

NCCOAST.ORG | *Working Together for a Healthy Coast* | SPRING 2024

OUR COAST



North Carolina
Coastal Federation
Working Together for a Healthy Coast

SEE BACK COVER FOR DETAILS ON
THE 2024 PELICAN AWARDS
& TASTE OF THE COAST

LETTER FROM THE EXECUTIVE DIRECTOR

Dear Friends and Supporters,



During my first two months on the job, I have continued to learn about the positive impacts of the Federation and the great people we work with for a healthy coast.

The magnitude and successes of our many on-the-ground projects are inspiring. From large-scale restoration of salt marshes and tidal creeks at the North River Wetlands Preserve, to stormwater reduction projects, to our work with agricultural communities to improve water quality, the Federation's work with our partners and coastal communities continues to achieve real-world outcomes that we can all be proud of.

Site by site, I am getting to see and learn more about these impacts and to meet the volunteers and partner organizations that help us make it all happen. I've had the opportunity to get out in the field to see living shoreline projects totaling over seven miles along the North Carolina coast. And I've learned

how we've stepped up to the plate by organizing marine debris removal efforts that have pulled over three million pounds of debris from marshes and waters of our sounds and shorelines since 2018, to bring together partners to create almost 200 acres of oyster reefs, and to establish an oyster shell recycling program that has collected nearly 40 tons of shells for restoration projects just over the past five years.

Most recently, I was impressed to see our staff shine during a site tour the Federation hosted for congressional staff members representing U.S. Senators Tom Tillis and Ted Budd and representatives from the National Oceanic and Atmospheric Administration (NOAA) and the N.C. Department of Environmental Quality. The outdoor event showcased projects supported by NOAA through the Inflation Reduction Act, including our projects to remove abandoned and derelict vessels and marine debris, and the construction of oyster sanctuaries in the Pamlico Sound.

We are leading these and many other projects resulting in clear successes in protecting and restoring the NC coast. I also recognize that these large-scale projects, which often leverage federal and state funding and grants, infuse millions of dollars into our local economies through our subcontracts with area consultants, engineers, boat operators, and researchers, among others.

Through my initial site visits and tours, I have gained greater insights and appreciation for our work's environmental and economic impacts. I have also confirmed that the key to our success is the engagement of many partners and people from all walks of life. I am seeing that we are truly all in this together.

I hope you enjoy this edition of Our Coast, and I look forward to seeing you somewhere along the shore in the weeks and months ahead.

A handwritten signature in black ink, appearing to read "Breton O.", written over a light blue background.



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Lake Mattamuskeet

The Lake Mattamuskeet Watershed Restoration Plan was officially adopted in 2019 by the state to restore North Carolina's largest natural freshwater lake. Since then, the Coastal Federation has worked closely with Hyde County and a core stakeholder team to kick-start the implementation of the priority actions outlined in the plan.

The stakeholder group includes farmers, residents, federal and state agencies, local governments, and nonprofit organizations. This year, after receiving \$16.8 million in funding from the Natural Resource Conservation Service's Regional Conservation Partnership Program, the Federation has been continuing work to advance multiple large-scale restoration projects as identified by the core stakeholder team. These initiatives will positively impact the lake, which stands as a pivotal ecological and economic asset for the county. The goal of this collaborative project is to enhance the water quality of both the lake and the surrounding estuary, while also reducing flooding.

Key strategies for restoring Lake Mattamuskeet include:

- 1. Wetland Restoration:** Restoration of 1,000 acres of wetlands on prior converted agricultural lands, designed to filter pumped lake water and agricultural runoff.
- 2. Fairfield Drainage District Improvements:** Installation of a pump station and related infrastructure within the Fairfield Drainage District to reduce drainage into the lake and enhance cropland conditions.
- 3. Living Shoreline Construction:** Construction of a 4,506-linear foot living shoreline, strategically positioned to safeguard critical infrastructure, including the Natural Resource Conservation Service's Swan Quarter Dike.
- 4. Environmental Quality Incentives Program:** Facilitating agricultural best management practices

and cost-sharing for producers adjacent to the lake to help minimize or reverse the discharge of agricultural runoff into the lake.

