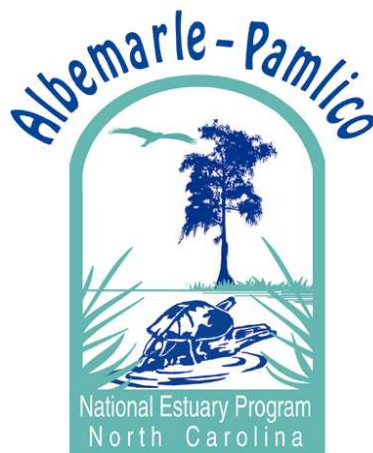


**WORK PLAN  
for the  
COOPERATIVE AGREEMENT BETWEEN  
THE US ENVIRONMENTAL PROTECTION AGENCY  
AND  
NC DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**

**ALBEMARLE-PAMLICO NATIONAL ESTUARY PROGRAM**

*OCTOBER 1, 2007 THROUGH SEPTEMBER 30, 2009*



**Approved by  
Policy Board on  
May 15, 2007  
Manteo, NC**

**CE-97464802**

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## **INTRODUCTION**

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### **Agreement Related Contents of this Document:**

- A progress report detailing accomplishments in FY 2007 is provided on pages 7 through 21.
- The FY 2008 Work Plan items are presented on pages 22 through 26.
- The FY 2008 Work Plan budget is presented on page 32.
- Administrative and financial information items are presented on pages 27 through 37.

**Purpose:** The purpose of this agreement is to provide support to the NC Department of Environment and Natural Resources (DENR) from the US Environmental Protection Agency (EPA) for continuing demonstration of implementation of the unique management strategies recommended in the Albemarle-Pamlico National Estuary Program's (APNEP) Comprehensive Conservation and Management Plan and support for the APNEP Mission to identify, restore and protect the resources of the region. This agreement represents a funding increase for the amount of \$418,000 and time extension to [September 30, 2009](#) for Cooperative Agreement #CE-97464802.

### **Period of Performance:**

The period of performance under this agreement is from [October 1, 2007](#) through [September 30, 2009](#).

### **Principal Contacts:**

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## **BACKGROUND**

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The Albemarle and Pamlico Sounds represent the nation's largest lagoonal estuarine system. The system is composed of seven sounds and five major river basins draining over 30,000 square miles of watershed in northeastern North Carolina and southeastern Virginia. The sounds, rivers, creeks, wetlands and terrestrial areas provide habitat for an abundance of animal and plant species. People depend on the system for residential and resort development, food, recreation, mining, forestry, agriculture, business and industry.

The Albemarle-Pamlico National Estuary Program (APNEP), a part of the US Environmental Protection Agency's National Estuary Program (NEP) since 1987, developed a Comprehensive Conservation and Management Plan (CCMP) that was ratified by the Governor of North Carolina and approved by the US EPA in November 1994. The CCMP is intended as a practical, cost-effective and equitable approach to managing the valuable resources of the Albemarle-Pamlico region.

### **Executive Order #74**

On May 16<sup>th</sup>, 2005, North Carolina Governor Michael F. Easley signed Executive Order # 74: *Creation of a Program Office, a Policy Board, and Advisory Committees to Support Natural Resource and Environmental Management in the Albemarle-Pamlico National Estuarine System*. This Executive Order is essential to the future of the APNEP and was developed after more than two years of program review and assessment, and stakeholder participation. This Executive Order provides the operational framework for the program. A copy of Executive Order #74 is available from the APNEP office.

### **Program Office**

The Albemarle-Pamlico National Estuary Program Office coordinates and facilitates the implementation and advancement of the CCMP, the APNEP mission, and the activities of the Policy Board and Advisory Committees. The APNEP Program Office serves as a conduit for information between the Policy Board, Advisory Committees, state and federal agencies, local government, tribes, academia and the public. The Program Office is located in the Office of Natural Resource Planning within the NC Department of Environment and Natural Resources with program personnel in Raleigh, Washington, and Greenville, NC and Suffolk, VA.

### **Policy Board**

A Policy Board for the Albemarle-Pamlico watershed is established by the Executive Order to work with DENR and the Program Office to support, evaluate, update, advocate and guide the implementation of the CCMP and the APNEP mission. The role of the Policy Board is to guide, evaluate and support the CCMP implementation process and advance the CCMP and its management actions, and to ensure the highest level of collaboration, coordination and cooperation among state and federal agencies, local governments, the public and various interest groups. The Policy Board consults with the Advisory Committees and the Program Office for recommendations pertaining to implementation of CCMP management actions at the regional and local level, and the coordination and development of research and monitoring priorities. A major duty of

the Policy Board is to evaluate the relevance of the CCMP and to make recommendations on amending it to address new or emerging issues that may affect the significant natural resources of the Albemarle-Pamlico estuarine system. Additionally, the Policy Board, in cooperation with the Program Office develops an annual report, budget and work plan. The Policy Board held its first meeting on October 31, 2005.

### **Advisory Committees**

The Executive Order establishes three advisory committees to assist the Policy Board in guiding the APNEP and CCMP implementation.

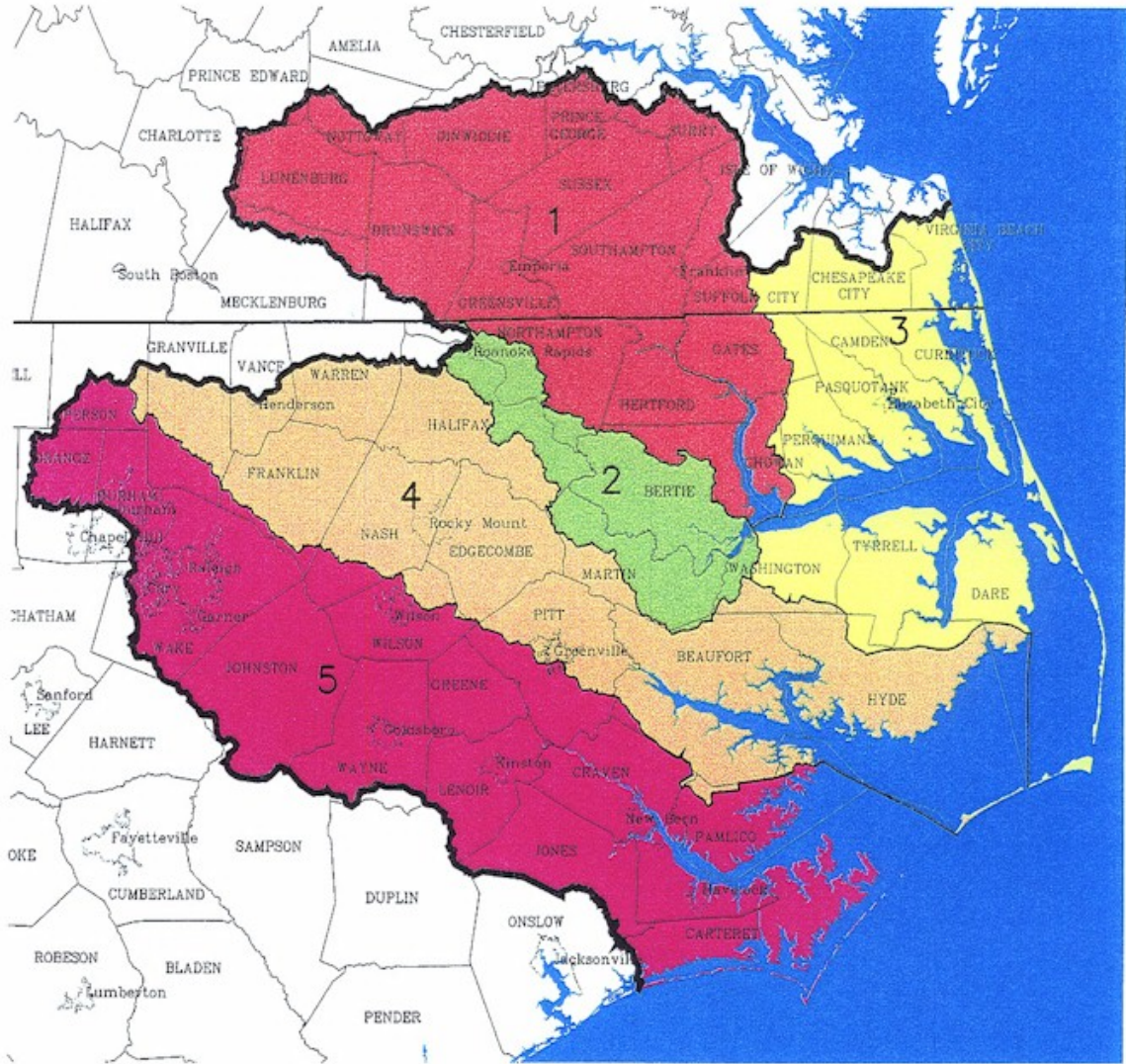
A Committee of Citizen Advisors ("Citizen Advisory Committee") is established to advise and support the Policy Board, and to serve as a liaison to local agencies and interested parties regarding environmental and natural resource management concerns and issues relevant to implementation of the CCMP and the APNEP mission. The Citizen Advisory Committee (CAC) held its first meeting in January, 2006.

