

PECONIC ESTUARY PROGRAM

FY15 WORKPLAN AND BUDGET



Submitted by:
PEP Management Conference

Prepared by:
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May, 2015

Peconic Estuary Program
FY15 WORKPLAN AND BUDGET

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**PECONIC ESTUARY PROGRAM
FY 15 WORKPLAN**

I. INTRODUCTION

The Peconic Estuary System consists of over 100 distinct bays, harbors, embayments and tributaries, the surface area of these waters exceed 158,000 acres. The population of the East End towns surrounding the Peconic Estuary System more than doubles during the summer months. These residents and visitors use the system and its resources extensively for beach-going, swimming, boating, fishing, shellfishing, and other water-dependent activities, contributing significantly to the local economy. However, there are problems in the system ranging from increased nutrient loading to declines in habitat quality and quantity, and reduction in catch of commercially and recreationally important finfish and shellfish. Other issues of concern include closure of shellfish beds due to contamination by coliform bacteria (used as an indicator for pathogens), potential contamination with toxic substances, the relationship of land use to water quality and the health of the living resources, and the occurrence of harmful algal blooms, e.g. Brown Tide, and *Cochlodinium polykrikoides*. The effects of these problems are a significant threat to the overall health of the Peconic Estuary System and its resources.

The Peconic Estuary is one of 28 estuaries in the country designated by U.S. Environmental Protection Agency as an “estuary of national significance” under Section 320 of the Federal Clean Water Act. The National Estuary Program (NEP) was established to protect and restore nationally significant estuaries threatened or impaired by pollution, development, and overuse. The Peconic Estuary was formally accepted as part of the NEP in 1992. Officially commenced in 1993, the Peconic Estuary Program (PEP) includes numerous stakeholders, representing citizen and environmental groups, businesses and industries, academic institutions, and local, county, state and federal governments. The EPA, New York State Department of Environmental Conservation (NYSDEC) and the Suffolk County Department of Health Services (SCDHS) are the sponsoring government agencies for the program. The PEP Comprehensive Conservation and Management Plan (CCMP) was approved by the EPA Administrator on November 15, 2001, with the concurrence of the New York State Governor. The CCMP promotes a holistic approach to protecting, enhancing and restoring the Estuary and its watershed. Priority management topics for the Peconic Estuary are Brown Tide, nutrients, habitat and living resources, pathogens, toxic pollutants, and critical lands protection. These six priority topics, together with public education and outreach, financing, and post-CCMP management, form the basis for the CCMP action plans.

OVERALL FUNDING SOURCES

The core FY15 budget (see Appendix A) reflects the following sources of funding:

EPA FY15 Base Funding	\$600,000.00*
Non-Federal Match	\$600,000.00**
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TOTAL	\$1,200,000.00

Resources Requested:

The total requested in this PEP grant to Suffolk County Department of Health Services is **\$337,000**. This grant will be complimented by a request for PEP support to the New England Interstate Water Pollution Control Commission (NEIWPC) for \$236,000, and together these two components make up the full Peconic Estuary Program FFY2015 workplan for a total \$320 request of \$600,000.

*EPA FY15 Base funding will be provided to Suffolk County Department of Health Services (SCDHS) ((\$337,000.00) and New England Interstate Water Pollution Control Commission (NEIWPCC) ((\$263,000).

**The non-Federal match is provided by the Suffolk County Department of Health Services (SCDHS) (\$337,000.00) and the New York State Department of Environmental Conservation (\$263,000.00). Match is itemized in detail in Section III. Suffolk County, New York State and other partners are expected to provide significant support above and beyond the committed match in the budget table in support of Peconic Estuary Program goals and objectives.

II. WORKPLAN

1. CCMP Goals

The New England Interstate Water Pollution Control Commission (NEIWPCC) proposes to continue assisting and supporting the Program Office and NYSDEC in implementing the PEP CCMP. Workplan tasks address priority management items with a strong focus on nitrogen management, water quality, habitat and living resource conservation and restoration, critical lands protection, financing, and public education and outreach. Workplan tasks will advance protecting and restoring the health of the Peconic Estuary, imperative to supporting its commercial, recreational, environmental, and aesthetic uses and values. The specific tasks designed to support this implementation are outlined in this workplan.

Since 2013, and again this year, the PEP Management Conference has agreed to focus on the CCMP goal to **Reduce Non-point Source Nitrogen Loading to the Peconic Estuary**. NPS nitrogen loading via groundwater remains the largest threat to water quality in the estuary and decreases the “restoration readiness” of many of our critical habitats. Little progress has been made toward meeting the NPS reduction goals specified in the TMDL implementation plan, therefore this continues to be a priority of the PEP.

In addition, PEP will continue to work on several other CCMP goals, with focus on:

- Habitat Restoration: Increase diadromous fish access to freshwater habitats in the Peconic River.
- Pathogens: Promote the use of green infrastructure to mitigate stormwater pollution at the municipal and residential level.
- Public Education and Outreach: A new contract for education and outreach and new efforts to re-invigorate the PEP Citizens Advisory Committee are underway.

2. Staff

The Peconic Estuary Program is administered by a Management Conference, as outlined in the Management Conference Agreement. Nation Estuary Program funds for the Peconic Estuary Program are administered by two key partner organizations: Suffolk County, and New England Interstate Water Pollution Control Commission (NEIWPCC). This includes funding for CCMP implementation as well as staff support to manage and administer the program, coordinate with partners and stakeholders, and support the Committees that make up the PEP Management Conference.

