removal, construction of oyster reefs and living shorelines, and flood mitigation and wetland restoration projects. Our restoration programs achieved so much in 2024. For example, in partnership with the N.C. Coastal Land Trust, the Federation took ownership of over 2,000 acres on the Newport River, setting the stage for a multiphase, large-scale wetland restoration project in the coming years. In addition, our team convened a number of federal, state, and local partners to produce the first N.C. Salt Marsh Action Plan and supported the construction of almost four miles of living shoreline projects. We also supported the construction of 40 acres of new oyster reefs at Maw Point and Brant Island, expanding the N.C.

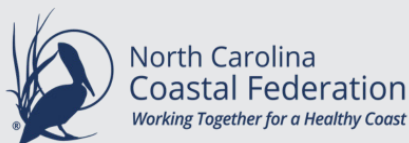
oyster sanctuary network to 17 sanctuaries covering 449 acres. Our team also led coastwide crews of commercial fishers to remove an additional 265 tons of marine debris and 45 abandoned vessels, bringing the total of marine debris collected since Hurricane Florence (in 2018) to almost 4.1 million pounds, and our education programs reached over 3,000 students this year.

This edition of Our Coast reviews many of these accomplishments and also sets out our priority goals for 2025 related to our important coastal protection and restoration work. In addition, this year we will spend time reviewing our youth education programming and will look for opportunities to expand and broaden our reach in support of K-12 and undergraduate and graduate student education on coastal science, engineering and policy. We will also be conducting a comprehensive review of our land acquisition and management strategies. With over 15,000 acres currently held in protection by the Federation, we will be working with partners and seeking input on opportunities to enhance public access and expand educational opportunities associated with our existing and future land holdings.

Finally, we are looking to expand our community engagement programs and events, especially as we launch the construction of our new community event center on Highway 24 in Newport. Our news stories through the Coastal Review Online and our print and digital communications are outstanding, but engaging directly with coastal communities, residents and visitors is also essential. I hope we can do even more in the coming years to let people know about what we are working on in their community, and to make them aware of the issues and needs to safeguard the coast in the years ahead.

In the end, we all want the same result: a thriving coastal economy and clean, healthy coastal waters and habitats. It will take all of us working together to sustain that vision for future generations.

Braxton Davis





Goal: Enhance Coastal Water Quality & Reduce Flooding

Intense rainstorms cause flooding and water quality degradation as runoff funnels pollutants into our coastal waters. The impacts are magnified by altered landscapes that channel rain instead of storing and absorbing it. Reducing the volume and rate of stormwater runoff is key to minimizing flooding and improving coastal water quality.

Clean coastal water is the foundation of our coastal economy and the ecosystems we depend on for work and recreation. In 2024, the Federation's Water Quality team made significant progress toward our water quality goal by implementing several projects including:

- Restored 10 acres of wetlands by planting marsh vegetation at Carolina Beach State Park.
- Retrofitted 35 asphalt parking stalls with permeable pavement at UNCW's Randall parking lot to reduce stormwater runoff by 81,500 gallons per average rain event.
- Installed two rain gardens in the Ocean City Community, effectively decreased stormwater runoff by 5,000 gallons per average rain event.
- Secured more than 2,000 acres on the Newport River to initiate a three-phase wetland restoration project.
- Designed and permitted a 1-acre Donor Marsh at North River Wetlands Preserve, with construction and planting scheduled for spring 2025.
- Kickstarted the Coastal Stormwater Solutions Program to address failing coastal stormwater systems through a pilot cost-share program.

As we look ahead to 2025, the Federation's Water Quality team will continue to implement the initiatives outlined in our watershed restoration plans for Lake Mattamuskeet, Stump Sound, and Bradley Hewletts Creek. This work includes projects like creating and implementing an agricultural cost-share program for drainage projects that will decrease runoff to Lake Mattamuskeet and installing a parking lot retrofit at Mad Mole Brewing and stormwater reduction projects at UNCW in the Bradley Creek Watershed. This year, we also hope to expand the Coastal Stormwater Solutions retrofit cost-share program.

The Federation remains committed to protecting our coastal water quality through various efforts, including land acquisition and restoration, preventing development in vulnerable areas, and providing restoration opportunities for vulnerable communities.





Goal: Protect and Restore Salt Marshes to Foster Thriving Human & Natural Coastal Communities

North Carolina has one of the largest and most productive estuarine systems in the United States. With around 220,000 acres of salt marshes, our estuaries provide important habitats for fish, help improve water quality, and help protect coastal communities from flooding. In addition, healthy marshes store large amounts of carbon, holding back its release into the atmosphere and aiding in our climate resiliency.