A Committee of Management Agency Representatives ("Management Advisory Committee") is established to facilitate and support the implementation and advancement of the CCMP management actions, and the APNEP mission. The Management Advisory Committee (MAC) held its first meeting in November, 2006.

A Committee of Science and Technical Advisors ("Science and Technical Advisory Committee") is established to advise the Policy Board and agencies responsible for implementation of the CCMP on scientific and technical issues. The Science and Technical Advisory Committee (STAC) held its first meeting in July, 2004.



# ALBEMARLE-PAMLICO NATIONAL ESTUARY PROGRAM REGION



- 1 - Chowan River Basin
- 2 - Roanoke River Basin
- 3 - Currituck Sound & Pasquotank River/Albemarle Sound Drainage Basin
- 4 - Tar-Pamlico River & Pamlico Sound Drainage Basin
- 5 - Neuse River Basin & Core Sound/Bogue Sound Drainage Basin



Map prepared April 30, 1999 by the NC Center for Geographic Information & Analysis

## **ACCOMPLISHMENTS AND PROJECTS**

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### **I. FY 2007 ACTIONS & PROJECTS**

The following are ongoing or completed actions from the FY 2007 Work Plan that occurred from October 1, 2006 to May 1, 2007.

#### **Program Administration**

For more detail see Administration and Financial section.

#### **Watershed Field Coordinator - Virginia**

For more detail see Ongoing Projects section.

#### **Board and Committees Support**

APNEP worked with its advisory groups (Policy Board, Citizen Advisory Committee, Management Advisory Committee and the Science and Technical Advisory Committee) established under Executive Order # 74 to continue implementation of the CCMP and APNEP mission. The groups are supporting the development of indicators on estuarine health and assisting with demonstration projects. For more detail, see Ongoing Projects section.

#### **EPA Financial Planning – Program Development**

This project was identified in the FY 2004 work plan to be addressed as funding became available. As APNEP reevaluates its structure, staff and Board members will work with EPA staff to identify and develop strategies for leveraging funds beyond EPA grant funds. EPA staff / contractor will lead this effort. Staff will work with the EPA and the Policy Board or Citizen Advisory Committee to develop the meeting. EPA has made funding available for planning in FY 2007.

Status: Pending  
Intend Output: Report, public involvement  
Intended Outcome: Additional resources for CCMP implementation  
Estimated Cost: \$10,000  
Funding Source: EPA supplemental funds for Financial Planning in FY 2007

#### **Submerged Aquatic Vegetation (SAV) Image Acquisition**

In FY 2007 APNEP provided the base funding to build partnerships and funding necessary to acquire digital aerial photography of potential SAV habitats in the APNEP region. This imagery is a necessary step in providing APNEP partners with information on the current status of SAV in the sounds. The project is currently underway with the development of an MOA and contract with NOAA to acquire the imagery. See SAV Monitoring in the ongoing projects section for additional information.

Status: Ongoing project  
Output: Reports and GIS data, better management of SAV resources  
Outcome: New management actions to protect SAV resources  
Estimated Cost: \$160,000  
Funding Source: EPA funds for FY 2006 (\$20, 000K)/FY 2007 (\$140,000)  
Leverage: Pending (Approx. \$100, 000)

### **Citizens' Monitoring Network**

For more detail see Ongoing Projects section.

Type: Ongoing – In Progress  
Intended Output: Awareness, data  
Intended Outcome: Increased environmental awareness  
Estimated Cost: \$ 56,000  
Funding Source: EPA funds for FY 2007

### **NC Teaching Fellows (Coastal)**

APNEP partnered with NC Teaching Fellows Program, the Environmental Education Fund, the Cape Lookout Studies Program, and the NCNERR to provide a Junior Enrichment Program for UNC Teaching Fellows. These Fellows are required to participate in a number of experiences designed to enhance their campus programs and give insights into the challenges facing them when they enter the classroom. This opportunity is provided as a Junior Enrichment Program for rising juniors. Participants receive instruction in the application of practical activities and curriculum related to coastal environments. Participants will receive activity guides and teaching materials.

Type: In Progress (May 15-18, 2007)  
Output: Pre-service junior enrichment for 15 NC Teaching Fellows  
Intended Outcome: Increased environmental awareness  
Estimated Cost: \$ 6,000  
Funding Source: EPA funds for FY 2007  
Leverage: To be determined

### **Outreach Activities**

APNEP staff continued to be involved in outreach and educational activities, including the APNEP newsletter, e-mail updates and other outreach materials.

Status: Ongoing  
Output: Public outreach and involvement  
Outcome: CCMP implementation, increased environmental awareness  
Estimated Cost: \$ 1000  
Funding Source: EPA funds for FY 2006  
Leverage: To be determined

### **Web Site**

The APNEP web site ([www.apnep.org](http://www.apnep.org)) continues to disseminate information about the mission and goals of the NEP and provide information on progress of CCMP implementation.

Status: Ongoing  
Output: Public outreach and involvement  
Outcome: CCMP implementation, increased environmental awareness  
Estimated Cost: Unknown  
Funding Source: NC DENR  
Leverage: To be determined



### **Estuary Live! Spring 2007**

APNEP partnered with the NC National Estuarine Research Reserve and others to offer interactive field trips for students from North Carolina and throughout the world. The spring session was offered May 9-11. APNEP was featured on May 9<sup>th</sup>.

Status: Complete  
Output: 3 days of broadcast  
Outcome: Increased environmental awareness  
Estimated Cost: \$ 200 (travel)  
Funding Source: NOAA, EPA  
Leverage: \$9,000

### **Additional Projects**

#### **2007 Teacher Institute**

APNEP has partnered with the UNC Institute for the Environment, the NC Office of Environmental Education and the Environmental Education Fund to offer a teacher training institute July 8-13, 2007 at the Trinity Center in Salter Path, NC. Approximately 20 middle and high school teachers will be provided with curriculum training in earth/ environmental sciences with hands-on activities, site visits, and specific content to support inquiry, experiential, and research-based instruction on estuary and water resources.

Status: In Progress (To be completed by August 1, 2007)  
Intended Output: 20 teachers exposed to environmental education opportunities  
Intended Outcome: Increased environmental education in schools  
Estimated Cost: \$10,000  
Funding Source: 6105 – funds from canceled demonstration project  
Estimated Leverage: Pending

#### **River Basin Observation Deck**

This project will feature a weather-protected outdoor classroom and nearby observation deck. The observation deck flooring will contain an engraved and painted outline of North Carolina that details the State's 17 river basins and major rivers. A water quality teaching module and activity book will also be developed to address NC's 17 river basins, utilizing the river basin deck as a "teaching platform". Kiosks and exhibits will be placed in the pavilion to be used for educational programs and the general public. APNEP funds were used to purchase durable composite decking (recycled materials) and hardware for the deck.

Status: In Progress (To be completed by June 30, 2007)  
Intended Output: Watershed education for numerous school groups and others  
Intended Outcome: Increased environmental education in schools  
Estimated Cost: \$10,000  
Funding Source: 6105 – funds from canceled demonstration project  
Estimated Leverage: Pending

### **Local Government Training Survey**

In order to assess the status of the current relationship and potential for greater local involvement, APNEP is working with NCNERR and NC Sea Grant to survey training opportunities for local governments.