Alison Branco, Program Director

Sponsoring Institution: Suffolk County Department of Health Services

Location: Suffolk County Department of Health Services, 360 Yaphank Ave, Suite 2B, Yaphank, NY 11980

Responsibilities:

The Program Director provides overall leadership for PEP staff and is responsible for management of all PEP related

contracts (and management of the projects associated with them) to ensure terms of the agreements are adequately fulfilled; ensuring administrative duties are carried out sufficiently within the Program Office; and participating in technical and public outreach activities. The program director is also responsible for ensuring that all program reporting requirements are met and managing the Peconic Estuary Program grants awarded to Suffolk County, ensuring that workplans are carried out, funds are expended in a timely manner, and interfacing with Suffolk County budget, finance, and federal aid staff to administer the grant funds. Additionally, the program director helps the PEP develop regional land use recommendations, determine what course of action needs to be taken in order to improve land use and development patterns, and determine what the outcomes of such measures would be.

Julie Nace, State Coordinator

Sponsoring Institution: New York State Department of Environmental Conservation

Location: New York State Department of Environmental Conservation, 205 Belle Meade Road, East Setauket, NY 11733

Responsibilities:

The New York State Coordinator is responsible for assisting the New York State Department of Environmental Conservation in providing support to the Peconic Estuary Program Management Conference and is primarily responsible for ensuring implementation of PEP CCMP Pathogen and Habitat and Living Resources Management Actions. The New York State Coordinator co-chairs the PEP Natural Resources Subcommittee and the PEP Phase II Stormwater Workgroup, spearheads the PEP Impacted Shellfishing Waters Management Initiative, and supports a myriad of stormwater management, regional watershed-based pathogen management, invasive species, habitat restoration, and water quality improvement initiatives. The Coordinator also reviews proposals submitted to New York State for NYS Clean Air/Clean Water Bond Act and Environmental Protection Fund funding.

Christopher Scott, Program Coordinator

Sponsoring Institution: New England Interstate Water Pollution Control Commission

Location: Suffolk County Department of Health Services, 360 Yaphank Ave, Suite 2B, Yaphank, NY 11980

Responsibilities:

The Program Coordinator will work within the Program Office and be responsible for assisting the Program Director and State Coordinator in providing support to the Peconic Estuary Program Management Conference. The coordinator may serve as the Program Office representative for various workgroups and committees while providing support to the various committees which make up the PEP Management Conference. The Program Coordinator will participate in contract and project management activities and will assist with tracking of CCMP implementation, contract progress, and contractor payments. The coordinator will also contribute to project and grant reports, periodic program evaluations, and grant applications.

Sheri Jewhurst (Dana Greenlee Acting), Federal Coordinator

Sponsoring Institution: U.S. Environmental Protection Agency – Region II

Location: U.S. Environmental Protection Agency, 290 Broadway, New York, NY 10007

Responsibilities:

The regional coordinator is responsible for ensuring that the Peconic Estuary Program and the CCMP comply with the requirements of the Clean Water Act, Federal regulations and EPA issued guidance. This includes serving as project officer or work assignment manager for all funds awarded in support of the program, including grants, cooperative agreements, interagency agreements, contracts and procurements. The coordinator participates in and represents EPA

at PEP meetings, and meetings with other stakeholders, elected officials and the public. The coordinator serves as the liaison with EPA-HQ on matters related to the National Estuary Program and ensures that all reporting requirements are satisfied and program requirements are met. Within the regional office, the coordinator works to secure funding or services of other programs to complete actions in the CCMP. The coordinator works to ensure PEP goals and actions are consistent and integrated with other EPA functions and programs, including but not limited to: water quality standards, total maximum daily loads, wetlands protection, vessel waste no discharge areas, Superfund, the national pollutant discharge elimination system, stormwater management, dredged material management, monitoring and assessment, quality assurance/quality control requirements, peer reviews, nonpoint source management, pollution prevention, sustainable development, state revolving loan funds, RCRA programs, Clean Air Act programs, and matters related to Brookhaven National Laboratory. The coordinator is also responsible for working with other Federal Agencies (including the U.S. Fish and Wildlife Service (FWS), Natural Resources Conservation Service (NRCS), and the National Oceanic and Atmospheric Administration (NOAA)).

Emily Bird, NEIWPCC Coordinator

Sponsoring Institution: New England Interstate Water Pollution Control Commission

Location: NEIWPCC, 650 Suffolk Street, Suite 410, Lowell, MA, 01854

Responsibilities:

The NEIWPCC coordinator is responsible for management of PEP-related grants and contracts within NEIWPCC and supervision of the NYS Coordinator and Program Coordinator. The NEIWPCC coordinator will support PEP management of the tasks in the NEIWPCC workplan; prepare annual workplans and budgets for grants; manage budgets; lead and participate in the hiring process for open positions; set up and manage agreements with participants of homeowner rebate program; set up and manage agreements with other contractors/vendors, including the PEP education and outreach contractor; communicate with PEP Program Director and EPA Project Officer on regular basis; and supervise PEP Office staff in consultation with NYSDEC and SCDHS.

3. New and Ongoing Project Information

§320 Workplan Budget

Workplan Category	Program Office	Water Quality Monitoring	Water Quality Monitoring	SAV Monitoring	NADP Monitoring	Nitrogen Load Reduction Cost Assessment	Total
Sub-Category	Program Director	Boat Operator	Chemist				
Personnel	\$89,000	\$20,600	\$25,100	\$0	\$0	\$0	\$134,700
Fringe	\$46,000	\$9,700	\$14,600	\$0	\$0	\$0	\$70,300
Travel	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
Supplies	\$1,000	\$0	\$0	\$0	\$0	\$0	\$1,000
Contractual	\$0	\$0	\$0	\$0	\$0	\$87,000	\$87,000
Other	\$0	\$0	\$0	\$30,000	\$10,000	\$0	\$40,000

Total	\$140,000	\$30,300	\$39,700	\$30,000	\$10,000	\$87,000	\$337,000
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TASK 2015-1A: PROGRAM OFFICE, ONGOING ACTIVITY - \$140,000

Partners & Roles: The Program Office located in the Office of Ecology in the Division of Environmental Quality at SCDHS; the PEP Program Director is an employee of the Department.