Last year, the Federation's Salt Marsh program team launched a five-year Salt Marsh Action Plan to advance salt marsh protection and restoration and facilitate salt marsh migration to minimize loss of the function, benefits, and acreage of salt marsh through 2050 and beyond. This plan implements our state portion of the regional South Atlantic Salt Marsh Initiative. In addition, the team made great strides to begin implementing the plan through the following:

- Established the Salt Marsh Steering Committee and Stakeholder Advisory Committee to support the implementation of both the NC Salt Marsh Action Plan and the South Atlantic Regional Salt Marsh Plan, focusing on identifying key projects, goals, and partnerships.
- Completed six large-scale living shorelines totaling 2.98 miles across various locations, including Black Duck Island and Fort Macon State Park.
- Constructed 37 smaller living shorelines amounting to 0.76 miles through the Living Shoreline Cost-Share Program.

- Provided training and technical demonstrations to 54 participants at Carteret Community College's Living Shoreline Academy.
- Presented at the Restore America's Estuaries conference with NC Sea Grant and East Carolina University, and at the International Conference for Shellfish Restoration to showcase our living shoreline projects at Marine Corps Air Station New River and Marine Corps Base Camp Lejeune.
- Secured an Environmental Protection Agency (EPA) grant that will support the restoration and protection of approximately 600 acres of high-carbon coastal habitats, ensuring carbon remains stored in select salt marshes.

In 2025, the Salt Marsh team will prioritize implementing the Salt Marsh Action Plan, by developing strategic plans and pursuing funding to implement the critical actions outlined within the plan. The living shoreline team will continue its highly successful cost-share program as well as continue to work with partners on large-scale shoreline stabilization projects. This year staff will also begin to work with partners to implement the EPA-supported 600-acre coastal habitat restoration project.





Goal: Ensure an Abundance of Oysters that Support the Environment & Economy

Our native eastern oyster (*Crassostrea virginica*) is one of the most important species in our estuaries. Oysters benefit North Carolina's coastal ecology and economy. These benefits can be summarized and referred to as the three "Fs", for short: food, filter, and fish habitat. They support a viable commercial and recreational fishery, filter pollutants from the water, and provide shelter for fish and other sea life. These environmental benefits, in turn, support jobs and provide economic opportunities for coastal communities.

In 2024, the Federation's Oyster team worked up and down the coast to expand oyster shell recycling programs, increase oyster habitat through the construction of oyster sanctuaries, and much more, including:

- Completed the 2023 State of the Oyster Report which includes accomplishments by 30 state partners to protect and restore oysters.
- Constructed 40 acres of new oyster habitat at Maw Point and Brant Island, expanding the oyster sanctuary network to 17 sanctuaries covering 449 acres. The sanctuaries now support 480 million oysters that filter 2.6 trillion gallons of water daily.
- Collaborated with RTI International to complete an economic analysis of the last ten years of oyster sanctuary construction. The final analysis indicates that for every \$1.00 invested in oyster sanctuary work, there is a \$1.71 return on investment.
- Partnered with NC State University and NC Central University to engage students and provide opportunities for four next-generation marine

scientists to conduct oyster-related research and advance their graduate degrees.

- Completed an oyster shell recycling assessment that summarizes the Federation's shell recycling efforts and identifies expansion opportunities.
- Recycled more than 5,336 oyster shells.
- Formed the Aquaculture Hub Advisory Committee, a new committee that guides the design and functionality of the new Aquaculture Hub that once built will support oyster and clam growers in Carteret County.

Over the course of 2025, the Oyster team will continue to work alongside partners to build an additional 40 acres of oyster sanctuary in Pamlico Sound and construct 4 acres of oyster habitat in the southeast coastal region. An additional 10 acres of oyster habitat will be created by working with oyster farmers. This year we will also build the first shellfish aquaculture hub in Carteret County after years of planning, with construction set to begin this spring. The oyster team will also recycle an additional 14,000 bushels of oyster shells, priming them for future oyster restoration projects. Ongoing efforts to support the NC Oyster Trail will also continue as well as collaboration with NC State and North Carolina Central University.



MARINE DEBRIS



Goal: Ensure the Coast is Free of Marine Debris

Marine debris often results from storm-damaged docks, houses, and other structures along the shoreline; lost fishing gear; poorly managed construction sites; abandoned boats; plastics contained in wastewater and stormwater discharges; and careless littering. The Coastal Federation advocates for more storm-resilient building and maintenance practices for docks and piers and promotes improved treatment and disposal of wastewater and stormwater to reduce the number of microplastics being discharged into coastal waters.