Status: In Progress  
Output: Report, survey results  
Outcome: Better understanding of local government issues and training needs  
Estimated Cost: \$ 0  
Funding Source: NOAA  
Leverage: Pending

### **Albemarle-Chowan Watershed Roundtable**

The APNEP partnered with the Virginia Department of Conservation and Recreation to lead the formation of an Albemarle-Chowan Watershed Roundtable on March 29, 2006. Several meetings have occurred since that date.

Status: Ongoing  
Output: Citizen advisory group  
Outcome: Increased environmental awareness and citizen participation  
Estimated Cost: Associated travel costs  
Funding Source: Virginia Dept. of Conservation and Recreation  
Leverage: Pending

### **Regional Wetlands Grant: Development of a Comprehensive Assessment and Tracking Methodology for Wetland Functionality in the Chowan Estuary of Western Albemarle Sound**

APNEP partnered with Environmental Defense to obtain a Regional Wetlands Grant from the EPA to develop a comprehensive assessment methodology for wetland functionality in the Chowan Estuary of Western Albemarle Sound, as the basis for setting goals for wetland extent and condition, developing programs to achieve those goals, and tracking progress. The work will be used to prioritize short-term actions, and as an integral part of the long-term implementation plans for state and federal resource management in the region.

Status: In Progress (to be completed September 15, 2007)  
Output: A comprehensive assessment methodology for wetland functionality  
Outcome: Greater wetland restoration and conservation  
Estimated Cost: \$1,013,968  
Funding Source: EPA and Environmental Defense funds for Regional Wetland Grant  
Leverage: \$1,013,968

## II. FY 2006 ACTIONS & PROJECTS

The following are ongoing or completed actions from the FY 2006 Work Plan since the last Work Plan report.

### **Demonstration Projects**

Proposals were solicited for demonstration projects to provide environmental benefits in the Albemarle-Pamlico region. Results of the demonstration projects will be transferable to other National Estuary Programs. Project selection was made by the Citizen Advisory Committee on April 7, 2006.

#### **Carteret Community College Shoreline Restoration Project**

This project engaged at-risk youth through hands-on learning and community mentoring partnerships that allowed them to understand the value of wetlands, clean estuaries, and environmental stewardship, resulting in the direct restoration of a shoreline fronting Bogue Sound at Carteret Community College. The project relied on partnerships between the North Carolina Coastal Federation, Carteret Community College, APNEP, the Boys and Girls Club of America, and citizen volunteers.

Status: Complete  
Output: Involvement of 40 at-risk youth from the local Boys and Girls Club, and 20 community volunteers. College students served as mentors to the youth, and community volunteers assisted both groups with the wetland planting.  
Outcome: Restored .25 acres of wetlands. Additional outreach activities will reach an estimated 500,000 individuals.  
Estimated Cost: \$ 20,978  
Funding Source: EPA funds for FY 2006  
Estimated Leverage: \$ 7,570

#### **Perquimans County High School Constructed Wetland and Environmental Education Project, Phase II**

This project was a collaborative venture led by the Perquimans County Schools to improve an outdoor education program for 570 high school science students, their teachers and the local community. The proposed project would build on the successful first stage of the Jennie's Gut Constructed Wetlands Project, funded in part with a 2005 grant from APNEP. The project improved outdoor teaching and learning opportunities by replacing a pedestrian bridge to allow greater water flow through Jenny's Gut waterway on campus.

Status: Complete  
Output: Educational wetland, public involvement.  
Outcome: Reduction in sediments, nutrients and toxicants from nonpoint sources, improvement of water quality for a town and community, improved water flow  
Cost: \$ 11,400  
Source: EPA funds for FY 2006  
Leverage: \$ 2,000

### **Williamston High School Low Impact Development Project**

This project installed several examples of Low Impact Development (LID) practices on the site of Williamston High School in Martin County, NC. The integrated management practices of a cistern, level spreader, vegetative buffer, bioretention, rain gardens and permeable pavement helps treat runoff from the school site before it enters the waters flowing into the Roanoke River. The practices will be used to educate students, officials, and citizens of the importance of integrated management practices and how they can be used at residential and commercial levels to treat runoff. North Carolina Cooperative Extension and the Town of Williamston lead this project.

Status: In Progress (expected to be complete by July 1, 2007)  
Intended Output: Demonstration BMPs installed  
Intended Outcome: Reduce erosion and untreated stormwater runoff, improved water quality; reduction in the amount of treated municipal water used for landscaping and other non-potable uses  
Estimated Cost: \$ 25,000  
Funding Source: EPA funds for FY 2006  
Estimated Leverage: Pending

### **Red Mill Elementary School Riparian Buffer Project and Environmental Education Center, VA**

This project involved construction of a 35-foot riparian buffer zone adjoining Red Mill Elementary School, and development of an education program with displays and outdoor classroom facilities.

Status: In Progress (expected to be complete on June 15, 2007)  
Intended Output: Education program with displays  
Intended Outcome: A 35-foot riparian buffer zone  
Estimated Cost: \$ 25,000  
Funding Source: EPA funds for FY 2006  
Estimated Leverage: \$ 17,000

### **Manteo Middle School Stormwater Demonstration Project**

Students, teachers, and volunteers planted rain gardens in an area designed to catch stormwater from the school's parking lots and roof. Information on stormwater pollution and control has been incorporated into the science curriculum, and signs inform the public about stormwater problems and control.

Status: Complete  
Output: Two landscaped rain gardens with native plants, with signs explaining stormwater runoff and the need to control it, greater student awareness of the effects of stormwater  
Intended Outcome: Improved stormwater management  
Estimated Cost: \$ 14,500  
Funding Source: EPA funds for FY 2006  
Estimated Leverage: \$ 7,340

***Wet and Wild: Utilizing the Wet Detention Pond at P.S. Jones Middle School as an Outdoor Classroom***

This project proposes the creation of an outdoor classroom in and around a two-acre wet detention pond that has been constructed on the 88-acre tract of land on which P.S. Jones Middle School and John Small Elementary School are being built. Grant funds will be used to design and construct a wheelchair-accessible observation platform and pier overlooking the detention pond to provide students and teachers with opportunities for scientific study, observation, and data collection. Grant funds will also be used to purchase and introduce plants selected for their documented ability to uptake and/or degrade toxins in pond water.

Status:	In Progress (expected to be complete on May 31, 2007)
Intended Output:	Boardwalk, outdoor classroom
Intended Outcome:	Improved stormwater management, vegetation, and greater student awareness of effects of stormwater
Estimated Cost:	\$ 25,000
Funding Source:	EPA funds for FY 2006
Estimated Leverage:	Pending

### **III.FY 2005 ACTIONS & PROJECTS**

The following are ongoing or completed actions from the FY 2005 Work Plan since the last Work Plan report.

#### **Conservation Assessment for the Albemarle-Pamlico Region, Phase II**

The NC Natural Heritage Program worked to identify owners of lands which contain Significant Natural Heritage Areas identified during the Albemarle-Pamlico Estuarine Study from 1989 to 1993, and to meet with the landowners to inform them of the ecological significance of their lands and to encourage their wise stewardship of their properties. Project builds upon FY 2003 project.

Status: Complete  
Output: Data, report  
Outcome: Conservation easements or other land protection  
Estimated Cost: \$12,000  
Funding Source: EPA funds for FY 2005

#### **Submerged Aquatic Vegetation Mapping (Ongoing)**

See Submerged Aquatic Vegetation (SAV) Monitoring in Ongoing Projects for more information.

Status: In Progress (Phase II) – Pea Island  
Output: Reports and GIS data, better management of SAV resources  
Outcome: New management actions to protect SAV resources  
Estimated Cost: \$20,000  
Funding Source: EPA funds for FY 2005  
Leverage: Funds were directly linked to \$20,000 from the NC Wildlife Resources Commission in contracted project. Additional leverage is pending.

#### **Under Served Communities – Estuarine Education**

APNEP is working with various partners to develop a pilot program in two elementary schools (grades K-4) in the APNEP region to assist students and their families in learning new skills and developing new abilities to enhance their understanding of their connections to the estuary and the environment.

Status: Pending additional funds and partners  
Estimated Cost: \$8,000  
Funding Source: EPA funds for FY 2005

#### **IV. FY 2004 ACTIONS & PROJECTS**

The following are ongoing or completed actions from the FY 2004 Work Plan since the last Work Plan report.

