

CITIZENS WORKING TOGETHER FOR A HEALTHY COAST

Coastal Review

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**NATIVE PLANT SALE SET
FOR APRIL 25-26**

OCEAN OUTFALLS IN DARE COUNTY

**TIDAL CREEK MEETINGS
IN THE SOUTH**

Coastal Review

Coastal Review is the quarterly newsletter of the North Carolina Coastal Federation (NCCF). NCCF is a non-profit tax-exempt organization dedicated to involving citizens in decisions about managing coastal resources. Its aim is to share technical information and resources to better represent current and long-term economic, social and environmental interests of the North Carolina Coast.

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COVER PHOTO: Visitors Enjoy the native plants at NCCF

DIRECTOR'S LETTER

INLET STABILIZATION: An Oxymoron the State House Should Reject

Nine million North Carolinians are covered by Article XIII, Section 5 of the N.C. Constitution. Titled Conservation of Natural Resources, this provision makes the following commitment to you and every other citizen (emphasis added):

It shall be the policy of this State to conserve and protect its lands and waters for the benefit of all its citizenry, and to this end it shall be a proper function of the State of North Carolina and its political subdivisions to acquire and preserve park, recreational, and scenic areas, to control and limit the pollution of our air and water, to control excessive noise, and in every other appropriate way to preserve as a part of the common heritage of this State its forests, wetlands, estuaries, beaches, historical sites, openlands, and places of beauty.

Since 1985 and in accordance with the state constitution, it has been state policy to protect our beaches from the harm that seawalls and jetties could easily cause. Policy makers saw the damage such hard structures did to beaches elsewhere in the nation and decided that our beaches and citizens deserved better. Using them to control erosion on the oceanfront was first prohibited by development rules and later codified into law.

Now a handful of property owners worried about protecting very expensive beach “cottages” have pushed through Senate Bill 599, which they call the “Inlet Stabilization Pilot Program.” It allows a small jetty, called a terminal groin, to be built as a pilot project. The applicant must prepare an Environmental Impact Statement and show that they have the money to remove the jetty if its adverse effects outweigh the benefits. The State House of Representatives refused to vote on the bill last year, but it will be pressured to act in the coming short session this summer.

Although the bill doesn't specify the exact location for the jetty, everyone knows that it will be built to protect a few resort homes on the north end of Figure Eight Island, a private island near Wilmington.

Backers of the bill say the jetty is an experiment. If doesn't work or increases erosion farther away, the jetty will be removed, they assure us. The structures will be built with private money on a private island that excludes the public.

They must think we're all like Alfred E.

Neumann. “What, me worry?”

Once the door is opened to jetties and seawalls, it's unlikely to ever shut again. Why else would other beach communities with similar erosion problems support the bill? They want jetties, too.

Once it's built, the structure won't be removed. The state hasn't successfully enforced its rules to have “temporary” sand bags removed. It's simply naive to believe that a jetty costing millions of dollars to permit and build will be taken away if it starts eroding the public beach.

Erosion problems will not be solved by jetties. That's simply a myth being perpetuated by zealous proponents of such structures designed to entice the support of increasingly desperate property owners who are looking for a way to save their investments. Beach renourishment will still be needed, and will grow increasingly expensive. Three groins along our coast at Oregon Inlet, Beaufort Inlet and

Masonsboro Inlet haven't stopped erosion or curtailed the need for frequent beach-renourishment projects.

We should not abandon a state policy and law that has worked perfectly well since 1985. Policymakers heard the same arguments back then. They concluded that overall such structures harm healthy beaches—a fact that no one today seriously disputes. They also determined it is impossible to predict with any reliability the magnitude of negative consequences that any one structure might cause. It was for those reasons they concluded that a total prohibition on all jetties and seawalls on the beach was necessary. Attempting to make permit decisions on such structures on a case-by-case basis is simply regulatory folly and would be a political morass.

Call it tough love, but the state House needs to just say “no” to changing public policy so that private oceanfront property becomes more important to protect than the state's publicly owned beaches. That's the only way we'll continue to preserve our beaches as a common heritage for all North Carolinians.

Todd Miller

Todd Miller, Executive Director



NEW STAFF HIRED FOR NORTHEAST REGION

We hit gold in the search for our new coastal outreach and restoration specialists for NCCF's Northeast office in Manteo.

Erin Fleckenstein, who graduated in December with a master's degree in marine biology from the University of North Carolina at Wilmington, is our new coastal restoration specialist. She had a stellar academic career and spent a lot of time slogging through swamps with Dr. Courtney Hackney, former chairman of the Coastal Resources Commission. Erin also has worked for the Sea Coast Land Trust in Portsmouth, N.H.

Her first assignment is working with town officials in Manteo on the wetlands park to be built next to the NCCF's new office.

Sara Hallas, an environmental educator at the N.C. Aquarium on Roanoke Island for the past three years, will run our education program as the coastal outreach specialist. In addition to her job at the aquarium, Sara has been working full-time as an associate manager at the Gap Outlet in Nags Head.

Her first assignments include designing curriculum for middle and high school students and offering environmental education workshops for adults.

Both women began work for Feb. 4. "We're thrilled to finally have a fully staffed program up here," said Jan DeBlieu, the Cape Hatteras Coastkeeper.

WILGIS BACK FULLTIME

Ted Wilgis has rejoined NCCF fulltime as our coastal outreach specialist working out of our Southeast regional office in Wilmington. He had been working part-time for us as he attended the University of North Carolina-Wilmington, where he is studying for his master's degree in marine

biology. Ted has completed his class work and is now preparing his thesis.

Ted joined NCCF 10 years ago as its education director. He was also our first Coastkeeper, working as the Cape Fear keeper for five years before enrolling in UNCW.

