

OUR STRATEGY

In the following pages, you'll get a snapshot of our 10 goals for 2017.

Our Approach

Since 1982, the Coastal Federation has worked to protect and restore the coastal water quality and habitats throughout the North Carolina coast. We engage people from all walks of life, both residents and visitors, who commit to preserving the coast for current and future generations.

To achieve these goals, we:

Protect and restore water quality, wetlands, oyster reefs and shorelines.

Advocate for effective coastal management by promoting sound coastal policies.

Educate students, adults and community leaders to inspire stewardship of our coast.

Collaborate with partners, communities and individuals who seek to protect our coast.

Inform by providing the award-winning Coastal Review Online news service.

Goal: Robust coastal economy depends on and reinvests in environmental protection and restoration.

The Coastal Federation is working with federal, state and local leaders, economic developers, private businesses and coastal residents to create and implement an economic development strategy for the coast that also protects and restores coastal resources. Investment in coastal restoration creates short-term and long-term jobs, boosts fisheries and ensures a clean environment that benefits the tourism industry. State investment in this strategy is critical in order to secure competitive federal funding that will help stimulate economic growth.

Our staff developed a draft comprehensive strategic blueprint to explain how programs and projects that protect coastal resources also strengthen economic growth along the coast. Growing the oyster industry will continue to be a priority, as the success of that industry benefits fishermen, contractors involved with environmental restoration projects, tourism and related service industries.

The economic blueprint will be presented in March at the summit titled ***Sound Economic Development: Creating a Rising Economic***



Tide for the North Carolina Coast. This strategy has the potential to guide economic growth and protect the coastal environment for years to come.

Learn more at nccoast.org/economicdevelopment.



Goal: Oyster habitats thrive and support vibrant fisheries, good water quality and stable estuarine shorelines.

Oysters are essential to our estuaries. They provide productive fish habitat, improve water quality and boost jobs in the fishing and tourism industries.

In the next three years, the Coastal Federation, N.C. Division of Marine Fisheries and other partners will implement the 50 Million Oyster Initiative. With private, state and federal funds, the groups will create 50 acres of oyster sanctuaries in the Pamlico Sound. Each acre supports approximately one million oysters. And with each oyster filtering 50 gallons of water per day, this project will clean 2.5 trillion gallons of water annually.

Along with our partners, we will also continue to implement an evolving blueprint for restoring and managing oysters. This blueprint, which outlines plans to achieve seven goals, will guide our work through 2020. The state legislature in 2016 allocated more than \$1 million in funding for oyster restoration work, and this funding helped us secure an additional \$1.275 million grant from the National Oceanic and Atmospheric Administration to build oyster sanctuaries.

For more information, go to www.ncoysters.org or nccoast.org/oysters.

Private, state and federal funding will help us to:

- Work with the N.C. Division of Marine Fisheries to build at least 15 acres of oyster reefs in Pamlico Sound in 2017.
- Install demonstration shellfish mariculture practices at our Wanchese office.
- Continue to incorporate oyster reefs in living shorelines.
- Continue to facilitate discussions and partnerships through the Oyster Workgroup and Steering Committee.



Photo by Vance Miller

Goal: Living shorelines that protect water quality and natural estuarine function and provide thriving habitat for fish and wildlife.

There are 12,000 miles of estuarine shorelines in North Carolina that provide some of the best fish and wildlife habitats in the world. Rising seas, storms and boat wakes are causing these shorelines to erode, threatening these valuable salt marsh and oyster habitats.

Hundreds of miles of bulkheads and rock revetments have been installed over the past few decades in an attempt to control erosion. As a result, salt marshes and mudflats along shorelines are being scoured away by reflected waves. When big storms strike, many of these erosion control measures are damaged or destroyed.

In cooperation with partners nationwide, the Coastal Federation works to encourage the use of living shorelines, a more effective and natural way to manage erosion. Living shorelines use salt marsh grasses and sometimes oysters, rock or wood to control erosion. Our projects show that in most locations, living shorelines provide a longer-term, less-expensive erosion control option that retains the shoreline's natural functions.

We will continue to promote better management of estuarine shorelines throughout North Carolina and nationally. In addition to continuing to build public living shorelines through a half-million-dollar Coastal Ecosystem Resiliency grant from the National Oceanic and Atmospheric Administration, we will also focus on advancing the use of living shorelines through our cost share program for private waterfront landowners.

The Coastal Federation will lead efforts to educate waterfront property owners through the web-based Living Shorelines Academy, trainings and demonstration projects. We will also work with stakeholders to streamline the living shoreline permitting process.

Learn more at nccoast.org/livingshorelines.



Photo by Wingate University

Visit Living Shorelines Academy Today!

The Living Shorelines Academy is an online tool that features two training options — one for waterfront property owners and one for marine contractors.

Visit livingshorelinesacademy.org to learn more.

The Living Shorelines Academy was developed by the Coastal Federation and Restore America's Estuaries through funding from the U.S. Environmental Protection Agency.



