

CITIZENS WORKING TOGETHER FOR A HEALTHY COAST

# Coastal Review

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R/V WEST BAY

**NCCF AWARDED \$5 MILLION STIMULUS GRANT FOR JOBS & OYSTER REEFS**

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**BAD JETTY BILL DIES FOR NOW, REPLACED BY STUDY BILL**

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**RAIN GARDENS, RAIN GARDENS EVERYWHERE**

# 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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The North Carolina Coastal Federation is located on Highway 24 in Ocean, N.C., between Swansboro and Morehead City. Our offices, nature library and shop are open Monday through Friday, 8:30 a.m. to 5 p.m. NCCF also has field offices in Manteo and Wilmington.

member: **Earth Share**  
 OF NORTH CAROLINA

LAYOUT/DESIGN: by 8 Dot Graphics

COVER PHOTO: Thanks to NCCF's stimulus act funding, barges even bigger than this one will be put to work building oyster reefs for North Carolina. (photo courtesy of N.C. Division of Marine Fisheries)

## Reflecting on Two Lives Cut Too Short

About 20 years ago a federation board member passed along a truism that I never forgot. Dot McGee had just had a really challenging episode in her life. She put this difficult time into perspective by saying, "You have to have bad times to really appreciate the good ones."

Here at the federation we've had our share of good times. But this year, tragedy and heartbreak struck. First, in March we lost 16-year old Reid DeBlieu in a traffic accident. Reid grew up with the federation since his mother Jan DeBlieu assumed her role as Cape Hatteras Coastkeeper® in 2003. Shock and deep sorrow caused by his untimely death still gripped us tightly when only two months later long-time staff member Jim Stephenson succumbed to a sudden heart attack at age 57.

These two totally unexpected deaths remind us that our time here on the coast is short and unpredictable. Needless to say, maintaining focus on work over the past several months has been difficult. I'm proud that our staff, board and many members have still accomplished amazing things even while dealing with their grief. You can read in this newsletter about what's been accomplished.

As we say goodbye to Reid and Jim and cherish their memories, each of us can't help but to reflect on the meaning of their lives and ours.

Teenagers like Reid are still figuring things out. We have numerous opportunities here at the federation to help kids learn their interests. Those of us who are parents, as well as our staff

environmental educators, know intuitively that we learn as much from our kids as they learn from us. Reid and other young people enrich our lives, and it gives us great satisfaction to know that we have the opportunity to return the favor to this younger generation. This is one way we've been able to keep focused even during this terribly difficult time.

As we get older, most of us begin to figure out what we want to do with our lives. If we're very fortunate, we get jobs that reflect our interests and allow us to develop them further. Jim loved figuring out the political decision-making process, and he had great instincts and talent that enabled him to influence how it operated. His work at the federation allowed him to use his skills and creativity, and over ten years he was able to make significant and lasting contributions to protect and restore our coastal beaches and estuaries.

While we honor Reid and Jim's lives, we can't help but reflect on how there will never be sufficient time to do everything we want to accomplish. While the federation's mission of protecting and restoring the coast will never end, each of us were reminded this year that we're only on temporary assignment when it comes to carrying out this job. That's why it's so critical that our work be part of a larger community that will continue to work to safeguard our coast once our limited time here has passed. That is the greatest tribute any of us can make to the lives of Reid and Jim and everyone else who gives so much of themselves to make our coast a better place.

*Todd Miller*



## GROWING THE FEDERATION

Since it began in 1982, the federation has held true to the philosophy that the best management of our coastal resources will come with the greatest possible citizen participation. With that in mind, the board and staff set a goal of adding 1,000 new members this year.

Reaching this goal will mean that the federation is 10,000 members strong. For the first half of the year, 560 new members have come aboard. Our regional committees are planning activities and events throughout the state to introduce the federation to individuals who care about the coast.

If you are interested in hosting a house party or member event, please contact Development Director Sally Steele at 252-393-8185 ext. 108 or [sallys@nccoast.org](mailto:sallys@nccoast.org).

Also, we encourage you to introduce the federation to friends, family and business associates. With our new online membership application at [www.nccoast.org](http://www.nccoast.org), joining and renewing are easier than ever.

### Z. Smith Reynolds Foundation Awards Grant

The Z. Smith Reynolds Foundation of Winston-Salem has awarded a three-year, \$330,000 grant to the federation. The money will be used to support the federation's

programs that seek to engage citizens in protecting and restoring coastal water quality and habitat.

Leslie J. Winner, executive director of the Z. Smith Reynolds Foundation, explained the foundation's interest in supporting the federation. "Over the years, we have seen that our investment in the federation has resulted in tangible benefits for our state's coast and the people who live and visit there. The trustees are pleased to share in the good work of this organization."

"The foundation has been a loyal supporter and a catalyst for our growth since they made their first grant to the federation in 1983," stated Todd Miller, the federation's executive director. "The foundation recognizes the importance of providing support for the day-to-day operations of the organization. This



is especially welcome during this challenging economy; it enables us to move forward with our plans to engage thousands of individuals in better management of our coast."

### Come Pay Us a Visit

The federation headquarters in Ocean is a neat place to visit – and we enjoy meeting our members. While our mailing address is Newport, we're located at 3609, N.C. 24 in Ocean (yes – it's really a place) about halfway between Morehead City and Swansboro.

Here you'll find the recently expanded Weber Seashell Exhibit, our wonderful Nature Library, the Patsy Pond Nature Trail and lots of displays and information about our work. We're open Monday through Friday from 8:30 a.m. to 5:00 p.m.

We also have a brand-new office in our NE region. Come visit us in Manteo at 128 Grenville St. and take a look at our rain gardens and other low impact development features.

We're looking for a permanent home in the SE region. Stay tuned! And if you'd like to see examples of our work, call our SE office at 910-790-3275.

## Members Now Enjoy Discounts, Special Offers

We appreciate the loyal support of our members and are always looking for ways to make membership more valuable. We know you like the fact that your dues support important protection and restoration projects along the coast, but isn't it nice to get a little bonus every now and then?

Now membership in the N.C. Coastal Federation is more valuable than ever. The federation's Business Friends are extending discounts and special offers to members. Simply present your federation membership card at any of the following businesses to take advantage of money-saving offers.