OUR NEWEST MEMBERS

Welcome Weatherly Grace Carlyle and Emory Gray Jones.

Weatherly, all seven pounds and 13 ounces of her, was born Feb. 17 at 1:57 a.m. at Carteret General Hospital in Morehead City. Baby and parents, Rachael and Jay, are doing fine. Emory was born about 4 a.m. on Feb. 23 at Cape Fear Hospital in Wilmington. She weighed about six pounds.

Baby and parents, Lauren and Ron, are well.

MEET OUR NEW BOARD MEMBERS



VERONICA CARTER: A retired Army officer from Leland, Veronica represents our Southeast region. Veronica served as the political chair and eventually president of the Cape Fear Citizen's for Safe Environment, a grassroots group that formed to fight the Sims Hugo Neu landfill in Brunswick County. The group was instrumental in getting the Solid Waste Management Act through the legislature last year. The bill effectively stopped Hugo Neu and three other large landfills from being built in Eastern North Carolina. Veronica also is on the board of directors of Habitat for Humanity in the Cape Fear region.



MATTHEW CONVERSE: Executive vice president and CEO of the Bank of Currituck, Matt represents our Northeast region. Matt recently concluded six years with the Currituck Chamber of Commerce Board of Directors, serving two years as chairman and two years as vice chair. Before joining the bank, Matt worked for an international accounting firm in Washington and Baltimore. He lives with his wife Laurie in Moyock. Matt has always lived on or near the water. His parents live on the Eastern Shore of Virginia where his father remains involved in various activities for preserving area water quality.



MILDRED G. (MIDGE) OGLETREE: Midge and her husband, Charlie, live on the Scuppernong River in Columbia in Tyrell County and have fished and sailed on the waters of Eastern North Carolina for more than 40 years. She joins the Federation board representing our Northeast region. A retired school teacher who taught for 33 years, Midge has always been active in civic affairs. She currently serves on Columbia's Board of Aldermen, the boards of trustees of the Tyrell County Public Library and Pettigrew Regional Libraries and the steering committee of Tyrell Safe Neighborhoods. Midge grew up in grew up in Baltimore in an environmentally conscious family that enjoyed camping, bird-watching and visiting nature parks. She is now helping to develop the CAMA Land Use Plan for Tyrell County.



DUANE REYNOLDS: Director of Operations for the Boys & Girls Clubs of Coastal Carolina, Duane joins the Federation board as a representative of our Central region. Duane has worked with NCCF's education program for three years, bringing Boys & Girls Club participants into our restoration projects. A retired Marine, he has a diverse business and non-profit background, has owned and operated two businesses and worked as an administrator of his church. Originally from Grand Rapids Mich., Duane and his wife, Shannon, live in Havelock.

Sara Hallas, left, and Erin Fleckenstein join the staff of our Northeastern regional office.





Twenty-year-old sandbags flank The Riggings condominiums in Wrightsville Beach.

EMC APPROVES COASTAL STORMWATER RULES

The state Environmental Management Commission unanimously passed in January significant improvements to the Coastal Stormwater Program rules. The new rules will increase waterside buffers and lower the building densities that require stormwater controls.

The N.C. Division of Water Quality performed a comprehensive review of the existing coastal stormwater rules in 2005 and concluded that the rules were outdated and ineffective in protecting coastal waters. The division determined that shellfishing waters are the most sensitive waters in the state and the existing coastal stormwater rules were the weakest stormwater program it manages.

The new rules are designed to protect coastal waters by requiring new development to control and treat most stormwater onsite. It requires development within a half-mile of shellfishing waters to control and treat polluted runoff if more than 12 percent of project is built on. Larger counties along the coast have had such a requirement in place since July 2007.

The final rules will also increase the vegetated buffer for new development by 20 feet, to 50 feet from mean high water, and exclude all wetlands from the calculations used to determine the built-on area. As a major concession to developers, the final rules allow ponds and other types of stormwater controls to be used within a half-mile of shellfishing waters. Current rules allow infiltration basins only.

The new rules would have gone in effect on March 1. However, development interests filed 10 letters of objection to the legislatively appointed Rules Review Commission. As a result, the rules are

LOBBY FOR OUR WATERS

NCCF is asking its members and allies to travel to Raleigh on **June 4** for **Clean Water Lobby Day** and the unveiling of our *2008 State of the Coast Report*.

The N.C. General Assembly will make several key coastal decisions this year, including whether our beaches will remain public and natural and our coastal waters protected from polluted runoff.

Buses will leave from Manteo, Morehead City and Wilmington. For more information, please contact nccf@nccoast.org or call (252) 393-8185.

subject to legislative review and will not go into effect before Aug. 1. For more information on the final rules, go to: <http://h2o.enr.state.nc.us/su/coastal.htm>

Mega-Landfills File for Reparations

Three large landfills proposed for eastern North Carolina filed for a total of \$24.7 million in reparations from the state. Under a law passed in 2007, companies that had applied to build landfills that couldn't meet the new siting requirements of the Solid Waste Management Act of 2007 could recover the costs of planning the landfills. The funds to reimburse the companies will come from a "tipping fee" collected on each ton of trash deposited in state landfills beginning July 1.

Alligator River Recycling, which planned a

mammoth construction and demolition debris landfill along the Intracoastal Waterway in Hyde County, filed for \$2.4 million. Waste Management and Riegel Ridge Partners, the developers of a municipal waste landfill adjacent to the Green Swamp game lands in Columbus County, filed for \$2.3 million and \$6.3 million respectively. Waste Industries, the parent company of the Black Bear landfill in Camden County, filed for \$13.6 million.