##### **Atlantic White Cedar Restoration Project / Tide gate**

The NC Division of Coastal Management / Coastal Reserves planned to replant approximately 38 acres of forested wetlands with native hardwood species, cypress, and Atlantic White Cedar at the Preyer-Buckridge Coastal Reserve in winter 2004, but heavy rains and flooding have delayed site preparation and replanting. Staff are currently working to install a tide gate to reduce the effects of saltwater intrusion.

Status: In Progress  
Intend Output: Tide gate, report, data  
Intended Outcome: Habitat restoration  
Estimated Cost: \$16,000  
Funding Source: EPA funds for FY 2004

##### **GIS Outreach and Services**

The APNEP had contracted with the NC Center for Geographic Information and Analysis (CGIA) to provide GIS support and training as well as accessible and affordable GIS data for planning and educational purposes.

Status: Complete  
Output: GIS data, training, reports  
Outcome: Enhanced environmental awareness and management resources  
Estimated Cost: \$18,000  
Funding Source: EPA funds (Remaining from previous NC CGIA contract)

##### **Gates County High School Outdoor Environmental Learning Site**

This project is a collaborative venture led by Gates County Public Schools to plan and construct a boardwalk, bridge and observation platform which will enhance science teaching and learning for 640 high school students and their teachers and increase environmental awareness for the general public of Gates County.

Status: Complete  
Intended Output: Boardwalk, bridge and observation platform, riparian buffer, enhanced science teaching and learning for 640 high school students and their teachers, and increased environmental awareness for the general public of Gates County.  
Intended Outcome: Increased environmental awareness  
Estimated Cost: \$ 17,215  
Funding Source: EPA funds for FY 2004  
Estimated Leverage: \$ 1,000

## V. FY 2003 ACTIONS & PROJECTS

The following are ongoing or completed actions from the FY 2003 Work Plan since the last Work Plan report in June 2006.

### **Comprehensive Monitoring Plan**

The APNEP Science Coordinator is coordinating the activities associated with development of the indicators and the monitoring strategy. The Science Coordinator has reviewed work efforts previously completed by the program and has conducted meetings with other DENR agency staff to gather information on existing and proposed monitoring programs and projects. The APNEP Director, Science Coordinator, STAC, MAC and DENR agency staff will continue to address this task in FY 2008 along with indicators.

Status: In Progress  
Intended Output: Plan  
Intended Outcome: Enhanced environmental monitoring  
Estimated Cost: \$3,000  
Funding Source: Unencumbered EPA funds from previous years as necessary

### **Other Projects**

The APNEP worked to develop partnerships to implement projects that support the mission of the APNEP and implementation of the CCMP.

#### **NC Division of Forest Resources (DFR) Forestry BMP Manual Revision**

Project to support NC DFR to produce and distribute (via workshops and direct mail-out) the Manual to select forest operators and forestland owners located in the five APNEP river basins.

Status: Complete  
Output: BMP Manual  
Outcome: Increased use and awareness of forestry BMPs  
Funding Source: Unencumbered EPA funds from previous years as necessary  
Funding: \$15,000  
Leverage: [Pending](#)



## **VI. FY 2002 ACTIONS & PROJECTS**

Funds from a previous EPA grant (CE- 994645-94) were dedicated to support a round of watershed demonstration projects in FY 2002. The River Basin Regional Advisory Councils selected projects and allocated funding levels in May 2004. The following is a summary for each project that remained active since the last Work Plan report.

### **Low Impact Development Demonstration and Education for the Upper Neuse River Basin**

Demonstrate the effectiveness of Low Impact Development techniques in reducing stormwater runoff. This project was cancelled by the contractor. Remaining funds were assigned to other projects described in FY 2007 section.

Lead Agency: North Carolina State University Water Quality Group  
Partners: DENR Division of Water Quality, NCSU Biological & Agricultural Engineering Dept., NCSU College of Design, Habitat for Humanity  
Status: Cancelled at contractor's request  
Funding: \$25,000  
Leverage: \$170,100

### **Stormwater Wetland at Pactolus Elementary School**

Plan and create a stormwater wetland on a parcel located adjacent to Pactolus Elementary School in Pitt County, NC. The wetland will capture runoff from the school's parking lot and roof drains, which presently empties into Grindle Creek as untreated stormwater runoff. The site will educate local students about wetlands and serve as an outdoor classroom.

Lead Agency: Pitt County Planning Department  
Partners: Pitt County School Board, Cooperative Extension  
Status: Complete  
Intended Output: Wetland, report, educational area  
Intended Outcome: Constructed wetland, better stormwater management, improved water quality  
Funding: \$31,200  
Leverage: \$ 1,000

### **Town of Gatesville Water Quality Project**

Project consists of stormwater BMP construction and monitoring to determine pollution contribution / changes. Construction delays have slowed the project.

Lead Agency: Albemarle Resource Conservation and Development Council  
Partners: Town of Gatesville, Gates Soil & Water Conservation District, NC Department of Transportation, Natural Resources Conservation Service, Citizens  
Status: Complete  
Intended Output: Constructed wetland system to serve the town's 160 acre watershed, restored ditch banks and buffers, construct educational display, report

Intended Outcome: Improved water quality and habitat, improved stormwater management  
Funding: \$50,000  
Leverage: [Pending](#)

**EPA Supported Nonpoint Source Pollution Related Restoration Project**

During FY 2001, APNEP received \$75,000 to support an environmental NPS-related restoration project in the APNEP region. These funds were used to support and leverage Clean Water Management Trust Fund money to construct a wetland and storm water management project associated with Tryon Palace State Historic Site in New Bern, NC. Specifically, these funds are to create a cord grass marshland in the designated area along the confluence of the Neuse and Trent rivers. The overall project is ongoing. The APNEP funded portion of the project is complete.

Status: APNEP portion complete  
Output: Wetland, riparian buffer  
Outcome: Restored shoreline, wetland, improved water quality and habitat  
Estimated Cost: \$75,000  
Funding Source: EPA dedicated funds for project

## ONGOING LONGTERM PROJECTS & ACTIONS

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### I. Board and Committees Support

The key element of the CCMP's implementation is active citizen participation. On May 16<sup>th</sup>, 2005, North Carolina Governor Michael F. Easley signed Executive Order # 74: *Creation of a Program Office, a Policy Board, and Advisory Committees to Support Natural Resource and Environmental Management in the Albemarle-Pamlico National Estuarine System*. Staff work with these advisory groups to guide CCMP implementation.

Type: Ongoing  
Intended Output: Partnership building, outreach, CCMP implementation prioritization  
Intended Outcome: New and greater public involvement, estuarine indicator development  
Estimated Cost: \$ 4,000  
Funding Source: EPA funds for FY 2008  
EPA funds for FY 2007 - \$5,000

### II. Virginia Watershed Field Coordinator

The headwaters for the Pasquotank, Chowan and Roanoke River basins are located within Virginia. One of the most critical components to effective implementation of the CCMP within these basins is long-term, comprehensive coordination between North Carolina and Virginia. The Watershed Field Coordinator for Virginia provides coordination and support to APNEP, DENR and the Virginia Department of Conservation and Recreation (VA DCR), and enhances implementation of the CCMP in the Roanoke, Chowan and Pasquotank river basins. The APNEP supports one-half of this position for at least 20 hours per week. The contract has been extended for another year.

Status: In Progress - Ongoing  
Output: Program administration, reports, leverage, presentations  
Outcome: Environmental result, CCMP implementation  
Estimated Cost: **\$30,000**  
Funding Source: EPA funds for FY 2008

❖ The Virginia Watershed Field Coordinator directly supports the CCMP's Implementation Plan, Objective A: Management Action 2: *“Coordinate implementation of the CCMP.”*

### III. Citizens' Monitoring Network

The APNEP Citizens' Monitoring Network (CMN) is a network of private citizens who monitor surface water quality in the Albemarle-Pamlico estuary and its tributaries. The program began as an initiative of the Pamlico-Tar River Foundation in 1988, to protect, preserve and promote the water quality of the Tar-Pamlico River and its watershed. Today, the program includes all waters located in the Albemarle-Pamlico region.