### FEDERATION BUSINESS FRIENDS

#### Member Discounts and Special Offers

#### BIKES-R-IN SALES, SERVICE, RENTAL:

1020 CedarPoint Blvd. Cape Carteret 28584; 252-393-7161, toll free 888-393-7161; [www.BIKES-R-IN.com](http://www.BIKES-R-IN.com)

- 10% discount and a \$25 store gift card/certificate on the purchase of any new bicycle priced over \$250.
- 20% discount on all parts, accessories & service

- Plus, Bikes-R-In will send a \$10 check in your name to the federation or pay half of the first annual membership fee for any non-member friend who buys a new bicycle in 2009.

*One offer per year, per member. This offer doesn't apply to sale items nor can it be combined with other discounts or other special incentives*

#### CLYDE PHILLIPS SEAFOOD:

N.C. 24, Swansboro (Look for the shrimp boats at the pink building between the bridges over the White Oak River); 910-326-4468

- Buy ten pounds of shrimp and get one pound free

#### EMERALD ISLE REALTY:

7501 Emerald Dr., Emerald Isle 28594; 866.734.5870; [www.emeraldislerealty.com](http://www.emeraldislerealty.com)

- 5% discount on vacation rentals
- Will match your check-off donation to the federation on rental reservation form

*More discounts and special offers will be coming soon!*

#### FREEDOM LAWN USA INC.:

P.O. Box 1036, Hampstead 28443; 910-270-0027; [www.freedomlawnsnc.com](http://www.freedomlawnsnc.com)

- 20% off first lawn treatment in New Hanover and Pender counties

*New clients only. May not be used with any other discount offers.*

#### GYPSY DIVERS AQUATIC CENTER:

3651 Bastion Lane, Raleigh 27604; 919-255-1931; [www.gypsydivers.com](http://www.gypsydivers.com)

- 10% discount on swim, snorkeling and scuba lessons

#### OCEAN ATLANTIC RENTALS:

105 Shores Ave., Point Harbor 27964; 800-635-9559; [www.oceanatlanticrentals.com](http://www.oceanatlanticrentals.com)

- \$10 off on orders of \$95 or more at any of four stores (Corolla, Duck, Kill Devil Hills and Avon) or online (enter the code NCCOASTAL in the coupon code area.)

#### THE WINE SAMPLER:

4107 Oleander Dr., Suite 1, Wilmington 28403; (910) 796-9463

- 7% discount on wine bottle purchases

# RECOVERY GRANT PUTS PEOPLE TO WORK BUILDING OYSTER REEFS



The N.C. Coastal Federation received a \$5 million federal economic-stimulus grant for habitat conservation to put private industry to work rebuilding the state's oyster reefs. The grant is the only one of its kind given in North Carolina and the seventh-largest such grant in the nation.

Darren Burrus, one of the project contractors and a Buxton resident, has had less work for his company over the last year, but now things are looking up. Thanks to the federation's Recovery Act grant from the National Oceanic and Atmospheric Administration (NOAA), his small business, Cape Dredging Inc., and several other companies will be building oyster reefs off Hatteras Village.

"We're excited to get back to work, the marine construction business has been slow," said Burrus, a co-owner of the company. "And having more oysters and fish around will be good for the watermen and oystermen. I love North Carolina oysters."

The money will be used to build two large



oyster sanctuaries in the Pamlico Sound, one off Hatteras at Clam Shoal and one off Stumpy Point at Crab Hole. The oyster reefs, which

## Did you know?

...that NOAA Recovery Act funding could be used only for coastal habitat restoration? The funds are specifically targeted and could not be used for schools or health care. They would have gone to another state if NCCF hadn't secured them for North Carolina.

will be created with 54,000 tons of stone rip rap, will cover over 46 acres. As designated oyster sanctuaries, the reefs will not be available for harvest. They have valuable benefits to both commercial and recreational fishermen, however, as nurseries for oysters and valuable species of fish.

Computer modeling studies show that these oyster reefs produce larvae that travel to other parts of Pamlico Sound.





The project will save or create 140 jobs, many of them in industries hard-hit by the economic downturn, such as commercial fishermen, quarry workers, tug boat and barge operators and fisheries technicians. A quarry based in New Bern will supply marl for the reef. It will be trucked to Belhaven, where local companies will load it onto barges and build the sanctuaries.

"We've all worked hard to bring oysters back to the North Carolina coast," said Todd Miller, the federation's executive director, referring to several years of ongoing efforts by state government officials, university professors, fishermen and others. "This project allows us to keep the momentum going and even accelerate it in these rough economic times. The fact that we can employ barge and tug crews to do it just makes it better. I'm glad we could bring these national funds to North Carolina."

Another component of the project pays fishermen to plant 40,000 bushels of oyster shell in 19 locations from Ocracoke to Myrtle Grove Sound and Topsail Sound. This program, which the Division of Marine Fisheries will begin in the spring, will provide supplemental income for many fishermen hit hard by the economic downturn.

### OYSTER REEF STIMULUS PROJECT FACTS

- Partners: N.C. Division of Marine Fisheries, private barge and tug companies, quarry, trucking company, N.C. State University, North Carolina Sea Grant and University of North Carolina-Wilmington.
- Amount of funding: \$5 million.
- Seventh largest award in the nation.
- Acreage of reefs created: 46.9 acres of sanctuaries and 2 acres of oyster shell reef.
- Tonnage of limestone marl: 54,500
- Bushels of oyster shells: 40,000
- Jobs created or retained: 140

"The project provides immediate job benefits and enhances ongoing efforts to improve oyster and fish populations and improves water quality," said Louis Daniel, the division's director.

A team of scientists from N.C. State University, UNC-Wilmington and North Carolina Sea Grant will measure the project's environmental and

socioeconomic effects.

NOAA's Community-Based Restoration program is charged with coastal habitat protection and creation. The American Reinvestment and Recovery Act added job creation and protection to their charge. NOAA's Community-Based Restoration Recovery Act grant program gave out \$167 million dollars for 50 projects.

