



## From the Director...

Following the mailing of the Beacon's summer edition, a number of changes have occurred within the APNEP.

As you may know, we received legislative and departmental approval to increase the APNEP staff to include a Science Coordinator and a Field Representative. We had several very qualified applicants for each of these positions and engaged in (seemingly!) endless interviews. Convinced that the very best person for the Field Representative position was selected, I'm most pleased to announce that Kelly Williams has accepted our offer. She'll begin her duties in October.



In addition to securing Kelly's expertise, we have also been fortunate in attracting Dean Carpenter as our new Science Coordinator. With the addition of these two new staff persons, our full-time personnel number grows to five: Director, Outreach Coordinator, Science Coordinator, Field Representative, and Citizens' Water Quality Monitoring Program Coordinator. Also, we retain the 1/2-time APNEP liaison position we share with the Commonwealth of Virginia. For more on our new staff, see page 2..

## History's Detectives Unravel Underwater Mystery

Queen Anne's Revenge (QAR), Blackbeard's flagship, ran aground in North Carolina's Beaufort Inlet and was abandoned by the pirate in May 1718. On November 21, 1996 - almost exactly 278 years after the pirate's death in a raging sea battle off North Carolina's coast - Florida-based research, survey and recovery firm Intersal found what may prove to be the waterlogged remains of QAR.

Since the 1996 discovery, a team from Intersal, the NC Department of Cultural Resources and the NC Maritime Museum has mounted several diving expeditions, gathering evidence like a prosecutor preparing for trial. Although mostly circumstantial, the facts are adding up.

More than 2,000 artifacts already have been recovered, but it was one of the first finds that helped researchers date the wreck to the proper era. It was a bronze bell with the date 1709 embossed around its waist. The heavily encrusted bell raised some interesting questions once cleaning revealed crudely cast one-inch high letters that read "IHS (Iesu Hominorum Salvator) Maria" and "ano de 1709."

The crudeness of its casting and the lettering suggests it was made in a Spanish or Portuguese New World colony. The bell is believed to be too small to have been the QAR's. A possible explanation of its presence in the wreck is that while operating as the French slaving ship *Concord*,

### Inside this issue:

New Staff Bios	2
Coastal Management Emergency Permit	2
FY'04 RFP for 319(h) Grant Proposals	3
CWMTF Receives NCCF Pelican Award	3
One NC Naturally	4
Did you Know...	4



## History's Detectives (con't)

The large number of cannon found near the wreckage is yet another piece of circumstantial evidence added to the scales. The QAR had at least 40 cannon aboard, and to date 22 cannon have been discovered, as well as numerous cannonballs and cannon shot.

Researchers have begun electrolysis treatments on three cannon to remove the hundreds of years of crust. This process could take as long as four years to complete. Additionally, scientists are testing wood from the ship's hull to determine when the trees were cut down and what type they were, and they are analyzing ballast stones found

in the wreckage, too.

Those involved with the project say its success will be better measured in years. Researchers believe it will take more than five field seasons of three to five months' duration each, to excavate the site completely. Every month in the field typically results in another 10-12 months of conservation and laboratory work.

### Dean Carpenter, PhD.

APNEP's new Science Coordinator, Dean Carpenter, is a native of California, but has lived in the Research Triangle area since 1989. He comes to us from the Water Environment Research Foundation (VA) where he was a project manager researching needs in water-based management and ecosystem sustainability.

Prior to his tenure with the Foundation, Dean worked for ten years as a researcher at EPA's Office of Research and Development specializing in ecological risk assessment techniques at regional scales.

Dean holds a Bachelor's degree in Environmental Science and Biology from the University of California-Riverside and a Master's in Ecology from UC-Davis. He is a member of the Ecological Society of America, the American Association for the Advancement of Science, and the NC Water Resources Association. He completed his Doctorate in Environmental Science and Engineering at UCLA.



*You can see some of the recovered artifacts in a new exhibit at the NC Maritime Museum, in Beaufort, NC.*

## Meet the Staff...

### Kelly B. Williams, PWS

Kelly joined the APNEP staff this October following the birth of her son, Evan. She is a Professional Wetland Scientist with a background in wetland restoration and plant community ecology. A graduate of UNC-G with an undergraduate degree in Biology and a Master's degree in Forestry from NCSU, Kelly's thesis work included study of the vegetation, soil, and hydrological characteristics of riverine wetland systems in eastern NC.

Prior to joining APNEP, Kelly served as a wetland restoration specialist with the NC Division of Coastal Management and as a mitigation specialist

NC Department of Transportation.

A native of Delaware, Kelly lives in Raleigh with her son, husband Brian, two cats and Greta the German Shepherd





## Partners Sought for Clean Water Act Section 319(h) Restoration Grant Proposals

The FY'04 Request for Proposals (RFP) for federal Clean Water Act Section 319(h) nonpoint source grant fund applications has been issued by the NC Division of Water Quality (DWQ).