5. Oyster Restoration: Extending outreach efforts to aquaculture producers to boost participation in oyster restoration practices.

Together, the proposed projects will dramatically reduce the volume of agricultural runoff into the lake, bolster the county's resilience against climate change, and improve water quality in estuarine shellfish harvesting waters. It is anticipated that it will take the next five years to execute all of these projects.



A Plan for the Chowan

Another effort the Federation has undertaken this year involves working with the National Resources Conservation Service to help draft a plan for the Chowan River as part of their National Water Quality Initiative. The Initiative works with farmers and landowners in various small watersheds that are in trouble, like the Chowan River. This voluntary program helps stakeholders enact various conservation practices that can help improve water quality.

Currently, the Chowan River is experiencing an influx of nutrients and algal blooms that are harmful to the fish and other species that depend on the river and pose potential health risks to humans.

The Federation is engaging local community members in creating a plan for the Chowan that will include strategies to reduce erosion and nutrient runoff and improve soil health.

Some of those conservation practices include implementing filter strips, cover crops, and reducing tillage and manure management.

Overall, best management practices not only benefit natural resources but enhance agricultural productivity and profitability by improving soil health.

SALT MARSH

The South Atlantic Salt Marsh Initiative

North Carolina has one of the largest and most productive estuarine systems in the United States which includes approximately 220,000 acres of salt marsh.

These salt marshes are regularly and irregularly flooded by lunar and wind tides. Salt marshes provide various ecosystem services, including essential fish habitats, water quality enhancements, flood protection for adjacent communities, and climate mitigation by sequestering carbon. But these crucial habitats face many threats, including impacts from climate change such as more intense and wetter storms and rising sea levels.

To protect these precious habitats, the South Atlantic Salt Marsh Initiative (SASMI) was established in 2021 as a regional, voluntary, nonregulatory partnership under the guidance and leadership of The Pew Charitable Trusts and the Southeast Regional Partnership for Planning and Sustainability. SASMI brings together local, state, and federal partners, communities, and nongovernmental organizations to determine the greatest threats to salt marsh ecosystems and opportunities to ensure their survival in the four-state region from North Carolina through east-central Florida.

The SASMI Plan, “Marsh Forward: A Regional Plan for the Future of the South Atlantic Coast’s Million-Acre Salt Marsh Ecosystem,” was released in May 2023. The 10-year plan outlines key strategies, objectives, and actions necessary to enhance the long-term abundance, health, and resilience of the about 1 million acres of salt marshes within the South Atlantic states to ensure no overall loss of the benefits these wetlands provide to fish, wildlife, and people.

Each state within the SASMI region (i.e., NC, SC, GA, and FL) established its respective State Implementation Team and developed state-specific salt marsh plans. The Coastal Federation led the development of the North Carolina Salt Marsh Action Plan (NC SMAP), which is the result of the collaborative efforts and valuable insights of numerous local experts and stakeholders.

The overarching goal of the NC SMAP is to protect, restore, and facilitate the migration of salt marshes in North Carolina to ensure no overall loss of function, benefits, and acreage through 2050 and beyond. In coordination with the SASMI Plan, there are three guiding strategies of the NC SMAP necessary to achieve the overarching goal:

1. Advance Salt Marsh Conservation and Restoration
2. Facilitate Salt Marsh Migration
3. Incorporate Cross-Cutting Approaches

These strategies detail approaches to conserve, restore, and facilitate the migration of salt marshes based on the needs and projections of North Carolina. Each strategy has multiple objectives and recommended actions for implementation. The NC SMAP includes five key features which:

1. Identify current and emerging threats to salt marshes.
2. Devise strategies that will effectively address identified threats relying upon the best available science and expertise that can be obtained.
3. Promote widespread and meaningful public understanding and demand for achieving the goal of this plan.
4. Devise ways to engage stakeholders from all walks of life in taking ownership of advancing the plan’s recommended actions.
5. Outline 5-year guidance to support annual strategic planning, monitoring, evaluating success, and adapting the plan as needed to address emerging challenges and needs.