For more information on NCCF's project, please visit the federation's website at [www.nccoast.org](http://www.nccoast.org). Recovery Act projects can also be followed at [www.nmfs.noaa.gov](http://www.nmfs.noaa.gov) by clicking on the Recovery Act logo.



# Jetty Bill Dead, but Legislature Orders Study

The state's long-standing ban on seawalls, jetties and other types of hardened structures along the state's coastline held through another legislative session, but as an alternative the N.C. General Assembly is mandating a study of jetties.

Senate Bill 832, which would have allowed what proponents call "terminal groins" to be built on the beaches to control erosion, breezed through the N.C. Senate but went nowhere in the N.C. House because Speaker Joe Hackney didn't support it. Such structures are currently illegal along the state's beaches because they destroy public beaches.

Proponents of these jetties, though, got Hackney's for support of a study of these structures. The legislature approved the study in the waning hours before adjourning. The bill directs the N.C. Coastal Resources Commission to study the "feasibility and advisability" of using these jetties to protect threatened beachfront property around volatile inlets. The commission is to complete the study by April 1.

It wasn't clear at press time how the commission intends to do the study. The legislature provided no money for the study and the commission has had to cut its normal meetings short because of the state's budget shortfall.

Political pressure to soften the jetty and seawall ban will continue to grow as sea level rises and beachfront erosion worsens. It is incumbent on those of us who oppose the armoring on our beaches to provide the legislature with an alternative to seawalls, jetties and the like.

## State of the Coast Calls for New Beachfront Plan

We offer such an alternative in our new *State of the Coast Report*.

There is little debate in North Carolina that our oceanfront beaches are very special, and their quality and uses should never be



degraded. For the past 30 years North Carolina leaders have embraced this priority, and forestalled many threats to beaches.

But our beaches are caught in a tightening vise grip between the sea and development. Renewed and aggressive leadership is now needed to better align local, state and federal beach management programs.

Limiting high-rise buildings on the oceanfront, promoting family beaches and helping property owners self-finance their relocation out of harm's way are among the sweeping recommendations that make up a new plan to save North Carolina's beaches.

The plan, devised by more than two dozen experts on beach development, is featured in the federation's annual *State of the Coast Report*, which was released in June.

The publication focuses on the state's oceanfront. It describes the causes of the erosion that is eating away at North Carolina's beaches and outlines the rules and regulations that have evolved to protect those beaches and the public's right to use them.

The report is dedicated to Jim Stephenson,

the federation's policy director and legislative lobbyist who died in May of a heart attack.

You can download the report from the federation's website, [www.nccoast.org](http://www.nccoast.org).

## Pelican Award Winners Announced

Sam Bland, the longtime superintendent and ranger at Hammocks Beach State Park, received the N.C. Coastal Federation's Lifetime Achievement Pelican Award. The award was announced in the release of our annual *State of the Coast Report*.

Bland, a resident of Emerald Isle, was among the 20 people, organizations or businesses that received Pelican Awards this year. We give the awards annually to recognize extraordinary work to protect or preserve our coast.

After 30 years with the state Department of Environment and Natural Resources, 22 of them at Hammocks Beach State Park, Bland retired in February. "Sam took care of the park in a way that protected its natural resources while allowing the public to enjoy and understand its spectacular natural heritage," noted Lauren Kolodij, the federation's deputy director. "That's a tough balancing act when you're responsible for protecting one of the crown jewels of our state."

You can read more about Sam and the other Pelican Award winner at [www.nccoast.org](http://www.nccoast.org).

## EPA Backs Away From PCS Permit

The Environmental Protection Agency backed away from its earlier finding that an 11,000-acre mine expansion by PCS Phosphate in Beaufort County posed "unacceptable harm" to critical wetlands and fisheries in the nation's second largest estuary, the Albemarle-Pamlico.

EPA could have vetoed the permit issued by the Army Corps of Engineers while still allowing continued mining by the company for 29 years. "EPA has inexplicably reversed course, embracing a devastating mine plan that it determined would cause unacceptable





Sam Bland, recipient of the N.C. Coastal Federation's Lifetime Achievement Pelican Award.

harm just two months ago," said Derb Carter, director, Carolinas Office, the Southern Environmental Law Center. "EPA isn't protecting the environment our children and grandchildren will inherit long after PCS Phosphate mining has left the area."

The Corps rejected the minimum steps EPA had earlier determined were necessary to avoid "unacceptable" impacts from the mine expansion, leaving EPA's concerns largely unaddressed. In its letter accepting the permit, EPA acknowledged the inevitable destruction it has now blessed.

PCS Phosphate's permitted mine expansion will be the largest single destruction of wetlands permitted in North Carolina history. It jeopardizes the

irreplaceable ecosystem of Albemarle-Pamlico Sound.

PCS Phosphate, a subsidiary of Potash Corporation of Saskatchewan, is now permitted to mine 11,000 acres, including 4,000 acres of wetlands and more than four miles of tidal creeks and streams bordering the Pamlico River.

The federation and other environmental groups are challenging a state determination that the new mining plan won't adversely affect water quality.

### Belt-Tightening Squeezes Meetings

A souring economy generating less tax revenue prompted the state to order increasingly stringent belt-tightening across the board, and some agencies are responding by putting their regular public meetings on hold to save money.

The N.C. Marine Fisheries Commission shaved its multi-day meetings to a quick conference call. Two boards that distribute grant money for parks and conservation projects have canceled their meetings. And this week the N.C. Division of Coastal Management cancelled one meeting of the Coastal Resources Commission and cut the others short. The commission is a 15-member board that regulates development along the coast.

Michele Walker, coastal management spokeswoman, told the *Star-News* of Wilmington that each of the commission's half-dozen annual meetings, which generally last two days and take place at different locations along the coast, can cost up to \$20,000 in gas and room and board costs for the commission members and staff.

But canceling the meeting, with

potentially more meeting dates in jeopardy, might effectively stall the commission's work, and that would come at a time when it has several significant issues on its plate.

They include discussions about small jetties on the beach, sandbags, setback rules around volatile inlets, renewable energy sources and a review of the state's overall management of its coastal resources.

