

**Year End Report
for
October 1, 2017 – September 2018
under the
Cooperative Agreement Between
The United States Environmental Protection Agency
and the
North Carolina Department of Environmental Quality
in Cooperation with the Commonwealth of Virginia**



**ALBEMARLE-PAMLICO
NATIONAL ESTUARY PARTNERSHIP**

*U.S. EPA Cooperative Agreement CE 00D20614
Region IV*

September 2018

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CONTENTS & CONTACTS

Contents in this Document:

This report contains descriptions and progress on work associated with Cooperative Agreement *CE-0D20614*.

Financial reporting will be reported in the individual Federal Financial Reporting Form (SF-425).

Purpose:

The purpose of this cooperative agreement is to provide support to the North Carolina Department of Environmental Quality (NCDEQ) from the US Environmental Protection Agency (EPA) for continuing implementation of the unique management strategies and actions recommended in the Albemarle-Pamlico National Estuary Partnership's (APNEP) 2012-2022 Comprehensive Conservation and Management Plan (CCMP) and support for the APNEP mission to identify, restore and protect the significant resources of the region.

Period of Performance:

The period of performance under the current Cooperative Agreement CE- *CE-0D20614* is from October 1, 2014 through September 30, 2020.

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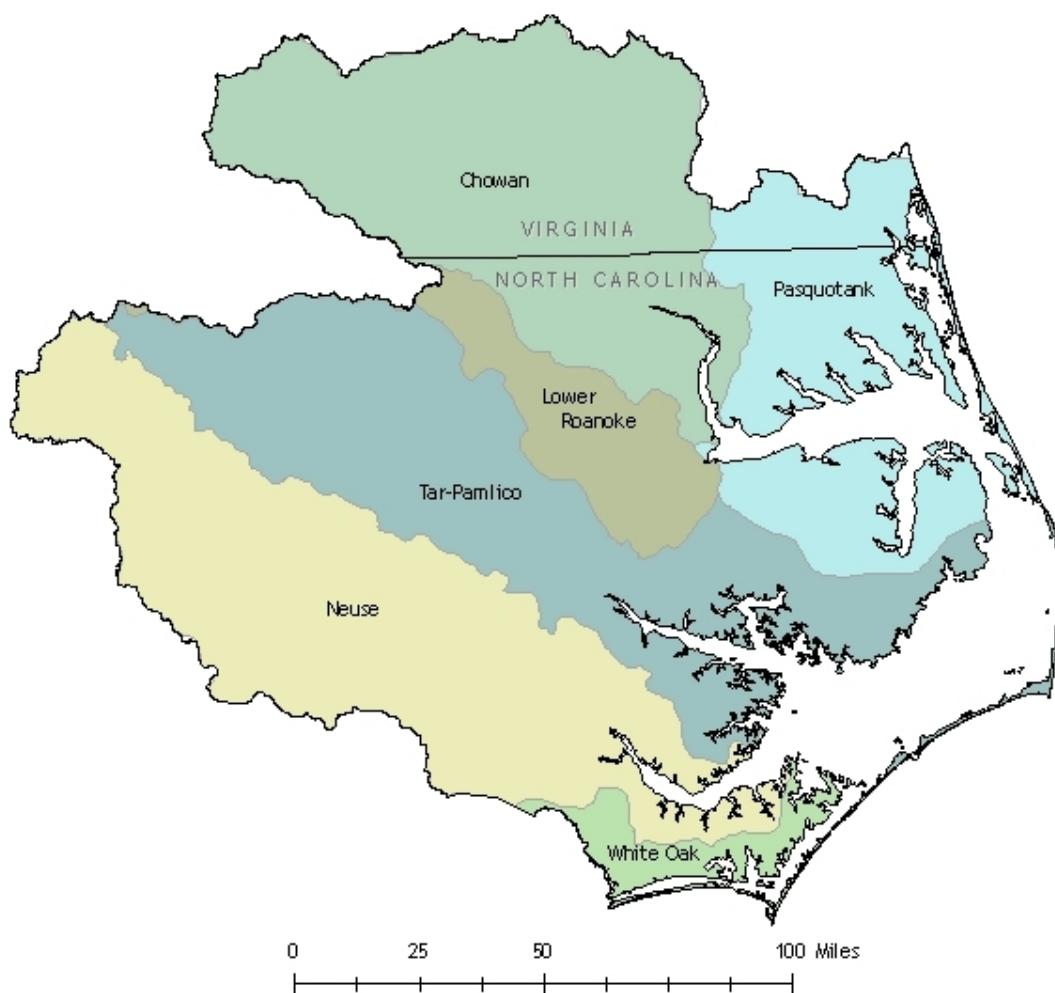
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INTRODUCTION