The CMN has three areas of activity: Baseline Monitoring, Targeted Monitoring and Surveys, and Water Quality Education. Program volunteers receive support in each of these areas through water quality education and training, QA/QC workshops, distribution of equipment and supplies, data management/analysis, and networking opportunities. Participants primarily monitor dissolved oxygen, pH, salinity, air and water temperatures, and turbidity to gauge the general health or quality of water in the estuary. Using basic but accurate water quality test kits, citizen volunteers analyze their water samples, observe qualitative factors such as weather conditions and other visual indicators, and record the results. All monitoring data compiled by the CMN office at ECU. Information is available to the public on the APNEP web site at <http://www.apnep.org/> and at <http://www.ecu.edu/icmr/cwqmp>.

Operation of the APNEP Citizens' Monitoring Network (including Coordinator, equipment, supplies, office and lab space and ECU indirect costs) will be under contract with East Carolina University.

Status: In Progress - Ongoing

Output: Awareness, data

Outcome: Increased environmental awareness

Estimated Cost: Continued operation of the Citizens' Monitoring Network (including Coordinator, equipment, supplies, lab space and indirect costs) will require \$48,545 (via contract with East Carolina University).

Funding Source: EPA funds for FY 2008

- ❖ The Citizens' Monitoring Network directly supports the CCMP's Stewardship Plan, Objective B: Management Action 4: *“Expand involvement in the Citizens' Water Quality Monitoring Program (CWQMP) and make the program more interactive with regulatory agencies.”*

#### **IV. Submerged Aquatic Vegetation (SAV) Monitoring**

Submerged aquatic vegetation constitutes one of the most important estuarine habitats in Albemarle-Pamlico Region. SAV supports many species of fish and shellfish and are major fishery habitats of the shallow sounds behind North Carolina's barrier islands and along the coastal fringes bordering the western side of these sounds.

Previous studies by NOAA and East Carolina University to delineate and quantify the location and extent of SAV, based on conventional color aerial photography and field sampling, were conducted in the late-1980s and early-1990s for portions of the Albemarle-Pamlico estuary. This information, some of which has been digitized in GIS-format, has proven valuable to habitat managers in their review of dredge and fill related permit applications and has helped Core Sound, Back Sound and western Bogue Sound achieve nomination for designation as Outstanding Resource Waters.

Since that time, no major organized effort to map the location and extent of SAV coverage in the Albemarle-Pamlico estuary has been conducted. SAV is being used as a critical environmental indicator in several other estuarine systems (e.g., Indian River

Lagoon, Tampa Bay and Chesapeake Bay). Currently, North Carolina lacks the information necessary to determine reliable trends in SAV distribution and health.

In FY 2007 APNEP provided the base funding necessary to foster acquisition of digital aerial photography of potential SAV habitats in the APNEP and stimulate interest in the entire coastal region. This imagery is a necessary step in providing APNEP partners with information on the current status of SAV in the coastal waters.

Status: In Progress  
Output: Report, GIS data, maps, educational opportunities  
Outcome: Better environmental data, better resource management and planning  
Funding & Source: EPA FY 2008 – \$30,000 - Digital image analysis  
EPA FY 2007 – \$140,000 In Progress (digital image acquisition – entire coast)  
EPA FY 2006 – \$20,000 - to be attached to FY 2007 funding for digital image acquisition  
EPA FY 2005 – \$20,000 Contracted (Phase II - In Progress)

Partners: NC Division of Marine Fisheries, US Fish and Wildlife Service, WRC, Elizabeth City State University, the NC Coastal Nonpoint Source Program, NC Division of Water Resources, NOAA

## V. OTHER PROJECTS

### **North Carolina – Virginia Shared Resources Forum**

A forum for state resource agencies and local governments in the Roanoke, Chowan and Pasquotank river basins will be held to review resources shared by the two states. This forum has been delayed in order to assess the role of the new Roanoke Bi-State Commission as designated by the General Assembly of both states. Approximately \$1,000 is budgeted for this effort using EPA funds from previous years. The current strategic planning exercise has identified a Governor’s agreement as a possible goal for the program. It should also be noted that the APNEP Watershed Field Coordinator for Virginia is playing a key role in inter-state relations with issues in the shared river basins.

Status: Planning  
Estimated Cost: \$1,000  
Funding Source: EPA funds from previous years - budgeted in the FY 2003 Work Plan

- ❖ This action directly supports the CCMP’s Implementation Plan, Objective A, Management Action 2: “*Coordinate implementation of the CCMP.*”

## **PROPOSED PROJECTS & ACTIONS FOR FY 2008**

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Projects for FY 2008 will continue to support the implementation strategy as outlined in the CCMP and support program reform and CCMP update efforts.

### **I. Program Administration & Indirect Costs**

For more detail see Administration and Financial section.

Type: Ongoing  
Intended Output: Program administration, partnership building, CCMP implementation  
Intended Outcome: CCMP implementation  
Estimated Cost: \$ 278,064 direct and \$ 6,891 indirect  
Funding Source: EPA funds for FY 2008

❖ These actions support the CCMP's Implementation Plan goal: *"Implement the CCMP in a way that protects environmental quality while using the most cost-effective and equitable strategies."*

### **II. Watershed Field Coordinator - Virginia**

For more detail see Ongoing Projects section.

Type: Ongoing  
Intended Output: Governmental coordination, public involvement  
Intended Outcome: CCMP implementation  
Estimated Cost: \$ 30,000  
Funding Source: EPA funds for FY 2008

❖ These actions support the CCMP's Implementation Plan goal: *"Implement the CCMP in a way that protects environmental quality while using the most cost-effective and equitable strategies."*

### **III. Board and Committees Support**

The key element of the CCMP's implementation is active citizen participation. On May 16<sup>th</sup>, 2005, North Carolina Governor Michael F. Easley signed Executive Order # 74: *Creation of a Program Office, a Policy Board, and Advisory Committees to Support Natural Resource and Environmental Management in the Albemarle-Pamlico National Estuarine System*. This Executive Order is essential to the future of the APNEP.

Type: Ongoing  
Intended Output: Partnership building, outreach, CCMP implementation prioritization  
Intended Outcome: New and greater public involvement, estuarine indicator development  
Estimated Cost: \$ 4,000  
Funding Source: EPA funds for FY 2008

❖ This action supports the CCMP's Implementation Plan, Objective B: *“Assess the progress and success of implementing CCMP recommendations and the status of environmental quality in the Albemarle-Pamlico Sounds region.”*

#### **IV. Local Government Environmental Academy (NEMO)**

APNEP will partner with NC Sea Grant, NC Coastal Federation, NCNERR and others to expose newly elected local government officials to the basics of estuarine ecosystem ecology, hydrology, and pollution issues, using the Non-point Education for Municipal Officials (NEMO) model. The academy also provides opportunities for assistance/resources. The academy will be held over a two day period.

Type: New

Intended Output: Informed local elected officials

Intended Outcome: Increased environmental awareness, better environmental decisions

Estimated Cost: \$2,000

Funding Source: EPA funds for FY 2008

Leverage: Pending

❖ This project supports the CCMP's Stewardship Plan Objective A: *“Promote local and regional planning that protects the environment and allows for economic growth.”*

#### **V. Marine Debris**

APNEP will partner with NC Division of Coastal Management and others on a project to reduce the amount of marine debris in the estuary.

Type: New

Intended Output: Informed local elected officials

Intended Outcome: Reduction in marine debris in estuary

Estimated Cost: \$1,000

Funding Source: EPA funds for FY 2008

Leverage: Pending

❖ This project supports the CCMP's Fisheries Plan Objective A: *“Promote the Use of Best Fishing Practices that Reduce Bycatch and Impacts on Fisheries Habitat.”*

#### **VI. Submerged Aquatic Vegetation (SAV) Image Analysis**

In FY 2008, APNEP will provide the base funding necessary to lead interpretation of the acquired digital aerial photography of potential SAV habitats in the APNEP region. This imagery is a necessary step in providing APNEP partners with information on the current status of SAV in the sounds. Expected partners include NC Division of Marine Fisheries, US Fish & Wildlife Service, NC DOT and others. See SAV Monitoring in Ongoing Projects for more information.

Type: Ongoing

Intended Output: Report, GIS data, maps, educational opportunities

Intended Outcome: Better environmental data, better resource management and planning

Estimated Cost: \$ 30,000

Funding Source: EPA funds for FY 2008

Leverage: Pending

❖ This action supports the CCMP's Water Quality Plan goal: *“Restore, maintain or enhance water quality in the Albemarle-Pamlico region so that it is fit for fish, wildlife and recreation.”*

## **VII. Citizens' Monitoring Network**

For more detail see Ongoing Projects section.