### Plastic Bags Banned on Banks

Shoppers in Currituck, Dare and Hyde counties can no longer carry home their purchases in plastic bags after a N.C. General Assembly passed a bill banning such bags on the Outer Banks. The bill was pushed by state Senate leader Marc Basnight.

Under the bill's provisions, merchants can't provide customers in the three counties with a plastic bag unless the bag is reusable or is used to wrap unpackaged portions of fish, meat, poultry or produce. The ban applies to plastic bags less than 2.25 mils in



thickness and composed of non-biodegradable material. A mil is a unit of measure equal to one thousandth of an inch. Retail stores can supply customers with paper bags made from recycled material.

# State Plans to Widen Highway through Wetlands

## Coastkeeper®

From Rocky Mount to Columbia, U.S. 64 is a divided, elevated four-lane highway with a speed limit of 70 miles an hour. Now the state Division of Transportation (DOT) has plans to extend the four-lane highway east of Columbia to Manteo. Never mind that the road is sparsely traveled, except for summer weekends. DOT officials say the extra travel lanes are needed for hurricane evacuations. Cost is estimated at \$242 million, according to the DOT web site.

But what will happen to the sensitive wetlands of the Alligator River region when the highway is upgraded? The 27-mile stretch passes through swamp forests and mixed freshwater and saltwater marshes, much of them within the Alligator River National Wildlife Refuge. It also includes the Lindsay Warren Bridge over the river.

Unless special measures are taken to allow the passage of water beneath the highway—by bridging part of it, say—it will act as a dam, causing water to pile up on the north side. The existing road already acts as a partial dam. But the new highway will be bigger and higher. There's talk of making it a controlled access corridor, with a speed limit of 70. The existing road would be left in place for local traffic. During storms brackish water from the river and the Albemarle Sound would pile up against the six travel lanes, drowning freshwater wetlands and forests.

The highway was originally built by digging canals and piling up the fill for the road bed. For the past several years conservationists have been looking for ways to restore the natural hydrology of the region to help buffer the land against sea level rise. Canals allow salty water to travel deep into the swamps, where it is taken up by the porous peat soils. The Nature Conservancy is looking for restoration projects on the Alligator River refuge, while the federation concentrates on the private lands to the south.

Installing intermittent bridges along



*Jockey's Ridge State Park; aerial courtesy the N.C. Division of Coastal Management*

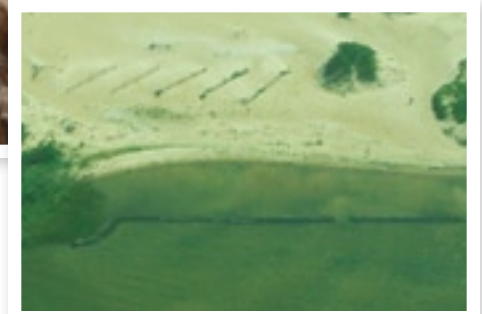
Highway 64 would be one way to mimic the natural water flow. But that would drive up the cost of the project. As DOT completes a Draft Environmental Impact Statement this fall, Cape Hatteras Coastkeeper® Jan DeBlieu and other conservationists will be lobbying for the new road to include features that help restore the area's hydrology.

"This is a great opportunity to correct problems caused by the existing road," DeBlieu says. "We're not sure exactly how the new highway should be configured, but water quality protection and sea level rise should definitely be part of the discussion."

## Restoration/Education

By the end of the 2008-2009 school year, NCCF and partners created a new oyster sill at Jockey's Ridge State Park, along with a replanted salt marsh. New rain gardens were scattered throughout the region at schools, residences and Manteo Town Hall.

About 450 local students had received hands-on instruction in their classrooms from Outreach Specialist Sara Hallas: 80 at



Manteo Middle School, 240 at First Flight Middle School, 80 at Kitty Hawk Elementary School and 50 at Manteo High School. And most of those had participated in garden plantings or field trips run by Hallas and Coastal Restoration Specialist Erin Fleckenstein.

The northeast region's first academic year with a full staff was busier and more successful than anyone could have hoped. "It's been wonderful to have the students involved in our restoration projects, and to have them experience activities in the field," Hallas said.

By far the largest project completed was at Jockey's Ridge, where a 425-foot-long sill was built using oyster shells placed in bags by volunteers. Over the winter and spring 1,800 bushels of shells were bagged by middle school students and adult federation volunteers and the Friends of Jockey's Ridge.

Student volunteers from Wartburg College



in Iowa spent four long days in April stacking bagged shells into a breakwater, or sill, to reduce the wave action washing ashore from the wide fetch of Roanoke Sound. The students formed bucket brigade-type lines and tossed the bags from shore to the edge of a small embayment. “They were great—really enthusiastic. We had a hard time keeping up with them,” said Fleckenstein. The students’ help was arranged through the Nature Conservancy, a partner on the project.

The college students helped supervise 10 eighth-grade classes from First Flight Middle School in Kill Devil Hills, whose visit to the site was the culmination of a year-long series of classes on oysters and wetlands habitat. During the visit, in addition to wielding bags of shells, the eighth graders ran tests on the local water quality and pulled seine nets to see what kinds of marine creatures live just offshore.

In May and June, an acre of marsh was planted behind the sill, using thousands of grass plugs. Volunteers and park staff planted the plugs during several work days. The sill and new marsh—known as a living shoreline—will protect the park’s banks from erosion and provide habitat for estuarine creatures.

Hallas and Fleckenstein have spent the summer gearing up for the programs scheduled for the coming academic year. In addition to classroom lessons based around the rain gardens at existing schools, a few gardens may be built at new schools in the region. Another living shoreline will be built at the North Carolina Center for the Advancement of Teaching campus (NCCAT) on Ocracoke, with the help of local students and teachers attending seminars at the center. It’s hoped that more work can be done at Jockey’s Ridge as well.

“I knew we’d be able to do a lot in the region once we had some more staff,” says Jan DeBlieu, Coastkeeper and northeast program manager. “But I didn’t think we’d be able to go from zero to 60 quite so fast.”



## TOM THOMASON

If you look at the pictures from the northeast region during the last several years, one face keeps appearing again and again. He’s there in the rain gardens at Manteo Middle School, planted in November 2006. He’s there helping landscape the grounds at the northeast’s new office in the summer of 2008 and he’s there in the shots from last winter bagging oyster shells at Jockey’s Ridge.