Goal: Clean coastal waters support fishing, swimming and healthy communities.

The Coastal Federation is committed to reducing the amount of stormwater runoff that pollutes our waterways. We are ramping up our partnerships with coastal communities to tackle stormwater, the most serious source of pollution in coastal waters.

When it rains, stormwater quickly moves across hardened surfaces and picks up bacteria and other pollutants before discharging them into creeks, rivers and sounds. Stormwater runoff pollution leads to swimming advisories and closes shellfishing waters.

At the Coastal Federation, we're working with urban and rural coastal communities to develop plans for restoring local water quality and come up with solutions that allow stormwater to soak

into the ground. Our projects typically show a 50 to 90 percent reduction in stormwater runoff volumes.

We also work at the state and local levels to find economically viable ways to prevent stormwater runoff in new developments by maintaining the way the land soaks up rain instead of building systems that channel stormwater to waterways.

The Coastal Federation has an ambitious slate of projects including developing watershed restoration plans and improving stormwater management programs. Additionally, we will work with property owners, local governments and farmers to install projects that significantly reduce the amount of polluted stormwater reaching our coastal waters.

Stay updated on our work at nccoast.org/stormwater.

Low-impact development provides environmental, economical benefits

Finding better and more economical ways to control stormwater runoff is something that makes sense to Burrows Smith, who is a developer in New Hanover County. His 313-acre River Bluffs development uses low-impact development (LID) techniques to infiltrate, filter, store and evaporate runoff. LID slows down the flow of runoff to let it to soak into the ground. Instead of directing stormwater to ditches, pipes and

ponds, LID maintains a natural landscape that captures and absorbs rain before it can pollute waterways.

Using techniques that mimic the natural hydrology of the landscape protects local waterways and often saves money, too. Smith said his development group "saved about \$2 million in development costs on 100 lots by not installing curbing

and by using natural areas as infiltration basins and not having to excavate for wet ponds." River Bluffs received a Pelican Award from the Coastal Federation in 2014 and a Lower Cape Fear Stewardship Development Award in 2015.





Goal: Coastal land and water uses are environmentally compatible.

The Coastal Federation advocates for land and water uses that are compatible with North Carolina's beautiful and productive coast. We strive to find ways to plan, design, permit and build our land uses (neighborhoods, shopping centers, farms, highways and industries) so they don't degrade or harm our water quality, beaches and fisheries. The state's unique wetlands, shorelines and waters are essential to its economic and environmental health. Wise management of these resources often requires mobilizing partners to advocate for them at state and local levels. We engage with the public, businesses and elected officials, and as a last resort occasionally take legal actions to protect our coast.

In 2017, that means we will:

- Support the adoption of new federal and state rules that streamline the permit process for living shorelines.
- Ensure an industrial special-use permit is adopted and enforced in New Hanover County to vet heavy, potentially polluting industry.
- Develop the lower Cape Fear River blueprint, which will provide a sustainable management strategy for the lower Cape Fear River estuary and resources.
- Monitor any proposed wind energy projects.
- Oppose offshore oil and gas exploration and seismic surveys off the North Carolina coast.

The Coastal Federation has a daily presence in the North Carolina General Assembly. We will continue to track legislation, review permit applications and push for laws that protect North Carolina's coastal environment and encourage clean economic growth.

Find out more at nccoast.org/compatible.

Goal: Environmental justice is achieved.

All people deserve to live, work and play in healthy and safe places, and everyone should have a voice in management decisions that affect the future of their coastal communities.

If left to chance, it doesn't always work that way. The Coastal Federation reaches out and tries to engage every person who has a stake in the work that we do to protect and restore the coast, because we're more effective when a wide variety of people engage in our work.

But we can do better, and we must make it a priority to reach communities, especially those that are typically underserved by environmental groups such as the Coastal Federation. Our staff is responsible for consistently evaluating how to make our work and programs inclusive of all coastal residents and visitors.

Our mission is to work together for a healthy coast — and we can't do that without engaging with diverse audiences and ensuring everyone has equal opportunities to learn and to be involved.

Learn more at nccoast.org/environmentaljustice.





Photo by Sam Bland

Goal: Oceanfront and inlet beaches support traditional public uses and natural habitat functions.

The Coastal Federation strives to work with — not against — the natural processes of North Carolina’s barrier islands. Rising sea levels, storms and efforts to engineer the natural functions of our coastlines threaten habitat and public access. Using hardened structures like terminal groins as a means of erosion control is costly, and states that have used these structures are now dealing with unintended erosion and degraded natural beaches and habitat.

In 2017, we will continue to evaluate constructed terminal groins for adverse effects, as well as to oppose the construction and permitting of new terminal groins, especially in communities where residents and visitors have expressed strong opposition. We will also educate people on why these structures are so damaging.