Waste Industries also filed a lawsuit in state court challenging the new law as unconstitutional.

Scientists Agree That Groins Don't Work

A letter signed by over 40 esteemed state, national and international geologists opposes the building of small jetties, called terminal groins, at N.C. inlets. Figure 8 Island and Ocean Isle Beach want the N.C. General Assembly to exempt such structures from the state ban on walls, jetties and other types of hardened structures on the oceanfront. Such a bill, Senate Bill 599, passed the state Senate last year, but fortunately was not taken up in the House.

"There is no debate: A structure placed at the terminus of a barrier island, near an inlet, will interrupt the natural sand bypass system, deprive the ebb and flood tide deltas of sand and cause negative impacts to adjacent beaches," the scientists say in their letter.

The letter includes a plea to state policy makers: "We urge you to maintain the State of North Carolina's high standards for coastal management by preventing any change to the current ban on coastal hard structures. Doing so is the surest way to protect the state's beaches for future generations."

To read the letter, go to: <http://psds.wcu.edu/>

CRC Denies Sandbag Extension for The Riggings

In what seemed to be a never-ending saga of permit extensions and variances, the state Coastal Resources Commission finally drew a line in the sand and denied a variance by The Riggings Homeowners to keep sandbags in place. The Riggings is a condominium complex in Kure Beach that has used sandbags to protect it from the ocean since the mid-1980s.

Because of an outcrop of coquina rock in front of the Riggings, the Army Corps of Engineers' stopped putting sand 1,500 feet short of the condominium complex. The final straw for the commission came in 2006 when the Riggings Homeowners flinched on accepting a \$2.7 million grant from the Federal Emergency Management Agency to move the condos to a safer location across the highway.

Bulkheads Don't Finish High on Our List

BY TRACY SKRABAL, *Senior Coastal Restoration Specialist*

Wetlands are well known for the valuable roles they have in our estuaries. They buffer adjacent lands from storm flooding, they filter pollutants carried by runoff and they store and recycle the nutrients that drive the estuary's food chain. The wetlands between our creeks and homes are nurseries for important species of fish and for countless other animals of coastal North Carolina.

Along undeveloped and natural shorelines, eroding banks supply sediment for adjacent beaches. Over time, marshes migrate landward to keep pace with sea-level rise and the balancing forces of erosion, sedimentation, plant growth and production of organic layers within the wetlands.

Development can greatly modify this natural equilibrium when the owners of waterfront homes and businesses want to build wooden and rock walls to stabilize this dynamic and vital edge of the estuary. The current state permitting system includes few restrictions on erosion-control projects, and the state has allowed hundreds of miles of estuarine shoreline to be hardened with stone revetments or vertical bulkheads. These structures can accelerate erosion and destroy natural shorelines, removing forever their environmental benefits.

State officials recognized the danger while drafting the Coastal Habitat Protection Plan, a blueprint for protecting and enhancing vital marine habitats and the species that depend on them. The state's three regulatory agencies unanimously adopted the plan in 2004. Recommendation 3.4 of the CHPP Implementation Plan states: "Protect fish habitat by revising estuarine and public trust shoreline stabilization rules using best available information, considering estuarine erosion rates, and the development and promotion of incentives for use of alternatives to vertical shoreline stabilization measures."

To help implement the plan's recommendations, the N.C. Coastal Resources Commission (CRC) appointed an Estuarine Shoreline

Stabilization Subcommittee. The subcommittee was charged with revising the rules on stabilizing



estuarine shorelines to encourage alternatives to vertical walls. To provide it with scientific guidance, the subcommittee set up a work group made up of experts in biology, ecology, engineering, estuarine processes, sea level rise and erosion control. I was among its members. We evaluated the biological and physical effects of various-erosion control strategies and ranked those strategies for 11 types of shorelines, including marshes with and without oysters, swamp forests and sandy banks.

Our goal was to maintain shorelines and protect their ecological values. Based on those criteria, the group ranked erosion control options for each shoreline type, from 1-8. The lower the number, the less the potential damage. Although the recommendations for each of the shoreline types vary, a few similarities exist across all shoreline types. Good land-use planning that left the land in its natural state was the top recommendation for all estuarine shoreline types. This option involves planning a development to allow for natural erosion and rises in local sea level, and to preserve the natural wetlands and riparian buffers.



When hardening a shoreline can be justified, the work group recommended combinations of structural and non-structural elements, such as wetland plantings or the conservation of existing wetland vegetation.

Plant or preserve coastal marsh and other natural vegetation typically ranked second. The process may also involve re-grading of the eroding bank. These approaches, often called "living shoreline" methods, can be very cost-effective and successful.

For some shoreline types, limited beach fill is a recommended action to provide erosion control and maintain the natural functions of the shoreline. When hardening a shoreline can be justified, the work group recommended combinations of structural and non-structural elements, such as wetland plantings or the conservation of existing wetland vegetation. Groins, breakwaters and sloped and vertical structures vary in ranking depending on the site and shoreline type.

The working group gave its final report to the CRC in August 2007. You can read and download it at: <http://dem2.enr.state.nc.us/Hazards/EWG%20Final%20Report%20082106.pdf>

For more information about the report or estuarine erosion control issues in North Carolina, contact me at N.C. Coastal Federation's Southeast Regional Office at tracys@nccoast.org.

2007 VOLUNTEER HIGHLIGHTS

In 2007, over 1,400 volunteers, students and interns offered their services to the Coastal Federation for a total of over 12,000 volunteer hours. They planted 176 acres of wetlands with over 200,000 plants. They also used 9 million oyster larvae and 20,000 bushels of oyster shell to create 1,600 oyster bags to restore 8 acres of oyster reef. Volunteers also assisted staff with a multitude of other projects, including the clean-up of Jones Island, Hoop Pole Creek and Morris Landing.