Tom Thomason has been one of the northeast region’s most enthusiastic and loyal volunteers. Accompanied often by his wife, Lynn, he’s turned federation volunteer events into a means for accomplishing two personal goals—helping the community while getting as much exercise as possible.

Tom spent 24 years in the Air Force and reached the rank of colonel. During 1985 and ’86, he was an acting assistant deputy undersecretary of defense under President Reagan. Much of his work centered on the development and evaluation of defense systems, including intercontinental ballistic missiles. After retiring in 1986, Tom spent an additional 11 years working on national defense issues in the private software industry.

Tom retired for good in 1997 and moved to Kill Devil Hills from their long-time home of West Springfield, Virginia. “I was ready to take some walks on the beach,” Tom says.

But beach combing wasn’t enough. The Thomasons soon became involved in a variety of volunteer programs in the community. When the federation’s northeast volunteer program began in earnest in 2006, Tom and Lynn were among the first to sign up.

An avid gardener, Tom’s efforts have been particularly helpful to the region’s rain garden program. He says he keeps volunteering because of the staff’s smiling faces—and the ability to help out while keeping active.





*Volunteers mug it up for the camera after building an oyster reef at Jones Island.*

## JONES ISLAND GETS A MAKEOVER

### Education/Restoration

The N.C. Coastal Federation is working with Hammocks Beach State Park to establish an Environmental Education and Restoration Center at Jones Island in the White Oak River near Swansboro.

The federation bought about six acres of this 23-acre island with a grant from the N.C. Clean Water Management Trust Fund. We donated the land in 2007 to the Division of Parks and Recreation to become part of Hammocks Beach State Park. Audubon North Carolina, which owned an adjoining 10-acre tract, also gave its land to the park.

Now that about 70 percent of the island is publicly owned, the federation and Hammocks Beach State Park are working on a project at the island to restore marsh and oyster habitat and to help prevent erosion. The restoration project, funded through grants from the National Oceanic and Atmospheric Administration's Community-Based Restoration Program and Restore America's Estuaries, includes a combination of marsh grass plantings, loose oyster shell placement and the creation

of sills made from mesh bags filled with oyster shells.

Through this project, over 300 volunteers have helped to create bags of oyster shells



*An oyster-shell reef begins to take shape at Jones Island in the White Oak River.*

and marl and have planted 21,475 plugs of marsh grass on the northwest shoreline of the island. In June, Public Radio East also helped to recruit 70 additional volunteers to create a 150-foot-long sill using more than 2,000 bags of oyster shells and marl.

These activities offer numerous opportunities for expanding the public education programs of the federation and the park. The Jones Island Environmental Education and Restoration Center was established to combine education with restoration by providing the community with an opportunity to learn about coastal environments and their protection through hands-on restoration activities.

### The specific goals of the Center are to:

- Incorporate public outreach and educational programs into the shoreline marsh and oyster habitat restoration projects on and around Jones Island.
- Provide environmental education and stewardship programs for visitors to the park that make appropriate use of island facilities, its natural resources and the surrounding coastal environment of the White Oak River watershed.
- Restore and upgrade island infrastructure



and degraded coastal habitats to demonstrate effective development practices for coastal North Carolina.

To reach these goals, the federation and the park are working together to engage students, teachers, civic organizations, government leaders and other community groups and the general public in restoring estuarine habitats, and in the process, educate them on estuarine and marsh ecology; oyster biology and restoration; erosion and shoreline stabilization; coastal water quality and habitat protection and restoration.

The education will be provided through field trips, restoration camps, workshops, outings for summer camps and other public outreach activities. The educational curriculum and activities will be correlated to the N.C. Department of Public Instruction's Standard Course of Study Objectives and the N.C. Environmental Education Plan goals and objectives.

The center began its initial operations in summer 2009. Education and restoration activities were performed every Wednesday with over 200 participants assisting with all

aspects of restoration including bagging oyster shells and marl and using these bags to create a second sill on the southwest side of the island. Also this summer, a great deal of manual labor has been performed to convert the existing buildings on the island into environmental education classrooms and meeting facilities.

If you're interested in participating in the activities on Jones Island or taking a group over, contact Sarah Phillips at 252-393-8185 or at sarahp@nccoast.org.

## Coastkeeper®

### DRAMATIC CHANGES NEEDED FOR COASTAL LAND USE PLANNING PROGRAM

The N.C. Coastal Resources Commission (CRC) in June conditionally approved Carteret County's Coastal Area Management Act (CAMA) land use plan and final approval will likely follow despite numerous deficiencies with the plan and the planning process in general.

In a letter to the commission, Melvin Shepard, Jr., a commission member and president of the federation's Board of

Directors, questioned some of the growth calculations used in the Carteret County plan, fearing it greatly overestimated the amount of developed land needed to meet the county's projected population growth. The plan as written does nothing to guide development away from some of the county's most environmentally sensitive lands and waters.

For North Carolina's 20 coastal counties, land use plans are required as part of the Coastal Area Management Act. Counties are asked to evaluate where future development should occur while considering the environmental effects of growth. Each land use plan is supposed to address issues such as degrading water quality, coastal resource protection and storm hazards. Once a plan is approved by the CRC, it becomes the basis for permitting and regulatory decisions.

The CRC has struggled for the past decade to make land use plans more effective. Land use plans have failed to guide growth away from sensitive areas and prevent further degradation of water quality. NCCF is now developing recommendations for how to encourage better plans—stay tuned.

## Rain Gardens Rule

Rain gardens, shallow depressions in the ground planted with native plants to absorb runoff, have become the newest cool thing for fifth-grade students in Carteret and Craven counties.

During the 2008-2009 school year, students and teachers from four schools learned about stormwater runoff, infiltration, native plants and soils and then helped to build and plant one or more rain gardens on their school's property. The school rain gardens will capture stormwater from hard surfaces such as parking lots, sidewalks, and rooftops, filtering what would otherwise become polluted runoff entering nearby creeks, rivers and sounds.