CCMP & Annual Workplan Priority Topics/Goals: Program administration, habitat protection/restoration, stormwater control, and nutrient management (Related CCMP Actions: M-1.2, CCMP Page 10-16).

Objectives: The Program Office provides overall leadership, management and administration to the Program on behalf of the Management Conference. The objectives of the management conference focus on protecting and restoring habitats, living resources and water quality.

Description: Carrying out CCMP implementation on behalf of the management committee, including administering grants, managing projects and associated contracts, managing activities of several committees, providing technical support to the PEP (including conducting technical projects and providing data management services), and offering public information and outreach services. The budget for the Program Office includes salary and fringe benefit support for one FTE for the full-time PEP Program Director. This item also includes \$4000 in travel costs to cover travel as described below for the program director to represent PEP at two National Estuary Program conferences as well as other local travel for program meetings as needed. It also includes funding for miscellaneous office and field supplies (\$1000).

Outputs/Deliverables & Milestones

- Report annually on: the status of implementing the identified priority actions in the CCMP; leveraging of governmental and non-governmental funds; and habitat restoration (including acquisition) efforts, according to guidelines and deadlines established by USEPA (i.e. GPRA) measures) (September).
- Assist the Management Committee in developing a plan for updating the CCMP and developing a new finance plan.
- Prepare and submit workplans, budgets, and grant applications according to schedules set by the management conference and in accordance with USEPA guidance. Expeditiously carry out workplan tasks; ensure that all contracts are awarded as quickly as possible with the goal of 12 months from grant award and that funds are drawn down at least semiannually (spring).
- Oversee and coordinate preparation of the Annual Workplan Strategy (September) document and annual report (December).
- Provide technical and administrative support on efforts to protecting and restoring habitats, living resources and water quality. Provide technical and administrative support to PEP committees (ongoing).
- Ensure the Program is represented at all scheduled national meetings of the NEP (typically 2 meetings per year), and represented in local, regional and national conferences, workshops and symposia.
- Plan and execute meetings of the Policy Committee (typically 1 meeting per year) and Management Committee (typically 4 meetings per year). Be responsive to inquiries and initiatives of these committees.
- Prepare "Program Evaluation" submittal consistent with USEPA guidance (2017).
- Chair a Nitrogen workgroup and with the workgroup develop a revised TMDL Implementation Strategy to address NPS nitrogen loads, including technical, regulatory, cultural, and financial considerations. Road-blocks to nitrogen load reduction will be identified and potential solutions outlined. This strategy will help stakeholders understand what is needed to achieve the nitrogen load reduction goals called for in the TMDL.
- Develop an Environmental Indicators Report, with support from the Environmental Indicators Workgroup, using data inputs from the TAC, monitoring programs, stakeholders, and other agencies.

- Assist TAC and Outreach Coordinator to develop a “State of the Bay” publication to summarize the environmental indicators report and other available information, as needed, to inform the public about the status and trends of the environmental quality of the Estuary.

Anticipated Outcomes

Short Term: See “Outputs/Deliverables & Milestones”

Intermediate: Stakeholders (governments at all levels and citizens) are implementing habitat protection efforts and restoration projects, stormwater control measures, and practices to eliminate or reduce nutrient and pathogen loadings. There is increased understanding of factors that are adversely impacting tidal wetlands and eelgrass and management options are developed to address them.

Long Term: Terrestrial and aquatic habitats support healthy and diverse populations of commercially, recreationally and ecologically important species (especially eelgrass and diadromous fish) and water quality that supports all designated uses and achieves all applicable standards, particularly with respect to dissolved oxygen, pathogens, and toxic substances.

Change in Pressure Targets: Preserved, protected and restored habitats; reduction in pathogen and nutrient loadings and stormwater volumes

Clean Water Act Core Programs: TMDL implementation, MS4 permit implementation, wetlands protection. Elements of this project prevent or mitigate the impacts of nutrient pollution.

Task 2015-1B – Peconic Estuary Program Coordinator (Ongoing Activity) - \$96,000

Partners & Roles: The Program Coordinator is a NEIWPCC employee; NEIWPCC provides management support. SCDHS Office of Ecology provides daily supervision and office space/support, as well as input and support on relevant topics.

CCMP & Annual Workplan Priority Topics/Goals: Program administration, habitat protection/restoration, stormwater control, and nutrient management (Related CCMP Actions: M-1.2, CCMP Page 10-16).

Objectives: The Program Office provides overall leadership, management and administration to the Program on behalf of the Management Conference. The objectives of the management conference focus on protecting and restoring habitats, living resources, and water quality.

Description: This task continues support of a full-time program coordinator to work in the SCDHS Office of Ecology. The coordinator is part of a team of staff that works on the tasks and activities described below. Some will be handled exclusively by the Coordinator and others will be handled jointly by the NYSDEC, SCDHS, and U.S. EPA.

Outputs/Deliverables & Milestones

- Provide technical support related to priority management topics including harmful algae blooms (HAB), nutrient management, habitat and living resources, pathogens and closed shellfish beds, toxics, and critical lands protection (ongoing).
- Assist with contract administration and management of funded PEP CCMP priority management topic projects (ongoing).
- Provide support and assistance to the PEP CAC (ongoing).
- Assist with responding to requests for technical information and assistance regarding the PEP from the public, elected officials, USEPA, and others (ongoing).