The Albemarle and Pamlico Sounds comprise the nation's largest lagoonal estuarine system. The system is composed of eight sounds and five major river basins draining over 30,000 square miles of watershed in North Carolina and 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 Partnership (APNEP) is a component of the U.S. Environmental Protection Agency's (EPA) National Estuary Program (NEP). It was one of the first programs established under amendments to the Clean Water Act in 1987. The initial Comprehensive Conservation and Management Plan (CCMP) was ratified by the Governor of North Carolina and approved by the EPA in November 1994. The APNEP Policy Board approved a revised CCMP and submitted to the EPA in March 2012. The 2012-2022 CCMP advances an ecosystem-based management (EBM) paradigm and is intended as a practical, cost-effective and equitable approach to managing the valuable resources within the Albemarle-Pamlico region.



The APNEP Ecosystem-Based Management Approach

Ecosystem-based management (EBM) is based on the tenet that managing natural resources from a systems perspective increases the likelihood of success by forging more effective connections among humans, nature, science, and management actions. Before 2012, APNEP worked with limited resources to integrate and implement EBM concepts and tools within the program and with its local, state, and federal partners, albeit in a piecemeal fashion. Given the relative complexity and increased resources required up front to implement EBM in full, APNEP staff began actively working toward a paradigm change in 2008 with the APNEP Policy Board, advisory committees, and partners.

This activity culminated in March 2012 with the adoption of a new CCMP based on EBM principles to replace the original 1994 CCMP. As implementation of this Work Plan begins, APNEP anticipates completing the development of its ecosystem indicators and monitoring strategy to support the new EBM-based CCMP. With a new CCMP established for a ten-year planning horizon, this work plan includes a proposal to support activities of the CCMP Implementation Workgroups for actions that support the desired ecosystem and management outcomes.

Ecosystem-Based Management (EBM) is a management approach¹ that:

- Is concerned with the ecological integrity that sustains both human and natural resources systems.
- Integrates ecological, social, and economic goals and recognizes humans as key components of the ecosystem.
- Considers ecological, not just political, boundaries.
- Addresses systems and the complexity of natural processes and uses adaptive management to reduce risks related to decisions and actions.
- Engages multiple stakeholders in a collaborative process to define problems and find solutions providing mutual benefit.

¹ http://www.ebmtools.org/about_ebm.html



AUTHORITY

Federal Water Pollution Control Act

Congress established the National Estuary Program (NEP) in 1987 to improve the quality of *Estuaries of National Significance*. The Federal Water Pollution Control Act (33 U.S.C. 1251 *et seq.*), Section 320 directs EPA to develop plans for attaining or maintaining water quality in an estuary. This includes: protection of public water supplies; the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife; allowance of recreational activities in and on water; and control of point and nonpoint sources of pollution to supplement existing controls of pollution. Each program establishes a Comprehensive Conservation and Management Plan (CCMP) to meet the goals of Section 320.

Comprehensive Conservation and Management Plan

In 1987, Congress designated the Albemarle-Pamlico Estuarine System as *Estuary of National Significance* and thus began a comprehensive study effort, entitled the Albemarle-Pamlico Estuarine Study (APES). The result of this process was the APNEP CCMP. The initial CCMP was developed over a seven-year period by representatives from private and public sectors, including government, industry, business, environmental interest groups, and municipal officials. The plan is a guide for environmental stewardship of the Albemarle-Pamlico estuarine system. The CCMP reflects the input of people from the region that will be affected by the plan's recommendations. The CCMP seeks to balance the need for economic growth in region with the need to secure the environmental future of the region. Approved on March 14, 2012, the new CCMP replaces the original 1994 document.

North Carolina Governor's Executive Order #26

On November 9, 2017, North Carolina Governor Roy Cooper issued Executive Order # 26: *Albemarle-Pamlico National Estuary Partnership*. This Executive Order was developed after more than two years of program review and ecosystem assessment and the development of a new CCMP. This Executive Order replaced Executive Order #133 (2012) and provided the operational advisory framework for the partnership office and support for the EBM approach. The current Executive Order expired in November 9, 2025 pursuant to N.C. Gen. Stat. § 147-16.2, a new order is in the process of being drafted at present. A copy of the Executive Order #26 is available from the APNEP office at 1601 MSC, Raleigh, NC 27699 and at www.apnep.org. The replacement will be posted when available.