Implementation of the NC SMAP will be a collaborative and complementary effort. This includes identifying, partnering on, and facilitating complementary and synergistic projects for salt marshes that involve and benefit federal, state, local governments, military, land trusts, private landowners, and/or vulnerable and marginalized community members.

Each year, a strategic implementation plan will be developed to identify priority locations, key partners, necessary courses of action, specific goals, clear metrics of success for accomplishing the plan objectives, and track progress. There are many efforts already underway in North Carolina to advance the strategies and actions in the NC SMAP.

Living Shorelines

As part of the Federation's ongoing efforts to protect and restore salt marshes, we collaborate with public and private property owners to build living shorelines. Living shorelines help stabilize eroding coastlines and restore marshes that can be lost due to erosion and rising waters. Recently, the Federation launched a large-scale living shoreline project with Fort Macon State Park.

The project involves constructing a 2,400-foot granite sill along a stretch of shoreline that was once a vibrant marsh. Due to erosion, the area has lost so much salt marsh that park rangers report they are struggling to find any fish, crabs, or shrimp in the area for their education programs. Once complete, the sill will provide habitat for these species and more, as well as help capture sediment and sand to restore the shoreline. Work began on the granite sill in early February and is expected to take about six months to complete. The North Carolina Land and Water Fund and the North Carolina General Assembly funded the living shoreline project.



OYSTERS

A Look at the State of the Oyster

Each year, the Coastal Federation and Blueprint partners report on our collective progress in implementing the "Oyster Restoration and Protection Plan for North Carolina: A Blueprint for Action 2021-2025." The Blueprint is a road map that guides our work to rebuild the state's oyster resources.

The work outlined in the Blueprint covers everything from protecting and restoring the state's important shellfishing waters to building new oyster reefs, continuing wild harvest while expanding oyster farming activities, and educating the public and other stakeholders about oysters. The annual State of the Oyster Report provides a brief overview and highlights the activities and accomplishments of the diverse partners involved in this work.

A few key highlights from the 2023 report include:

- All Blueprint partners participated in making the 2023 Oyster Summit a success, highlighting the collective oyster work in the state.
- The North Carolina Division of Marine Fisheries, Federation, and other partners built 16.7 acres of oyster sanctuary in Pamlico Sound. This brings the total number of sanctuaries in the state to 15, covering 389 acres of protected habitat.
- The Federation secured funding from the National Oceanic and Atmospheric Administration and state appropriations to complete an additional 120 acres of sanctuary. These funds will allow partners to reach our goal of 500 acres of oyster sanctuary.
- Completed 2.19 Miles of living shoreline projects, 76% of the projects were in oyster-growing waters that built 1.9 acres of new oyster habitat while protecting important estuarine shorelines.
- The Nature Conservancy built 900 feet of oyster reefs along the Outer Banks using shells collected

through the Federation's Recycle for Reefs Oyster Shell Recycling Program.

- The Federation, Ghost Fleet Oyster Co., Native Shorelines, and Division of Marine Fisheries recycled 8,934 bushels of oyster shells from the coast and Raleigh. This is a 1,390 bushel or 18% increase over the previous year.
- The Federation and the Division partnered to submit permits for the construction of four acres of new oyster habitat in the Cape Fear River.
- North Carolina Sea Grant and partners continued to support and expand the NC Oyster Trail.

Stay tuned for the full report at nccoast.org/oysters Got Oyster Shells?

As the Coastal Federation and partners work to restore wild oyster populations, oyster shell recycling is crucial. Currently, the Federation maintains 27 public drop-off sites along the coast. This year, the oyster team is assessing coastal and statewide needs for expanded shell recycling services. We need your help understanding where oyster shell recycling drop-off locations would be most beneficial, and how many potential shells could be recycled. To provide your input, please complete a short survey by scanning the QR code below.



In addition to understanding the public's shell recycling practices and needs, the oyster team is surveying businesses in the seafood industry, restaurants, and current shell recycling drop-off sites about their shell recycling practices and how our program can better fit those needs. Armed with all of this information, our oyster team will release a report about the current shell recycling efforts and how the program could expand in the future.