- Provide support and assistance to the Local Government Committee, Management Committee, Natural Resources Sub-Committee, Nitrogen Workgroup, Policy Committee, Stormwater Workgroup, and Technical Advisory Committee (ongoing).
- Assist with the development of the PEP annual workplan and Annual Report (ongoing).
- Assist with programmatic reporting, including reporting annually on the status of implementing the identified priority actions in the CCMP, leveraging of governmental and non-governmental funds, and habitat restoration efforts (ongoing).
- Assist with the preparation of PEP workplans, budgets, and grant applications (ongoing).
- Assist with carrying out workplan tasks (ongoing).
- Ensure quality assurance project plans are developed and in place prior to initiating projects that collect or use environmental data (ongoing).
- Assist with administering contracts, grants, requests for proposals (RFP) and RFP waivers (ongoing).

Anticipated Outcomes

Short Term: See "Outputs/Deliverables & Milestones"

Intermediate: Stakeholders (governments at all levels and citizens) are implementing habitat protection efforts and restoration projects, stormwater control measures, and practices to eliminate or reduce nutrient and pathogen loadings. There is increased understanding of factors that are adversely impacting tidal wetlands and eelgrass and management options are developed to address them.

Long Term: Terrestrial and aquatic habitats support healthy and diverse populations of commercially, recreationally and ecologically important species (especially eelgrass and diadromous fish) and water quality that supports all designated uses and achieves all applicable standards, particularly with respect to dissolved oxygen, pathogens, and toxic substances.

Change in Pressure Targets: Preserved, protected and restored habitats; reduction in pathogen and nutrient loadings and stormwater volumes.

Clean Water Act Core Programs: TMDL implementation, MS4 permit implementation, wetlands protection. Elements of this project prevent or mitigate the impacts of nutrient pollution.

TASK 2015-2A: WATER QUALITY MONITORING, ONGOING ACTIVITY - \$70,000

Partners & Roles: SCDHS conducts long term periodic monitoring; CCMP & Annual Workplan Priority Topics/Goals: Assess environmental conditions in the Peconic Estuary and refine management programs as necessary. Water column nitrogen and dissolved oxygen concentrations are useful in assessing progress toward TMDL implementation and verifying modeling efforts. (Related CCMP Actions: N-1, N-9, N-10 CCMP pages 3-21, 3-22 and 3-36 to 3-40).

Objectives: SCDHS monitors water quality of surface and marine waters within the Peconic Estuary. SCDHS will assess water quality and bathing beach data and provide PEP with an annual water quality summary report. The NADP monitoring station will also be maintained.

Description: The water quality monitoring program conducted by the SCDHS Office of Ecology includes monthly monitoring at approx. 40 Peconic surface water quality stations throughout the year, periodic monitoring of approx. 30 point source and stream stations, and weekly monitoring at the NADP rain and atmospheric deposition gauge. Water quality monitoring is essential to evaluate the effect of TMDL implementation on the environment, analyze the effectiveness of programs in relation to their intended goals, and to make corrections in the course of the post-CCMP process. The data collected from this monitoring program was critical in listing the water segments in the

estuary on the 303(d) list for dissolved oxygen and pathogen violations and in developing the nitrogen TMDL for select segments in the Western Estuary. Funds support approximately 0.72 FTE marine monitoring program staff.

Outputs/Deliverables & Milestones

- Monitoring data made publically available (ongoing)
- Annual report on data collected (spring)

Anticipated Outcomes

Short Term: See “Outputs/Deliverables & Milestones.” Routine monitoring conducted in the Peconic Estuary makes it possible for the PEP to have accurate, up-to-date information regarding water quality conditions throughout the Estuary.

Intermediate: Based on water quality data, priority projects and research initiatives can be identified and the PEP can continue its success in efforts to protect and restore the Estuary. Data collected by these monitoring efforts inform periodic reporting, including environmental indicators reports and “State of the Bay” publications, and support adaptive management.

Long Term: Water quality that supports all designated uses and achieves all applicable standards, particularly with respect to dissolved oxygen, pathogens, harmful algae, and toxic substances.

Change in Pressure Targets: These measures are necessary to assess the implementation of TMDLs for pathogens and nitrogen; prevalence of harmful algal blooms; shellfish bed closures; occurrences of bathing beach closures, and qualitative water quality goals.

Clean Water Act Core Programs: Identifying Polluted Waters and Developing Plans to Restore Them (TMDLs): Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads; addressing diffuse, nonpoint sources of pollution

TASK 2015-2B: SUBMERGED AQUATIC VEGETATION LONG TERM MONITORING AND MANAGEMENT (A.K.A. SAV MONITORING), ONGOING ACTIVITY - \$30,000

Partners & Roles: Cornell Cooperative Extension of Suffolk County, Marine Program

Objectives: Evaluate success of seagrass restoration efforts. Refine habitat restoration site suitability indices (based on light, temperature, and seagrass extent) used in planning the extensive seagrass habitat restoration program funded by PEP and its partner agencies, primarily NYS and Suffolk County. Additionally, these data contribute to scientific studies and will be used in future seagrass management plan developed through the New York State Seagrass Protection Act.

Description: Monitoring of seagrass survival and bed expansion resulting from previous habitat restoration efforts. Long-term measurements of seagrass extent and deep edge location at 6 historical sites, measurements of light, temperature, and sediment conditions at these sites.

Outputs/Deliverables & Milestones

- Annual report summarizing methods and results, including maps of seagrass bed extent (current and change) and analyses of relationships between water and sediment quality parameters and seagrass success.
- Annual reporting, periodic status and trends assessments corresponding to Environmental Indicators Report schedule.

Anticipated Outcomes

Short Term: See “Outputs/Deliverables & Milestones.”

Intermediate: Information to inform update of habitat restoration strategy for seagrass in light of climate impacts (specifically increasing water temperatures).