NCCF recognizes the outstanding dedication and hard work of the following volunteers:

MORE THAN 200 HOURS

Ginger Webster, board member, Northeast Region.

MORE THAN 100 HOURS

Sam Bland, board member, Central Region; Beth Moulton, Central; Kay Lannoye, Central; Randy Mason, board member, Central; Carol Reigle, Central; and Donna Snead, board member, Central region.

MORE THAN 50 HOURS

Jeff DeBlieu, Northeast Region; Emily Farmer, Central Region; Ken Ide, Central; Beau McCaffray, board member, Southeast Region; Dot McGee, board member, Central; Lewis Piner, board member, Central; Meg Rawls, board member, Central; Dot Reist, Central; Doug Wakeman, board member, Central; Ann White, Central; and Steve Wolfe, board member, Northeast.

MORE THAN 25 HOURS

Dick Bierly, board member, Central Region; Jack Cleaves, Central; Wayne and Mary Grossnickle, Southeast Region; Trish Ide, Central; Jeff Mazza, Central; and John Zimmerman, Central region.

Lynne Foster

Lynne Foster traveled the world in her youth—and finally found home in the tiny fishing village of Hatteras. With her husband, NCCF board member Captain Ernie Foster, she runs a fishing charter business on the famous Albatross boats, which were first built in 1937.

The history of the Fosters' business can be found in several books about the Outer Banks and on the Albatross Fleet web site (www.albatrossfleet.com). What the books won't tell you is the level of Lynne's involvement in preserving Hatteras' fishing culture and its coastal waters.

Each September, Lynne organizes the Day at the Docks festival, which features activities peculiar to fishing culture — net tying races, marlin fishing heats (using a concrete bucket to simulate a big game fish), survival-suit swims, a chowder cook-off and a fishing contest for kids. The festival was largely her idea. "It's a lot of work, but also an awful lot of fun," she says. "The culture is what makes this place different from everywhere else."

When Ernie was named to the NCCF board in 2004, staff members joked that they were getting a "two-fer"—that is, two good workers for the price of one. Subsequent years have borne out that prediction. Lynne serves on the advisory

committee for the Northeast and recently completed a survey of environmental education programs in the region that will help shape our new coastal outreach program. She is helping with the

NCCF capital campaign. And she has worked with NCCF staff, local residents, and county officials toward placing much of Durants Point, large marsh on the west side of the village, into permanent conservation.

"It's one of the few remaining pure marshes on the southern end of the island," she says. "It protects the harbor from storms, and it's where our young people learn about waterfowl and wildlife."



Federation Looking for More Rain Garden Projects

Education & Restoration

EDUCATION PROGRAM RAMPS UP

With a full-time coastal outreach specialist and coastal restoration specialist now on board, the Northeast Region's environmental education program is poised to run at full speed.

This spring Sara Jean Hallas, the outreach specialist, is working with Katherine Mitchell, a N.C. Aquarium horticulturist, and a team of volunteers to augment plantings at the rain gardens that were built in 2006 at Manteo Middle School.

The original plantings have survived well, especially considering last year's drought. But all gardens need maintenance, and some of the native species are being crowded out by more aggressive exotic plants like Bermuda grass. "Once the natives get established, they'll be fine," Hallas says. "We just need to give them a little extra support until they do."

School rain gardens are becoming an important component of the N.C. Coastal Federation's (NCCF) education program. In addition to collecting and filtering stormwater, the gardens can serve as outdoor classrooms. They also provide examples of how low-impact development (LID) techniques can be incorporated into landscaping.

Hallas and Erin Fleckenstein, the new restoration specialist, are looking for new rain garden projects in the Northeast where they can collaborate with other organizations. The Manteo Middle School project spawned a partnership that included the N.C. Aquarium on Roanoke Island, the UNC Coastal Studies Institute, Dare County's Agricultural Extension Service and Master Gardeners, the school, and NCCF. It was funded with a grant from the Albemarle Pamlico National Estuary Program.

In addition to plants and mulch, the grant paid for a stormwater model and water testing equipment that is used by the school's science teachers. Until now, however, NCCF did not have a staff member that could teach classes on stormwater or wetlands ecology. Hallas'



above: The rain garden at Manteo Middle School needs some maintenance to give native plants a boost.

left: Manteo Middle School students plant a tree in the school's rain garden.

presentations are being designed to fit into the state's standard course of study and to be suitable for schools throughout the region.

In coming months the Northeast education program will be expanded to include high schools and adults. A program on LID on March 13 in Currituck County is tailored for builders and local planners. It is being sponsored by the Bank of Currituck. Larry Coffman, a LID specialist with 30 years of experience in controlling stormwater, is the featured speaker.

An April presentation by Stan Riggs, the renowned coastal geologist at East Carolina University, is being planned for Dare County. Riggs will speak on climate change, sea level rise and the folly of trying to hold back the ocean with hardened structures like groins.

MANTEO OFFICE TO OPEN THIS SPRING

Renovations continue on the Northeast Region office building, and plans are being made for a grand opening this spring, probably in April.

The building has been gutted, new windows have been installed, and arrangements have been made for a handicap lift and parking. The office will overlook the new wetlands park that will be built next fall by the town of Manteo to help control stormwater.

Once a completion date is firmly set, the Northeast staff will schedule an open house for members and the public.

Dare Stormwater Pipe Rebuild Serves as Cautionary Tale

The state Department of Transportation (DOT) has received permits to rebuild three pipes that will carry polluted runoff into the Atlantic Ocean in Dare County. Two of pipes will be in Nags Head and one in Kill Devil Hills. The pipes carry runoff polluted with gas, oil, lawn chemicals, sediment and bacteria into the surf. The runoff could endanger human health and marine animals.