Many of the gardens are planted near or at front entrances and are highly visible. Such visibility guarantees that other visitors entering the school are educated as well. Partnering with students in classroom and outdoor settings promises environmental awareness and stewardship, since they are required to take care of the rain garden after it is created.

In the coming years, federation staff will continue to visit the schools, introducing rain garden concepts and

maintenance needs to the next generation of fifth graders.

### 2009 Partner Rain Garden Schools

- Smyrna Elementary School, Smyrna: One large rain garden at the school entrance. Cooperating teacher – Margie Misenheimer; funded by Wal-Mart, the N.C. Department of Transportation and the N.C. Community Conservation Assistance Program.
- White Oak Elementary School, Cape Carteret: One large and two small rain gardens at the school entrance. Cooperating teacher – Mindi Waterman; funded by Wal-Mart and the N.C. Community Conservation Assistance Program.
- Arthur W. Edwards Elementary School, Havelock: Three small rain gardens at the school entrance. Cooperating teacher – Amy Salter; funded by the Harold H. Bate Foundation.
- Annunciation Catholic School, Havelock: Two large rain gardens at the school entrance and in the back parking area. Cooperating teacher – Pat Lucey; funded by the Harold H. Bate Foundation

*Ben Egerton, then a fifth grader at White Oak Elementary School, wears a shirt that says it all.*





Local government officials from coastal and inland regions learn about stormwater runoff and other environmental management issues during the May 7 Coastal Growth Strategies Course for Elected Officials held in Wilmington. The federation, North Carolina Sea Grant, the N.C. Estuarine Research Reserve, the North Carolina GlaxoSmithKline Foundation and other partners hosted the day-long educational event for elected officials. The North Carolina GlaxoSmithKline Foundation awards grants to nonprofit community agencies, universities and other partners for programs that promote the sciences, health and education.

the success of one of the federation's restoration projects.

In its second year, the SE Coastal Habitat Education Program has grown tremendously and is engaging an increasing number of students in learning about and protecting our coast. The program is funded by the North Carolina GlaxoSmithKline Foundation, which awards grants to nonprofit community agencies, universities and other partners for programs that promote the sciences, health and education.

Students and teachers from Roland Grise Middle School in Wilmington and the Wilmington Friends School cared for 3,000 marsh grass seedlings in their school nurseries, engaged in classroom activities and experiments and then planted their seedlings along the shoreline of the Morris Landing Clean Water Preserve in Onslow County. Students from John T. Hoggard High School in Wilmington, Eugene Ashley High School in Wilmington and Dixon High School in Holly Ridge learned firsthand about oyster ecology and biology by dissecting oysters in their classrooms. They then put their classroom

## CEMENT PLANT UPDATE A Polluted Smokescreen by Titan

### Coastkeeper®

While citizen opposition grows in response to the proposal to build the fourth-largest U.S. cement plant and mine in Castle Hayne in New Hanover County, Titan America continues its strategy of political pressure and circumventing the state-mandated environmental review process.

Titan wants to build the plant on the site of the former Ideal Cement plant. Titan claims that Ideal was a perfect neighbor, but the old kiln left behind a 20-year history of groundwater and aquifer contamination from emissions, spills and leaking corroded fuel tanks in the late 1980s. Although the site has been monitored since 1989, the extent of that contamination is still not well understood, and there are no immediate plans to clean up the hazardous material.

One thing is certain: Under their current proposal, Titan's mega-operations will dwarf the former Ideal plant and will greatly increase the potential for hazardous contamination of the air, surface water and groundwater in the area, including the potential to pollute several public water supply wells.

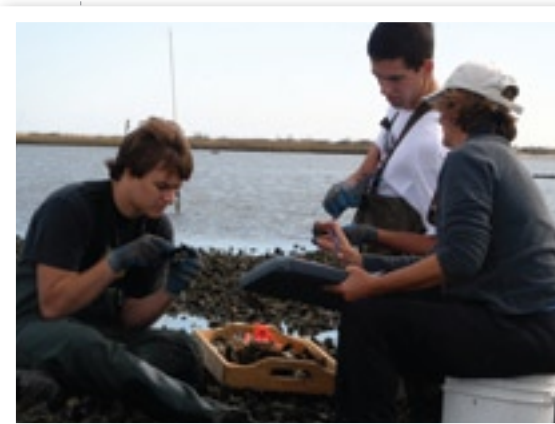
As to Titan's state permit, e-mails between the company and officials at the N.C.

Department of Environment and Natural Resources depict an effort by Titan to avoid a coordinated review of its permit as required by state law. Despite numerous requests from citizens, the federation and others, Gov. Beverly Perdue has refused to intervene and require a coordinated state and federal review process. Sen. Julia Boseman, Rep. Carolyn Justice and the regional legislative delegation continue to lead the effort to ensure Titan is held to the highest standard of review possible. Sen. Boseman's bill that would have put a moratorium of permitting cement plants failed to make it out of committee. The legislative approach to stopping Titan now shifts to focus on the two or more year permitting review process. Stay in touch with NCCF for the next steps.

### Education/Restoration

#### OYSTERS AND SEEDLINGS SERVE AS TEACHERS

By the time students and teachers rushed out the door for their summer break, almost 900 of them had dissected an oyster, planted a marsh seedling along a shoreline or helped measure



Will Henrichs and Robby Pevonka, students at John T. Hoggard High School, help monitor the Dicks Bay oyster restoration project.



lessons to use by helping to conduct the annual monitoring of the oyster and shoreline restoration projects in Dicks Bay in the New River and at Airlie Gardens in Wilmington. Hoggard students and teachers also helped to create a rain garden and shoreline buffer at Morris Landing.

As the program continues to grow and new schools are added, the federation will emphasize engaging underserved communities throughout the region.

### SOUTHEASTERN COMMUNITIES ADOPT LID MANUALS

While low-impact development (LID) is gaining popularity nationwide, New Hanover County, Brunswick County and Wilmington are leading the way for the use of LID in coastal North Carolina. These local governments partnered with the federation and Withers & Ravenel, an engineering firm, to develop LID technical manuals, supporting resolutions and a user-friendly LID spreadsheet for use in designing and permitting LID projects in southeastern North Carolina.