Long Term: Progress toward PEP goal to increase seagrass acreage by 10%. Development of science-based regulatory programs to protect existing seagrass.

Change in Pressure Targets:

Clean Water Act Core Programs: Protecting Wetlands

TASK 2015-2C: NATIONAL ATMOSPHERIC DEPOSITION PROGRAM (A.K.A. NADP MONITORING), ONGOING ACTIVITY - \$10,000

Partners & Roles: Suffolk County Department of Health Services, Office of Ecology is responsible for sample collection; University of Illinois (cations) and Frontier Global Sciences, Inc. (mercury) are responsible for data analysis; University of Illinois National Atmospheric Deposition Program is responsible for data assessment, reporting, and coordination with the national network; Mercury Deposition analyses are funded through a partnership with New York State Energy Research and Development Authority (NYSERDA)

Objectives: Evaluate success of Clean Air Act policies and program in reducing atmospheric deposition of nitrogen in the Peconic region. Track progress toward nitrogen TMDL goals.

Description: Monitor local atmospheric deposition of major cations in precipitation. Monitor local mercury deposition in precipitation.

Outputs/Deliverables & Milestones

- Data available online, Quarterly reports of results and collection/analytical issues.
- Annual reporting, periodic status and trends assessments performed by PEP and EPA staff as needed (e.g. 5-year TMDL assessment)

Anticipated Outcomes

Short Term: See “Outputs/Deliverables & Milestones.”

Intermediate:

Long Term: Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads

Change in Pressure Targets:

Clean Water Act Core Programs: Identifying Polluted Waters and Developing Plans to Restore Them (TMDLs): Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads; addressing diffuse, nonpoint sources of pollution

TASK 2015-3: NITROGEN LOAD REDUCTION COST ASSESSMENT, NEW ACTIVITY - \$87,000

Partners & Roles: PEP Nitrogen Workgroup, Contractor

CCMP & Annual Workplan Priority Topics/Goals: Related CCMP Actions: N-9.1, N-9.6 CCMP pages 3-36, 3-37

Objectives: Compile and assess various nitrogen BMP's currently being employed throughout the country with regard to cost of installation and maintenance to determine the cost per pound of nitrogen removed.

Description: This project will collect information on various nitrogen management practices (fertilizer reductions, installation of alternative onsite septic systems that remove nitrogen, installation of vegetated areas, groundwater pumping and re-use, bio-remediation, etc.) that are currently being employed or considered throughout the country. Existing information about load reduction potential will be compiled, and data from pilots currently underway will be incorporated as timing allows. This load reduction information will be assessed with regard to cost of installation and maintenance, thereby informing us of the expected cost per pound of nitrogen removed. Other organizations working on managing nitrogen (e.g. The Chesapeake Bay Program and the Cape Cod Commission) have conducted similar modeling exercises, and this project would collect existing nitrogen reduction and cost data to be integrated into our nitrogen source loading model. The product of the nitrogen loading model and this project will be used for nitrogen action plan item FN1: create a tool that enables local managers to determine the most cost effective management scenarios to reduce nitrogen on a subwatershed basis.

Outputs/Deliverables & Milestones

- An economic input for the nitrogen loading model
- Compilation of available methodologies/ techniques with associated cost per pound of nitrogen

Anticipated Outcome

Short Term: The collection of cost data for various nitrogen management practices informs us of the expected cost per pound of nitrogen removed that contributes to N load modeling. Improved modeling of nitrogen load reduction scenarios that facilitates an update to the N TMDL implementation plan.

Intermediate: Update to the N TMDL implementation plan, and then implementation of that plan.

Long Term: Reduction of NPS N loading to the Peconic Estuary.

Change in Pressure Targets: Reduced NPS nutrient pollution resulting in decreased HABs, increased water clarity, improved seagrass habitat, etc. These improvements are expected to support the local tourism and recreational economies.

Clean Water Act Core Programs: Identifying Polluted Waters and Developing Plans to Restore Them (TMDLs): Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads; addressing diffuse, nonpoint sources of pollution

4. Areas of Special Interest

- Nutrient Reduction is the primary focus of PEP. We have been working diligently with our Technical Advisory Committee to advance our own efforts to refine non-point source loading estimate and then update the N TMDL implementation plan. Simultaneously, we have invested a great deal of staff and committee time to coordinating with our partners in New York State, Suffolk County, US EPA, and the US Geological Survey to coordinate and leverage related efforts with similar goals. The regional focus on nitrogen load reduction that PEP has helped to foster has generate large state and county investments in this problem and PEP looks forward to collaborating with these partners to finally make progress on one of the most difficult PEP CCMP goals to implement.
- Climate resilience – PEP continues work on two Climate Ready Estuaries initiatives, including a vulnerability

assessment. We have also been co-hosting training sessions and participating in events to build knowledge and capacity on the issue in our region. We have begun to do a rapid assessment of climate resilience as we plan projects with partners or support efforts in the area. We are also working with Suffolk County to ensure that climate resilience considerations are included in the major wastewater planning efforts they are undertaking.