Type: Ongoing  
Intended Output: Awareness, data  
Intended Outcome: Increased environmental awareness  
Estimated Cost: \$ 48,545  
Funding Source: EPA funds for FY 2008

❖ This action supports the CCMP's Water Quality Plan: Management Action 4: *“Expand involvement in the Citizens' Water Quality Monitoring Program (CWQMP) and make the program more interactive with regulatory agencies.”*

## **VIII. 303-D Listed Waters Project**

APNEP will partner with NC Division of Water Quality and others on a project to remove a water body from the 303-D list of impaired waters.

Type: New  
Intended Output: TBA  
Intended Outcome: Restore designated use to a water body  
Estimated Cost: \$4,000  
Funding Source: EPA funds for FY 2008  
Leverage: To be determined

❖ This project supports the CCMP's Water Quality Plan Goal: *“Restore, maintain or enhance water quality in the Albemarle-Pamlico region so that it is fit for fish, wildlife and recreation.”*

## **IX. NC Teaching Fellows (Coastal)**

APNEP will again partner with NC Teaching Fellows Program, the Cape Lookout Studies Program, Friends of the N.C. Maritime Museum, and the NCNERR to provide a Junior Enrichment Program. Teaching Fellows are required to participate in a number of experiences designed to enhance their campus programs and give insights into the challenges facing them when they enter the classroom. This opportunity will be provided as a Junior Enrichment Program for rising juniors. Participants will receive instruction in the application of practical activities and curriculum related to coastal environments. Participants will receive activity guides and teaching materials.

Type: 2<sup>nd</sup> Year  
Intended Output: Pre-service junior enrichment for 15 NC Teaching Fellows  
Intended Outcome: Increased environmental awareness  
Estimated Cost: \$3,000  
Funding Source: EPA funds for FY 2008  
Leverage: To be determined



❖ This project supports the CCMP's Stewardship Plan Objective C: *“Ensure that students, particularly in grades K-5, are exposed to science and environmental education.”*

#### **X. Outreach Activities**

This project supports all of APNEP's outreach activities, including the APNEP newsletter, e-mail updates and other outreach materials.

Status: Ongoing  
Intended Output: Public outreach and involvement  
Intended Outcome: CCMP Implementation, increased environmental awareness  
Estimated Cost: \$500  
Funding Source: EPA funds for FY 2008  
Leverage: To be determined

❖ This project supports the CCMP's Stewardship Plan goal: *“Promote responsible stewardship of the natural resources of the Albemarle-Pamlico region.”*

#### **XI. Web Site**

The APNEP web site ([www.apnep.org](http://www.apnep.org)) will continue to disseminate information about the mission and goals of the NEP and provide information on progress of CCMP implementation. The APNEP web site will also carry *The Beacon*.

Status: Ongoing  
Intended Output: Public outreach and involvement  
Intended Outcome: CCMP Implementation, increased environmental awareness  
Estimated Cost: Unknown  
Funding Source: NC DENR  
Leverage: To be determined

❖ This project supports the CCMP's Stewardship Plan goal: *“Promote responsible stewardship of the natural resources of the Albemarle-Pamlico region.”*

#### **XII. Estuary Live! Spring 2008**

APNEP will again partner with the NC National Estuarine Research Reserve to offer interactive field trips for students from North Carolina and throughout the world.

Status: Ongoing  
Output: 3 days of broadcast  
Outcome: Increased environmental awareness  
Estimated Cost: \$200 from Travel funds  
Funding Source: EPA funds for FY 2008  
Leverage: To be determined

❖ This project supports the CCMP's Stewardship Plan Objective C: *“Ensure that students, particularly in grades K-5, are exposed to science and environmental education.”*

### **XIII. River Herring Restoration Project**

APNEP staff are currently working with NCDENR on a proposal presenting a set of immediate and long-term actions that will lead to the restoration of blueback herring (*Alosa aestivalis*) and alewife (*Alosa pseudoharengus*), collectively known as “river herring”, in a manner that is scientifically, economically and socially sound.

Status:	Development
Output:	Actions to improve water quality and habitat
Outcome:	Restoration of regional herring fishery
Estimated Cost:	\$ TBD (non-320 funds)
Funding Source:	EPA and Environmental Defense: EPA Regional Wetland Grant
Leverage:	~\$100,000

- ❖ This project supports the CCMP's Vital Habitats Objective C: Management Action 3: *“Enhance existing efforts to restore the functions and values of degraded wetlands and vital fisheries habitats. Develop and begin implementing an expanded program to restore wetlands.”*

## **ADMINISTRATION AND FINANCIAL**

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### **I. PROGRAM ADMINISTRATION**

Program staff are responsible for the coordination, planning and successful completion of APNEP functions including Policy Board and Advisory Committee meetings, APNEP forums and other APNEP-sponsored/partner events. In addition, staff monitors, and often becomes involved in, activities of state resource management agencies that relate to CCMP implementation, APNEP mission, the Albemarle-Pamlico watershed or estuary. Staff also attend meetings, conferences and workshops in order to stay apprised of technological advancements that may prove beneficial in the APNEP region and the program. Although the Policy Board and Advisory Committees are instrumental in identifying local environmental issues and prioritizing management actions within each basin, most management actions are implemented by various state agencies on a local, basinwide, regional or statewide basis, and require staff involvement and interactions.

#### **Indirect Costs**

Indirect Charges: NC DENR has negotiated an indirect cost agreement with the US EPA for the Office of Conservation and Community Affairs at a rate of **3.4 % of all salaries supported by this federal grant. Estimated indirect costs for FY 2008 are \$ 6,891.**

#### **Administrative Costs**

**Overall administration costs for FY 2008 are estimated at approximately \$ 278,064 and include salaries, fringe, longevity pay (\$250,114) and supplies, IT services and phone, estimated cost of living (4.25%), training and development, and office space rent (\$27,950).**

#### **Personnel**

Presently, the APNEP staff consists of the APNEP program office in Raleigh, with the Director Science Coordinator, and Project Coordinator. The APNEP public involvement office in Washington, NC houses the Public Involvement Coordinator and NC Watershed Field Representative.

The APNEP also has two contract employees: the Citizens' Monitoring Network Coordinator in Greenville, and the Virginia Watershed Field Representative in Suffolk, Virginia. See description under Ongoing Projects for information on these programs.

#### **Program Director**

The Program Director administrates and coordinates program activities and the CCMP implementation process, involving interaction with numerous federal and state resource management agencies, universities, interest groups, and the general public. This position manages the post-CCMP grants and associated contracts, provides staff support to the APNEP Policy Board and Advisory Committees, and represents the APNEP at local, state, regional and national meetings.

Personnel: Bill Crowell will continue in this role. Mr. Crowell has been the Director since June 2002.

Funding Source: EPA funds for FY 2008

**Public Involvement Coordinator**

The Public Involvement Coordinator supports public/ community relations and knowledge concerning issues relating to the Albemarle-Pamlico region; facilitates the implementation of the CCMP; develops and implements educational and outreach programs; promotes dialogue between local government officials and private citizens; and provides liaison responsibility for the Citizens' Monitoring Network. This position also provides valuable staff support to the Policy Board and Advisory Committees.

Personnel: Joan Giordano will continue in this role. Ms. Giordano has served in this role since 1987.

Funding Source: EPA funds for FY 2008

**Science Coordinator**

The Science Coordinator assists the Program Director with administration and coordination of the CCMP. This position helps design and implement a comprehensive monitoring strategy and reporting process, guides the Scientific and Technical Advisory Committee (STAC), and reviews project proposals and reports for merit. This position provides staff support to the Policy Board and Advisory Committees.

Personnel: Dean Carpenter will continue in this role. Dr. Carpenter has served in this role since November 2003.

Funding Source: EPA funds for FY 2008

**Project Coordinator**

The Project Coordinator assists the Program Director to administrate and coordinate the CCMP implementation process, involving interaction with numerous federal and state resource management agencies, universities, interest groups, and the general public. This position assists in the management of contracts, and provides staff support to the Policy Board and Advisory Committees.