MARINE DEBRIS

NOAA Support

Working to ensure our coast is free of marine debris is one of the Coastal Federation's top priorities. Those efforts will continue on a large scale for the next several years thanks to support from the National Oceanic and Atmospheric Administration (NOAA) through the federal Inflation Reduction Act.

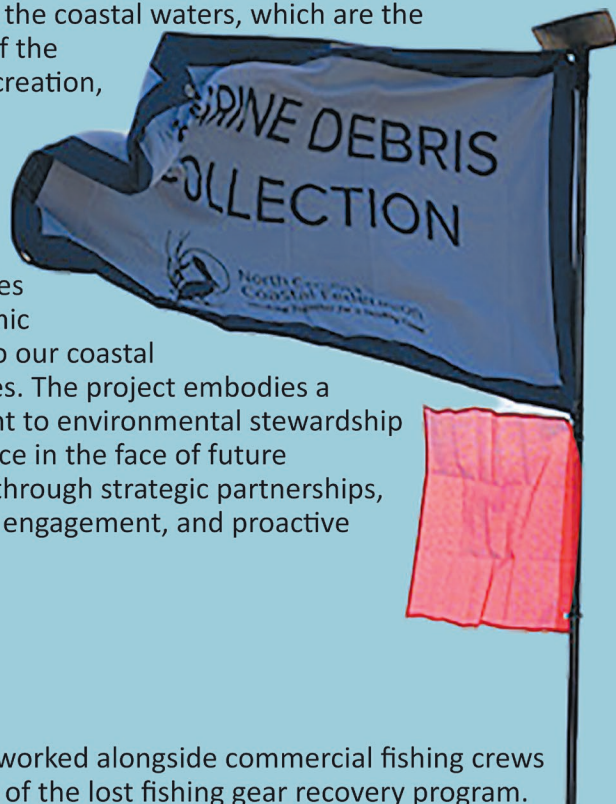
This funding will aid in the Federation's efforts to locate and remove abandoned and derelict vessels, clean up storm-related debris, and further our efforts to prevent marine debris through education about the importance of using more resilient building techniques for residential docks and piers.

Key objectives and outcomes of the NOAA-supported project include:

- Removal of 1,320 tons (2,640,000 pounds) of storm-related construction debris and lost fishing gear over the project period.
- Removal and recycling of 40-48 abandoned and derelict vessels, with an estimated 25% of materials being recycled.
- Implementation of a storm debris prevention education program to promote resilient waterfront construction practices.

- Work with property owners to ensure the maintenance and repair of existing structures.
- Establishment of a formal partnership between the Federation and state agencies to expedite cleanup efforts after future storms.

The Coastal Federation Marine Debris Removal Project is a vital initiative aimed at preserving the state's coastal ecosystems and safeguarding public trust properties. The project not only helps protect and restore the coastal waters, which are the backbone of the tourism, recreation, and fishing industries, but it also provides job opportunities and economic resources to our coastal communities. The project embodies a commitment to environmental stewardship and resilience in the face of future challenges through strategic partnerships, community engagement, and proactive measures.



Ten Years of Lost Fishing Gear Recovery

For the past 10 years, the Federation has worked alongside commercial fishing crews to find and remove lost crab pots as part of the lost fishing gear recovery program. In that time and with the expert knowledge of the coastal waters that these crews possess, we've been able to clean up more than 20,000 lost crab pots. This year, the Federation's recovery efforts expanded to also include the waters in and around Emerald Isle down to Sunset Beach. After hearing from local commercial fishers about a large number of derelict pots in the region, the Division of Marine Fisheries Marine Patrol requested the Federation's assistance to expand the removal program to these waters.

Crews set out in January and in part of March to scour the waters and clear them of these lost crab pots, which is crucial to prevent crabs and other animals, especially Diamondback Terrapins, from becoming entrapped in the lost gear. The lost pots also present a potential hazard to navigation and recreational users.

The lost fishing gear project also provides an economic benefit by creating opportunities for work during slower times of the year for commercial fishing due to colder waters and a month-long blue crab fishery closure. This project is supported by the North Carolina Commercial Fishing License Resource Fund.