5. Status of Ongoing and Completed Major Projects

Ongoing:

- **Critical Lands Protection Strategy;** Ongoing
 - Project/activity Objective(s): Revise Critical Lands Protection Strategy to account for climate change impacts.
 - Project/activity Description: Re-evaluate the Critical Lands Protection Strategy to include climate change impacts. Develop updated prioritization scheme and apply it to all parcels remaining vacant or underdeveloped.
 - Partners and Their Role(s): To be accomplished via contract, not yet awarded.
 - Outputs/Deliverables: Make list and geographic-format data available to municipalities and other organizations that protect land. Displays will be presented to interested parties by PEP staff and/or the contractor.
 - Estimated Milestones: Contract expected in 2015, expected completion 2016.
 - Estimated Budget: \$320 funds: \$30,000 (FFY 2012 Climate Ready Estuaries)
 - Long-term Outcomes: Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads
 - CWA core program(s): Identifying polluted waters and developing plans to restore them (total maximum daily loads); addressing diffuse, nonpoint sources of pollution

- **Nitrogen Assessment;** Ongoing
 - Project/activity Objective(s): Determine relative magnitude of non-point source nitrogen loads to the Peconic Estuary, especially groundwater loads; Develop recommendations for adaptive management of Nitrogen TMDL Implementation Plan
 - Project/activity Description: Nitrogen Workgroup will assess existing N loading models and their utility for management decision making, recommending additional information to be collected, assumptions/inputs to be updated, or new models if needed. NEW: this project is now being coordinated with several new initiatives underway with partners at the NYS DEC, Suffolk County and USGS.
 - Partners and Their Role(s): Led by N workgroup (Program director and TAC chair are co-chairs), technical work may be accomplished via contract, not yet awarded.
 - Outputs/Deliverables: Report (memo) to Management Committee re: existing modeling data; Recommended PEP Official N loading estimates; Revised Implementation Plan for Peconic Estuary Nitrogen TMDL
 - Estimated Milestones: Report to Management Committee re; existing models – fall 2015; Implementation Plan Recommendations by 2016.
 - Estimated Budget: \$320 funds: \$100,000 (FY 11); \$55,00 (FY13)
 - Long-term Outcomes: Accelerated progress toward TMDL goals; Increased efficiency of nitrogen management regulations; optimization of nitrogen load reduction investments
 - CWA core program(s): Identifying polluted waters and developing plans to restore them (total maximum daily loads); addressing diffuse, nonpoint sources of pollution

- **Public Education and Outreach;** Ongoing
 - Project/activity Objective(s): Cultivate an informed public who supports Program objectives; Foster a sense of stewardship of the estuary in the public; Facilitate the involvement of a broad groups of stakeholders in

- Program goal setting and implementation.
 - Project/activity Description: This program seeks to engage the public in protection and restoration of the estuary by hosting events, conducting educational activities, providing information to the public (generally and through targeted stakeholder engagement), and facilitating the involvement of existing community groups in Estuary Program activities. Facilitates the functions of the Citizens Advisory Committee and ensures stakeholder input to the Management Committee.
 - Partners and Their Role(s): Accomplished via contract, currently: Group for the East End and CAC Chairperson, Kevin McDonald.
 - Outputs/Deliverables: Determined annually via workplan. Includes CAC meetings, outreach events, stewardship activities (e.g. beach clean-ups, plantings), etc.
 - Estimated Milestones: Report on progress annually; quarterly CAC meetings and quarterly updates to Management Committee.
 - Estimated Budget: \$320 funds: \$50,000 (FY08); \$100,000 (FY09); \$100,000 (FY12); \$104,445 (FY13)
 - Long-term Outcomes: Informed citizenry that supports Program objectives and generates political and financial support for the Estuary Program. Improved individual and community behavior that is protective of estuarine resources. Increased sense of stewardship for the Peconic Estuary among the citizens who use it.
 - CWA core program(s): N/A
- **Submerged Aquatic Vegetation Long Term Monitoring and Management; Ongoing**
 - Project/activity Objective(s): Evaluate success of seagrass restoration efforts. Refine habitat restoration site suitability indices (based on light, temperature, and seagrass extent) used in planning the extensive seagrass habitat restoration program funded by PEP and its partner agencies, primarily NYS and Suffolk County. Additionally, these data contribute to scientific studies and will be used in future seagrass management plan developed through the New York State Seagrass Protection Act.
 - Project/activity Description: Monitoring of seagrass survival and bed expansion resulting from previous habitat restoration efforts. Long-term measurements of seagrass extent and deep edge location at 6 historical sites, measurements of light, temperature, and sediment conditions at these sites.
 - Partners and Their Role(s): Cornell Cooperative Extension of Suffolk County, Christopher Pickerell
 - Outputs/Deliverables: Annual report summarizing methods and results, including maps of seagrass bed extent (current and change) and analyses of relationships between water and sediment quality parameters and seagrass success.
 - Estimated Milestones: Annual reporting, periodic status and trends assessments corresponding to Environmental Indicators Report schedule.
 - Estimated Budget: \$320 funds: \$30,000 (FFY07), \$30,000 (FFY08), \$103,000 (FFY09); Additional funds from NYS. [ongoing]
 - Long-term Outcomes: Progress toward PEP goal to increase seagrass coverage by 10%. Development of science-based regulatory programs to protect existing seagrass.
 - CWA core program(s): Protecting Wetlands
- **National Atmospheric Deposition Program; Ongoing**
 - Project/activity Objective(s): Evaluate success of Clean Air Act policies and program in reducing atmospheric deposition of nitrogen in the Peconic region. Track progress toward nitrogen TMDL goals.
 - Project/activity Description: Monitor local atmospheric deposition of major cations in precipitation. Monitor local mercury deposition in precipitation.
 - Partners and Their Role(s): Suffolk County Department of Health Services, Office of Ecology is responsible for sample collection; University of Illinois (cations) and Frontier Global Sciences, Inc. (mercury) are responsible for data analysis; University of Illinois National Atmospheric Deposition Program is responsible for data assessment, reporting, and coordination with the national network
 - Outputs/Deliverables: Data available online, Quarterly reports of results and collection/analytical issues.
 - Estimated Milestones: Annual reporting, periodic status and trends assessments performed by PEP and