DOT and the towns didn't want to have to do it. They had tried to find alternative ways of controlling the flooding problems their communities face.

The replacement of these pipes, recognized by everyone as a far-from-ideal solution, provides a clear lesson for us all: prevention is far better than trying to cure, because in many cases, a cure may not be possible.

Eleven pipes along the N.C. coast carry runoff to the ocean. Nine are in Dare County. They are dinosaurs, remnants of a time when scientists didn't realize how damaging stormwater can be to coastal waters. That time is no more—it is widely known that stormwater is the number one pollutant of North Carolina's coastal waters.

The Dare County beaches near the outfalls are permanently posted with public swimming advisories because of the amount of bacteria piped

into the surf after rains. In fact, for the first time, N.C. sites on the Atlantic Ocean have been listed as impaired for recreation on the EPA's list of impaired waters, the draft 2008 303(d) list (http://h2o.enr.state.nc.us/tmdl/General_303d.htm#Downloads).

None of the officials who inherited these pipes and their problems argue that they are a good idea. They do argue that DOT has little choice, because heavy rains cause flooding in neighborhoods. Everyone is looking for a less-harmful fix. The state's Coastal Habitat Protection Plan, endorsed by the three environmental commissions of the state, calls for reducing the flow through them or eliminating them altogether.

To this end, the N.C. General Assembly appropriated \$15 million for DOT to clean up the outfalls. DOT does plan to test an underground treatment chamber with filtering capacity at one outfall in Nags Head. The chamber

contains sponges that will collect pollutants from the water. It will be buried beneath the sand. Because the sponge will be so close to the surf, its treatment capacity will depend on the level of the tide when rains occur. At low tide, its filtering capacity will be at a maximum. At high tide, it will be at a minimum. Its effectiveness will also vary by quantity; the system is designed to bypass the filter in heavy rainfall events. And the cost of the chamber, at \$1.2 million, is steep for a treatment system that only removes a very small percentage of the total pollution the pipes generate.

As much as possible, stormwater should be retained on the sites where it is generated. The safest way to avoid stormwater flooding is to direct runoff into rain gardens and stormwater infiltration areas, or to reuse rain for landscaping and other non-potable needs that is collected in rain barrels and cisterns. In built-out areas, open space land for such purposes has to be found either through park acquisition or by redesigning existing landscaping so that it disconnects impervious areas from downstream surface waters. Public momentum, political will and funding must be directed to this purpose. And communities at an earlier stage in their development should take care to avoid creating the need for the stormwater drainage pipes in the first place by promoting low impact development practices that replicate and respect natural hydrologic conditions.



*below: Runoff triggers a plume of pollutants in the ocean off the Outer Banks.
left: N.C. DOT begins building a pipe to dump stormwater into the ocean.*

LID METHODS SHOULD BETTER PROTECT CORE SOUND

Coastkeeper

GROUPS SETTLE CHALLENGE OF STORMWATER PERMIT

The N.C. Coastal Federation (NCCF) and Down East Tomorrow, a grassroots citizen group in Carteret County, settled their challenge of a state stormwater permit after the developer of a proposed subdivision on Core Sound agreed to incorporate low-impact development (LID) techniques to better protect one of the cleanest water bodies left along the N.C. coast from polluted stormwater.

After months of negotiations, Core View LLC, the developer of a proposed 24-lot subdivision near Atlantic in eastern Carteret County, agreed to go beyond state stormwater standards and include LID techniques to reduce the flow of stormwater into Core Sound. LID reduces runoff by re-creating the drainage patterns that were present before development. By including practices such as rain gardens, green roofs, bioretention cells, cisterns, swales, and porous pavements, developers can increase runoff infiltration, storage, filtering, evaporation, and detention onsite.

The developer of Core View will build a low earthen berm around much of the subdivision to hold runoff and allow it to infiltrate into

the ground rather than flow into the sound or into wetlands on the property. The berm will become a condition of the developer's state stormwater permit.

"We knew that the minimum requirements contained in the original stormwater permit wouldn't adequately protect Core Sound," said Todd Miller, NCCF's executive director. "We're extremely pleased that we've been able to work with the developer to incorporate LID measures that should better protect the sound."

Despite written objections from more than 100 residents of eastern Carteret County, the N.C. Division of Water Quality gave Core View LLC a low-density stormwater permit in August 2006. NCCF and Down East Tomorrow challenged the permit, claiming that it would fail to protect water quality in Core Sound. The



Volunteers plant trees in February at North River Farms.



NCCF intern Erica Hellen talks to children at Cape Lookout National Seashore.

sound is classified for shellfish harvesting and as Outstanding Resource Waters, the state's highest water classification. The groups based their claim largely on DWQ's own analysis that found that the low-density permits had failed to protect the most sensitive waters along the coast.

Before an administrative law judge heard the permit challenge, the developer and the two groups began negotiating a settlement. The Southern Environmental Law Center filed the challenge for the groups and handled the subsequent negotiations for them.

Education

SUMMER PROGRAMS OFFERED AGAIN AT CAPE

Summer visitors to Cape Lookout National Seashore will again

have an opportunity to learn about the island's ecology on free guided walks that NCCF will offer.

Programs on barrier island ecology and tidal flats will be offered from June 3 until Aug. 14. For specific dates or to sign up, please contact Carteret County Parks & Recreation at 252-808-4067.