Working with Larry Coffman, a national LID expert, each county empanelled a technical advisory committee made up of engineers, developers, representatives from the real-estate industry, county staff and planners. These diverse committees played a key role in the creation and adoption of each LID manual and continue to promote LID in their communities.

After a thorough review and editing by local government planning and engineering staff, the LID technical manuals were unanimously approved by both counties and the city. The manual describes LID site planning principles and practices and also provides specific design standards for many typical LID techniques, such as directing stormwater flow to areas where it can soak into the ground.



## COMMUNITY ENGAGEMENT VOLUNTEER NEEDED

Shrimp and oyster festivals, planting rain gardens, monitoring restoration projects, community presentations – these are some of the tools that are used to recruit volunteers and engage the public in the N.C. Coastal Federation's regional initiatives.

As this program grows, we are looking for a community engagement volunteer to work with the staff to manage and expand our outreach programs. We are seeking a dedicated, task-oriented, and organized volunteer with excellent communication skills who is willing to donate 8-16 hours a week to work with regional volunteers and conduct outreach activities.

This is a great opportunity to engage more people in exciting and meaningful activities. For a full job description, please visit our website: [www.nccoast.org](http://www.nccoast.org) or contact Ted Wilgis, our coastal outreach specialist, at 910-790-3275 or [tedw@nccoast.org](mailto:tedw@nccoast.org).

*Volunteers engage the public at the federation's education booth at the N.C. Oyster Festival.*

## VOLUNTEERS PLANT WETLAND AT GOLF COURSE

Seventy-five volunteers turned out on a warm July morning to plant an acre of wetlands to control stormwater at Eagle Point Golf Course near Wilmington. The wetland is the first of a number of measures that will be scattered around the golf course to reduce runoff.

Creating a stormwater wetland on a golf course may seem a bit unusual, but then again, Eagle Point Golf Course is not your usual golf course.

To ensure that the course would never be developed, the owners of Eagle Point in 2003 put all but about 13 of the course's 231 acres into a conservation easement agreement with the NCCF. The agreement also guarantees that the course will continue to be an important buffer for the productive fish and shellfish waters of adjacent Middle Sound.

Although limiting the amount of development within the golf course will reduce runoff into nearby Little Creek, the course itself generates runoff and receives significant amounts of stormwater from offsite sources. Contaminated runoff from

the course and from the dense development throughout the watershed jeopardizes water quality in the creek.

The federation, Eagle Point Golf Course, N.C. State University (NCSU), UNC-Wilmington (UNCW) and New Hanover County formed a partnership in 2008 to find ways to address the stormwater runoff within the watershed and preserve the high quality waters of Little Creek and Middle Sound. The N.C. Clean Water Management Trust Fund and the N.C. Soil and Water Conservation District's Community Conservation Assistance Program provided grants to develop a strategy to create a water quality management plan for Eagle Point.

NCSU researchers identified areas with water-quality problems and designed specific



measures such as wetlands rain gardens that can help control and treat stormwater. UNCW scientists will monitor water quality before and after the project to evaluate the effectiveness of the measures devised to reduce stormwater, now the largest source of pollution in shellfish waters.

## JIM STEPHENSON: A GREAT FRIEND OF THE COAST



The N.C. Coastal Federation lost a great friend and co-worker and the coast lost a forceful advocate when Jim Stephenson, the federation's policy director and legislative lobbyist, died May 28 of a heart attack in Raleigh. He was 57.

"We're extremely grateful for the years of service he gave NCCF and for the diligence and focus he brought to his job," said Todd Miller, the federation's executive director. "Not everyone is cut out for lobbying. Jim had the patience and skill to form diverse coalitions and forge meaningful compromises. He was very effective at what he did. Jim was an important friend of our coast and valuable member of the federation's team. We miss him."

Stephenson joined the federation in 1999 and distinguished himself as an effective lobbyist. He had a canny understanding of the legislative process and worked diligently behind the scenes at the N.C. General Assembly to help pass some of the state's

most important coastal environmental bills. His list of legislative accomplishments is long. Stephenson helped push through bills that mandated, for the first time, effective stormwater rules along the coast; that banned giant landfills; that restored oyster habitat; and that kept seawalls and jetties off our beaches.

Stephenson was also a member of the Marine Fisheries Commission's Habitat and Water Quality Advisory Committee and the Carteret County Beach Commission.

Before coming to the federation, he was the executive director of the Pamlico-Tar River Foundation. A native of Baltimore, he also served as an advisor to Pennsylvania's governor, providing research and guidance on policy issues.

Stephenson is survived by his wife, Sally Anger of Morehead City. He also served on the boards of directors of Carteret County Crossroads and the Carteret County Economic Development Council.

## Jan's Son Killed in Wreck

Jan DeBlieu, our Cape Hatteras Coastkeeper®, and her husband, Jeff, tragically lost their son, Reid, who died March 16 in a traffic accident in Nags Head. He was 16.

Reid was a native of Manteo and a junior at Manteo High School. He was an honors student and had planned to study chemical engineering in college. Reid played guitar and was known for his dry sense of humor. He also studied martial arts for ten years and earned a black belt in karate and brown belts in four other martial disciplines. In 2004, Reid traveled to Japan with an elite youth martial arts team from around the United States for an international martial arts gathering.

Reid is survived by his father and mother, Jeff and Jan of Manteo; his maternal grandparents, Helen and Ivan DeBlieu of Wilmington, Del.; and numerous aunts, uncles and cousins.

## Ted Gets Hitched

Ted Wilgis, our outreach specialist in the Southeast Region and the federation's only bachelor, married Melissa Bauer in May at St. Mary's Catholic Church in Wilmington. Ted and Melissa's courtship began from a "blind date" arranged by Lauren Kolodij, the federation's deputy director, and her mother, Marie. Ted, Melissa and their dogs Penny and Lilly live in Wilmington.



## Meet Our Interns

This summer we are joined in the Headquarters office by interns from Duke University and East Carolina University and in the Wilmington office by interns from UNC Wilmington and Davidson College. These undergraduate and Master's students have assisted staff with everything from restoration field work and public education to policy research.