In 2024, the Federation made significant progress in the fight to reduce marine debris. With the help of contracted crews, the Federation has now removed more than 4.1 million pounds of debris since 2018. In addition, we advanced our marine debris goal through the following:

- Hosted a workshop to review the accomplishments of the North Carolina Marine Debris Action Plan and devise a strategy for updating the plan.
- Partnered with the National Oceanic and Atmospheric Administration (NOAA) Marine Debris Program to assist with updating the Southeast Regional Marine Debris Plan.
- Contracted commercial fishermen and women to remove 2,463 lost crab pots from coastal waters via the Lost Fishing Gear Recovery Program.
- Led coastwide crews of commercial fishermen and women to create 14 jobs to remove an additional 530,000 lbs. of marine debris bringing the total of marine debris collected since Hurricane Florence to almost 4.1 million pounds.

- Led the removal of 45 abandoned vessels totaling 400,000 lbs. from coastal waters - adding to the overall total of 151 removed by the Federation since 2021.

In 2025, the Federation's Marine Debris team will continue to advance marine debris prevention and removal efforts. This year we will update the North Carolina Marine Debris Action Plan, working with a number of federal, state and local partners on a collaborative course of action for debris prevention and removal efforts for the next five years. Throughout the year, large-scale marine debris removal will also remain a priority to remove an additional 500,000 pounds of debris. The team will also be working to create a toolkit for local governments to provide detailed information and assist with enforcement of the state's new building codes for docks and piers that will help make them more resilient to storms. We will also educate coastal homeowners on best construction practices for docks and piers. Finally, this year, the Federation and our partners will aim to remove 26 abandoned and derelict vessels while working to implement a long-term state program that would streamline the enforcement, removal, and prevention efforts.





The work of the Federation's Coastal Management team is deeply intertwined with and supports our work for clean water, thriving marshes and shorelines, abundant oysters, and a coast that is free of marine debris. The team works with diverse partners to engage them in sound coastal management decisions based on the best science and technology. In addition, they advocate for adequate funding for program implementation and enforcement, and support and strengthen the legal foundations that advance coastal protection and restoration.

In 2024, the Coastal Management team worked with the Southern Environmental Law Center to urge the US Army Corps of Engineers to remove pollution and hazards left by the Navy at its former site in Cape Hatteras National Seashore near Buxton. The team also contributed recommendations to the National Park Service and N.C. Division of Coastal Management for addressing erosion-threatened oceanfront structures, focusing on resources for demolition and relocation assistance, septic tank amendments, and insurance reform. In support of our efforts to address abandoned and derelict vessels, the team worked with the NC Wildlife Resources Commission, the NC Department of Environmental Quality and the NC Division of Coastal Management to draft recommendations for a formal state program addressing abandoned vessels.

The Federation also has a team of educators who are bringing the science of the coast to life. Whether it's hands-on learning experiences in a classroom, an informational cruise, presenting to a community group, or mentoring an intern, we are helping to develop knowledge of our coastal environment and an appreciation for the need to preserve these vital habitats. In 2024, our education team had an enormous impact on the coast. They worked with numerous groups and schools to reach more than 3,000 students, hosted 30 volunteer events, and engaged more than 2,500 people through community partners. They also engaged and mentored 13 undergraduate and graduate student interns.

Our program teams work diligently to fulfill our mission of "Working Together for a Healthy Coast." We aim to engage diverse audiences from various backgrounds and ages, to increase community involvement in

the important work of protecting and restoring our coastal environment.



Coastal Happenings

Did you know that the Coastal Federation has several properties that you can visit? Years of restoration efforts and preservation work have made places like Hoop Pole Creek Nature Preserve, Morris Landing Clean Water Preserve, North River Wetlands Preserve, Patsy Pond Nature Trail, and Bird Island Coastal Reserve beautiful places to immerse yourself in the true beauty of North Carolina's coast.

Visit one of these pristine areas today!





www.nccoast.org

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Two ways to celebrate!

1. Adopt for your sweetie

2. Adopt for a group & print
Valentines at home



Celebrate the Coast in 2025!

HATTERAS ISLAND OYSTER ROAST
February 15 in Hatteras Village
nccoast.org/hatterasroast

PELICAN AWARDS & TASTE OF THE COAST
September 20 in Morehead City
nccoast.org/Celebrate

ROAST FOR THE COAST
October 24 in Wilmington
nccoast.org/roast

Thank You

to all our members, supporters,
volunteers, and partners.

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makes our work possible!*

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