Opposing a harmful erosion control method is not enough as rising sea levels continue to encroach on North Carolina’s beaches and as more people move to the coast. Therefore, we will help develop and promote long-term barrier island management strategies that make them more resilient to climate change and less hazardous places to invest. We will also continue to work with local governments to secure funding for dredging long-established navigational channels, as well as support the use of dredged sand where appropriate for beach nourishment projects.



Photo by Sam Bland

Rich Inlet: Two strikes against a terminal groin

The Coastal Federation’s advocacy efforts paid off in 2016, as Figure Eight Island homeowners rejected funding a proposed terminal groin near Rich Inlet at the north end of the island, where the volume of sand has been increasing in recent decades. The Figure Eight Island Homeowners’ Association sent out a special assessment to determine support for the groin, and a majority of homeowners responded “no” or did not respond, which counted as a “no” vote.

The Figure Eight Island Homeowners’ Association’s application was already in jeopardy because several property owners stated they would not grant easements for the terminal groin’s construction on their property. Without this permission, it is impossible to apply for a permit under the N.C. Coastal Area Management Act.

Learn more about our advocacy efforts at nccoast.org/inlets-beaches.



Goal: Coastal environment is free of marine debris.

Marine debris takes on many different forms — from bottle caps and balloons to lost crab pots and other fishing gear. Marine debris is not only unsightly, it is hazardous to fish, wildlife and humans. Because of its widespread scope, it's not a problem the Coastal Federation can face alone.

The Coastal Federation teams up with coastal residents and visitors of all ages to reduce the amount of marine debris along the North Carolina coast. When we restore a salt marsh by removing trash during volunteer cleanups, inspire action through in-the-estuary education or work with local fishermen for our annual Lost Fishing Gear Recovery Project, our impact is greater because we collaborate with others. This year, we will continue to conduct volunteer-based regional cleanups on our properties and other locations that are debris hotspots. We will also seek funding to continue to hire fishermen to help remove lost crab pots.

In addition to our cleanup and lost fishing gear programs, the Coastal Federation will begin to develop a comprehensive marine debris strategy for the entire coast. We will build a network of partners and community groups to ramp up our efforts and streamline a coastwide marine debris program. This will help pave the way in reducing marine debris by creating long-term reduction plans for the state.



Photo by Chris Hannant

For more information about our marine debris projects, visit nccoast.org/marinedebris.



Photo by Mark Hibbs

Goal: Control invasive species that degrade our coast.

This year, the Coastal Federation is taking on a new threat to coastal marsh health — a non-native plant called *Phragmites australis*.

Once *Phragmites* becomes firmly rooted, aggressively spreads and grows up to 12 feet high, it can diminish a marsh's natural productivity as bird and fish habitat. Once established, *Phragmites* is almost impossible to eradicate even when sprayed with repeated doses of chemicals. The Coastal Federation wants to determine if there are environmentally responsible ways to control it.

To combat the threats posed by *Phragmites*, we will:

- Analyze scientific literature to document the threats *Phragmites* poses to the natural productivity of North Carolina's estuaries.
- Examine the adequacy and safety of existing control efforts by government agencies and landowners.
- Hold a *Phragmites* workshop in order to explore ways to better safeguard our coastal marshes.
- Use what we have learned from research of effective management efforts to explore the feasibility of controlling it through early intervention rather than relying on chemical herbicides.

Once we learn the best ways to address *Phragmites*, we will turn our attention to carrying out management recommendations. The goal is to avoid the plight of other states that waited too late to undertake effective control programs and must now live with *Phragmites* as it permanently dominates and diminishes the productivity of coastal marshes.

For the latest updates, visit nccoast.org/invasive.

Goal: Special coastal properties are preserved, protected and managed to enhance environmental stewardship.

The preservation and restoration of coastal lands is integral to clean and healthy coastal waters. The North Carolina coast is rich with wild spaces that help perpetuate the productivity of our coastal ecosystems.

The Coastal Federation has been involved with the preservation of tens of thousands of acres of special properties since 1982. These lands are strategically located in sensitive environmental areas such as the headwaters and shorelines of coastal rivers, creeks and sounds. Many of these properties were either once slated for intensive development or had already been extensively ditched and drained. Ownership of some of these lands was transferred to various state or local government agencies for long-term preservation and public uses. More than 6,700 acres are still managed by the Coastal Federation and benefit other areas of our mission, such as restoring water quality, creating oyster habitat, restoring and establishing wetlands, protecting vulnerable species, educating the public and increasing accessibility to natural spaces.

The Coastal Federation continues to identify and seek ways to protect even more special coastal lands either through purchases or donations by property owners. This year we will lobby for larger legislative appropriations for the North Carolina Clean Water Management Trust Fund to provide more state funds for land acquisition and continue to seek federal and private grants. We will also continue to utilize our properties by holding on-site events and programs that educate the public about the Coastal Federation's restoration projects and enable residents and visitors to be good stewards of our coastal environment.

Learn more at nccoast.org/riparianlands.