APNEP Office

The APNEP Office coordinates and facilitates the implementation and advancement of the CCMP, the APNEP mission, and the activities of the Leadership Council and Advisory Committees. The APNEP Office serves as a conduit for information between the Leadership Council, Advisory Committees, state and federal agencies, local governments, tribes, academia, and the public. The main office is located within the Planning Section of the Division of Water Resources of the NC Department of Environmental Quality in Raleigh, North Carolina, with additional program personnel in Washington and Beaufort, North Carolina. The Virginia Department of Environmental Quality also provides support



through a position in , Virginia. Under the direction of the Leadership Council, APNEP staff are pursuing a new host within the University of North Carolina System.

Leadership Council

This Leadership Council is the main advisory body for APNEP and the Management Conference. It was established by a North Carolina Governor's Executive Order to advise, guide, evaluate and support the CCMP implementation process, 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 Leadership Council consults with the advisory committees and the APNEP Office for recommendations pertaining to implementation of CCMP actions at the regional and local levels, and the coordination and development of research and monitoring priorities. A major duty of the Leadership Council is to evaluate the relevance of the CCMP and to make recommendations to address emerging issues that may affect the significant natural resources of the Albemarle-Pamlico estuarine system. The Leadership Council, in cooperation with the APNEP Office, develops an annual report, budget and work plan.

Science and Technical Advisory Committee

A Science and Technical Advisory Committee (STAC) was established to provide independent advice to the Leadership Council and the Implementation Advisory Committee on scientific and technical issues, including ecosystem assessment and monitoring, in support of CCMP implementation. The revised STAC held its first meeting during November 2012 in Manteo, North Carolina.

Implementation Advisory Committee

An Implementation Advisory Committee will be established to work with the Leadership Council to execute the actions necessary to implement the CCMP. The Implementation Advisory Committee will be comprised of representatives from the action teams (formerly known as implementation workgroups), each of which will advance a discrete set of related CCMP actions. Members of the Implementation Advisory Committee will serve as liaisons to agencies, organizations, and other workgroups regarding CCMP implementation. Information on the Implementation Advisory Committee and each of the action teams may be found on the APNEP website: <http://www.apnep.org/web/apnep/implementation-committee>. Currently the committee consisting of leadership of the Science and Technical Advisory Committee and Leadership Council accomplishes the role of the Implementation Advisory Committee in choosing projects for funding as needed.

Action Teams

APNEP has established and is currently establishing a number of Action Teams focused on implementing the objectives and actions in the CCMP. Action Teams are responsible for developing the outputs associated with each action deemed necessary to achieve desired ecosystem outcomes. Action Team membership is open to any interested party. Details on the Actions Teams may be found through the Implementation Advisory Committee website: <http://www.apnep.org/web/apnep/implementation-committee>



2017-2018 PROJECTS & ACTIVITIES

The following provides an update on activities and projects that APNEP has been involved in since the last annual work plan report approved on April 30, 2018. . Some projects and activities did not require contracts. As an EPA reporting requirement, all projects that involved contracts or grants funded under this Cooperative Agreement since April 29, 2017 are summarized in the table on pages 16-17.

Program Administration & Indirect Costs (ongoing)

For more detail see Administration and Financial section.

CCMP Component:	All
CCMP Actions:	All
CCMP Outcome:	All
Intended Programmatic Output:	Program administration, partnership building, CCMP implementation
Intended Programmatic Outcome:	CCMP implementation
Status:	Ongoing
Estimated 320 Cost:	\$428,815 direct and \$37,306 indirect cost @8.7% (see indirect costs page 13).

Management Conference Support (ongoing)

The key element of CCMP implementation is active citizen participation through the Leadership Council, each of the two Advisory Committees and the Action Teams. Funds are used to support meetings, speakers, and materials as needed. Occasional costs for light refreshments and/or meals served at meetings, conferences, training workshops and outreach activities (events), consistent with 41 CFR 301-74.7 and NC DEQ travel policies, and as approved by the Director as needed.