- EPA staff as needed (e.g. 5-year TMDL assessment)
 - Estimated Budget: \$320 funds:
 - \$36,000 (FFY07), \$5,955 (FFY08), \$15,000 (FFY09), \$15,000 (FFY10); NYSERDA funding for mercury analytical costs [ongoing]
 - Long-term Outcomes: Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads
 - CWA core program(s): Identifying polluted waters and developing plans to restore them (total maximum daily loads); addressing diffuse, nonpoint sources of pollution
- **Continuous Water Quality Monitoring; Ongoing**
 - Project/activity Objective(s): High frequency measurements of key water quality parameters to allow long-term trend assessment of climate and other incremental changes; estimates of frequency, severity, and duration of hypoxia and anoxia
 - Project/activity Description: Water quality parameters, including dissolved nitrate and dissolved oxygen, salinity temperature, chlorophyll and turbidity as well as water depth measured in high frequency, and available in near-real-time, online and available to the public.
 - Partners and Their Role(s): United States Geological Survey
 - Outputs/Deliverables: Annual data report, real-time data downloadable via the internet, incorporated by PEP staff into State of the Bays Report and used by researchers and partner other agencies.
 - Estimated Milestones: Annual data report within one year of collection.
 - Estimated Budget: \$320 funds: \$34,902 (FY07); \$13,887 (FY08); \$10,098 (FY09); \$120,000 (FY10); \$50,000 (FY11)
 - Long-term Outcomes: Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads; Assessment of frequency and duration of hypoxia.
 - CWA core program(s): Identifying polluted waters and developing plans to restore them (total maximum daily loads)
- **Long Term Periodic Water Quality Monitoring; Ongoing**
 - Project/activity Objective(s): An understanding the status and trends of water quality in the estuary and the data necessary to evaluate the effectiveness of management actions.
 - Project/activity Description: Sampling and analysis of samples of physical and chemical parameters indicative of water quality and pollution impacts throughout the estuary and its tributaries. Annually, these data will be summarized and compared to previous years' data.
 - Partners and Their Role(s): Suffolk County Department of Health Services.
 - Outputs/Deliverables: Annual report summarizing the year's data, comparing status and trends to previous years, making recommendations for changes to the monitoring program going forward.
 - Estimated Milestones: First annual report to be completed before the end of 2014.
 - Estimated Budget: \$320 funds: \$130,000 (FY07); \$153,000 (FY08); \$53,000 (FY10); \$150,000 (FY11 & 10, re-budget in FY12); \$150,000 (FY13); \$178,000 (FY14) ongoing
 - Long-term Outcomes: Assessment of progress toward TMDL goals; refinement of implementation plan and TMDL goals for land-based loads; Assessment of factors impacting ecosystem health
 - CWA core program(s): Identifying polluted waters and developing plans to restore them (total maximum daily loads); Establishing the Standards to Measure Success

Completed:

- **Shellfish Restoration – Habitat Utilization by Juvenile Bay Scallops**
 - CCMP Goal: HLR-8 *Develop and Implement Specific Restoration Projects*; HLR-12 *Foster Sustainable Recreational and Commercial Finfish and Shellfish Uses of the Peconic Estuary that are Compatible with Biodiversity Protection*
 - Lead Project Implementer(s): Cornell Cooperative Extension of Suffolk County and Long Island University

- Amount of §320 funds spent on project implementation: \$40,000 (FY10).
- Accomplishments and project deliverable(s):
 - Presentation of results to PEP TAC in February 2015.
 - Project Report detail methods, results and conclusions as well as management recommendations completed.
 - Recommendations will be used by Peconic Estuary scallop restoration programs to refine site selection criteria and follow-on research will be proposed for funding in the coming years. Results will also inform climate vulnerability assessment and contributes critical information to our decision-making regarding eelgrass restoration in the face of climate-related warming water.
- CWA Core Program Addressed : N/A
- External Constraints: none

- **Inter-municipal Agreement for Stormwater Management** (Creation of Peconic Estuary Protection Committee)
 - CCMP Goals: P-2 *Demonstrate and Implement Technologies to remediate Stormwater Run-off*; P-12 *Identify Sources and Loadings of non-point sources of Pathogens*; P-14 *Obtain Funding to address stormwater runoff*; N-5 and P-13 *Implement Non-point Source control Plans (for Nitrogen and Pathogens, respectively)*
 - Lead Project Implementers: PEP staff led development of IMA with contractor assistance (Nelson, Pope & Voorhis, LLC). Once complete, lead will turn over to East End Towns and Villages (with PEP providing leadership until coalition hires coordinator)
 - §320 funds: \$25,000 (FY07); \$104,000 (FY08)
 - Accomplishments and project deliverable(s):
 - Coordinator hired and began work March 2015.
 - Agreement Execution expected May/June 2015
 - PEP Director authored successful grant application on behalf of coalition March 2015
 - CWA core programs:
 - Identifying polluted waters and developing plans to restore them (total maximum daily loads) - supporting
 - Addressing diffuse, nonpoint sources of pollution - supporting
 - Special
 - External Constraints:
 - The PEP-funded portion of this project was completed in 2014, but the program has continued. The Program Director and State Coordinator have continued to spend time nurturing this new inter-municipal coalition and assisting with execution of the IMA, applying for a grant, and hiring of a coordinator.

6. Required Documentation of CWA §320 Funds Used for Travel

Trips Anticipated for FFY 2016:

Date	Meeting/Event	Purpose	Destination	Number of Staff	Estimated Cost
Nov. 30 - Dec. 4	ANEP	Tech Transfer	San Juan, PR	1	\$2500
Feb. 22-26	NEP-EPA HQ	Tech Transfer	Washington DC	1	\$1500

Trips Taken During FFY 2015:

Date	Purpose	Destination	Number of Staff	Final Cost
Nov. 1-6	ANEP/TCS/RAE	Washington DC	1	1880.40
Feb. 22-26	NEP-EPA HQ	Washington DC	1	1342.62

Trips Expected to Occur Between Date of Submission and End of FFY2015:

Date	Purpose	Destination	Number of Staff	Estimated Cost
Aug. 4-6	Barneгат PE	New Jersey	1	\$750

III. BUDGET DETAILS**1. Resources Requested**

The total requested in this PEP grant to Suffolk County Department of Health Services is **\$337,000**. This grant will be complimented by a request for PEP support to the New England Interstate Water Pollution Control Commission (NEIWPC) for \$236,000, and together these two components make up the full Peconic Estuary Program FFY2015 workplan for a total \$320 request of \$600,000.