Since 2005, the Federation has partnered with the seashore and the Carteret County Parks and Recreation Department to offer educational programs for summer visitors to the national park. NCCF has helped educate more than 1,200 visitors to Cape Lookout about plant and animal adaptations, the importance of barrier islands for North Carolina, the constant migration of barrier islands and other environmental issues the coast is facing. These programs are taught by NCCF staff, summer interns and volunteers.

Restoration

PLANTING HELPS TO COMPLETE RESTORATION

The first NCCF volunteer restoration event of 2008 was held at North River Farms in Carteret County in February. Volunteers along with professional planters helped plant native trees on 53 acres of created bottomland hardwood forest. All told, more than 33,000 trees were planted, including Atlantic white cedar, bald cypress, longleaf pine, black gum, water tupelo, silky dogwood, green ash, swamp red bay and an assortment of oaks.

Now that we are nearing completion of the restoration of more than 800 acres of farm fields to wetlands, work is about to begin to plan to restore almost 2,000 additional acres of farm fields on the property. This acreage is currently under a 10-year farm lease. Farming on the tract will end in 2011, and wetland restoration will begin.

North River Farms, on U.S. 70 near Otway in eastern Carteret County, is the site of the largest wetland restoration project in North Carolina and among the largest project of its kind in the country. NCCF started buying about 4,000 acres in 1999 with grants from the N.C. Clean Water Management Trust Fund. Private investors bought an additional 2,000 acres that will also be restored.

The primary goal of the restoration project is to re-create forested, tidal and freshwater wetlands that would filter and pre-treat agricultural runoff from an adjacent farm before reaching the creeks leading to North River. Through federal, state and community partnerships, the wetland restoration project at North River Farms continues to improve water quality in the North River Estuary.

MORTON FARM Is Latest Addition to White Oak Preserve

BY CHRISTINE MILLER, *Communications Director*

The one thing Rachel Morton didn't want was a lot of houses on the land where she and her husband had raised their family.

"We've owned this farm for 55 years, and I'd hate to see it in houses," she said, referring to her decision to sell the 204-acre family farm on the White Oak to the N.C. Coastal Federation (NCCF) for preservation. "We like it open. My boys (her two sons) are in agreement: Keep it natural, and the state will take good care of it."

These sentiments are ones all partners in the project to protect Morton Farm can agree on. With money from the N.C. Clean Water Management Trust Fund and the U.S. Fish and Wildlife Service, NCCF will buy the farm this summer and turn it over to the state Wildlife Resources Commission (WRC), to be managed as public gamelands.

The land adjoins an existing waterfowl impoundment that the commission bought from the Mortons in the late 1980s and ties together with the Huggins Farm, another tract that NCCF bought and put into conservation. With the addition of the Morton Farm, nearly 1,000 acres on the White Oak River will be protected for the public, and water quality will be preserved. Also saved will be some of the natural beauty of a rapidly developing watershed.

As in most things, relationships are what led to the protection of the farm. In this case, the friendship between the Mortons and the wildlife commission stretches back decades. In the 1960s, Percy Morton gave the commission a 20-year lease on a 100-acre tract and allowed the state to build a waterfowl impoundment on it. Going further, he put in a boat ramp on Webb Creek with his own money and gave the state deeded access to the property through his own property.

He was pleased with the deal, though not for any monetary gain. "Percy was happy that the average guy was getting a chance to use the property," said Vic French, a coastal management biologist with the wildlife commission. "Even though he was successful, he still considered himself an average, common man, and wanted to make sure the river remained open."

Over the term of the lease, the Mortons had ample time to observe the state's stewardship at close hand. They watched the commission's officers, taking note of how they managed the land and the impoundment. "While it was leased, we could see that they would take care of it," Rachel said. "They'd stop and talk with us, and we felt comfortable with them."

This relationship made the Morton's decision to sell the property to the state relatively easy when the lease expired. The family had received an offer from some professionals interested in the property for hunting for considerably more money than the state could offer. They chose instead to sell it to the state, because they wanted it to remain available to those who couldn't afford to live on the water.

After Percy Morton died, Rachel started thinking about what to do with the farm after she passed. The farm was leased out, and her sons had pursued professional careers and did not plan to return to farming. She wanted to preserve their inheritance, but didn't want to see the land developed or trigger a family conflict after her death. "It's better to make these decisions while I was able to," she said. "My son said there was a doctor who wanted it to build, but I

didn't want to hear that. We talked and we want it to stay the way it is."

"The Mortons are from a different generation, they're tied to the land," explains French. "They earned their living from it, and they don't like what's happening. We'd all like to keep it like it is and not change it like so much else has changed. When you stand on the hill [on the property] and look across the river, it looks like an amusement park."

Rachel started talking with the commission about how to keep the property natural and open, which is where another relationship came into play. The commission staff had worked on many projects with NCCF over the years. They turned to us to help them find the money to buy Rachel's land.

The commission will be happy to expand the gamelands and join the two properties, preventing development in the middle that would fragment the land. In homage to Percy's initial decision, they installed a street sign on the road into the impoundment, "Percy Morton Road."

Rachel is also pleased. "I feel good about it, because it would have been his decision, too. It was a restful thing to go down there. Percy and I would ride down to the water every evening and sit down somewhere and enjoy the quietness. It was a tie between us.

"We worked hard together, and that kind of thing, it makes you close," she continued. "Farming, other people look at it and just see dirt, but there's something about the hard work that feels really good, calming. Not like this kind of rushed lives they have these days. We would come down when the dirt was broken up, just to smell it. It gets in you, you know."

Walking the property in the quiet with her, watching the wild turkeys we spotted on the edge of the field and seeing the ducks take off from the creek, I find that I get a glimpse of it too. And now, as a result of her stewardship and our partnership, others will be able to, as well.