With over \$660,000 available for North Carolina grants, appropriate projects should focus on the *restoration* of waters impaired by nonpoint sources of pollution, that is, waters monitored by the state or others, in which uses such as fishing, swimming or shellfish harvesting have been limited or prohibited because of excessive amounts of one or more identified water pollutants. For an official listing of impaired waters, known as the 303(d) list, go to: [http://h2o.enr.state.nc.us/tmdl/General\\_303d.htm](http://h2o.enr.state.nc.us/tmdl/General_303d.htm). Waters are listed by the basin in which they are located.

Projects such as the demonstration of innovative best management practices (BMPs), water quality monitoring and modeling, environmental education/technology transfer, assessment development of indices of biologic integrity, and total maximum daily load (TMDLs) are actively being sought.

Those eligible to apply include state and local governments (including COGs), interstate and intrastate agencies, and public and private nonprofit organizations and institutions (including academic institutions). The Albemarle-Pamlico National Estuary Program (APNEP) is interested in partnering with those submitting applications for the Chowan, Pasquotank, Roanoke, Tar-Pamlico and Neuse river basins. Contact APNEP Director, Bill Crowell, at 919/715-1327, or at: [Bill.Crowell@ncmail.net](mailto:Bill.Crowell@ncmail.net). Applications are due in electronic format to DWQ by Dec. 19, 2003.

Application forms and further information can be found at [nps/319\\_docs.htm](http://nps/319_docs.htm) or by contacting Kim Nimmer, 319 ext. 582 or at: [Kimberly.Nimmer@ncmail.net](mailto:Kimberly.Nimmer@ncmail.net).



found at: <http://h2o.enr.state.nc.us/> Grants Coordinator, 919/733-5083.

## CWMTF Receives Pelican Award

The Clean Water Management Trust Fund was honored by the North Carolina Coastal Federation in October for its work to help restore Wilson Bay in Jacksonville and to restore wetlands on over 3,000 acres in Carteret County.

CWMTF was one of 22 groups and individuals presented with the Coastal Federation's inaugural Pelican Award for outstanding service in helping to preserve and protect the natural resources of the state's coast. The Wilson Bay and North River Farms projects were singled out by the Coastal Federation as excellent examples of coastal restoration and preservation.

In January 1999, the CWMTF awarded a \$572,043 grant to the City of Jacksonville to help reclaim Wilson Bay, once the site of the city's wastewater treatment facility. After some 40 years of discharging into the bay, the city removed its wastewater discharge and switched to land-based application of its treated waste. Through a partnership between CWMTF, N.C. State University's College of Veterinary Science and the city, oysters were "planted" in the bay to improve water quality and return it to its natural heritage. Water quality has improved so rapidly that the bay has been reopened to all recreational uses.

In October 2002, the CWMTF Board of Trustees awarded a \$3 million grant to the Coastal Federation to help conserve the 3,5000 acres on the North River Farms site. The purchase of the property was the first step in a comprehensive plan to restore 1,180 acres of wetlands designed to treat runoff from the nearby 11-square mile Open Ground Farms, and eventually



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Coming together is a beginning;  
keeping together is progress; working  
together is success



## Did You Know...

Tourism is a \$10 billion industry in North Carolina and the principal reason travelers give for visiting the state is our outstanding natural resources.

Over 50 percent of the significant Natural Heritage Areas in North Carolina remain unprotected.

34 percent of North Carolina's coastal wetlands have been altered to the point they no longer serve their natural function in protecting water quality.

The rate at which we are developing farm and forest land in NC has increased 16 percent from 1982 to 1997 - from 87,000 acres annually to 101,000 annually.

The State of North Carolina is losing 277 acres of open space a day to development

## Office of Conservation & Community Affairs

Approximately 18 months ago, the APNEP was relocated within the Department of Environment and Natural Resources (DENR), from the Division of Water Quality to the Office of Conservation and Community Affairs. There are several other programs housed within OCCA, and we will highlight them in subsequent issues of The Beacon. In this issue, our focus is on...

### One North Carolina Naturally

#### Mission:

To lead in developing and implementing a comprehensive statewide conservation plan that involves the public, governmental agencies, private organizations, and landowners.

To maintain functional ecosystems, biological diversity and working landscapes through the stewardship of land and water resources.

To implement a plan that will conserve and restore the State's natural heritage and sustain a healthy life for all North Carolinians and visitors.

Three program areas have been established to bring together the variety of land and water protection programs and strategies:

#### **Green Lands, Blue Waters**

*Protecting and Restoring Significant Natural Resource Areas*

#### **Private Lands, Public Benefits**

*Advancing Stewardship on Private Working Lands*

#### **Working on the Water**

*Protecting and Restoring Sounds and Ocean Habitats*

To learn more go to: [www.enr.state.nc.us/officeofconservation](http://www.enr.state.nc.us/officeofconservation)