The \$337,000 allocated to the Suffolk County Department of Health Services is distributed among the following budget categories:

BUDGET DETAIL	Total Requested from EPA	Total Cost Share Provided by Applicant	Total
Personnel - wages and salary	\$134,700.00	\$81,500.00	\$216,200.00
Program Director: Marine Biologist @ \$3388 biweekly	\$89,000.00	\$0.00	\$89,000.00
Monitoring Personnel: Chemist @ \$2668 biweekly	\$25,100.00	\$44,700.00	\$69,800.00
Monitoring Personnel: Boat Operator @ \$2192 biweekly	\$20,600.00	\$36,800.00	\$57,400.00
Fringe Benefits - FICA (7.65%), health (\$1565 fam/\$734 individual per month), retirement (21.4), benefit fund (\$1456 per year)	\$70,300.00	\$43,500.00	\$113,800.00
Program Director	\$46,000.00	\$0.00	\$46,000.00
Chemist	\$14,600.00	\$26,100.00	\$40,700.00
Boat Operator	\$9,700.00	\$17,400.00	\$27,100.00
Travel - 2 national conferences including lodging, air/train/mileage, per diem, and conference fees; local travel to meetings & site visits	\$4,000.00	\$0.00	\$4,000.00
Supplies - miscellaneous office, outreach and field supplies	\$1,000.00	\$0.00	\$1,000.00
Contractual - Nitrogen Load Reduction Cost Assessment	\$87,000.00	\$0.00	\$87,000.00

Other - sub awards to extend existing relationships, as per Suffolk County procurement procedures; WQPRP: County Grant Program as outlined in local law	\$40,000.00	\$212,000.00	\$252,000.00
Ongoing Atmospheric Deposition Monitoring via NADP	\$10,000.00	\$0.00	\$10,000.00
Ongoing SAV Monitoring via Cornell Cooperativ Extension	\$30,000.00	\$0.00	\$30,000.00
Water Quality Protection and Restoration Program (WQPRP) Projects	\$0.00	\$212,000.00	\$212,000.00
TOTAL	\$337,000.00	\$337,000.00	\$674,000.00

2. Non-Federal Contribution

Suffolk County will provide \$125,000 in matching funds toward water quality monitoring, and an additional \$212,000, comprised from projects funded through the Suffolk County Water Quality Protection and Restoration Program (WQPRP). Anticipated match projects may include:

Project	Cost
Peconic Estuary Kelp Aquaculture Feasibility Study	\$80,750
Re-opening Shellfish Beds: Quality Assurance Project Plan for Supplemental Data Collection	\$75,000
Pilot for Alternative Discharge for Decentralized Wastewater	\$125,000
Development of a Living Shoreline Demonstration Site Involving Native Plants, Geotextiles, and Shellfish to Protect Shorelines, Enhance Habitat Value, and Improve Water Quality	\$58,800
Pilot Non-Proprietary Vegetated Gravel Recirculating Filtered Wastewater Treatment System	\$89,000
Green Reach Infrastructure Demonstration (GRID) Nitrogen and Stormwater Abatement Project	\$125,000
Town of Shelter Island Legion Hall and Youth Center On Site Sanitary Waste Disposal System	\$49,500
Elimination of the EPCAL Point Source Discharge to the Peconic Estuary	\$125,000

3. Cooperative Agreement Allocations For 2015

The Federal Fiscal Year Award is expected to be awarded by amendment to Cooperative Agreement CE-992002-18. The table below details the expected changes to that agreement.

Grant/Amendment Number	CE-992002-18-0	CE-992002-18-1	CE-992002-18-2	Total CE-992002-18
Federal Fiscal Year	FFY 2013	FFY 2014	FFY 2015	
1. Personnel	\$232,021.00	\$146,213.00	\$216,200.00	\$594,434.00

2. Fringe Benefits	\$109,445.00	\$71,837.00	\$113,800.00	\$295,082.00
3. Travel	\$3,600.00	\$2,500.00	\$4,000.00	\$10,100.00
4. Equipment	\$0.00	\$0.00	\$0.00	\$0.00
5. Supplies	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00
6. Contractual	\$55,000.00	\$54,711.00	\$87,000.00	\$196,711.00
7. Construction	\$0.00	\$0.00	\$0.00	\$0.00
8. Other	\$401,066.00	\$430,143.00	\$252,000.00	\$1,083,209.00
9. Total Direct Charges	\$802,132.00	\$706,404.00	\$674,000.00	\$2,182,536.00
10. Indirect Costs: % Base	\$0.00	\$0.00	\$0.00	\$0.00
11. Total (Share: Recipient 50.00 % Federal 50.00 %.)	\$802,132.00	\$706,404.00	\$674,000.00	\$2,182,536.00
12. Total Approved Assistance Amount	\$401,066.00	\$353,202.00	\$337,000.00	\$1,091,268.00
13. Program Income	\$0.00	\$0.00	\$0.00	\$0.00
14. Total EPA Amount Awarded This Action	\$401,066.00	\$353,202.00	\$337,000.00	\$1,091,268.00
15. Total EPA Amount Awarded To Date	\$401,066.00	\$754,268.00	\$1,091,268.00	