LANDFILL IN BRUNSWICK DEFEATED FOR MOMENT

Coastkeeper

FIGHT LIKELY TO CONTINUE

LDG properties of Wilmington LLC recently asked Northwest, a small town in Brunswick County, to annex 350 acres for the development of a construction and demolition landfill, just a short way from the infamous Sims-Hugo Nue landfill site. The proposed site would be built along the Cape Fear River, and would, once again, be in a predominately low-income, African-American community.

Mike Giles, NCCF's Cape Fear Coastkeeper, along with the Cape Fear Citizens for a Safe Environment, provided comments and suggestions to neighbors who opposed the project. More than 150 people packed a local church on Feb. 4 to hear the details of the project and overwhelmingly voiced strong neighborhood concerns and opposition to this activity.

The Northwest town council, in a 3-2 vote, denied the request to annex or rezone the property for the landfill. Neighbors, concerned citizens and officials from Brunswick County agreed that a landfill should not be located at this site, and that more economical and environmentally viable uses should be pursued for this neighborhood. Previously, a 506-lot subdivision had been originally proposed for the site, but was scrapped in favor of the landfill. Although the landfill is defeated for the moment, it is unlikely that the fight is over for this community.

Restoration

STORMWATER PROJECTS PLANNED AT COMPLEX

NCCF received a \$40,000 grant from the Environmental Enhancement Program of the N.C. Attorney General's office to partner with Brunswick County and Stantec to design and implement five stormwater demonstration projects at the Brunswick County Government Complex.

The five projects will include strategies to retrofit existing paved features, such as parking



above: Laney High School students plant native plants to control stormwater.

left: Mike Giles, the Cape Fear Coastkeeper, right, meets with Brunswick County Engineer Bridget Flora and Stantec representative Jason Doll to identify possible stormwater controls at the Brunswick County Government Complex.



lots, so that polluted stormwater is re-directed away from conventional drain systems, which

lead into adjacent or nearby creeks or streams. Innovative design strategies will allow the stormwater to flow into created vegetated swales and wetlands, where pollutants can be removed as the stormwater soaks slowly into the ground.

The project team also will work with Brunswick County engineering staff to incorporate similar innovative designs into the proposed government complex. These options may include adding low-impact development (LID) techniques to the design of the complex's roads, and modifications to building addition site plans to prevent runoff from reaching nearby waterways. Two of the demonstration projects will be completed in 2008, with the remaining three strategies planned for completion in 2009.

Education and Outreach

EDUCATION AND OUTREACH PROGRAM IN FULL SWING

Thanks to strong support from NCCF members and the North Carolina GlaxoSmithKline

Foundation, the Southeastern regional office's education and outreach program is fully staffed and implementing major program initiatives for 2008.

Working with the region's restoration and Coastkeeper program, the education and outreach programs is engaging the region's volunteers, students, landowners, decision-makers and the public in a variety of projects ranging from oyster habitat restoration to installing rain gardens. Four schools are already participating in the Coastal Habitat Education Program, which includes the student wetland nursery, shellfish habitat restoration and oyster and shoreline monitoring programs.

Support from the North Carolina GlaxoSmithKline Foundation will enable NCCF to increase its regional efforts to engage more students and teachers in building oyster reefs, monitoring restoration projects and growing saltmarsh seedlings in their schools and planting them at restoration sites.

The regional staff will also begin planning for workshops organized through property associations and local governments to recruit landowners to install simple and attractive landscaping and best management practices that can greatly reduce the volume of polluted runoff that goes downstream into our coastal waters.

Come Learn About Your Back Yard Creeks at Community Meetings

BY TED WILGIS, *Coastal Outreach Specialist*

Come learn about your “backyard” creek – what might be ailing it and what you can do to help it – at one of the community meetings the N.C. Coastal Federation (NCCF), universities and government agencies are planning along the Southeastern coast.

The free meetings will offer residents a chance to learn about the health of their local creek from university researchers and ways in which they can become stewards of their local waterways. From installing rain barrels to planting creekside buffers, residents will learn about educational resources, programs and cost-share funding available to them to implement these stewardship practices.

Everyone is invited to the creek meetings, and volunteers are needed to spread the word about them. Please join NCCF, the Wilmington, New Hanover County, the University of North Carolina Wilmington and the New Hanover County Soil & Water District at the first two community meetings:

- Tuesday, April 15, at Ogden Elementary School for Futch, Pages and Howe Creeks.
- Tuesday April 22, at Bradley Elementary School for Bradley, Hewlett’s and Whiskey Creeks.
- Both meetings will start at 7 p.m.

At first glance, the region’s tidal creeks are brimming with lush green marshes and acres of oyster reefs, and

are teeming with people boating, swimming and fishing. A closer examination, though, finds that many of the region’s tidal creeks are closed to shellfishing and are sometimes off limits to swimming because of harmful pollutants in our coastal waters. Acres of the creeks’ vital salt marshes are being lost as more shorelines are developed, and oyster reefs are being buried by sediment carried off the land and into the creeks by stormwater. The vital role that these creeks provide to the region’s residents and ecology are being lost. In short, our beloved creeks are out of balance.

One of the heavyweights tipping the scale is stormwater, which is simply polluted runoff generated from rainfall. As the rainfall hits paved or other hard surfaces, it collects sediment, harmful pathogens, toxins and other pollutants before emptying into local streams and creeks. The U.S. Environmental Protection Agency ranks stormwater as the number one issue facing our coastal waters. The N.C. Division of Water Quality found that stormwater runoff is now the main

reason for the vast majority of closures of shellfish waters. As a direct result, sensitive shellfish waters and vital Outstanding Resource Waters of the tidal creeks are under increasing pressure up and down the coast. As of 2005, more than 56,000 acres of shellfish waters were permanently closed to shellfish harvest. Another 50,000 acres close temporarily after

working with local county and city planners, university researchers, and resource agencies to engage the region’s residents in active stewardship of their local tidal creeks. Community meetings are being held in the watersheds of the region’s tidal creeks. The first of these regional creek meetings will be held within Wilmington and New Hanover County. Future meetings will be



Volunteers sample a local creek.

moderate rains. Almost all of New Hanover’s and Wilmington’s tidal creeks are closed to shellfishing.