Fighting for Our Wetlands

A landmark decision by the U.S. Supreme Court in 2023 narrowed the federal definition of a wetland, resulting in drastic reductions in the protection of this critical ecosystem. The new definition requires federal wetlands to have “permanent, continuous surface connection to bodies that are waters of the United States.” While on the surface this might seem like a technicality, the N.C. General Assembly later adopted the same definition for wetlands here in North Carolina. As a result, approximately 2 million acres of North Carolina’s wetlands are at risk of being filled and changed forever by land use and development.

Wetlands that do not have a permanent, continuous surface connection are called “isolated wetlands” and include many unique and treasured habitats, such as Carolina Bays.

The benefits of wetlands are diverse and significant, including:

- Provide important habitats for fish, shellfish, and wildlife.
- Act as natural sponges that hold and absorb stormwater to reduce flooding of low-lying towns and communities. A single acre of wetlands can hold over 1 million gallons of stormwater.
- Filter our drinking water, removing pollutants and acting as nutrient sinks for phosphorus and nitrogen.
- Store immense amounts of carbon, keeping it out of our atmosphere.

The economic and environmental benefits of wetlands are unmatched by any other ecosystem on the coast and across the state and nation. The loss of protections for isolated wetlands will cause serious impacts to coastal communities, environments, and fisheries.

The Coastal Federation is committed to working toward comprehensive wetland protection in North Carolina. We are currently participating in a state-wide coalition, composed of advocates, attorneys, lobbyists, scientists, and analysts that are working collaboratively on strategies to mitigate impacts and protect our most sensitive wetlands. Stay informed by subscribing to our e-news and Coastal Review Online to receive up-to-date information and action alerts about this important issue that affects us all.

Fostering Future Coastal Stewards

A big part of our mission at the Coastal Federation is to support and encourage the next generation of coastal stewards. They are our future, and by fostering their understanding and appreciation of the environment we can ensure that our beautiful coast is in great hands. As part of that effort, our team of educators engages students at all levels in numerous environmental education programs.

One of those initiatives is the Creating Coastal Stewards Program, which serves as a catalyst for empowering educators, students, and their families with the knowledge and skills to emerge as proactive stewards of the coast. The goal of this program is to provide enriched and equitable opportunities for all students while also exposing them to various STEM career opportunities. Thanks to the generous funding provided by the Landfall Foundation, the Federation has recently expanded its reach to engage students, teachers, and families from esteemed organizations such as the Young Scientist Academy, Cary Academy, 100 Black Men, Jack and Jill of America, and Communities In Schools of Cape Fear.

The Federation’s educators have also forged strong partnerships with several universities to engage college-level students in coastal environmental learning experiences. Our educators create hands-on opportunities for university students to get out in the field and learn about the coastal environment, conduct research, and learn about potential environmental career paths.

Recently the Federation hosted East Carolina University students for their alternative spring break program. During their visit, students learned about the value of coastal marshes and helped clean the shoreline at Fort Macon State Park. In the southeast, 140 University of North Carolina at Wilmington students engaged in tours of our Walk the Loop for Clean Water stormwater retrofit sites and learned about ways to reduce polluted runoff. In March, students from North Carolina Central University visited the coast and learned about oysters and living shorelines. The students also had the opportunity to learn about several different coastal career opportunities.

And this spring students from Harford Community College in Maryland learned about our beautiful coast and helped clean up about 200 pounds of debris along our adopted Highway in Wanchese during their spring break.



Make Plans to Join Us Saturday August 3rd for Two Special Events!

The 2024 Pelican Awards

Carteret Community College's Jocelyn Hall,
Morehead City

Join us for this afternoon program honoring those who go
above and beyond for the coast.

The Taste of the Coast Celebration

Crystal Coast Civic Center, Morehead City

Get your tickets today for this fun evening celebration
featuring great seafood, live music, a coastal auction, and
more!

Registration Opens May 15: nccoast.org/august2024

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You can protect the coast for
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Sarah King with questions, or
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