CCMP Component:	All
CCMP Actions:	All
CCMP Outcome:	All
Intended Programmatic Output:	Partnership building, outreach, prioritizing CCMP implementation
Intended Programmatic Outcome:	New and greater public involvement, estuarine indicator development
Status:	Ongoing
Estimated 320 Cost:	\$ 3,154
Estimated Leverage:	\$ 1,450

CCMP Implementation Projects (ongoing undesignated category with new projects approved by Management Conference)

The APNEP staff and Leadership Council works with the Advisory Committees, associated Action Teams and partners to identify projects that need financial support or administrative support from APNEP to support CCMP implementation. A group composed of the leadership of the Leadership Council and STAC will evaluate the requests and administer the funding for priority projects and activities. As APNEP works to implement the CCMP under the guidance



of the Management Conference and in collaborations with partners, staff will continue to work with the various Actions Teams established over the past few years to lead to projects to implement the CCMP.

CCMP Component:	All
CCMP Actions:	All
CCMP Outcome:	All
Intended Programmatic Output:	Program administration, partnership building, CCMP implementation
Intended Programmatic Outcome:	CCMP implementation
Status:	New
Estimated 320 Cost:	\$ 225,6060 carryover from previous years
Estimated Leverage:	\$ 150,000

2018 Teacher Institute (ongoing)

APNEP worked with partners to offer a teacher training institute in July. Approximately 21 public school teachers will be provided with curriculum training in earth and environmental sciences with hands-on activities, site visits, and specific content to support inquiry, experiential, and research-based instruction on estuarine and water resources.

CCMP Components:	Engage
CCMP Actions:	D 2.1, 2.2, 2.3
CCMP Outcomes:	1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 3b
Intended Programmatic Output:	21 teachers trained in environmental education, water quality, and watersheds
Intended Programmatic Outcome:	Increased environmental education activities in North Carolina schools
Status:	Ongoing APNEP program
Estimated 320 Cost:	\$ 70,000
Estimated Leverage:	\$ 56,793

Shad in the Classroom (ongoing)

APNEP continues to support this collaborative project that provides students with an understanding of the scientific process, an inspiration for careers in science, and a desire to protect our waterways through hands-on experience raising American shad from egg to releasable fry. This is a collaboration led by, the NC Museum of Natural Sciences with support from the NC Wildlife Resources Commission and the US Fish and Wildlife Service. The objective of this project is to build an understanding of the life history of shad and an appreciation for our natural world.

CCMP Components:	Engage, Restore
CCMP Actions:	D 2.1, 2.2, 2.3
CCMP Outcomes:	1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 3b
Intended Programmatic Output:	Increased community involvement in water quality and habitat protection
Intended Programmatic Outcome:	Educational program, restoration activities
Status:	Ongoing APNEP partner project (6 th year)
Estimated 320 Cost:	\$ 35,230



Estimated Leverage: \$ 44,601

Submerged Aquatic Vegetation Mapping & Monitoring (ongoing)

APNEP continues to lead and support the mapping and assessment of Submerged Aquatic Vegetation (SAV) in the AP region via remote sensing.

CCMP Components:	Identify, Monitor
CCMP Actions:	A1.1,
CCMP Outcomes:	1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 3a, 3b, 3c, 3d
Intended Programmatic Output:	Map, report
Intended Programmatic Outcome:	New information for decision-makers
Status:	Complete
Estimated 320 Cost:	\$49,717 (non-APNEP funds)
Estimated Leverage:	\$25,000

APNEP Symposium

APNEP hosted a third symposium in November 2017. This symposium featured guest speakers, discussion panels, and various sessions to examine the status of the Albemarle-Pamlico Estuarine System's natural habitats and resources, discuss progress made, and discuss challenges ahead for protection and restoration. The proceedings from the symposium are available at http://portal.ncDEQ.org/web/apnep/conferences?p_p_id=15

CCMP Components:	All
CCMP Actions:	All
CCMP Outcomes:	All
Intended Programmatic Output:	Symposium
Intended Programmatic Outcome:	Elevated program profile, facilitation of working relationships among committees and partners.
Estimated 320 Cost:	\$ 8,000
Estimated Cost:	\$ 13,000

Submerged Aquatic Vegetation Monitoring (ongoing)

In coastal waters of the A-P region, submerged aquatic vegetation (SAV) is widely recognized for many important ecological functions. Currently, there are no long-term SAV monitoring programs established in the region that can provide reliable quantitative data on its status and trends.