Personnel: [Lucy Henry. Ms. Henry will join APNEP on June 15, 2007.](#)

Funding Source: EPA funds for FY 2008

**Watershed Field Coordinator (NC)**

This position provides an essential function as an APNEP liaison to local governments and state agencies. The Watershed Field Coordinator (NC) provides coordination and support to local governments and state agencies to enhance CCMP implementation. This position also provides staff support to the Policy Board and Advisory Committees. This position splits time between the Raleigh and Washington DENR Regional Offices.

Personnel: Jimmy Johnson will continue in this role. Mr. Johnson has served in this role since January 2006.

Funding Source: NC DENR

## **II. GRANTS TO LOCAL ENTITIES**

The Albemarle-Pamlico NEP let numerous contracts in FY 2007 in order to accomplish the tasks presented in the FY 2003 to FY 2007 Work Plans. These items are discussed in the Goals and Accomplishments, and the Ongoing Projects sections of this report.

Most actions have been funded under #CE-97464802. However, funds from a previous EPA grant (CE- 994645-94) have also supported numerous projects. All remaining funds under this grant have been spent or are in contractual obligations and should be spent by September 2007.

Additionally, APNEP partnered with Environmental Defense to obtain a Regional Wetland Grant from the EPA in December 2005. This grant (CD-9444206) funds support for the development of a comprehensive assessment and tracking methodology for wetland functionality in the Chowan estuary of Western Albemarle Sound. Environmental Defense is providing 100% of the required matching funds for this grant.

The following table provides an overview of all completed and active grants to local entities since October 1, 2006 for section 320 funds under CE-9746802, CE- 994645-94, or NC DENR funds for APNEP activities.

**GRANTS TO LOCAL ENTITIES (Active October 1, 2006 to May 1, 2007)**

<b>Project Title</b>	<b>Funded Amount</b>	<b>Project Leader</b>	<b>Purpose</b>	<b>Deliverables</b>	<b>Completion Date</b>	<b>Status</b>
Watershed Coordinator (VA)	\$30,000	VA. Dept. Conservation & Recreation	Fund Watershed Coordinator in VA-NC Shared river basins	Program support Reports	Ongoing	In Progress
Citizens' Monitoring Network	\$56,000	East Carolina University	Outreach / Monitoring	Program Admin Newsletters, Database	Ongoing	In Progress
Teacher Fellows 2007	\$6,000	Environmental Education Fund	Run logistics for Fellows at Cape Lookout	Week long Institute Report	May 2007	In Progress
Teacher Institute 2007	\$10,000	Environmental Education Fund	Develop and Implement a Teacher Institute for 25 teachers	Week long Institute Report	July 2007	In Progress
Forestry BMP Manual	\$15,000	NC Div. Forest Resources	Develop and Distribute a Forestry BMP Manual	Manual	March 2007	Complete
LID Demo Project	\$25,000	NCSU	Low Impact Development Demo	Construction Documentation Outreach	Cancelled	Cancelled
SAV Mapping Phase II	\$40,000 (\$20 K from APNEP)	Elizabeth City State University	SAV mapping project Phase I	SAV Mapping GIS	April 2007	Report Pending
Carteret Comm. Coll. Shoreline Restoration	\$20,978	NC Coastal Federation	Shoreline Restoration	Shoreline Plantings, report	December 2006	Complete
Perquimans High School Phase II	\$11,400	Perquimans County Schools	Bridge Replacement	Bridge	February 2007	Complete
Williamston HS LID Demonstration	\$25,000	Town of Williamston	BMP Construction	BMP Construction	June 2007	In Progress
Red Mill Riparian Buffer	\$25,000	City of Virginia Beach	BMP Construction Outdoor Classroom	BMP Construction	May 2007	In Progress
Manteo Middle School Stormwater	\$14,500	Manteo Middle School	BMP Construction	BMP Construction	December 2006	Complete
PS Jones Outdoor Classroom	\$25,000	Washington County Schools	BMP Construction Outdoor Classroom	BMP Construction	May 2007	In Progress
River Basin Deck	\$5,000	NC DFR	Outdoor Classroom /deck	Construction, outreach	June 2007	In Progress
Tide Gate	\$16,000	NC DCM	Tide gate	Construction	June 2007	In Progress
Wetland Project	\$227,520 (Non-320 funds)	Environmental Defense	Regional Wetland Grant	Report, Data	September 2007	In Progress

### **III. LEVERAGE FUNDS**

The Albemarle-Pamlico NEP has more actively sought alternative sources of funding for APNEP activities and projects to fulfill the goals of the CCMP. In addition, the APNEP sought out additional avenues for collaborating with other agencies to assist in targeting these program funds towards CCMP and basinwide goals. Where possible, APNEP worked to cost-share projects to increase the effectiveness or the magnitude of projects, even though in several cases the APNEP was not the primary catalyst for the project.

As the program progresses, the APNEP is working to leverage more funds through partnerships, projects and grants. APNEP will be working with NC DENR to develop a strategy for the development of additional state funds for program activities.

Additionally, the APNEP staff will work with EPA staff to identify and develop strategies for leveraging funds beyond the EPA section 320 grant funds.

The APNEP has been successful in its ability to promote the needs, as well as the successes, associated with natural resource management, protection and enhancement efforts in the APNEP region. Several state conservation-funding sources were developed in response to research funded by the Albemarle-Pamlico Estuary Study. These programs include Clean Water Management Trust Fund, Clean Water State Revolving Fund Program, and the North Carolina Conservation Reserve and Enhancement Program.

#### **FY 2008**

In FY 2008, the Albemarle-Pamlico NEP will continue to seek additional avenues for collaborating with other partners to assist in targeting funds to support CCMP implementation goals and the APNEP mission. Where possible, APNEP will actively seek alternative sources of funding for APNEP activities and projects to fulfill the goals of the CCMP.

#### **FY 2007**

In FY 2007, the Albemarle-Pamlico NEP continued to seek partners and additional opportunities for partners in targeting actions and funds towards CCMP implementation. APNEP will submit its FY 2007 Leverage results in September 2007.

#### IV. FY 2008 ESTIMATED FEDERAL COST SHARE

### **Federal Funds Budget FY 2008**

*The estimated\* federal funds budget for each NEP for FY 2008 is \$418,000*

#### **IMPLEMENTATION PLAN**

Program Administration ( <i>Ongoing</i> )	
(staff salaries, fringe**, longevity, rent, supplies, indirect, etc.)	\$ 278,064
Watershed Field Coordinator ( <i>Ongoing- contract with VA DCR</i> )	\$ 30,000
Boards & Committees Support ( <i>Ongoing</i> )	\$ 4,000

#### **VITAL HABITATS PLAN**

SAV Image Analysis ( <i>New</i> )	\$ 30,000
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#### **FISHERIES PLAN**

Marine Debris ( <i>New</i> )	\$ 1,000
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#### **STEWARDSHIP PLAN**

Citizens' Monitoring Network ( <i>Ongoing</i> )	\$ 48,545
Local Government Environmental Academy	\$ 2,000
NC Teaching Fellows	\$ 3,000
303-D Listed Waters Project	\$ 4,000
Outreach	\$ 500

<b><u>TRAVEL</u></b>	\$ 10,000
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<b><u>INDIRECT COSTS</u></b>	\$ 6,891
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**Total \$ 418,000**

*\* Estimate from EPA on April 20, 2007*

*\*\* Includes: Fringe Benefits based on Social Security (7.65 %) & Retirement (7.14 %) of position's annual salary  
Medical Insurance Plan rate of \$3,852 per year and  
Indirect Costs based on 3.4 % of federal salaries.*



**V. NON-FEDERAL COST SHARE (Match for FY 2008)**

**Summary of Match Requirements**

The North Carolina Department of Environment and Natural Resources intends to provide \$418,000 for the 1:1 non-federal match for FY 2008.

This match will be provided through:

- 1) In-kind services provided by staff of the Department of Environment and Natural Resources: Office of Conservation and Community Affairs.
- 2) In-kind costs associated with the Elizabeth City Water Project to improve water quality through funding of the NC Clean Water Management Trust Fund.

**SUMMARY OF STATE MATCH**

In-kind Positions (salaries and fringe):	\$ 75,837
Clean Water Management Trust Fund Project:	<u>\$ 342,163</u>
TOTAL:	\$ 418,000

**In-kind Position Match**

The North Carolina Department of Environment and Natural Resources intends to provide \$75,837 as part of the 1:1 non-federal match for FY 2008. The match will be provided through in-kind services provided by staff of the Department of Environment and Natural Resources: Office of Conservation and Community Affairs.