Along with stormwater, another factor affecting the health of the region’s tidal creeks is the loss of coastal habitats and their buffering capacity. These habitats are found in the watersheds, the area of land that drains runoff to a particular stream, river, lake or waterway of the tidal creeks. Maritime and longleaf pine forests, wetlands, shrub habitats and salt marshes help to protect water quality through absorbing and filtering rainfall and stormwater. As the region’s population increases and more land is developed, these habitats are lost and water quality declines.

To try to balance the ecological scale in favor of healthy creeks, NCCF is

planned and held in local settings throughout Onslow, Pender and Brunswick counties.

Participants will also learn about an opportunity to join NCCF staff and citizens from throughout North Carolina’s coast to travel to Raleigh on June 4 in support of Clean Water Lobby Day. Citizens will join NCCF to celebrate the release of our annual *State of the Coast Report*, and to meet their local legislators and encourage their support for the proposed coastal stormwater rules. Through new and more effective stormwater rule adoption by the N.C. General Assembly, local residents have a chance to “balance the scales” in favor of clean, healthy creeks.

If you would like more information about the meetings, or you are interested in helping to publicize the meetings in your neighborhood or community, visit our website at www.nccoast.org, contact NCCF’s Southeastern Regional office at (910) 790-3275 or contact Ted Wilgis at tedw@nccoast.org.

Residents will learn what they can do to protect their local tidal creeks.



NCCF CALENDAR SPRING 2008

call NCCF for more information:
252.393.8185

March

1 – Annual Hoop Pole Creek Clean-Up, Atlantic Beach

11 – NCCF Open House, Headquarters, 4-6 p.m.

13 – Low Impact Development workshop, Bank of Currituck

27-28 – CRC, Clarion, Kill Devil Hills

April

TBA – Stan Riggs talks in NE region

15-22 – Tidal Creek meetings in SE region

24 – Go Native Plant Sale; Members Preview (Thursday, 4-6 p.m.) Headquarters

25-26 – Go Native Plant Sale at NCCF Headquarters

26 – Visit NCCF's Earth Day booth at Hugh McRae Park in Wilmington

May

22-23 – CRC, Civic Center, Washington

June

3, 5, 10, 12, 17, 19, 24, 26 – Barrier Island Ecology Program, Cape Lookout National Seashore, 11 a.m. and 1 p.m.

4 – State of the Coast Report release, Raleigh

13 – Tidal Flats Exploration Program, Cape Lookout National Seashore, 9 a.m.

16 – Tidal Flats Exploration Program, Cape Lookout National Seashore, 11 a.m.

30 – Tidal Flats Exploration Program, Cape Lookout National Seashore, 10 a.m.

Help Keep North Carolina's Coast Healthy and Beautiful!

Apply for NCCF's specialty license plate TODAY! Proceeds will be put to work protecting and restoring coastal North Carolina.



TO ORDER: www.ncdot.org/dmv or your local license renewal office.

Join The North Carolina Coastal Federation

MEMBERSHIP APPLICATION

Yes, I want to help protect and restore our coast. Please enter my membership in the North Carolina Coastal Federation today.

Name _____

Address _____

City _____

State _____

Zip _____

Phone _____

Email _____

Individuals or Families:

\$35 \$50 \$100 \$250 \$500 \$1,000

Businesses, Groups & Organizations:

\$50 \$100 \$250 \$500 \$1,000

Additional benefits: \$100 level – NCCF hat; \$250 level – NCCF shirt and hat; \$500 level – NCCF hat and shirt and listing in NCCF's Annual Report; \$1,000 level – NCCF hat and shirt, listing in Annual Report and invitation to a private NCCF event.

Please make your check payable to NCCF and mail with this form to 3609 Highway 24 (Ocean) Newport, NC 28570 or complete the credit card information:

Name _____

Card: Visa MC Am Exp. Discover

Credit Card Number _____

Expir. Date _____

Signature _____

Membership fees minus the value of benefits received are tax-deductible. Fair market value of benefits are: \$35-\$50 level: 0; \$100 level - \$10; \$250 level - \$20; \$500 level - \$25; \$1,000 level - \$50.

Check here if you wish to waive benefits and receive the maximum deduction.

NCCF'S 5TH ANNUAL

Go Native Plant Sale

April 25-26, 2007 from 9 a.m. -5 p.m.
NCCF Headquarters
3609 Hwy 24, Ocean, N.C.
Between Morehead City and Swansboro

Featuring more than 3,000 plants and 125 species: flowering perennials, bushes, trees and aquatic plants.

Native Plants, Rain Barrels, Plant Experts, Exhibits & Entertainment

Earth Day Raffle features artwork by local artist Georgia Mason, N.C. pottery, garden supplies and much more

MEMBERS SNEAK PREVIEW

Thursday, April 24, 4 p.m. -6 p.m.
NCCF members are invited to purchase plants at the "Sneak Preview" before the sale opens to the public. Membership card must be presented to participate. Non-members can join today or at the Preview.

WANTED: FUEL EFFICIENT VEHICLE

NCCF is in need of a well-maintained, fuel efficient vehicle. If you have a possible donation, please contact NCCF at 252.393.8185.



North Carolina Coastal Federation

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