CCMP Components:	Identify, Monitor
CCMP Actions:	A1.1, E1.1, E2.1
CCMP Outcomes:	1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 3a, 3d, 3c, 3d
Intended Programmatic Output:	Essential environmental data collection, public outreach and involvement
Intended Programmatic Outcome:	CCMP Implementation, increased environmental awareness
Status:	In progress
Estimated 320 Cost:	Staff time
Estimated Leverage:	\$ 20,000



North Carolina Division of Water Infrastructure Projects (non-federal match ongoing)
APNEP works with the North Carolina Division of Water Infrastructure to identify projects to provide water quality improvement projects in one or more of the APNEP river basins. The projects will be used as part of the 1:1 non-federal match for the Section 320 / NEP grant.

CCMP Components:	Identify
CCMP Actions:	A1.1, B 1.2, C1.1-4, D 1.1, E 1.1
CCMP Outcomes:	1a,1b, 1d, 2b, 3b
Intended Programmatic Output:	Minimize pathogen inputs into the waterways
Intended Programmatic Outcome:	Reduction in pathogens within targeted waterbodies
Status:	Ongoing
Estimated 320 Cost:	Staff Time
Estimated Leverage:	\$ 520,000

North Carolina Clean Water Management Trust Fund Projects (ongoing)

APNEP continues to work with the North Carolina Clean Water Management Trust Fund (CWMTF) to implement projects to provide water quality improvement projects in one or more of the APNEP river basins. Projects are used for

CCMP Components:	All
CCMP Actions:	A1.1, B2.1, C1.1-4, D1.5
CCMP Outcomes:	1a,1b,1d, 2a,2b,3b,3c,3d
Intended Programmatic Output:	Preserve and protect lands, increase opportunities for public access
Intended Programmatic Outcome:	Reduce and prevent impacts from sedimentation and nutrients. Increase awareness and access public areas
Status:	Ongoing
Estimated 320 Cost:	Staff Time
Estimated Leverage:	\$ 1,741,074

Sentinel Network Monitoring of Submerged Aquatic Vegetation in Roanoke and Neuse River Watersheds (NC) [Non-320 Funds]

APNEP received \$75,000 in funding from the National Fish and Wildlife Foundation to support the “Submerged aquatic vegetation (SAV) is a primary indicator of ecological condition for waters within the APNEP region. The need to document the effectiveness of implementing CCMP actions through ecological indicator monitoring makes SAV monitoring a priority. This project, conducted in partnership with East Carolina University, will contribute to a multiyear baseline of SAV status and trends in two sub-regions of a SAV sentinel network that is planned for the entire Albemarle-Pamlico Estuarine System (APES).

CCMP Components:	Monitor
CCMP Actions:	E 1.1, 1.2, 2.1, E2.2
CCMP Outcomes:	1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 3a, 3b, 3c, 3d
Intended Programmatic Output:	Sentinel station monitoring to include monitoring data in ecosystem assessment (technical) and environmental indicator report card (non-technical).



Intended Programmatic Outcome:	Information from this project will be used to increase our understanding of factors controlling SAV distribution and abundance. schools
Status:	Ongoing APNEP program (2017-2018)
Estimated 320 Cost:	Staff time
Estimated Leverage:	\$75,000

ECU Monitoring of Submerged Aquatic Vegetation in Roanoke and Neuse River Watersheds (NC) [Non-320 Funds]

As a result of funding from the National Fish and Wildlife Foundation to support the “Sentinel Network Monitoring of Submerged Aquatic Vegetation in Roanoke and Neuse River Watersheds (NC).” APNEP intends to subcontract with East Carolina University to maintain the methodology and criteria resulting from preliminary work done in 2014 in the Albemarle Sound to establish sentinel sites. At these sentinel sites, the subcontractor will conduct shore-normal transects for seasonal and inter-annual comparisons. Underwater video and single-beam SONAR will be used to identify the presence of SAV along these transects at both types of surveys.

CCMP Components:	Monitor
CCMP Actions:	E 1.1, 1.2, 2.1, E2.2
CCMP Outcomes:	1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 3a, 3b, 3c, 3d
Intended Programmatic Output:	Sentinel station monitoring to include monitoring data in ecosystem assessment (technical) and environmental indicator report card (non-technical). Information from this project will be used to increase our understanding of factors controlling SAV distribution and abundance.
Intended Programmatic Outcome:	Ongoing APNEP program (2017-2018)
Status:	Staff time
Estimated 320 Cost:	\$61,565
Estimated NON-320 Cost:	
Estimated Leverage:	\$53,211

ADMINISTRATION AND FINANCIAL

APNEP ADMINISTRATION

APNEP staff is responsible for the coordination, planning and successful completion of APNEP functions, including Management Conference, and Action Team 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, and the Albemarle-Pamlico watershed or estuary. Staff also attends meetings, conferences and workshops in order to stay apprised of technological advancements that may prove beneficial in the APNEP region and the partnership. Although the Leadership Council 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, basin-wide, regional or statewide basis and require staff involvement and interactions.