### ALEXIS BALDERA

**HOMETOWN:** Hutchinson, Minn.

**UNIVERSITY:** Nicholas School of the Environment, Duke University, masters of coastal environmental management.

**PROJECTS:** Oyster restoration, focusing mostly on oyster sill and salt marsh restoration at Jones Island.

**SKILLS AND KNOWLEDGE GAINED:** Understanding the type of orchestration needed to bring together and implement a restoration project, from acquiring the resources to planning a successful volunteer event.

**JOB FOR A DAY:** "I would be interested in doing Frank's job for a day because I am curious about the Coastkeeper position."

**FUN TIDBIT:** Alexis is an experienced unicyclist.

### JENNIFER BRUCE

**HOMETOWN:** Topeka, Kan.

**UNIVERSITY:** Nicholas School of the Environment, Duke University, masters of coastal environmental management.

**PROJECTS:** Review of the Carteret County CAMA land use plan and redesign of the entire CAMA land use planning process.

**SKILLS AND KNOWLEDGE GAINED:** Using land-use planning to achieve environmentally responsible land use.

**JOB FOR A DAY:** "I would be interested in doing Jo Ann's job (Business Manager) for a day (but just one day – after that, my brain would hurt). I'd love to see how the NCCF is able to do so much with so little."



**A FUN TIDBIT:** Jennifer gave up being vegetarian after trying BBQ pork ribs (Kansas City-style) and has since perfected her own dry rub and oven-baked ribs method for apartment dwellers.

## MARK ASHLEY CONWAY

**HOMETOWN:** Greenville.

**UNIVERSITY:** East Carolina University.

**PROJECTS:** Completing baseline reports for conservation easements held by the federation.

**SKILLS AND KNOWLEDGE GAINED:** People like our volunteers and members really do care about our coast.

**JOB FOR A DAY:** "I would like to do Sarah's job, because I love kids. I think that teaching kids the importance of protecting our coastal resources is the key to a healthier coast for the future. After all, they are the next keepers of the coast.

**A FUN TIDBIT:** At age 12, Ashley was ranked fourth in the world in racquetball.

## ELISE LEDUC

**HOMETOWN:** Assonet, Mass.

**UNIVERSITY:** Nicholas School of the Environment, Duke University, masters of environmental management.

**PROJECTS:** Focusing primarily on the ecology programs at Cape Lookout National Seashore and working on editing or creating other educational curriculums.

**SKILLS AND KNOWLEDGE GAINED:** Learned new techniques for presenting material to various audiences.

**JOB FOR A DAY:** "I would like to do Sarah's job, because then I could do similar programs to the ones I'm doing all year long instead of just during the summer."

**FUN TIDBIT:** She has an inordinate fondness for confetti cake and beetles, though not together, we hope.

## LINDSEY PEAVEY

**HOMETOWN:** Central Square, N.Y.

**UNIVERSITY:** Nicholas School of the

Environment, Duke University, masters of coastal environmental management.

**PROJECTS:** Evaluating the implementation of the new coastal stormwater rules.

**SKILLS AND KNOWLEDGE GAINED:** Research, management and assessment skills that will be transferable to all other coastal management issues ahead.

**JOB FOR A DAY:** "I want to do Tracy's job for a day. She plans and implements conservation projects by analyzing the environmental problem, exploring potential solutions, considering all the constituents, and then finally facilitating a restoration project that



is mutually beneficial to all."

**FUN TIDBIT:** She just returned from tagging humpback whales in Antarctica with a team of marine mammal researchers from Duke University, University of Massachusetts, University of New Hampshire, and University of Hawaii at Manoa. Check it out at: [www.nicholas.duke.edu/antarctica](http://www.nicholas.duke.edu/antarctica).

## WILMINGTON OFFICE INTERNS

### DAVID ILLGEN (pictured left)

**HOMETOWN:** Hendersonville.

**UNIVERSITY:** UNC-Wilmington, MPA in marine policy and environmental studies.

**PROJECTS:** Titan Cement, proposed port in Southport.

**FUTURE WORK/PROFESSIONAL INTERESTS:** Peace Corps and law school, eventually working in the public or non-profit sector.

**FUN TIDBIT:** He kayaked 210 nautical miles across Prince William Sound.

### LAUREN HAZLETT (pictured middle)

**HOMETOWN:** Weddington.

**UNIVERSITY:** UNC-Wilmington.

**PROJECTS:** Wetland plantings and any research relating to wetlands of the N.C. coast.

**FUTURE WORK/PROFESSIONAL INTERESTS:** Environmental sustainability, preservation, renewable energies, organic farming, promotion of veganism, and protection of all beings from anthropocentric exploitation, world hunger / clean water and animal rights.

**FUN TIDBIT:** She's a "hardcore" recycler.

### LINDSAY HOWARD (pictured right)

**HOMETOWN:** Wilmington.

**UNIVERSITY:** Davidson College, B.A. in English.

**PROJECTS:** Preparing and organizing summer volunteer events.

**FUTURE WORK/PROFESSIONAL INTERESTS:** Strong interest in event-planning, management and anything to do with food.

**FUN TIDBIT:** She has a pet rabbit that lives in her bathroom.

### SAIONTONI SARKAR

**HOMETOWN:** Wayne, Pa.

**UNIVERSITY:** Duke University.

**PROJECTS:** Beach Summit, Titan Cement.

**SKILLS AND KNOWLEDGE GAINED:** Learned in depth about several coastal issues.

**JOB FOR A DAY:** "I would have liked to have had Jim's job, serving as a political advocate for environmental issues on a daily basis." Fun

**TIDBIT:** She's a classical Indian dancer.

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## CALENDAR

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**AUG 27:** Take a nature walk with  
NCCF – Festival Park, Manteo

**AUG 27:** N.C. Coastal Resources  
Commission meeting, Beaufort

**SEPT 3:** Take a nature walk with  
NCCF – Festival Park, Manteo

**SEPT 23-25:** N.C. Marine Fisheries  
Commission meeting, Pine Knoll  
Shores

**OCT 3:** North Carolina Big Sweep –  
go to [www.ncbigssweep.org](http://www.ncbigssweep.org)  
for details

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