**Office of Conservation and Community Affairs**

NC DENR's Office of Conservation and Community Affairs manages the *One North Carolina Naturally* initiative by leading the development and implementation of a comprehensive statewide conservation plan involving government agencies, private organizations, landowners and the public. Protecting the state's open space areas in this coordinated manner facilitates the more effective use of limited funding sources. OCCA also provides support for development of regional open space plans, providing assistance through regional meetings and resource materials.

The match position is responsible for program administration, support, community involvement and guiding implementation of the NC Coastal Habitat Protection Plan and the APNEP Comprehensive Conservation and Management Plan.

<b><u>POSITION</u></b>	<b><u>#</u></b>	<b><u>SALARY</u></b>	<b><u>EFFORT</u></b>	<b><u>Match</u></b>
Field Representative	1	62,710	1.0	62,710
			Fringe* 1.0	<u>13,127</u>
		Total In-Kind Service Match:		<u>75,837</u>

\* Fringe is based on Social Security (7.65 %) & Retirement (7.14 %) of position's annual salary, plus Medical Insurance Plan rate of \$3,852 per year.

**In-kind Project/Services Match**

The North Carolina Clean Water Management Trust Fund intends to provide \$ 342,163 as part of the 1:1 non-federal match for FY 2008. The match will be provided through a water quality improvement project in the Pasquotank river basin.

**Clean Water Management Trust Fund**

Created in 1996, the Clean Water Management Trust Fund (CWMTF) provides grants to local governments, state agencies and conservation non-profits to help finance projects that specifically address water pollution problems. CWMTF funds projects that enhance or restore degraded waters, protect unpolluted waters, and/or contribute toward a network of riparian buffers and greenways for environmental, educational, and recreational benefits.

The following projects within the Albemarle-Pamlico region will be used for match.

<b>Project</b>	<b>River Basin</b>	<b>Purpose</b>	<b>Amount</b>
Elizabeth City Water Project	Pasquotank	Water Quality Improvements	\$ 342,163
		<b>Total</b>	<b>\$ 342,163</b>

**CWMTF Project Description**

Currently, 90% of all wastewater in Elizabeth City is ultimately discharged to the Main Street Pump Station, and then pumped beneath Knobbs Creek to the 4.5 million gallon per day (MGD) Elizabeth City Wastewater Treatment Plant which discharges to the Pasquotank River. The Board of Trustees of the Clean Water Management Trust Fund approved a grant amount of up to \$2,000,000 to help fund the construction of a new 12-inch diameter forcemain to bypass the existing Main Street Pump Station, and thus eliminate overflows due to failures at the Main Street Pump Station that have allowed raw sewage to be discharged into the Pasquotank River basin in Camden County.

Clean Water Management Trust Fund funds will be used for the project design and permitting, construction of the 12-inch sewage forcemain and upgrade of the Holiday Inn Pump Station including new standby generator, construction administration/observation, construction contingency and the Grant Recipient’s administrative costs. APNEP will use \$342,163 as match for this grant as a conservation purchase. The project will reduce fecal coliform and nutrient contamination delivery to the Pasquotank River (SA, SB, S1G3).

**VI. TRAVEL**

The EPA considers personal, face-to-face contact with peers and colleagues essential for information sharing and technology transfer. As part of the federal grant, EPA provided APNEP with \$10,000 allocated as travel funds for program enhancement, education, and outreach support. These funds are to be used for activities such as:

- 1) Presentations at or participation in national or regional NEP meetings
- 2) Presentations at or participation in workshops or conferences
- 3) Travel to other NEPs or communities to provide peer-to-peer technical assistance
- 4) Travel to other NEPs or watersheds for assistance
- 5) Travel by NEP staff or stakeholders from other NEPs or watershed programs to provide NEP with assistance
- 6) Travel to national or international conferences to share information on the National Estuary Program

Stakeholders may include citizens, members of environmental or public interest organizations, business or industry representatives, academicians, scientists or technical experts. As a requirement of this grant agreement, members of the APNEP core staff are required to attend all meetings called on behalf of the NEPs. These funds cannot be used to pay for travel of Federal employees.

**FY 2007**

During FY 2007, APNEP staff attended a number of meetings and conferences using the allotted travel funds and specific project funds or administration costs. Below is a summary of these activities:

<b>Personnel</b>	<b>Date</b>	<b>Purpose</b>	<b>Location</b>	<b>Cost*</b>
Crowell	11/06	GIBS Conference	Kure Beach, NC	\$ 220
Carpenter, Crowell & Giordano	3/03	EPA- ANEP/NEP National Meeting	Washington, DC	\$ 3,000
Carpenter, Crowell	2/07	AERS & SEER Conference	Pine Knolls Shore, NC	\$ 400
Crowell, Giordano	3/07	Environment Virginia Conference	Lexington, VA	\$ 1,400
Crowell	5/07	Estuary Live	Beaufort, NC	\$200
Crowell, Giordano	5/07	River Rally	Stevenson, WA	\$ 3,000
Crowell	6/07	ISSRM	Park City, UT	\$ 1,877
All APNEP Staff	10/06 to 9/ 2007	Normal Program Activities/ projects	APNEP area	\$ 1,500
			Total	\$11,597

\*Estimate

## **FY 2008 Projected Travel**

All travel is allocated into three categories: In-State, Out-of-State, and EPA Required. All travel must be consistent with NC DENR travel policies and procedures. Due to the dynamic nature of the NEP, all travel cannot be scheduled a year ahead: therefore, only an estimate can be provided based on established NC DENR rates (below). Some travel is associated with specific projects, and travel costs are included in budgeted amounts.

### **In-State:**

In-State travel is primarily for program staff to conduct routine business associated with APNEP daily operations, staff training or topical meetings germane to the program. It may also cover non-staff for NEP business (i.e. board and committee members, guest speakers, and experts). Rates are listed below.

In-state estimate for FY 2008: 30 trips, among 4 staff members; average cost per trip approximately \$100. Total \$3,000

### **EPA-required Out-of-State:**

The NEP holds two national meetings each year (these may be in same fiscal year or not). Each program is required to participate in the meetings. The spring meeting is held in Washington, D.C. and the fall meeting location rotates among the different NEP sites. The level of staff participation will vary depending on the agenda for a particular meeting. Generally two members attend. It may also cover non-staff (i.e. Board or Advisory Committee members).

Estimate for FY 2008: 2 trips, 3 persons; average cost per trip per person is approximately \$1000.00 (based on prior travel). Total \$6,000

### **Other Out-of-State:**

Out-of-State travel is primarily for program staff to conduct business associated with the NEP, staff training or topical meetings germane to the program. It may also cover non-staff (i.e. board and committee members, guest speakers, experts) for NEP related activities. Rates are listed below.

Out-of-State Estimate for FY 2008: 2 trips, 2 days; average cost per trip approximately \$500.00. Total \$1,000

**CURRENT NC DENR TRAVEL RATES**

<b>Item</b>	<b>In-State</b>	<b>Out of State</b>	<b>Overnight Trip</b>	<b>Day Trip</b>
<b>Breakfast</b>	\$ 7.00	\$ 7.00	Leave Office before 6:00 AM	Leave Office before 6:00 AM; Extend workday by 2 hours
<b>Lunch</b>	\$ 9.25	\$ 9.25	Leave Office by 12:00 Noon; Overnight return after 2:00 PM	Never claimed on day trip
<b>Dinner</b>	\$ 15.75	\$ 17.75		Depart office before 5:00 PM Return after 8:00 PM Extend workday by 3 hours
<b>Breakfast/ Dinner</b>				Leave office before 6:00 AM; Return after 8:00 PM; Extend workday by 5 hours
<b>Hotel (+ taxes)</b>	\$ 59.75	\$ 71.00		

**FY 2008 Projected Travel**

<b>Personnel</b>	<b>Date</b>	<b>Purpose</b>	<b>Location</b>	<b>Estimated Cost</b>
APNEP Staff & volunteers	October to September	Normal Program Activities	Albemarle – Pamlico Region	\$ 3,000
APNEP Staff	November 2007	NEP National meeting	San Juan, Puerto Rico	\$ 1,000
APNEP Staff	March 2008	NEP National meeting	Washington, DC	\$ 3,000
APNEP Staff	October to September	National Meetings	TBA	\$ 3,000