Indirect Costs

Under the 2017-18 *Negotiated Indirect Cost Agreement* between NCDEQ and the US EPA, the Division of Water Resources indirect rate is 8.7% of all salaries supported by this federal grant. Estimated indirect costs will be \$37,306 based on the indirect rate for grant-supported salaries. *For the purposes of this budget the rates was applied to all positions funded under the Section 320 / NEP grant regardless of the position being currently created or occupied.*

Administrative Costs

Overall administration costs during 2017-18 are estimated at approximately \$428,815 and include salaries, benefits, longevity pay, equipment, supplies, office and office and storage space rent, IT services and phone, and training and development.

Personnel*

Presently, the APNEP staff consists of the APNEP office in Raleigh, with the Director, Program Scientist, Program Manager, Policy and Engagement Manager, Ecosystem Analyst, and Program Associate. The APNEP office in Washington, NC houses the Coastal Habitats Coordinator. The Virginia Department of Environmental Quality also provides personnel to support CCMP implementation, however this position is not covered under program administration as it occurs at no cost to the program, and is provided in support of APNEP and CCMP implementation.

APNEP Director

The Director administers and coordinates program activities and CCMP implementation, 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 Leadership Council and Advisory Committees, and represents APNEP at local, state, regional and national meetings. Dr. Bill Crowell has been the Director since June 2002.

As of January 1, 2013 the Director position was changed to include duties associated with administration of the NC Clean Water Management Trust Fund (CWMTF). This action was reversed as a result of the 2015 Appropriations Act (*SL 2015-241*) passed by the NC General Assembly in September 2015. This action also led to the relocation of APNEP to within the DEQ Division of Water Resources.

Program Manager

The Program Manager assists the Director to administer the 320 Grant and coordinate and manage APNEP contracting and associated activities within NCDEQ. The position also assists in the development and maintenance of broad support for the APNEP mission and CCMP implementation; provides active support for leadership and strategic direction for Partnership's efforts through CCMP implementation; initiates engagement of key APNEP partners to develop support for joint initiatives in the Albemarle-Pamlico region ; develops



tracking mechanisms for performance measures and CCMP implementation efforts; and provides staff support to the Leadership Council and Advisory Committees. Heather Jennings has served in this role since June 2018.

Program Scientist

The Program Scientist assists the Director with CCMP administration. 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 Leadership Council and Advisory Committees. Dr. Dean Carpenter has served in this role since November 2003.

Policy and Engagement Manager

The Policy and Engagement Manager assists the Director and Management Conference with engagement, educational and outreach activities. The position oversees communication strategies, pursues new partnership and funding opportunities, works with program staff to engage in new CCMP implementation actions. It also provides staff support for Management Conference and serves as a liaison on various external working groups. Ms. Stacey Feken has served in this role since March 2016.

Program Associate

The Program Associate supports APNEP education and public outreach activities as well as APNEP field work activities. The position will implement educational and outreach programs; and provides liaison responsibility for the Citizens' Monitoring Network. The position supports field/boat based work with APNEP and its partners. This position will also provide valuable staff support to the Leadership Council and other advisory committees. The Leadership Council created the position on September 26, 2014. Ms. Kelsey Ellis will begin in this position on May 1, 2017.

Ecosystems Analyst

The Ecosystem Analyst coordinates with members of the staff and contributing scientists and managers to analyze and report upon metrics of environmental health within the Albemarle-Pamlico Estuarine System. Responsibilities include: working with partner agencies and researchers to analyze and report upon indicators of watershed and estuarine health, including identification of monitoring gaps, facilitating and supporting APNEP committees and working groups, and maintaining a current geospatial database and online geospatial products. This position also manages the program's GIS functions. This position also provides valuable staff support to the Leadership Council and other advisory committees. The Leadership Council created the position on September 26, 2014. Dr. Tim Ellis began in this position in March 2017.

Coastal Habitats Coordinator (Non-federal Match)

This position provides an essential function as an APNEP liaison to local governments and state agencies. The Coastal Habitats Coordinator (NC) provides coordination and support to local governments and state agencies to enhance CCMP implementation. This position also provides staff support to the Leadership Council and Advisory Committees. Jimmy Johnson has served in this role since January 2006. This position also provides support for CWMTF



project applications and awardees in the APNEP region. *This position is funded by NCDEQ and provides a portion of the non-federal match for the 320 grant.*

Watershed Manager (Non-federal Match)

The primary purpose of this position is to assist APNEP in CCMP implementation. The position supports support to APNEP advisory committees and workgroups and monitoring and assessment efforts. The position works cooperatively with the NC National Estuarine Research Reserve in Beaufort, NC. Additionally, the position also works towards implementation of the CHPP with the APNEP Coastal Habitats Coordinator. Mrs. Trish Murphey has served in this role since January 2018. *This position is funded by NCDEQ and provides a portion of the non-federal match for the 320 grant.*

Virginia Liaison

The primary purpose of this position is to assist APNEP in CCMP implementation within the Commonwealth of Virginia. The position supports support to APNEP advisory committees and workgroups and monitoring and assessment efforts. Ms. Steve Hummel has served in this role since August 2018. *This position is funded by VADEQ.*

**All NC-based positions are administrated in compliance with NC Office of State Personnel rules and policies.*

TABLE of SECTION 320 FUNDED GRANTS and CONTRACTS

APNEP established and managed many grants and contracts during time period between October 1, 2017 and September 30, 2018. Descriptions of these items are discussed in the Projects and Activities section of this report. The following table represents only the projects that directly involved grant funds from *CE-0D20614*

The following table provides an overview of all active and completed contracts to local entities since the last grant applicant / annual report approved by the Leadership Council in April 2017. It only reflects activities funded under this cooperative agreement. The narrative contains descriptions of projects/activities/ contracts/grants funded by other sources.

Additional contracts are anticipated prior to the end of the current federal fiscal year/ reporting period. Any additional contracts / grants in the current federal fiscal year/ reporting period will be reported in the workplan/report next year and in the Year-End Report to EPA Region IV.



GRANTS AND CONTRACTS TO LOCAL ENTITIES

Active or completed: October 1, 2017 to September 2018

See narrative for comprehensive list of partnerships and activities

Project Title	Funded Amount	Project Leader	Purpose	Deliverables	Completion Date	Status
ECU Subcontract for NFWF – Support for Sentinel Monitoring	\$49,717	ECU	Continue sentinel monitoring using award provided from NFWF	SAV Monitoring to assess Estuary Health	01/31/2020	Active
Sound Rivers College Campus Stormwater Impacts	\$29,170	Sound Rivers	Stormwater Best Management Practices on local community	Reduce stormwater sheet flow and reduction of toxins to waterway	06/30/2018	Completed
NCDMF NC Recreational Water Quality Program	\$297,000	NC DMF	Support the continuation of bacteriological contamination monitoring by the North Carolina Shellfish Sanitation Recreational Water Quality Program within the NC Division of Marine Fisheries.	Continuation of Monitoring for NC DMF	12/31/2017	Completed
2017 Graduate Fellowship in Estuarine Research	\$10,750	NC Sea Grant	Applied research within the APNEP management boundary	Applied research specific to APNEP area	12/31/2018	Active
2017 Shad in the Classroom	\$9,920	Friends of NCNSM	Seeking funding in order to continue to engage students in hands-on learning about American Shad and North Carolinas river basins	Education about shad and the ecosystem requirements	09/15/2018	Completed
NCDMF NC Recreational Water Quality Program	\$27,594	NC DMF	support the continuation of bacteriological contamination monitoring by the North Carolina Shellfish Sanitation Recreational Water Quality Program within the NC Division of Marine Fisheries.	Continuation of Monitoring for NC DMF	04/30/2019	Active

Sound Rivers Swim Guide	\$24,340	Sound Rivers	Swim Guide, a regional, citizen science water quality monitoring program	Education to citizen on basic water quality monitoring	12/31/2018	Active
EENC Annual Conference	\$1,000	EENC	Sponsorship to Support Environmental Educators of NC to host annual conference	Sponsorship of field visits	09/30/2018	Active
Shad in the Classroom	\$10,900	Friends of NCNSM	Seeking funding in order to continue to engage students in hands-on learning about American Shad and North Carolinas river basins	Education about shad and the ecosystem requirements	08/31/2019	Active



NON-FEDERAL COST SHARE (Match)

Summary of Match Requirements

NCDEQ provided \$600,000 for the required 1:1 non-federal match for 2017-2018. This match was provided through:

- 1) In-kind services provided by staff support for the Coastal Habitats Coordinator from the NC DEQ.
- 2) State funds allocated to cover costs associated with projects to improve water quality through funding of the NC Clean Water Management Trust Fund (CWMTF) for one or more projects in the APNEP program boundary.

Summary of Non-federal State Match

In-kind Position (salaries and benefits)	\$ 89,925
Clean Water Management Trust Fund Project(s):	<u>\$1,741,074</u>
TOTAL:	\$ 1,830,999

In-kind Position Non-federal Match

The North Carolina Department of Environment and Natural Resources (NCDEQ) [now known as the Department of Environmental Quality] provided \$88,401 as part of the required 1:1 non-federal match for 2017-2018. The match was provided through in-kind services provided by staff of NCDEQ.

The match position is responsible for program administration, support, community involvement and guiding implementation of the APNEP CCMP and the NC CHPP.

POSITION	#	SALARY	EFFORT	Match
Field Representative	1	68,816	1.0	68,816
			Benefits* 1.0	<u>21,109</u>
			Total In-Kind Service Match:	\$ 89,625

TRAVEL

APNEP, the Management Conference and EPA consider personal, face-to-face contact with peers and colleagues essential for information sharing and technology transfer. As part of the federal grant requirements to attend EPA-NEP meetings, APNEP is required to allocate minimum of \$10,000 as travel funds for program activities, 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 and EPA 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 NEP

Travelers may include management conference members, citizens, and 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.

While most travel funds are associated with staff, management conference members, and action team participants; travel funds may occasionally be used for light refreshments and/or meals served at meetings, conferences, training workshops and outreach activities (events), consistent with 41 CFR 301-74.7 and NC DEQ travel policies, and as approved by the Director.

Travel 2017-18

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 that have occurred or are currently planned for the year:

Personnel	Dates	Purpose	Location	Estimated Cost
APNEP Staff/ Board/ Volunteers	10/1/17 to 9/ 30/18	Normal Program Activities & meetings/ projects/ workshops/ regional conferences/ fieldwork	APNEP area	7130*
Crowell	3/2018	Spring EPA / NEP Meeting	Boston	2870
			Total*	\$ 10,000

*Estimates up to September 30, 2018

Projected Travel 2017-18

All travel is allocated into three categories: In-State, Out-of-State, and EPA Required. All travel; including non-staff must be consistent with published NCDEQ travel policies (2010) and regulations (<http://www.enr.state.nc.us/ooc/pdf/trav.pdf>). 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 NCDEQ rates (below). Some travel is associated with specific projects, and travel costs are included in budgeted amounts. Rates are listed in the table below.

Funds will also be used for light refreshments and/or meals served at meetings, conferences, training workshops, and outreach activities (events), consistent with 41 CFR 301-74.7, and as approved by the APNEP Director and the DEQ travel approval processes.

2017-18* NC DEQ TRAVEL RATES

Item	In-State	Out of State	Overnight Trip	Day Trip
Breakfast	\$ 8.30	\$ 8.30	Leave Office before 6:00 AM	Leave Office before 6:00 AM; Extend workday by 2 hours
Lunch	\$ 10.90	\$ 10.90	Leave Office by 12:00 Noon; Overnight return after 2:00 PM	Never claimed on day trip
Dinner	\$ 18.70	\$ 21.30		Depart office before 5:00 PM; Return after 8:00 PM; Workday extended by 3 hours



Hotel	\$ 67.30	\$ 79.50		Never claimed on day trip
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* current rates

In State:

In-state travel is primarily for program staff to conduct routine business associated with APNEP daily operations, field work, 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 above.

EPA/NEP-associated Out-of-State:

The NEPs generally hold two national meetings each year (these may be in same fiscal year or not). Each program is strongly encouraged to participate in the meetings. The spring meeting is held in the Washington, DC area and the fall meeting location rotates among the different NEP locations. The level of staff participation will vary depending on the agenda for a particular meeting. Generally one or two staff members attend. Travel may also cover non-staff (e.g., Guest speakers, Leadership Council or Advisory Committee members).

Other Out-of-State:

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

